

AGENDA
REGULAR MEETING OF THE BIRMINGHAM PLANNING BOARD
WEDNESDAY JANUARY 26, 2022
151 MARTIN ST., CITY COMMISSION ROOM 205, BIRMINGHAM MI *
*******7:30 pm*******

The highly transmissible COVID-19 Delta variant is spreading throughout the nation at an alarming rate. As a result, the CDC is recommending that vaccinated and unvaccinated personnel wear a facemask indoors while in public if you live or work in a substantial or high transmission area. Oakland County is currently classified as a substantial transmission area. The City has reinstated mask requirements for all employees while indoors. The mask requirement also applies to all board and commission members as well as the public attending public meetings.

- A. Roll Call
- B. Review and Approval of the Minutes of the Regular Meeting of **January 12, 2022**
- C. Chairpersons' Comments
- D. Review of the Agenda
- E. Unfinished Business
- F. Rezoning Applications
- G. Community Impact Studies
 - 1. **770 S. Adams – Request for a new 4 & 5-story mixed use building**
- H. Special Land Use Permits
 - 1. **100 Townsend – Townsend Hotel – Request for a new outdoor dining platform in the Townsend right-of-way (REQUEST TO POSTPONE)**
- I. Site Plan & Design Reviews
 - 1. **100 Townsend – Townsend Hotel – Request for a new outdoor dining platform in the Townsend right-of-way (REQUEST TO POSTPONE)**
 - 2. **159 N. Eton – Canelle – Request for new outdoor dining patio and site changes (REQUEST TO POSTPONE)**
 - 3. **770 S. Adams – Request for a new 4 & 5-story mixed use building**
- J. Study Session
- K. Miscellaneous Business and Communications:
 - 1. Pre-Application Discussion – **Gasow Veterinary Hospital**
 - 2. Communications
 - 3. Administrative Approval Correspondence
 - 4. Draft Agenda – **February 9, 2022**
 - 5. Other Business
- L. Planning Division Action Items
 - 1. Staff Report on Previous Requests
 - 2. Additional Items from Tonight's Meeting
- M. Adjournment

* Please note that board meetings will be conducted in person once again. Members of the public can attend in person at Birmingham City Hall OR may attend virtually at:

Link to Access Virtual Meeting: [**https://zoom.us/j/111656967**](https://zoom.us/j/111656967)

Telephone Meeting Access: 877-853-5247 US Toll-Free

Meeting ID Code: 111656967

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City Of Birmingham
Regular Meeting Of The Planning Board
Wednesday, January 12, 2022
City Commission Room
151 Martin Street, Birmingham, Michigan

Minutes of the regular meeting of the City of Birmingham Planning Board held on January 12, 2022. Chair Clein convened the meeting at 7:30 p.m.

A. Roll Call

Present: Chair Scott Clein; Board Members Robin Boyle, Stuart Jeffares, Bert Koseck, Daniel Share, Janelle Whipple-Boyce, Bryan Williams; Alternate Board Members Jason Emerine, Nasseem Ramin

Absent: None

Administration:

Nick Dupuis, Planning Director
Leah Blizinski, City Planner
Laura Eichenhorn, City Transcriptionist

Master Planning Team:

Matthew Lambert, DPZ

01-01-22

B. Approval Of The Minutes Of The Regular Planning Board Meeting of December 8, 2021 and December 16, 2021

Mr. Williams asked that on page two, in the second bullet point, that "and this area was previous rejected for rezoning by the City Commission" be added after the word 'map' and before the semicolon.

Motion by Mr. Williams

Seconded by Ms. Whipple-Boyce to approve the minutes of the Regular Planning Board Meeting of December 8, 2021 as amended.

Motion carried, 7-0.

VOICE VOTE

Yeas: Williams, Whipple-Boyce, Clein, Boyle, Jeffares, Koseck, Share

Nays: None

Motion by Mr. Share

Seconded by Mr. Boyle to approve the minutes of the Special Planning Board Meeting of December 16, 2021 as submitted.

Motion carried, 6-0.

VOICE VOTE

Yeas: Share, Boyle, Jeffares, Koseck, Williams, Clein

Nays: None

Abstain: Whipple-Boyce

01-02-22

C. Chair's Comments

Chair Clein welcomed everyone to the meeting and reviewed the meeting's procedures.

01-03-22

D. Review Of The Agenda

01-04-22

E. Unfinished Business

None.

01-05-22

F. Rezoning Applications

None.

01-06-22

G. Community Impact Studies

None.

01-07-22

H. Special Land Use Permits

None.

01-08-22

I. Site Plan & Design Reviews

None.

01-09-22

J. Study Session

1. The Birmingham Plan 2040 – Review of Chapter Three (Retain Neighborhood Quality)

Mr. Lambert presented the item.

Ms. Whipple-Boyce said there was a discrepancy between page 59, where the draft reads that “Community parks should provide the amenities of neighborhood parks, and include more significant active recreational offerings, cafes, restrooms, and other specialized amenities,” and the chart of recommended park amenities on page 57. She said she agreed with the text and thought the chart should be updated to match.

Mr. Lambert agreed the text was the more accurate version.

Ms. Whipple-Boyce and Mr. Koseck were in favor of the draft emphasizing its support for adding sidewalks to the places currently missing them.

Mr. Williams noted that if the draft endorses more sidewalks that it must also recommend ways of retaining the tree canopy, since adding sidewalks would affect many mature trees. He said that replanting trees older than saplings would an appropriate approach.

Ms. Whipple-Boyce expressed skepticism that relaxing zoning standards, expediting the application process, or reducing fees for proposed additions would sufficiently incentivize additions over new construction. She noted that in most neighborhoods there are also generous lot coverage allowances, in addition to small lots, which would make relaxing those aspects of the zoning standards difficult. She posited the City would likely need alternative incentives for additions over new construction.

Mr. Koseck did not believe additions should be encouraged over new construction, noting that there can be poorly-executed additions and well-executed new construction. He said he would never encourage bigger footprint than what is currently allowed. He suggested that ways of incentivizing or requiring better architecture in Birmingham should be studied instead.

Mr. Koseck recommended that the text of the draft be streamlined. He said that recommending Worth as a way to address park access for the Torry neighborhood is insufficient, since Worth is small and more of an urban park. He suggested the City be encouraged to consider partnerships with Our Shepherd Lutheran or Eton Academy to gain park space. He also suggested that certain unprogrammed areas of Kenning Park could be altered to make it appropriate for Torry use.

Mr. Koseck stated that broad statements such as “Streets are the most pervasive public space in a city, and Birmingham’s streets are exceptionally beautiful and pleasant,” and “As a result, Birmingham retains a wonderful tree canopy and streets that are pleasant to walk along, bike along, and not too difficult to drive along,” be qualified.

Mr. Koseck said he did not believe that there are calls for wider streets generally in Birmingham, and that statement should be removed. He said he was in favor of reducing the speed on residential streets to 20 m.p.h. if feasible. On page 63, he recommended that Master Plan Action Number Five, regarding convening a committee to establish tree policies, be moved to Number One instead.

Mr. Koseck said on page 66 the statement "These houses are designed to stand out and be noticed, rather than harmonize with and complement neighboring houses," was not likely accurate. He said the standing out was more a function of bad architecture than intent. On the same page, he said

Mr. Share expressed concern that the chart on page 57 might be overstepping the draft's purview regarding parks. He said that the draft could just recommend that the Parks and Recreation Board (PRB) conduct a longer-term study of parks to see where the amenities listed might be best located.

Mr. Share stated that he did not think altering the posted speed on residential streets would be effective in slowing down traffic, and said other ways of calming traffic would likely be more effective.

Mr. Share recommended that in addition to requiring native plants, the draft should recommend that plants more resilient to climate change be used as well.

Mr. Share said he was not aware of unapproved builds occurring often. If they are not, he recommended that point two on page 67 be removed.

Mr. Share noted that eight foot sidewalks would likely be too wide to accommodate in many mixed use areas.

Mr. Share said he liked the idea of creating historic districts as one way of slowing down new construction. He said he would also consider allowing wider homes in exchange for reductions in height, along with adherence with to-be-determined district-specific design guidelines.

Mr. Lambert stated that an eight foot sidewalk width was included as a best practice, not as a recommendation. He said the same was the case for the section on parks, and that the PRB could use the information as a basis for future park studies.

Messrs. Boyle and Jeffares said they were in favor of the draft retaining the parks list. Mr. Boyle said supplying figures and info about the City in the draft is useful.

Mr. Boyle and Chair Clein asked that the draft focus more on giving directives and prioritizing its recommendations. Mr. Boyle asked whether all the directions were equally important, whether they were all going in the direction the City wants, and whether they should all be addressed in the same time frame as factors to consider.

Mr. Boyle said a priority for the draft should be the City's implementation of the recommendations from the Ad Hoc Unimproved Streets Study Committee within a certain amount of time.

Mr. Boyle suggested that the best way to incentivize additions and not new buildings would be changing the way the buildings are taxed.

Mr. Boyle noted that the map was inaccurate on page 58, and that #2 shows Cranbrook Park instead of Derby Well.

Mr. Jeffares said the draft needed to focus more on adding senior amenities, like softball fields or shuffleboard, to the parks. He noted that parks do not have to contain brick and mortar cafes or nothing. He recommended that some of the larger parks be equipped with a concrete pad, water hook-up, and or electrical access in order to allow for pop-up amenities in the summer. He noted the City has precedent for working with schools or other organizations for shared park or facility use. He recommended that the City consider enhancing mobility in the area by allowing or encouraging the use of golf carts, noting that two can fit in a parking spot.

Mr. Jeffares agreed that Lincoln between Southfield and Woodward be studied regarding whether parking is required on both sides. He cautioned that residents abutting a park should not have more of a say on how a park is used than other community members, since parks are community amenities.

Messrs. Jeffares and Williams suggested that a small increase in lot coverage be considered for first floor additions, while making the second floor smaller than the first.

Chair Klein said he would like to see more specificity in terms of reviewing neighborhood character, with the draft being clear that in doing so reducing the building footprint allowed per ordinance or other changes could be recommended.

In reply to Chair Klein, Mr. Lambert stated that whether to further regulate aesthetics in single family residential areas is a matter that remains open to question based on Board and City preference. He noted that some residents seemed to want that, and some did not. He agreed that zoning should be used to better align houses to the character of the neighborhoods around them. He said that currently district standards specify lot size basis but not more particular character of neighborhoods. He agreed that the draft should recommend that the neighborhoods be reviewed for character, including bulk standards, and guidelines for new construction should be written based on those findings. He stated he did believe that bulk standards in the City can be too generous and can lead to the issues with new construction.

Mr. Williams recommended that oversimplification of the parking categories be resisted since one or two solutions would not address the needs of every context.

Public Comment

Carl Kona said he was supportive of adding sidewalks, and said he would like to see the draft make recommendations for maintenance of already existing sidewalks. He said he also wanted to make sure that parking limitations are sufficiently strict near the downtown in order to allow downtown residents to park near their homes.

Paul Reagan commended the Board members and Mr. Lambert for their work and comments thus far. He said that one way to stem demolitions would be to study why people are leaving the community and to do more to address those issues. He suggested that requiring the addition of drainage wells to new construction could act as a disincentive. He agreed with Mr. Lambert that the bulk and size allowances in Birmingham are often too generous. He recommended that the parks be considered as a system, and not just as individual parks. He said more needed to be done in planning for an aging population.

David Bloom said the City should explore ways to offset the costs of installing elevators into homes for seniors, which would eliminate the need to find ways to expand first floor additions. He said he wanted residents living near parks to continue to be engaged about potential changes to park amenities.

Mr. Bloom also made a number of comments regarding seams. Chair Clein addressed the comments, and noted that those issues had been discussed thoroughly during the Board's November 2021 and December 2021 meetings and were not part of the topic at hand.

Cindy Rose said zoning should be reviewed because new construction is negatively affecting character of the community.

After public comment concluded, Mr. Lambert said prioritizing partnerships with schools to increase access to parks for the community should be a more clear recommendation in the draft. He said that at the end of the review of the second draft, he and the Board should discuss how recommendations in the chapters should be prioritized.

In regards to whether speeds on residential streets could be lowered, Chair Clein asked Mr. Lambert to consult with ACM Ecker and the City Attorney.

2. Outdoor Dining (Comprehensive)

PD Dupuis summarized the item.

Ms. Whipple-Boyce recommended that more enclosed and/or heated options be considered for the coldest times of year.

Mr. Williams said he was concerned that the Board did not have sufficient expertise to make appropriate recommendations without an outside consultant.

Mr. Jeffares and Chair Clein expressed more confidence that the Board would be able to make appropriate recommendations.

Mr. Williams suggested then that the Board could make recommendations and maybe also continue a longer-term study with a consultant in the future.

Ms. Whipple-Boyce was concerned that knowing a consultant might be enlisted in the future could result in establishments not wanting to invest in the initially recommended outdoor dining guidelines.

Chair Clein said his understanding was that the Commission did not want more enclosed or heated areas that would functionally expand indoor dining. He agreed with Ms. Whipple-Boyce that without those aspects people would be unlikely to dine outside in the coldest months, and so recommended that the Board not overly focus on making those months conducive to outdoor dining.

After further discussion, there was consensus that the regular outdoor dining season should run from April 1 to December 31, using broadly the same ordinances that are currently in place with some modifications to be recommended. From January 1 to March 31, establishments should be allowed to have outdoor dining with no additional permitting process with the understanding that no dining decks should be used, the furniture and outdoor amenities must still be reviewed and approved by the Board, and that the furniture and amenities must be taken in every night.

Mr. Share noted that these changes could be implemented while seeking feedback from business owners and the public regarding how the extension of the regular outdoor dining season was going and on ways to improve.

The Board did not believe that establishments with liquor licenses and establishments without liquor licenses should be handled differently in terms of outdoor dining.

Ms. Whipple-Boyce said the material requirements could remain the same as the current ones, as they have largely been working.

After brief discussion, Chair Clein recommended that the material and appearance standards for outdoor dining overall be updated to align with the material and appearance standards for bistros.

Ms. Whipple-Boyce noted that in Article 3, Section 3.04(C)(10)(h), the ordinance seems to require that decks only be allowed if there is not enough room for dining on the sidewalk.

Mr. Williams said that if the ordinance does say that, it should be modified to reflect current practice.

A number of Board members recommended that social districts be considered for future study and discussion.

In regards to whether outdoor dining in public space and outdoor dining in private space should be regulated differently, the consensus was that they should be treated largely the same.

Mr. Jeffares and Ms. Whipple-Boyce said they did not believe that establishments on private property should have to take in their furniture at night in the off-season.

Mr. Share qualified that suggestion, saying that private property owners should be permitted to leave their furniture out at night if it is in the rear of their buildings, but not if it is along the street.

The Board requested further clarification from the Fire Marshal regarding when fire suppression is required, especially if non-flammable materials are used.

In reply to Board comments, PD Dupuis noted:

- In cases where there are differences between the general ordinance and the overlay, the overlay prevails;
- There would likely be ways to clean up the ordinance to make the differences between the general requirements and the overlay more clear;
- There is a difference in the appearance of built-up platforms and flush platforms that should be considered;
- The City is working harder to make sure outdoor dining is appropriately contained in its allowed space, often via railings or barriers; and,
- It would be worth considering how larger outdoor spaces, like the one by the Mad Hatter, could be used by a few neighboring establishments at once.

There was Board consensus that outdoor dining should be allowed in front of neighboring businesses with permission of the neighboring owner, and not only if the neighboring space is vacant. The Board specific that this would have to be renewed every year. It was noted that capacity and restroom requirements would still have to be met. It was also noted that this would not apply to decks.

It was determined that further discussion still needed to occur regarding whether an individual establishment should be permitted both dining adjacent to the building and dining on a deck in the street.

01-10-22

K. Miscellaneous Business and Communications

a. Communications

b. Administrative Approval Correspondence

In reply to Board feedback, PD Dupuis said he would require 191 N. Chester to appear before the Board for a design review if the owners choose to pursue a change in the location of their dumpster.

c. Draft Agenda for next meeting

The Chair asked that sufficient details be provided for the Townsend discussion, including views of the full street, the relationships of the proposed changes to the nearby buildings, and precise dimensions.

d. Other Business

It was noted that the benches outside the Daxton were being updated to adhere to the City's design standards.

Messrs. Boyle and Jeffares were supportive of the City finding a way to encourage the unpaved area near the Daxon sidewalk to be paved.

01-11-22

L. Planning Division Action Items

- a. Staff Report on Previous Requests**
- b. Additional Items from tonight's meeting**

01-12-22

M. Adjournment

No further business being evident, the Chair adjourned the meeting at 10:19 p.m.



Nick Dupuis
Planning Director



Laura Eichenhorn
City Transcriptionist



MEMORANDUM

Planning Division

DATE: January 26, 2022

TO: Planning Board Members

FROM: Nicholas Dupuis, Planning Director

SUBJECT: 770 S. Adams – Community Impact Study & Preliminary Site Plan Review

Introduction

The applicant has submitted an application for Community Impact Study and Preliminary Site Plan Review for a new 4 and 5 story mixed-use building in the Triangle District of Birmingham. The proposed building spans an entire block, which is bound by Worth (west), Adams (east), Haynes (north) and a public alley (south) and presently contains 3 separate parcels. The proposed development will combine two of the three parcels, which currently contain the Citizens Bank (1000 Haynes) and a 2-story office building (770 S. Adams). Notably, the parcel located at the northeast corner of the block that contains the former Plant Station (720 S. Adams) is not included in the proposed development. The existing sites also contain large off-street parking facilities, landscaping, and streetscape elements (trees, benches, bike racks etc.) along Haynes and S. Adams only.

Community Impact Statement

Article 7, Section 7.27 (E) states that a community impact study (CIS) shall be required for a new structure and/or building of 20,000 square feet of gross floor area or greater, to be prepared by the petitioner, for review by the Planning Board at the Preliminary Site Plan Review. As the proposed building is proposed at 222,771 sq. ft., a CIS has been submitted. The Zoning Ordinance recognizes that buildings of a certain size may affect community services, the environment, and neighboring properties. The CIS acts as a foundation for discussion between the Planning Board and the applicant, beyond the normal scope of information addressed in the preliminary site plan review application. The Planning Board “accepts” the CIS prior to taking action on a Preliminary Site Plan.

1.0 Planning & Zoning Issues

- 1.1 **Use:** The proposed use as a mixed-use building with retail along Haynes and 138 residential units is a permitted use in the MU3 and MU5 zoning districts.
- 1.2 **Triangle District Urban Design Plan:** Article 3, Section 3.05 of the Zoning Ordinance states that the purpose of the Triangle Overlay District is to:

1. Develop a fully integrated, mixed-use, pedestrian-oriented environment with buildings containing commercial, residential and office uses, similar to the downtown character west of Woodward Avenue.
2. Create a synergy of uses within the Triangle Overlay District to support economic development and redevelopment in accordance with the recommendations of the Triangle District Urban Design Plan.
3. Minimize traffic congestion, inefficient surface parking lots, infrastructure costs and environmental impacts by promoting a compact, mixed-use, pedestrian-friendly district.
4. Regulate building height to achieve appropriate scale along streetscapes to ensure proper transition to nearby residential neighborhoods.
5. Create a definable sense of place for the Triangle Overlay District with a pedestrian oriented, traditional urban form with bold innovations in architecture.

The proposed development appears to conform to the Triangle District Urban Design Plan (the "Plan") in a number of ways. In terms of bulk, placement, design and size, the proposed building will replace two existing buildings that do not offer a strong presence at the street from a pedestrian perspective, and will provide increased accessibility which does not require a trek across an off-street parking facility. The building is also designed with large windows, canopies, and a material variety that offers an enhanced pedestrian experience. These features are part of an overall design of the building that is a contemporary style, as is recommended by the Plan. Furthermore, the buildings height is not overly ambitious, which will maintain the "stepdown" effect from Woodward towards the smaller scale Adams Square development and the residential area to the east.

In terms of the mix of uses, the composition of the building is weighted heavily towards residential. According to the square foot area data provided by the applicant, 213,500 sq. ft. of the 222,771 sq. ft. building is dedicated to the residents in the form of the units themselves, storage, amenity areas and the like. The remaining area is dedicated to building service functions and a 4,950 sq. ft. (2% of the overall building) retail area along Haynes. Interestingly, the proposal does not include a commercial use along S. Adams. Rather, 9 walk-up units are proposed at street-level. Although this area is not *required* to be commercial, the Plan describes a vision where commercial uses in the heart of the Triangle and along Adams should be oriented more towards serving the immediate neighborhood. Residences and offices should be located in the upper floors above the shops and offices at street-level. The Plan goes on to state that attached single-family, live-work, and other residential uses should also comprise a portion of street-level uses, especially along Elm Street and adjacent to existing single family residences. **The Planning Board should discuss the proposed residential use along S. Adams against the Triangle District Urban Design Plan and the recommendations within.**

Perhaps one of the more prominent aspects of the proposed development that congeals well with the Plan is the removal of two large surface parking facilities in favor of a 4-level above ground parking deck containing 236 off-street parking spaces. At present, this results in the development providing an overage of 59 parking spaces. This facility is located at the rear of the development along the alley, with access to the deck located on Worth. One issue that the proposed deck does not appear to solve is parking for the proposed 4,950 sq. ft. retail space along Haynes. As the parking deck will have restricted access to residents only, the applicant must supply parking for the retail space (17 spaces) in a different location. Article 3, Section 3.08 (G)(6) states that on-street parking located along a lot's frontage in the Triangle District may be credited towards meeting the parking requirements for that use, provided the streetscape is improved to meet the requirements of Section 3.12. The site plans submitted show a total of 15 on-street parking spaces available to be counted towards the retail use, leaving a deficiency of 2 spaces. **The applicant may provide the additional 2 spaces through one of the mechanisms outlined in Article 4, Section 4.45 (G) of the Zoning Ordinance, or obtain a variance from the Board of Zoning Appeals.** A full review of the parking conditions proposed is provided in the Preliminary Site Plan Review below.

Finally, the subject of Worth Park must be considered as a part of this project. The Triangle District Urban Design Plan describes a future Worth Plaza/Park as a centerpiece of the Triangle District. The triangular park would be located along a re-aligned Worth, which includes an extension from Haynes to Bowers to the north. The Plan notes that implementation of the Worth Plaza should be accomplished as redevelopment occurs in the Triangle District. This recommendation is continued through to the current draft of the 2040 Master Plan, which recommends that the City "Develop Worth Park as quickly as plausible to provide a portion of the needed open space access for Torry." The issue present is that the current proposal does not appear to provide any considerations for a future Worth Plaza. Based on the designs in the Triangle Plan and the 2040 Plan, it would appear as though a portion of land in this area would be required to complete the plaza. Several projects in the past have been required to provide land to the City for the future Worth Plaza, and more will be required. **The Planning Board should encourage the applicant to reach an agreement with the City regarding the Worth Street realignment and plaza, which could serve as an important step towards implementing the goals of the Triangle District Urban Design Plan.**

Please see the attached map for a rough demonstration of where Worth Plaza is proposed, and how it effects the proposed development.

1.3 **Land Development Issues**

The applicant has submitted two separate Phase 1 Environmental Site Assessments (ESA's), one for each parcel involved in the project, as well as a soils investigation. Within the supplemental information provided by the applicant, the results of both studies indicate that there are no recognized environmental

conditions (REC's) on the sites, and that shallow foundations will be acceptable. In addition, there are no steep slopes to consider. Finally, although the applicant has not indicated the projected volume of excavated soils to be removed from the site, a map has been provided demonstrating a haul route originating on Worth, heading north to Haynes, east to S. Adams then north on S. Adams toward the prospective destination.

The Phase 1 ESA submitted for 770 S. Adams dated March 22, 2013 and was prepared by PM Environmental. The ESA explores records dating back to 1924, which included Sanborn maps, commercial property listings, various governmental documentation, previous environmental reports, interviews, and historical uses. PM environmental also performed an inspection of the subject property and provided observations for interior equipment (elevators and air compressors) only. These features are considered De Minimis, or not a threat to humans. Although there were no REC's recognized in 2013, page 2 of the ESA states that "due to changing environmental regulatory conditions and potential on-site or adjacent activities occurring after this assessment, the client may not presume the continuing applicability to the subject property or the conclusions of this assessment for more than 180 days after the reports issuance date." **The Planning Board may wish to consider the age of the Phase 1 ESA for 770 S. Adams and require new information accordingly.**

At 1000 Haynes, the Phase 1 ESA provided, dated February 15, 2021 was prepared by Darcy Environmental Consultants. This ESA review similar documentation from as early as 1921 and noted many of the same characteristics of development as noted in the ESA for 770 S. Adams.

As far as the soils investigation, a report dated January 20, 2020 was submitted by McDowell and Associates. The report described 5 soil test borings to a minimum depth of 50 ft. to 60 ft. All 5 borings demonstrated stiff to extremely stiff silty to silty sandy clay. McDowell and Associates indicated that based on the results, the proposed development could likely be supported by conventional spread or strip footings at a minimum depth of 3 ft. 6 in. below finished grade. They go on to mention that any changes noted during excavation should be brought to their attention for re-evaluation.

Finally, the applicant has indicated that the infill and excavating required for the development will require public access to the site to be prohibited. The site will be surrounded by an 8 ft. construction fence throughout construction. There is no indication in the CIS of a plan to mitigate other hazards such as dust, noise and other construction debris. **The applicant must submit details as to how they plan to mitigate noise, dust, debris, and other nuisances during the construction process.**

1.4 **Utilities, Noise & Air Issues**

The CIS indicated that the proposed development will utilize DTE Energy and Consumers for electric and natural gas. Presently, the site contains overhead lines and electrical poles that are proposed to be removed and relocated underground.

All energy utility boxes and transformers are proposed along the alley at the rear (south) end of the development. The Consumers Energy natural gas line exists beneath S. Adams, which is where the applicant is proposing to connect the development. The CIS goes on to describe a fire suppression and water service line connection from S. Adams as well.

A Noise Impact Assessment dated December 2, 2021 was prepared by Kolano and Saha Engineers, Inc. (K & S) for the proposed development, which concludes that the proposed development can be designed to meet the noise limits and have reasonable protections to limit noise to the local residential community. K & S identified 4 potential sources of noise that must be addressed and designed to meet the City of Birmingham noise standards: parking structure, heating and cooling systems, emergency power generator, and building services. In general, K & S seemed to indicate each of these sources would require special design considerations to minimize the impact on both the residential use proposed on the site, but also the adjacent residential neighborhoods. Throughout the report, K & S suggested that the development team has stated to them that the proposed design will provide appropriate measures to reduce the noise associated with these sources.

The subject site is located within the Southeast Michigan Air Quality District, with monitoring stations in Pontiac, Rochester, Oak Park and Allen Park. The district has attained and surpassed the National Ambient Air Quality Standards for carbon monoxide, nitrogen dioxide, ozone, sulfur dioxide and particulate matter less than 10 microns. The air quality is expected to remain high and will not establish a trend which may lead to a violation of air quality standards. The CIS acknowledges that the development will cause increased traffic for users of the site and through deliveries and other services. However, the CIS does suggest that 10% of the parking spaces within the development will be equipped with electric vehicle charging stations to encourage the use of electric vehicles.

1.5 Environmental Design & Historic Values

As noted above, the current sites are fully developed with the exception of a few small landscaped areas with little diversity. Thus, there are no concerns over the loss of natural areas on the property. In addition, it would be difficult to perform an adaptive reuse of the buildings or include them in the new design to try and minimize material that is introduced to the landfill. However, the CIS does indicate that all of the existing streetscape will be removed and replaced, including the street trees. Although there is a recommendation found in The Birmingham Plan (which is currently in draft form) which states that the City should “prevent existing, healthy trees from being removed due to new construction,” the Department of Public Services has outlined several reasons (see comments below) as to why new plantings would better serve the City of Birmingham. Thus, the Planning Division would not recommend further action in regards to street tree removal.

The CIS continues to explain that the proposed design is intended to meet all of the requirements of the Zoning Ordinance, and will not introduce any elements

that are out of character or scale with the existing physical environment, and that the development will not bring any visual pollution, ongoing vibrations, dust, odors, heat or glare that might interfere with the ambient conditions necessary for the enjoyment of the physical environment.

Furthermore, the applicant has expressed that there are no historic properties on the site, and that the subject sites do not appear on the National Register of Historic Places. In addition, they applicant suggests that the buildings on site do not appear to be historic (or eligible for designation), and that there are no designated historic resources on the adjacent properties. The Planning Division is in agreement with the assertions provided.

Finally, the applicant has indicated that the development will be designed to achieve LEED certification. The LEED certification will focus on the key elements of location and transportation, sustainable sites, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality, innovation, and regional priority. A LEED scorecard has been submitted by the applicant demonstrating a pathway to meet the minimum criteria for LEED certification. The Planning Division has advised the applicant that a final certification is expected to be furnished to the Planning Division upon completion.

1.6 Refuse, Sewer & Water

The CIS and site plans submitted detail two dedicated trash rooms proposed within the development. The applicant is proposing two trash rooms on the first floor, which appear to have collection access from the first floor, as well as floors 2-5 through a chute system. The first trash room (455 sq. ft.) is located on the west side of the building adjacent to the loading and receiving area, while the second trash room (231 sq. ft.) is located at the east side of the building adjacent to the first level of the parking facility. There are no indications of the type or quantity of refuse containers noted in the plans. In terms of screening, the receptacles are all proposed inside the building envelope, thus fully screened by the building.

Although the receptacles will all be fully screened, the Planning Division does have some concerns about the logistics of trash collection. On the west side of the building, the trash room is located towards the south end of the building, which makes for a long walk for both the retail space along the north frontage, but also for the residential units on floors 2-5 above. In addition, the retail space at the north does not appear to have an access door to the corridor along which the trash room is located. This trash room does appear to have ample access to the street through the loading and receiving room for collection, though. The trash room on the east side of the building does not appear to have access from the first floor, which would force another long walk to the trash room on the west side of the building from the first floor residences on the east side. Additionally, the trash rooms location at the east side of the parking facility would require a trash collector to enter the parking facility with the large truck, or the receptacles would need to be wheeled a great distance to the Worth St. on the west side of the building.

Finally, the CIS document does suggest that recycling facilities will be provided, and it would appear as though the trash facilities proposed have ample space for the separation of recyclable materials. However, it is unclear as to whether or not recycling will be encouraged, and who would be responsible for separating the recycling once it lands at the bottom of the trash chutes.

The development appears to have access to sanitary sewers that exist on Worth, Haynes or S. Adams, but the CIS indicates that the development will likely tap the 42 in. public combined gravity storm sewer system within S. Adams, which does not have any known capacity issues at this time. The applicant has made clear that the City Engineer will be engaged throughout the design and all proposals will be confirmed prior to site plan approvals. The proposed development will also utilize low flow toilets and energy star rated appliances, which will reduce the output to the system. The applicant intends to also connect the stormwater system from the development to discharge into the same combined sewer. **The Planning Division suggests that the applicant review any and all opportunities on site to provide stormwater detention in the form of green infrastructure.**

Finally, the CIS explains that the existing sites utilize the existing water mains along Haynes and S. Adams, and that there are no capacity issues present or expected as a result of the development. Birmingham's annual water quality report indicates that the public water supply surpasses EPA and MDEQ water quality standards.

1.7 **Public Safety**

The CIS does not indicate that they expect to have any public safety concerns as a part of the proposed development. The site has adequate access on all four sides, is within one block of the Adams Fire Station, provides building access via a main entrance, and contains 2 elevators that can accommodate a medical cart. Furthermore, the building will have a security system that will be interfaced with the Police Department, intercom systems, and restricted access to the residential parking facility. Although the fire suppression system has not yet been designed, the applicant has stated that the building will be fully suppressed, and will be designed to meet all applicable City and National fire codes.

1.8 **Transportation Issues**

The applicant has submitted a completed FORM A transportation study questionnaire as required by the City's transportation consultants. A review of the submission will be performed by the City's traffic consultants and furnished to the Planning Board prior to CIS and Preliminary Site Plan Review.

Aside from passenger vehicle transportation, the CIS indicates that several other modes of transportation are available close by as well. There are SMART bus stations in close proximity to the site, bicycle facilities, the Amtrak station, and complete pedestrian connections to existing sidewalks. In addition to providing 3 bike racks in the public right-of-way, the applicant is also proposing a 96-bike storage/parking facility within the parking garage to encourage biking.

1.9 **Parking Issues**

Based on a review of the site plans submitted, the applicant is proposing an off-street parking facility with 236 parking spaces where 177 are required. As noted above, these spaces appear to be only available for the residential users of the building (access via gate system). Article 3, Section 3.08 (G)(6) states that on-street parking located along a lot's frontage in the Triangle District may be credited towards meeting the parking requirements for that use, provided the streetscape is improved to meet the requirements of Section 3.12. The site plans submitted show a total of 15 on-street parking spaces available to be counted towards the retail use, leaving a deficiency of 2 spaces. **The applicant may provide the additional 2 spaces through one of the mechanisms outlined in Article 4, Section 4.45 (G) of the Zoning Ordinance, or obtain a variance from the Board of Zoning Appeals.** A full review of the parking conditions proposed is provided in the Preliminary Site Plan Review below.

1.10 **Natural Features**

As noted in several places above, the site does not contain any natural features that will be lost as a result of this development. In addition, the little landscaped area that exists does not provide any significant stormwater detention properties, nor does it contain enough variety of plantings to raise concerns over the loss of habitat for pollinators and other creatures. Although the development does contain a courtyard, there appears to be no plantings proposed other than ordinary lawn to be used as a recreational amenity.

1.11 **Departmental Reports**

1. **Engineering Division** – Engineering Division comments will be available at CIS and Preliminary Site Plan Review on January 26, 2022.
2. **Department of Public Services** – The Department of Public Services has provided the following comments:
 - This plan would give the city 11 additional city trees - 8 on Worth, 2 on Haynes, and 1 on S. Adams.
 - The proposed species are more columnar and on our approved species list. This is helpful for a few reasons:
 - o The three Norway Maples on Haynes are in poor condition. Also, we have since added Norway Maples to our prohibited species list due to their increased capacity for failure during storms, among other reasons.
 - o 2. The 4 Honeylocusts and 1 Kentucky Coffee Tree on S. Adams are all in direct conflict with the overhead utility lines. The proposed species, Regal Prince Oaks, have a more columnar in growth pattern and will cause much less conflict and potential issues with the overhead lines.

- o 3. We currently are overpopulated in Maples and Honeylocusts in the city, and this will help make our urban forest more diverse.
- 3. **Fire Department** – Please see the attached Fire Department comments dated 1/21/2022.
- 4. **Police Department** – The Police Department has no concerns at this time. The PD indicated that it was pleased to see that the site is proposed to be fully parked.
- 5. **Building Division** – Please see the attached Building Division comments dated 1/21/2022.
- 6. **Parking Manager** – The Parking Manager has no concerns at this time.

1.12 **Summary of CIS**

The following is a list of outstanding or unresolved issues relating the CIS information provided:

- 1. The Planning Board should discuss the proposed residential use along S. Adams against the Triangle District Urban Design Plan and the recommendations within;
- 2. The Planning Board should encourage the applicant to reach an agreement with the City regarding the Worth Street realignment and plaza, which could serve as an important step towards implementing the goals of the Triangle District Urban Design Plan;
- 3. The applicant must provide 2 additional parking spaces through one of the mechanisms outlined in Article 4, Section 4.45 (G) of the Zoning Ordinance, or obtain a variance from the Board of Zoning Appeals; and
- 4. The Planning Board may wish to consider the age of the Phase 1 ESA for 770 S. Adams and require new information accordingly.

1.13 **Suggested Action**

Based on a review of the CIS documents provided and the standards outlined in Article 7, Section 7.27 of the Zoning Ordinance, the Planning Division recommends that the Planning Board **ACCEPT** the Community Impact Study as provided by the applicant for the proposed development at 770 S. Adams with the following conditions:

- 1. The applicant engage with City Staff to discuss the Worth Plaza;
- 2. The applicant must provide 2 additional parking spaces through one of the mechanisms outlined in Article 4, Section 4.45 (G) of the Zoning Ordinance, or obtain a variance from the Board of Zoning Appeals; and
- 3. The applicant must submit an updated Phase 1 ESA with current information on the 770 S. Adams portion of the development.

1.14 **Sample Motion Language**

Motion to **ACCEPT** the Community Impact Study as provided by the applicant for the proposed development at 770 S. Adams with the following Conditions:

1. The applicant engage with City Staff to discuss the Worth Plaza;
2. The applicant must provide 2 additional parking spaces through one of the mechanisms outlined in Article 4, Section 4.45 (G) of the Zoning Ordinance, or obtain a variance from the Board of Zoning Appeals; and
3. The applicant must submit an updated Phase 1 ESA with current information on the 770 S. Adams portion of the development.

OR

Motion to **POSTPONE** the Community Impact Study as provided by the applicant for the proposed development at 770 S. Adams pending receipt of the following:

1. _____
2. _____
3. _____

OR

Motion to **REJECT** the Community Impact Study as provided by the applicant for the proposed development at 770 S. Adams for the following reason(s):

1. _____
2. _____
3. _____

Preliminary Site Plan Review

The applicant has submitted an application for Preliminary Site Plan review for the construction of a 4 and 5-story mixed-use building in the B2 (General Business) and MU3/MU5 Zoning Districts. The proposed development spans two parcels that are currently separate. The subject sites currently contain 2-story office/commercial buildings, street trees and landscaping, and associated parking and site improvements. The proposed new building spans nearly the entire block running from Adams (east) to Worth (west) and Haynes (north) to the public alley (south). Notably, the proposal does not contain the parcel at the northeast corner of the block, which was formerly home to the Plant Station.

1.0 Land Use & Zoning

- 1.1 **Existing Land Use** – The existing land use is commercial, and currently contains 2-story office buildings and associated off-street parking facilities.
- 1.2 **Zoning** – The subject site exists within the B2 (General Business) and MU3 Overlay (Mixed-Use 3) Zoning Districts.
- 1.3 **Summary of Adjacent Land Use & Zoning** – The following chart summarizes existing land use and zoning classifications of the adjacent and/or nearby properties:

	North	South	East	West
Existing Land Use	Commercial/ Office	Commercial/ Office	Commercial/ Office	Commercial
Existing Zoning District	B2 (General Business)	B2 (General Business)	B2 (General Business) & O2 (Office-Commercial)	B2 (General Business)
Overlay Zoning District	MU3 & MU5	MU3 & MU5	N/A	MU5 & MU7

2.0 Setback & Height Requirements

The attached zoning compliance summary analysis provides the required and proposed bulk, area, and placement regulations for the proposed project. The applicant appears to meet the bulk, area and placement requirements of the Triangle District.

In terms of the additional height permissions within Article 3, Section 3.08 (E) of the Zoning Ordinance, the applicant is required to provide 2 or more of the following with the proposed development:

1. Structured public parking, or a payment in lieu to the City for construction of a public parking structure at an offsite location.
2. Dedication of an improved public plaza.
3. Mixed use building with a minimum 50% residential use.

4. LEED building design accredited based upon the rating system of the United States Green Building Council.
5. Transfer of development rights for additional floor area that zoning would permit on a site containing an historic building or resource designated under Section 127 of the Birmingham Code.

At this time, the applicant is only proposing one bonus story, which is located on the east side of development in the MU3 zoned portion of the site. The applicant meets the requirements for the bonus story by providing a mixed use, as well as LEED building design.

3.0 Screening & Landscaping

- 3.1 Dumpster Screening – The applicant is proposing two trash rooms on the first floor, which appear to collect from the first floor, as well as floors 2-5. The first trash room (455 sq. ft.) is located on the west side of the building adjacent to the loading and receiving area, while the second trash room (231 sq. ft.) is located at the east side of the building adjacent to the first level of the parking facility. There are no indications of the type or quantity of refuse containers noted in the plans. In terms of screening, the receptacles are all proposed inside the building envelope, thus fully screened by the building.

Although the receptacles will all be fully screened, the Planning Division does have some concerns about the logistics of trash collection. On the west side of the building, the trash room is located towards the south end of the building, which makes for a long walk for both the retail space along the north frontage, but also for the residential units on floors 2-5 above. In addition, the retail space at the north does not appear to have an access door to the corridor along which the trash room is located. This trash room does appear to have ample access to the street through the loading and receiving room for collection, though. The trash room on the east side of the building does not appear to have access from the first floor, which would force another long walk to the trash room on the west side of the building from the first floor residences on the east side. Additionally, the trash rooms location at the east side of the parking facility would require a trash collector to enter the parking facility with the large truck, or the receptacles would need to be wheeled a great distance to the Worth St. on the west side of the building.

- 3.2 Parking Lot Screening – The applicant is proposing a 5-level, 236 space above ground parking facility. The facility is located at the south side of the property along the alley, with the entrance to the facility being located off of Worth St. to the west.

Article 4, Section 4.54 (C) of the Zoning Ordinance requires screening to be placed along the front or side of any parking facility that abuts a street, alley, passage or mixed passage. When the property being utilized for a parking facility is zoned to a business or industrial district, and abuts business or industrial district, the screen wall shall be placed along the setback line. However, upon review of the Site Plan,

the Planning Board may approve an alternate location for the screen wall in order to maximize the screening effect of the parking facility, or may modify the screen wall requirement by approving an evergreen screen in its place.

Due to the proposed parking facilities location within the building envelope, the parking facility appears to be fully screened by the building and will require no additional screening at the ground level.

3.3 Mechanical Equipment Screening – The site plans proposed show a number of rooftop and ground-mounted mechanical units that will require screening.

The proposed rooftop units (RTU's) are all centrally located (in terms of depth) on the roof in various locations. The applicant has indicated extensive screening enclosures on the elevation drawings, and has included the location of such on the roof plan. The applicant has also not submitted specification sheets on the proposed RTU's, but has not provided explicit dimensions of the proposed RTU screening on the elevation drawings. However, utilizing the scale provided on the elevation drawings, the screening appears to measure around 6 ft. in height. The RTU specifications provided range from small exhaust fans to large package HVAC units that measure 7.5 in height (not including any curbs). **The applicant will be required to provide a clear dimension of the proposed screen wall to ensure full screening at Final Site Plan review.**

In terms of the ground-mounted mechanical units, Sheet SD.1.1 indicates that 6 ground-mounted units will be located at the south side of the building along the public alley. The types of units include a generator, transformers, and a switch. Sheet SD.16.0 details the proposed switch unit at 3.5 ft. high, while the generator is 9 ft. high. There are no dimensions provided for a transformer. The applicant has located the mechanical units behind an arborvitae screen that lines the alley. However, the landscape plan does not provide the height details of the arborvitae to ensure full screening of the units proposed.

To clarify the ordinance requirements in Article 4, Section 4.54, ground mechanical unit screening is required to be placed in a manner which *obscures* the receptacle and equipment from public view. In addition, the screen wall is required to be a masonry screen wall with wood gates. The screen wall shall match the material of the principal building. However, flexibility in the materials, size, height and placement of walls is permitted in order to allow architectural harmony and usable open space and to accomplish a unified design. Due to the lack of greenspace and plantings on site, the Planning Division would suggest that the arborvitae screening is appropriate and would be an improvement over masonry.

In summary, **the applicant must provide dimensions and species details of the proposed arborvitae screening, as well as specifications of the proposed transformers at Final Site Plan review.**

3.4 Landscaping – The applicant is not proposing to install any significant landscaping on-site outside of a courtyard amenity and a dog run that appear to only contain

lawn at this time. Article 4, Section 4.20 of the Zoning Ordinance does not require the applicant to provide landscaping on-site due to its location in a commercial zoning district.

- 3.5 Streetscape Elements – The applicant has provided a number of street trees, street lights, and what appears to be 4 benches, 4 trash receptacles, and 3 bike racks on the site plans submitted. However, it should be noted that there are inconsistencies between the site plan drawings and landscape plans that should be corrected and consistent throughout. In terms of street trees, Article 4, Section 4.20 (G) requires at least 1 street tree for each 40 linear feet of frontage along a street. A breakdown of the required and proposed street trees is provided below:

Street	Linear Frontage (ft.)	Required	Provided
Worth	306	8	8
Adams	228	6	6
Haynes	198	5	5
Total	732	19	19

A similar condition applies in terms of discrepancies across pages within the site plans submitted. The site plan drawings and landscape plan do not match. **The applicant is expected to clarify the proposed number of street trees across the entire site plan submittal at Final Site Plan.**

As far as streetlights, the applicant appears to be proposing 7 street lights along Worth, 4 along Haynes, and 5 along Adams. Each streetlight is spaced 40 ft. apart and set in between street trees. All streetlights proposed are expected to meet the streetscape standards for the Triangle District.

Finally, the applicant has proposed what appear to be 4 total benches: 2 along Adams and 2 along Haynes. There are 3 bike racks proposed on Haynes, and 4 trash receptacles located adjacent to the benches on the site plans submitted. **The Planning Board may wish to require the applicant to include additional benches, bike racks, or trash receptacles along each street frontage.**

4.0 Parking, Loading & Circulation

- 4.1 Parking – Article 4, Section 4.46 of the Zoning Ordinance requires the applicant to provide the following off-street parking for the uses proposed in the site plans submitted:

Proposed Use	Requirements	Area or Units	Spaces
Retail	1 per 300 sq. ft.	4,950	17
Other Commercial	1 per 550 sq. ft.	2,382	5
2 or less room unit	1 space per unit	71	71
3 or more room unit	1.25 spaces per unit	67	84
Total Required	-	-	177
Total Proposed	-	-	236

In the above calculations, the “Other Commercial” area consists of the leasing lobby and the maintenance room. The other areas within the building that are amenities strictly for the residents of the building such as storage rooms, workshare space, package area, fitness center and other areas were not considered as area requiring additional off-street parking spaces, as these areas will be used by residents only and thus the parking is already accounted for.

Based on the calculations above, the applicant meets the parking requirements for the proposed development. . As noted across this report, these spaces appear to be only available for the residential users of the building (access via gate system). Article 3, Section 3.08 (G)(6) states that on-street parking located along a lot’s frontage in the Triangle District may be credited towards meeting the parking requirements for that use, provided the streetscape is improved to meet the requirements of Section 3.12. The site plans submitted show a total of 15 on-street parking spaces available to be counted towards the retail use, leaving a deficiency of 2 spaces. **The applicant must provide the additional 2 spaces through one of the mechanisms outlined in Article 4, Section 4.45 (G) of the Zoning Ordinance, or obtain a variance from the Board of Zoning Appeals.**

- 4.2 Loading – Based on the commercial space within the proposed development (7,332 sq. ft.), the applicant is required to provide one off-street loading space with the following minimum dimensions: 40 feet long, 12 feet wide and 14 feet high. The applicant has marked the loading area dimension on the plans, which provides ample space (43 ft. x 21 ft.) within the 1,180 sq. ft. loading and receiving room on the west side of the building. However, the elevation drawing on Sheet SD.9.0 indicates that the entrance to the loading and receiving room is only 12 ft. high, which is not tall enough to meet the ordinance. Thus, **the applicant must submit revised plans showing a loading space that meets the requirements of Article 4, Section 4.24 (C) of the Zoning Ordinance.**
- 4.3 Vehicle Circulation & Access – The site plans submitted indicate that the main vehicle access to the site will be through an opening on the west side of the building that leads to the interior parking structure. The opening measures 24 ft. wide and contains controlled gated entry.
- 4.4 Pedestrian Circulation & Access – Pedestrian access is varied with a main lobby entrance for the residential units located at the northwest corner of the building. Nine units on first floor of the east side of the building along Adams also have street-level entrances. Access to the retail space along Haynes is proposed via two doors on the western side of the space.

5.0 Lighting

The applicant has submitted an exterior lighting design concept, specification sheets for proposed light fixtures, and a photometric plan detailing the illuminance level across the property pursuant to Article 4, Section 4.21 (C). The lighting concepts consists of downlighting and accent lighting across each elevation of the development. A preliminary

review of the light fixtures proposed suggests that they are fully cutoff as defined by Section 9.02, placed in a manner that is consistent and coordinated, and positioned away from abutting properties where appropriate.

However, a review of the photometric plan provided does indicate alight intensity that exceeds 1.5 maintained foot-candles at most locations around the site. The Planning Division will work with the applicant to provide an updated photometric plan and a full review of the lighting proposal at Final Site Plan review.

6.0 Departmental Reports

6.1 **Engineering Department** – Engineering Division comments will be available at CIS and Preliminary Site Plan Review on January 26, 2022.

6.2 **Department of Public Services** – The Department of Public Services has provided the following comments:

1. This plan would give the city 11 additional city trees - 8 on Worth, 2 on Haynes, and 1 on S. Adams.
2. The proposed species are more columnar and on our approved species list. This is helpful for a few reasons:
 - The three Norway Maples on Haynes are in poor condition. Also, we have since added Norway Maples to our prohibited species list due to their increased capacity for failure during storms, among other reasons.
 - 2. The 4 Honeylocusts and 1 Kentucky Coffee Tree on S. Adams are all in direct conflict with the overhead utility lines. The proposed species, Regal Prince Oaks, have a more columnar in growth pattern and will cause much less conflict and potential issues with the overhead lines.
 - 3. We currently are overpopulated in Maples and Honeylocusts in the city, and this will help make our urban forest more diverse.

6.3 **Fire Department** – Please see the attached Fire Department comments dated 1/21/2022.

6.4 **Police Department** – The Police Department has no concerns at this time.

6.5 **Building Department** – Please see the attached Building Division comments dated 1/20/2022.

6.6 **Parking Manager** – The Parking Manager has no concerns at this time.

7.0 Design Review

The applicant has submitted elevation drawings with material notes, but has not yet submitted any detailed material specifications for the proposed building. Specification sheets and samples for all façade materials, windows & doors, railings, and other proposed materials are required at Final Site Plan to complete the Design Review. Additionally, the applicant has submitted glazing calculations for the proposed building, a full review of which will be provided at Final Site Plan. **The applicant must submit material specifications, samples and all other required information for the proposed building to complete the Design Review at Final Site Plan.**

8.0 Required Attachments

	Submitted	Not Submitted	Not Required
Existing Conditions Plan	☒	☐	☐
Detailed and Scaled Site Plan	☒	☐	☐
Certified Land Survey	☒	☐	☐
Interior Floor Plans	☒	☐	☐
Landscape Plan	☒	☐	☐
Photometric Plan	☒	☐	☐
Colored Elevations	☒	☐	☐
Material Specification Sheets	☐	☒	☐
Material Samples	☐	☐	☒
Site & Aerial Photographs	☒	☐	☐

9.0 Approval Criteria

In accordance with Article 7, section 7.27 of the Zoning Ordinance, the proposed plans for development must meet the following conditions

- 9.1 The location, size and height of the building, walls and fences shall be such that there is adequate landscaped open space so as to provide light, air and access to the persons occupying the structure.
- 9.2 The location, size and height of the building, walls and fences shall be such that there will be no interference with adequate light, air and access to adjacent lands and buildings.
- 9.3 The location, size and height of the building, walls and fences shall be such that they will not hinder the reasonable development of adjoining property and not diminish the value thereof.
- 9.4 The site plan, and its relation to streets, driveways and sidewalks, shall be such as to not interfere with or be hazardous to vehicular and pedestrian traffic.
- 9.5 The proposed development will be compatible with other uses and buildings in the neighborhood and will not be contrary to the spirit and purpose of this chapter.

- 9.6 The location, shape and size of required landscaped open space is such as to provide adequate open space for the benefit of the inhabitants of the building and the surrounding neighborhood.

10.0 Recommendation

Based on a review of the site plans submitted and the requirements outlined in Article 7, Section 7.27 of the Zoning Ordinance, the Planning Division recommends that the Planning Board **APPROVE** the Preliminary Site Plan for 770 S. Adams with the following conditions:

1. The applicant must provide full screening details for all proposed mechanical units at Final Site Plan;
2. The applicant must provide an additional 2 parking spaces through one of the mechanisms outlined in Article 4, Section 4.45 (G) of the Zoning Ordinance, or obtain a variance from the Board of Zoning Appeals;
3. The applicant must submit revised plans showing a loading space that meets the requirements of Article 4, Section 4.24 (C) of the Zoning Ordinance;
4. The applicant must submit lighting and material specifications, samples, photometric plan and all other required information for the proposed building to complete the Design Review at Final Site Plan; and
5. The applicant must comply with the requests of all City Departments.

11.0 Sample Motion Language

Motion to **APPROVE** the Preliminary Site Plan for 770 S. Adams with the following conditions:

1. The applicant must provide full screening details for all proposed mechanical units at Final Site Plan;
2. The applicant must provide an additional 2 parking spaces through one of the mechanisms outlined in Article 4, Section 4.45 (G) of the Zoning Ordinance, or obtain a variance from the Board of Zoning Appeals;
3. The applicant must submit revised plans showing a loading space that meets the requirements of Article 4, Section 4.24 (C) of the Zoning Ordinance;
4. The applicant must submit lighting and material specifications, samples, photometric plan and all other required information for the proposed building to complete the Design Review at Final Site Plan; and
5. The applicant must comply with the requests of all City Departments.

OR

Motion to **POSTPONE** the Preliminary Site Plan for 770 S. Adams pending receipt of the following:

1. _____
2. _____
3. _____

OR

Motion to **DENY** the Preliminary Site Plan for 770 S. Adams for the following reasons:

1. _____
2. _____
3. _____

Current Parcels Overlaid on Triangle District Design Plan



**Zoning Compliance Summary Sheet
Final Site Plan Review
770 S. Adams**

Existing Site: 2 story commercial & office buildings

Zoning: B2 (General Business) & MU3/MU% (Triangle District Overlay)

Land Use: Commercial/Office

Existing Land Use and Zoning of Adjacent Properties:

	North	South	East	West
Existing Land Use	Commercial/ Office	Commercial/ Office	Commercial/ Office	Commercial
Existing Zoning District	B2 (General Business)	B2 (General Business)	B2 (General Business) & O2 (Office-Commercial)	B2 (General Business)
Overlay Zoning District	MU3 & MU5	MU3 & MU5	N/A	MU5 & MU7

Land Area:	Existing:	2.05 ac
	Proposed:	2.05 ac
Dwelling Units:	Existing:	0 units
	Proposed:	138 units
Minimum Lot Area/Unit:	Required:	N/A
	Proposed:	N/A
Min. Floor Area /Unit:	Required:	600 sq. ft. (efficiency and one bedroom) 800 sq. ft. (two or more bedroom)
	Proposed:	627-963 sq. ft. (one bedroom) 1,066-1,855 (two or more bedroom)
Max. Total Floor Area:	Required:	200% for offices except in Parking Assessment District 100% in Parking Assessment District Not applicable for residential and parking uses
	Proposed:	N/A
Min. Open Space:	Required:	N/A
	Proposed:	N/A

Max. Lot Coverage:	Required:	N/A
	Proposed:	N/A
Front Setback:	Required:	0 ft. minimum
	Proposed:	0 ft.
Side Setbacks	Required:	0 ft. with walls facing side lot line w/ no windows
	Proposed:	0 ft.
Rear Setback:	Required:	10 ft.
	Proposed:	10 ft.
Min. Front+Rear Setback	Required:	N/A
	Proposed:	N/A
Max. Bldg. Height:	Permitted:	66 ft., 5 stories (MU3) 78 ft., 6 stories (MU5)
	Proposed:	53 ft., 4 stories (MU3) 66 ft., 5 stories (MU5)
Min. Eave Height:	Required:	N/A
	Proposed:	N/A
Floor-Floor Height:	Required:	14 ft. minimum (1 st story)
	Proposed:	20 ft.
Front Entry:	Required:	On frontage line
	Proposed:	On frontage line
Absence of Bldg. Façade:	Required:	N/A
	Proposed:	N/A
Opening Width:	Required:	N/A
	Proposed:	N/A
Parking:	Required:	177 off-street spaces
	Proposed:	236 off-street spaces
Min. Parking Space Size:	Required:	180 sq. ft.
	Proposed:	180 sq. ft.
Parking in Frontage:	Required:	N/A
	Proposed:	N/A
Loading Area:	Required:	1 off-street loading spaces

Proposed: 1 off-street loading spaces

Screening:

Parking: Required: 6 ft. masonry screen wall
Proposed: Screened by building facade

Loading: Required: Screened from view
Proposed: Interior loading area screened by building

Rooftop Mechanical: Required: Screened from view
Proposed: 6 ft. screen wall

Elect. Transformer: Required: Obscured from public view
Proposed: Arborvitae plantings

Dumpster: Required: Masonry screen wall with wood gates
Proposed: Two fully interior trash rooms fully screened by building facade

CITY OF BIRMINGHAM
Community Development – Building Department
151 Martin Street, Birmingham, MI 48009

January 20, 2022

RE: Preliminary Site Plan Review Comments
770 S. Adams, Proposed 4 & 5 Story Building

As requested, the Building Department has examined the plans for the proposed project referenced above. The plans were provided to the Planning Department for site plan review purposes only and present conceptual elevations and floor plans. Although the plans lack sufficient detail to perform a code review, the following comments are offered for Planning Design Review purposes and applicant consideration:

Applicable Building Codes:

- **2015 Michigan Building Code.** Applies to all buildings other than those regulated by the *Michigan Residential Code*.
- **2015 Michigan Mechanical Code.** (Residential requirements for mechanical construction in all detached one and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories in height with a separate means of egress and their accessory structures are contained in the Michigan Residential Code)
- **2018 Michigan Plumbing Code.** (Residential requirements for plumbing construction in all detached one and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories in height with a separate means of egress and their accessory structures are contained in the Michigan Residential Code)
- **2017 National Electrical Code along with the Michigan Part 8 Rules.** (Residential requirements for electrical construction in all detached one and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories in height with a separate means of egress and their accessory structures are contained in the Michigan Residential Code)

Review Comments:

1. There are five exit stairways in the building. Four of the stairways exit directly to the exterior. Per section 1028, 2015 MBC at least 50 percent of the required exits must discharge to the exterior. This provision is met. However, the West stairway by the elevator does not discharge to the exterior. Per 1028.1.1 (1.1) 2015 MBC, this stairway shall be provided with a free and unobstructed path of travel to an exterior exit door and such door shall be readily visible and identifiable from the point of termination of the stairway.



CITY OF BIRMINGHAM FIRE DEPARTMENT

572 SOUTH ADAMS • BIRMINGHAM, MICHIGAN 48009 • 248.530.1900 FAX 248.530.1950

Adams/Haynes Development

770 South Adams/1000 Haynes

The following are preliminary comments from the Birmingham Fire Department.

1. Full fire suppression is required for this occupancy.
Fire department connection to be installed on the S. Adams side of the building and within 100 feet of a fire hydrant.
2. Standpipe system installation in parking garage and egress stairs in structure. Standpipe system on rooftop area.
3. Fire alarm coverage is required for this occupancy.
4. Do to the size of this project, consider a fire command center room. If considered a high rise, include fire command center.
5. Dependent on the final height of the building and IBC, IFC requirements, an emergency generator may be required.
6. Per City Ordinance, install Emergency power shut down device(s) on the exterior of the building. This device shall disconnect power to all of the building with the exception of emergency devices such as egress lighting, fire alarm, elevator recall, etc. This device shall be secured using the Knox shut off device. Contact Fire Marshal for specifications.
7. Fire lanes shall be required per International Fire Code 2015 edition specifications including parking lot access.
8. Knox box key box (surface mount) installation shall be installed on multiple sides of the building due to the size of the campus.
9. A bi-directional antenna system (BDA) may be required per the fire code. Determination shall be made toward the end of final construction.
10. Ventilation installation for underground parking (if underground parking is planned or added) shall be required and include a carbon monoxide (CO) detection system connected to the main fire alarm panel.
11. Required egress pathway distances shall be required in the building and enclosed egress points per IBC and IFC.
12. Stairway access to rooftop.

Please contact the Fire Marshal's office if there are any questions. All comments are subject to change with project plan submittals, alterations and system submittals.

Jack D. Pesha, Fire Marshal

ADAMS/HAYNES DEVELOPMENT
770 South Adams + 1000 Haynes Street
Birmingham, Michigan 48009

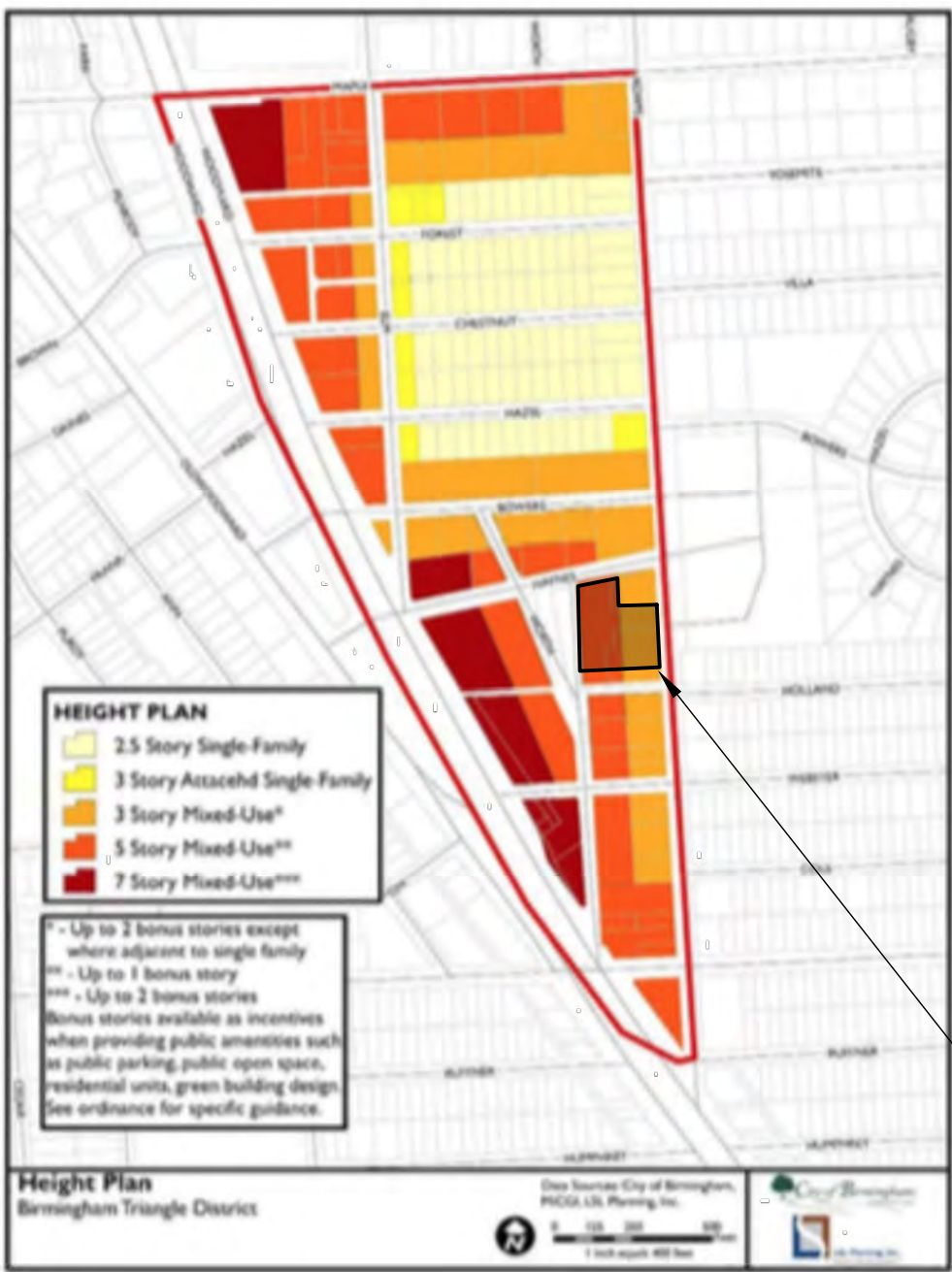


Haynes @ Worth (NW Corner) looking South



Adams @ Haynes (NE Corner) looking West

TRIANGLE DISTRICT HEIGHT MAP

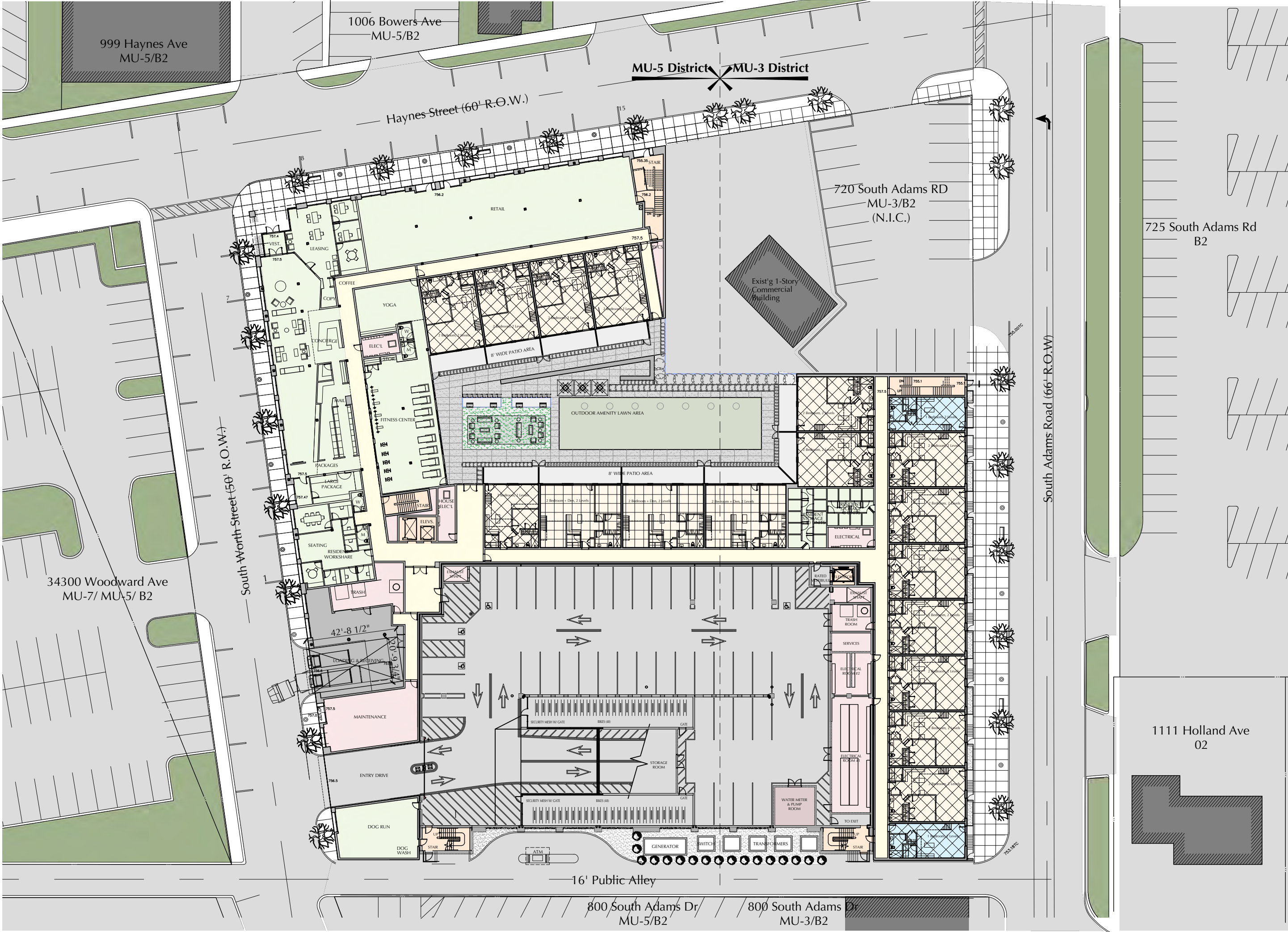


SITE LOCATION

LOCATION MAP



SITE LOCATION



Worth @ Alley (SW Corner) looking North



Adams @ Alley (SE Corner) looking North



SITE DATA

Site Addresses	1000 Haynes Ave., 770 S. Adams Rd.
Sidwell/Property ID Numbers	19-36-283-024, 19-36-283-016
Current Zoning/Use	B-2/Bank, Office (MU-3 & MU-5 District)
Proposed Zoning/Use	B-2/Mixed Use Residential, Retail (MU-3 & MU-5 District)
Adjacent Zoning	B-2, O-2
Setbacks	None Required, 0'-0" to 1'-0" Provided

BUILDING HEIGHT

Item	Minimum	MU-3 District Maximum	MU-5 District Maximum	Provided
Ground Level	14'-0"			20'-0"
Level 4		54'-0" (w/Stepback)		54'-0"
Level 5		66'-0"	66'-0"	66'-0"
Mechanical		12'-0"	12'-0"	12'-0"

BUILDING USE DATA

Level	Use	Use Group
Ground Level	Retail, Lobby & Resident Services, Building Services, Resident Workshare & Storage, Parking, Apartments (19 Units)	M, B, S-2, R-2
Level 2	Resident Amenities, Apartments (34 Units)	R-2, B
Level 3	Apartments (34 Units)	R-2
Level 4	Apartments (32 Units)	R-2
Level 5	Apartments (Haynes/Worth only) (19 Units)	R-2
Total No. of Apartments		138 Units

PARKING DATA

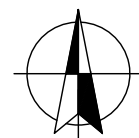
RESIDENTIAL APARTMENTS	71 APARTMENTS X 1 (1-2 BEDROOM APARTMENTS)	REQUIRED 71.0 SPACES	PROVIDED 236.0 SPACES
	67 APARTMENTS X 1.25 (3 BEDROOM APARTMENTS)	85.0 SPACES	
RETAIL	4,950 / 300 SF	17.0 SPACES	
TOTAL	138 APARTMENTS	172.0 SPACES	236.0 SPACES
TOTAL (INCLUDING 15 STREET PARKING SPACES)			251.0 SPACES

FACADE DATA

Elevation	Brick, Stone, Glass (60% Minimum)	Main Level Glazing (70% Minimum)	Glazing Above 8'-0" (50% Maximum)
North (Haynes Ave.)	Meets	Meets	Meets
East (Adams Rd.)	Meets	No Frontage	Meets
West (Worth St.)	Meets	Meets	Meets
South (Alley)	No Frontage	No Frontage	Meets
Cumulative Totals			

SQUARE FOOT AREA DATA - w/Room Below-Based Mezzanines

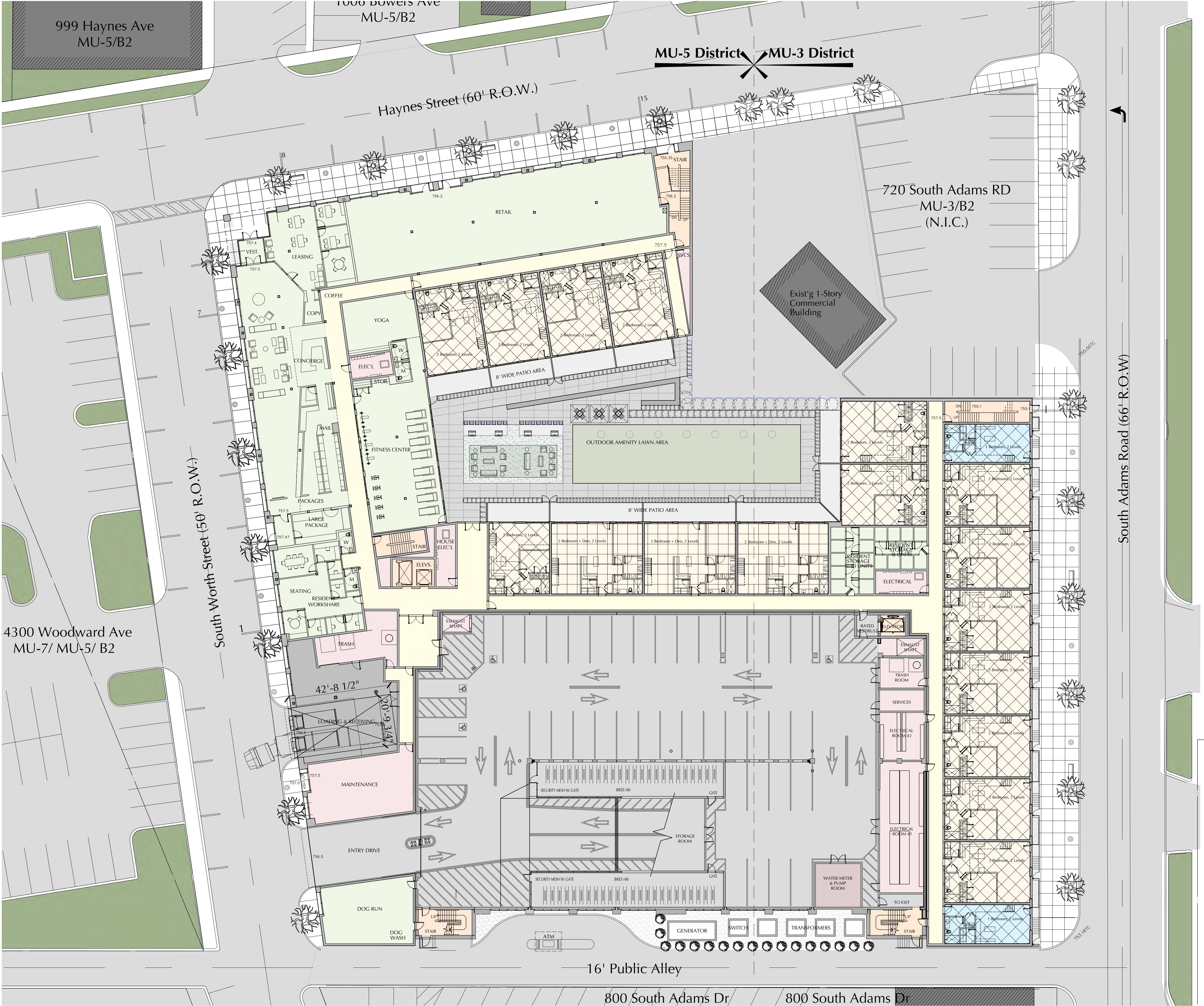
		Apts. SF	Resident Storage SF	Retail SF	% Eff'y
5th Level Apartments Area =	28,926 GSF	22,738	1,042		
Indoor Amenity Area =	4,817 GSF				
Total 5th Level Area =	33,743 GSF				70.5%
Total 4th Level Apartments Area =	46,370 GSF	36,293	2,224		83.1%
Total 3rd Level Apartments Area =	48,196 GSF	37,715	2,224		82.9%
Total 2nd Level Apartments Area =	48,196 GSF	37,715	2,224		82.9%
1st Level Apartments Area =	27,614 GSF	23,826	1,182		
Fitness Center =	2,924 GSF				
Resident Workshare =	1,183 GSF				
Retail Area =	4,950 GSF			4,950	
Lobby, Leasing, Mail & Pkgs. Area =	5,274 GSF				
Loading/Receiving Area =	1,880 GSF				
Trash Collection Area =	455 GSF				
Dog Run & Wash Area =	1,074 GSF				
Maintenance Area =	912 GSF				
Total 1st Level Area =	46,266 GSF				64.7%
Total Building Indoor Area =	222,771 GSF				
		Total Rentable Area =	172,133 SF		77.3%



SITE PLAN

NOT TO SCALE

CHRISTOPHER J. LONGE AIA
ARCHITECTURE
INTERIORS
124 Peabody, Birmingham, Michigan 48009 248.258.6940



LEGEND

	PARKING
	RETAIL + RESIDENT SERVICES
	ANCILLARY
	EGRESS
	CIRCULATION
	STUDIO
	1 BEDROOM
	1 BEDROOM + DEN
	1 BEDROOM - 2 LEVELS
	2 BEDROOM
	2 BEDROOM + DEN
	2 BEDROOM - 2 LEVELS
	2 BEDROOM + DEN - 2 LEVELS
	3 BEDROOM

UNIT DATA

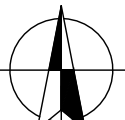
Type	# of Units					
	Lvl 1	Lvl 2	Lvl 3	Lvl 4	Lvl 5	Total
Studio	0	2	2	0	0	4
1 Bedroom	0	2	2	7	3	14
1 Bedroom + Den	0	17	17	10	7	51
1 Bedroom, 2 Levels	2	0	0	0	0	2
2 Bedroom	0	6	6	8	2	22
2 Bedroom + Den	0	6	6	6	6	24
2 Bedroom, 2 Levels	14	0	0	0	0	14
2 Bedroom + Den, 2 Levels	3	0	0	0	0	3
3 Bedroom	0	1	1	1	1	4
Total	19	34	34	32	19	138

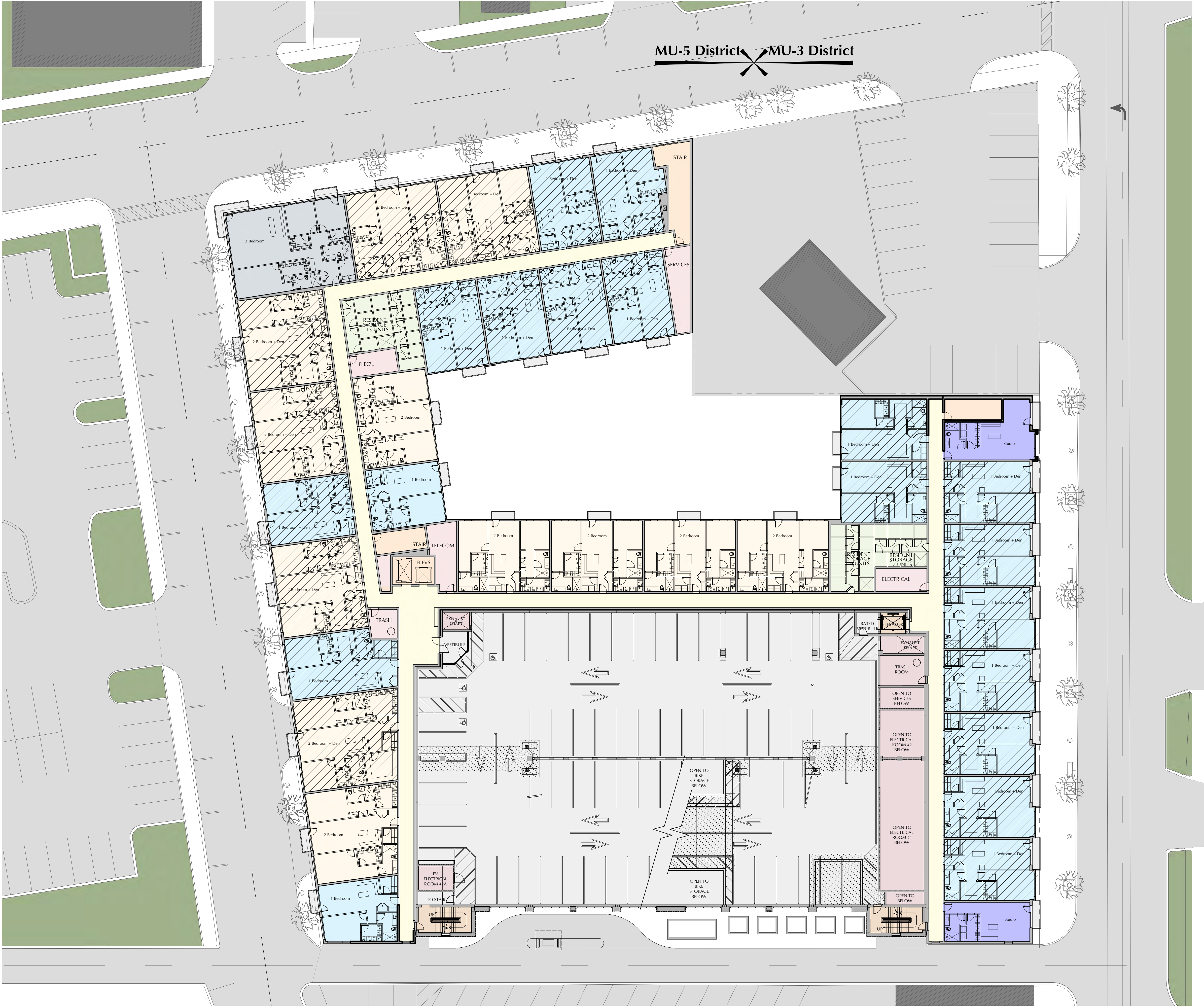
TOTAL PARKING 236 SPACES
(10 BARRIER FREE) 1.71/UNIT

TOTAL BIKE STORAGE 96 SPACES

TOTAL RESIDENT STORAGE 128 UNITS

1ST LEVEL
(AMENITIES/APARTMENTS)





LEGEND

	PARKING
	RETAIL + RESIDENT SERVICES
	ANCILLARY
	EGRESS
	CIRCULATION
	STUDIO
	1 BEDROOM
	1 BEDROOM + DEN
	1 BEDROOM - 2 LEVELS
	2 BEDROOM
	2 BEDROOM + DEN
	2 BEDROOM - 2 LEVELS
	2 BEDROOM + DEN - 2 LEVELS
	3 BEDROOM

UNIT DATA

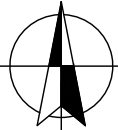
Type	# of Units					
	Lvl 1	Lvl 2	Lvl 3	Lvl 4	Lvl 5	Total
Studio	0	2	2	0	0	4
1 Bedroom	0	2	2	7	3	14
1 Bedroom + Den	0	17	17	10	7	51
1 Bedroom, 2 Levels	2	0	0	0	0	2
2 Bedroom	0	6	6	8	2	22
2 Bedroom + Den	0	6	6	6	6	24
2 Bedroom, 2 Levels	14	0	0	0	0	14
2 Bedroom + Den, 2 Levels	3	0	0	0	0	3
3 Bedroom	0	1	1	1	1	4
Total	19	34	34	32	19	138

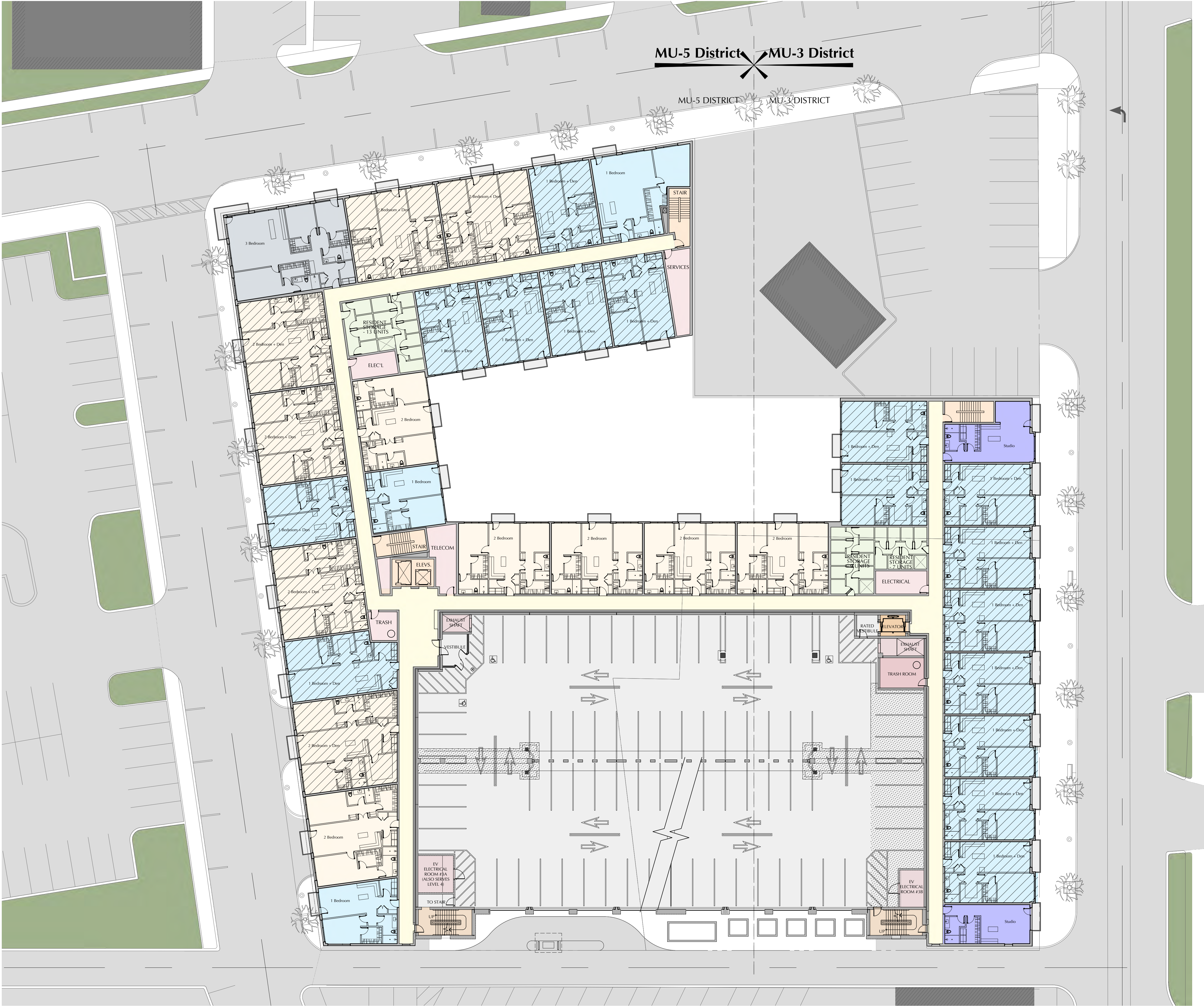
TOTAL PARKING 236 SPACES
(10 BARRIER FREE) 1.71/UNIT

TOTAL BIKE STORAGE 96 SPACES

TOTAL RESIDENT STORAGE 128 UNITS

2ND LEVEL
(AMENITIES/APARTMENTS)





LEGEND

[Pattern]	PARKING
[Pattern]	RETAIL + RESIDENT SERVICES
[Pattern]	ANCILLARY
[Pattern]	EGRESS
[Pattern]	CIRCULATION
[Pattern]	STUDIO
[Pattern]	1 BEDROOM
[Pattern]	1 BEDROOM + DEN
[Pattern]	1 BEDROOM - 2 LEVELS
[Pattern]	2 BEDROOM
[Pattern]	2 BEDROOM + DEN
[Pattern]	2 BEDROOM - 2 LEVELS
[Pattern]	2 BEDROOM + DEN - 2 LEVELS
[Pattern]	3 BEDROOM

UNIT DATA

Type	# of Units					
	Lvl 1	Lvl 2	Lvl 3	Lvl 4	Lvl 5	Total
Studio	0	2	2	0	0	4
1 Bedroom	0	2	2	7	3	14
1 Bedroom + Den	0	17	17	10	7	51
1 Bedroom, 2 Levels	2	0	0	0	0	2
2 Bedroom	0	6	6	8	2	22
2 Bedroom + Den	0	6	6	6	6	24
2 Bedroom, 2 Levels	14	0	0	0	0	14
2 Bedroom + Den, 2 Levels	3	0	0	0	0	3
3 Bedroom	0	1	1	1	1	4
Total	19	34	34	32	19	138
TOTAL PARKING 236 SPACES (10 BARRIER FREE) 1.71/UNIT						
TOTAL BIKE STORAGE 96 SPACES						
TOTAL RESIDENT STORAGE 128 UNITS						

3RD LEVEL
(APARTMENTS)



MU-5 District MU-3 District

MU-5 DISTRICT MU-3 DISTRICT

LEGEND

- PARKING
- RETAIL + RESIDENT SERVICES
- ANCILLARY
- EGRESS
- CIRCULATION
- STUDIO
- 1 BEDROOM
- 1 BEDROOM + DEN
- 1 BEDROOM - 2 LEVELS
- 2 BEDROOM
- 2 BEDROOM + DEN
- 2 BEDROOM - 2 LEVELS
- 2 BEDROOM + DEN - 2 LEVELS
- 3 BEDROOM

UNIT DATA

Type	# of Units					
	Lvl 1	Lvl 2	Lvl 3	Lvl 4	Lvl 5	Total
Studio	0	2	2	0	0	4
1 Bedroom	0	2	2	7	3	14
1 Bedroom + Den	0	17	17	10	7	51
1 Bedroom, 2 Levels	2	0	0	0	0	2
2 Bedroom	0	6	6	8	2	22
2 Bedroom + Den	0	6	6	6	6	24
2 Bedroom, 2 Levels	14	0	0	0	0	14
2 Bedroom + Den, 2 Levels	3	0	0	0	0	3
3 Bedroom	0	1	1	1	1	4
Total	19	34	34	32	19	138

TOTAL PARKING 236 SPACES
(10 BARRIER FREE) 1.71/UNIT

TOTAL BIKE STORAGE 96 SPACES

TOTAL RESIDENT STORAGE 128 UNITS

4TH LEVEL
(APARTMENTS)



MU-5 District MU-3 District

MU-5 DISTRICT MU-3 DISTRICT

LEGEND

- PARKING
- RETAIL + RESIDENT SERVICES
- ANCILLARY
- EGRESS
- CIRCULATION
- STUDIO
- 1 BEDROOM
- 1 BEDROOM + DEN
- 1 BEDROOM - 2 LEVELS
- 2 BEDROOM
- 2 BEDROOM + DEN
- 2 BEDROOM - 2 LEVELS
- 2 BEDROOM + DEN - 2 LEVELS
- 3 BEDROOM

UNIT DATA

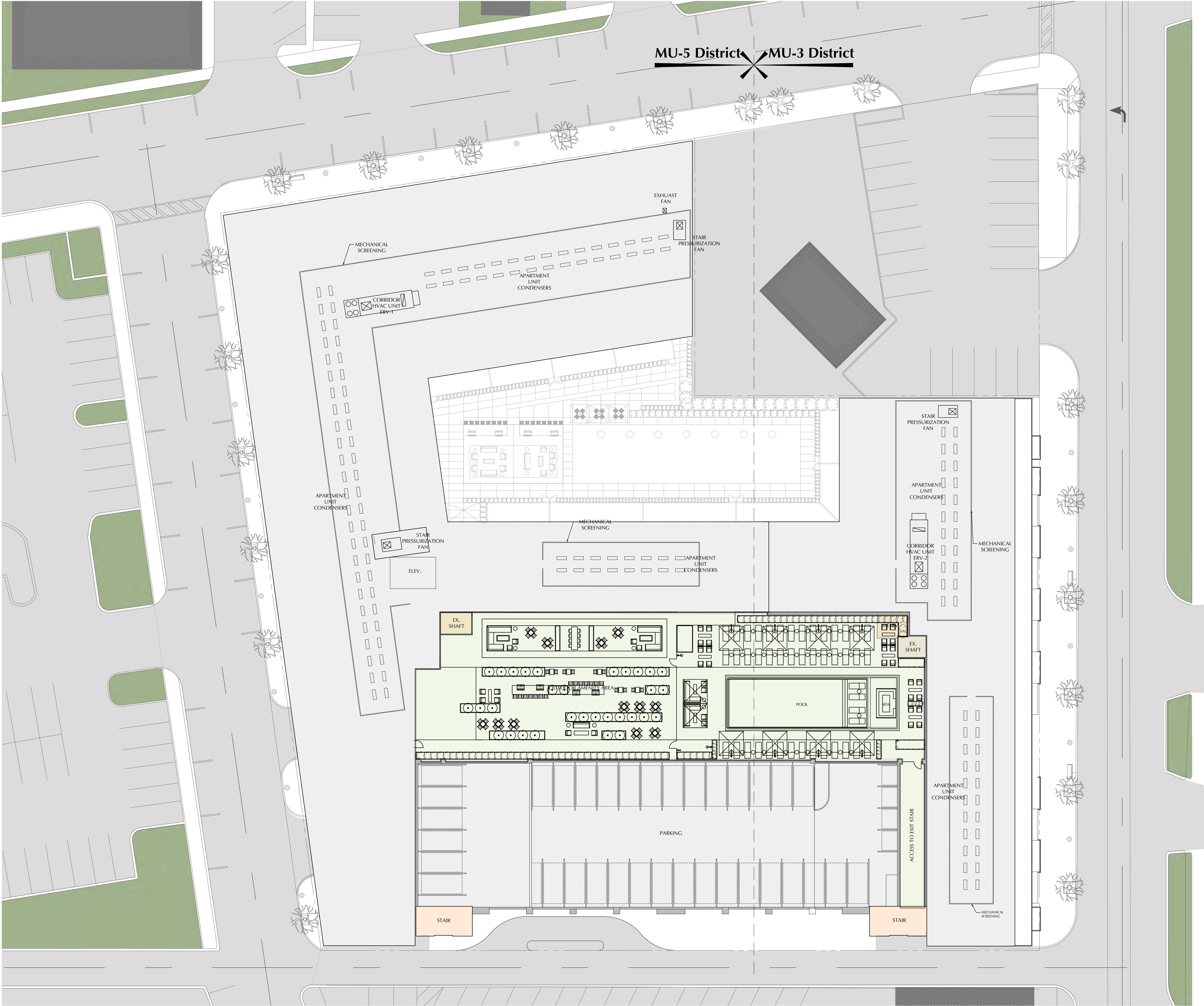
Type	# of Units					
	Lvl 1	Lvl 2	Lvl 3	Lvl 4	Lvl 5	Total
Studio	0	2	2	0	0	4
1 Bedroom	0	2	2	7	3	14
1 Bedroom + Den	0	17	17	10	7	51
1 Bedroom, 2 Levels	2	0	0	0	0	2
2 Bedroom	0	6	6	8	2	22
2 Bedroom + Den	0	6	6	6	6	24
2 Bedroom, 2 Levels	14	0	0	0	0	14
2 Bedroom + Den, 2 Levels	3	0	0	0	0	3
3 Bedroom	0	1	1	1	1	4
Total	19	34	34	32	19	138

TOTAL PARKING 236 SPACES
(10 BARRIER FREE) 1.71/UNIT

TOTAL BIKE STORAGE 96 SPACES

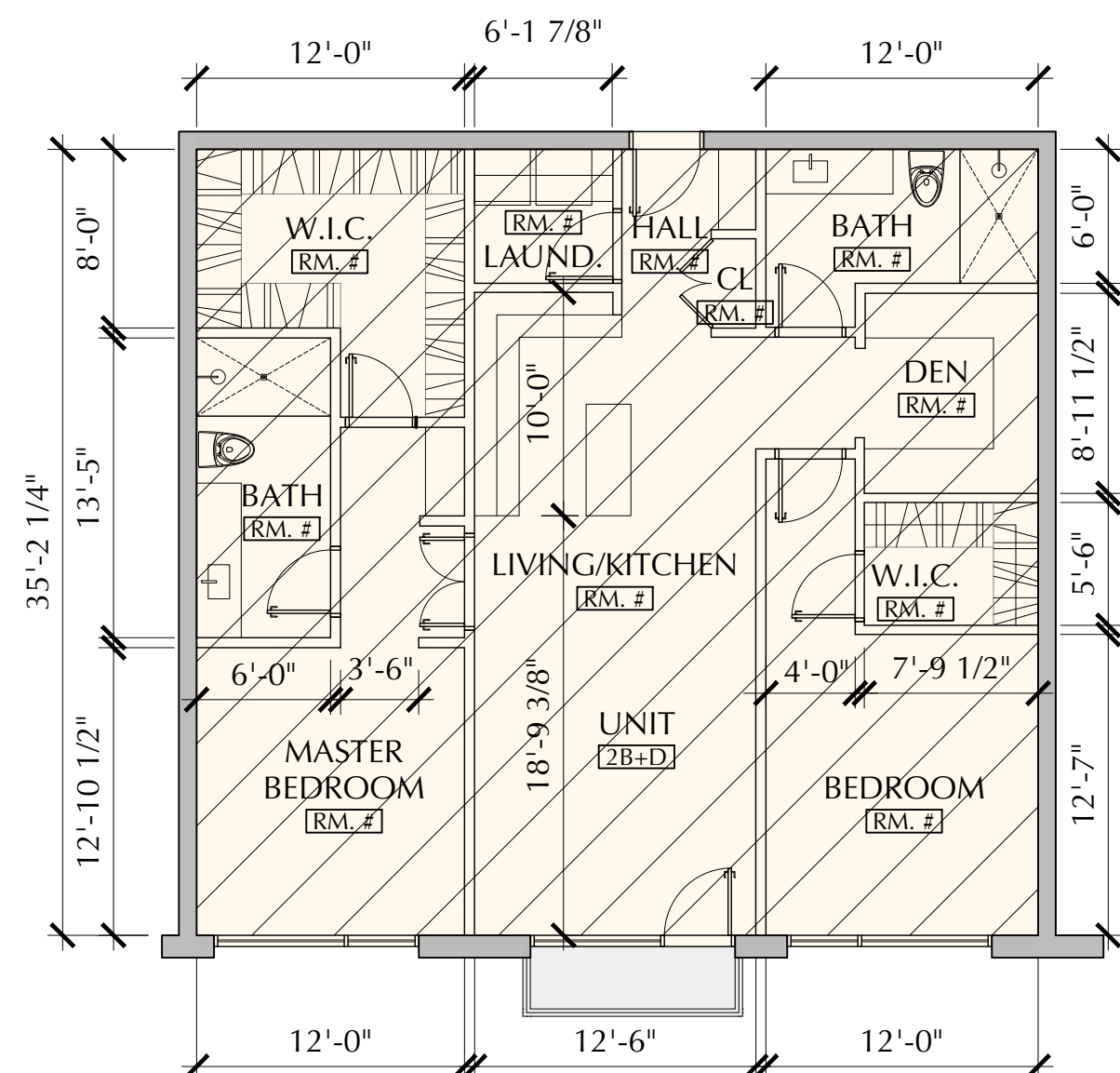
TOTAL RESIDENT STORAGE 128 UNITS

5TH LEVEL
(APARTMENTS)

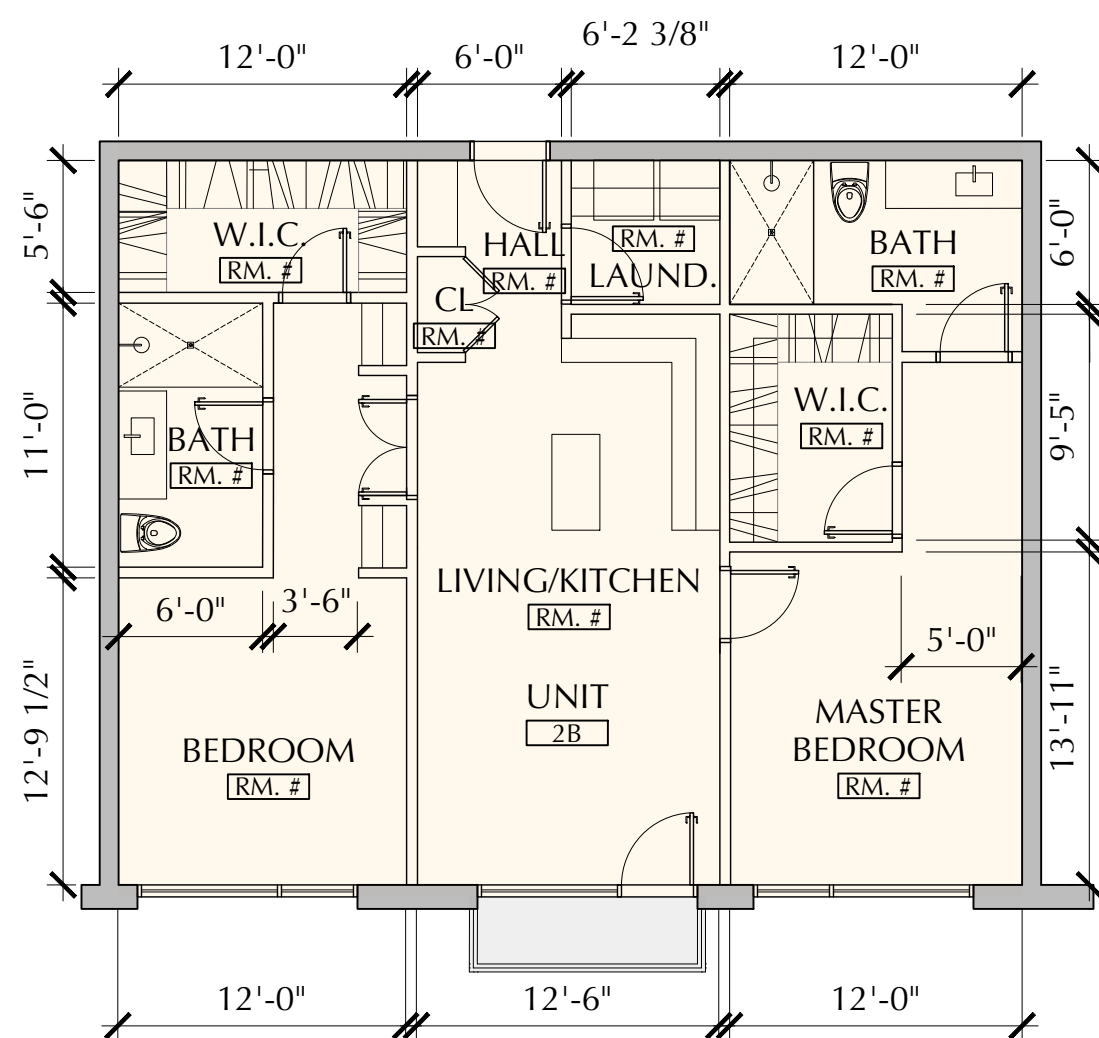


LEGEND	
	PARKING
	RETAIL + RESIDENT SERVICES
	ANCILLARY
	EGRESS
	CIRCULATION
	STUDIO
	1 BEDROOM
	1 BEDROOM + DEN
	1 BEDROOM - 2 LEVELS
	2 BEDROOM
	2 BEDROOM + DEN
	2 BEDROOM - 2 LEVELS
	2 BEDROOM + DEN - 2 LEVELS
	3 BEDROOM

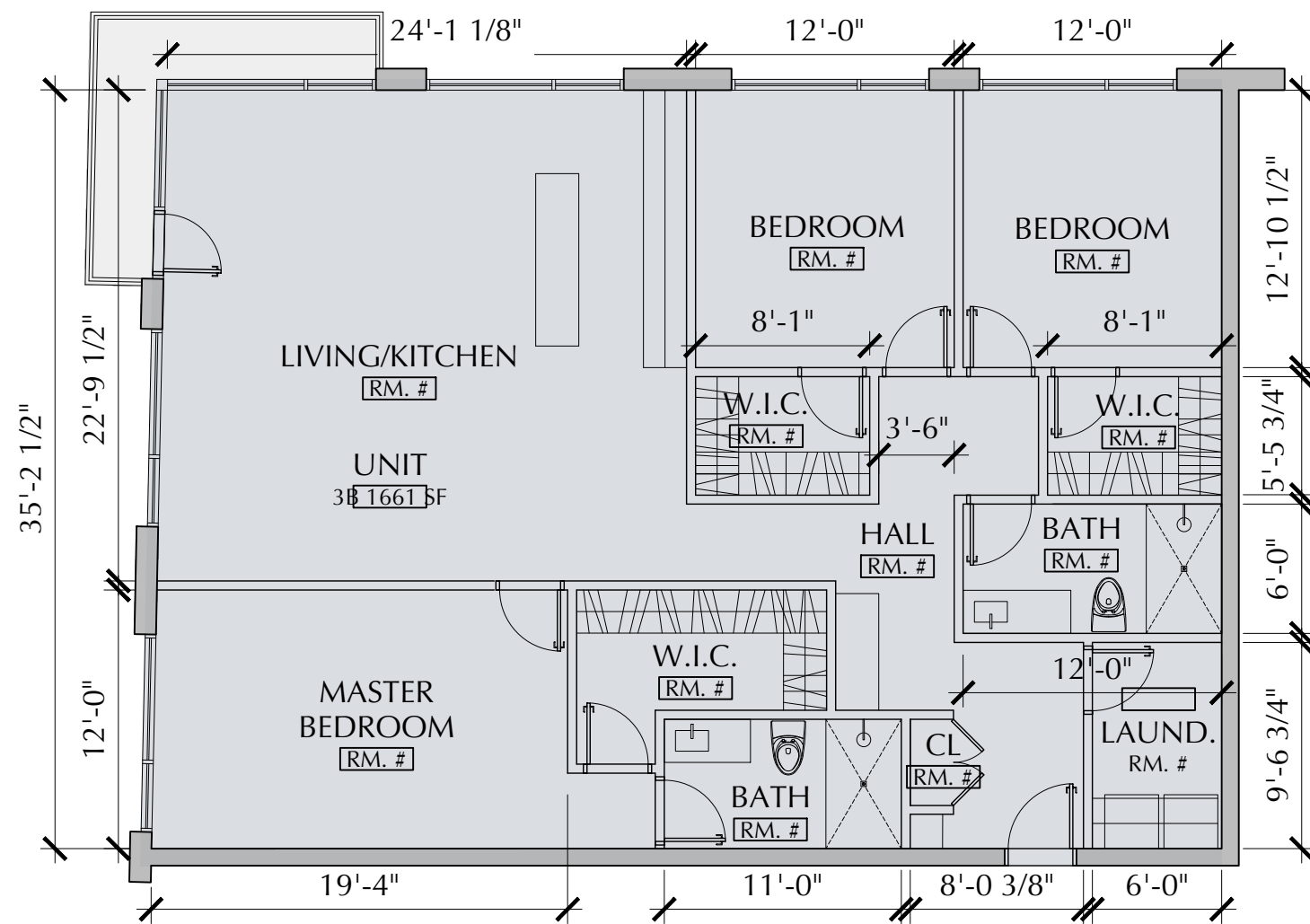
ROOF PLAN
(AMENITIES)



2 Bedroom + Den Unit - 24 @ 1,423 sf



2 Bedroom Unit - 22 @ 1,229 sf



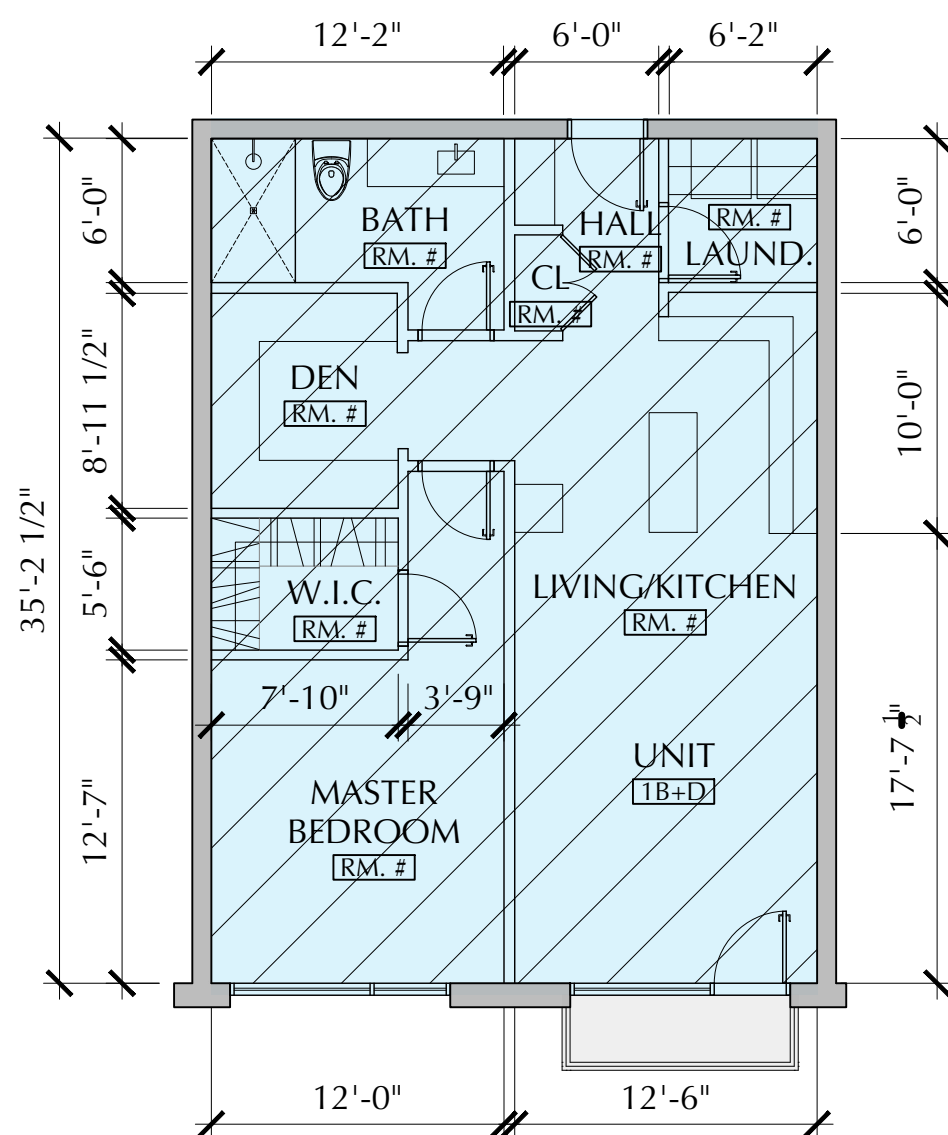
3 Bedroom Unit, 4 @ 1,855 SF

Southwest Worth Units:

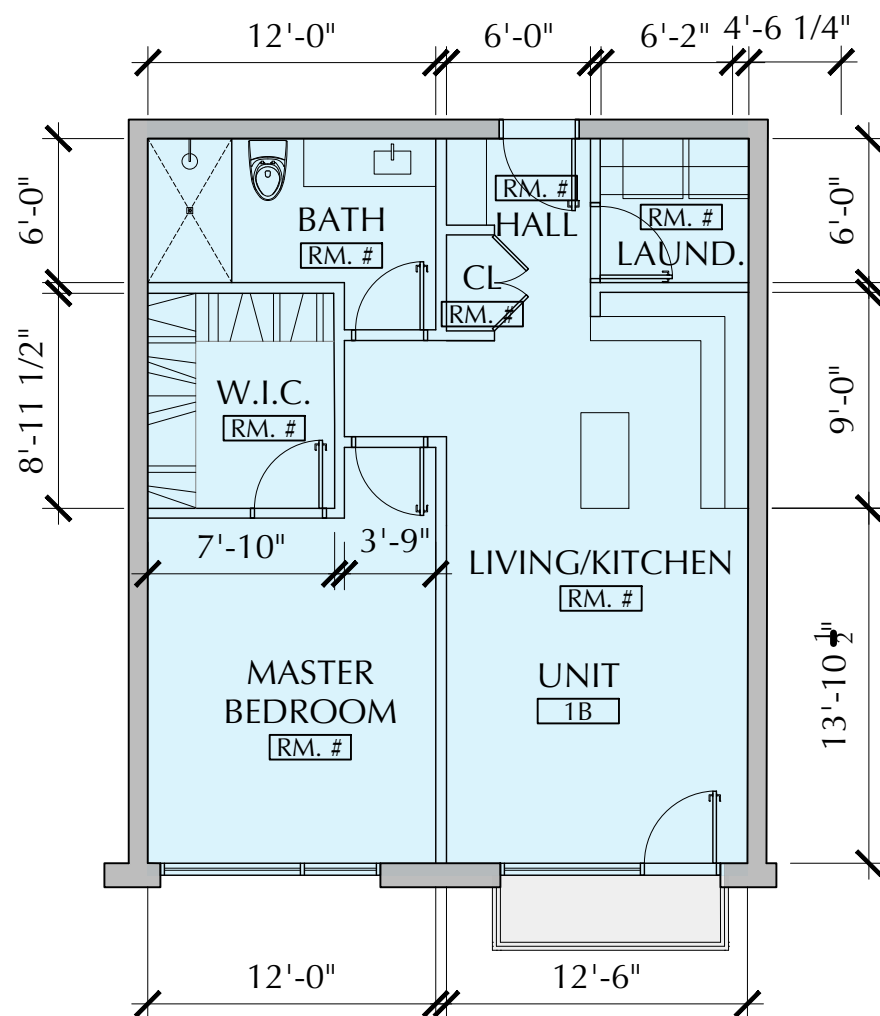
- 1 Bedroom Unit = 4 @ 865 sf
1 Bedroom + Den Unit = 4 @ 1,166 sf
2 Bedroom Unit = 4 @ 1,440 sf
2 Bedroom + Den Unit = 4 @ 1,644 sf

LEGEND

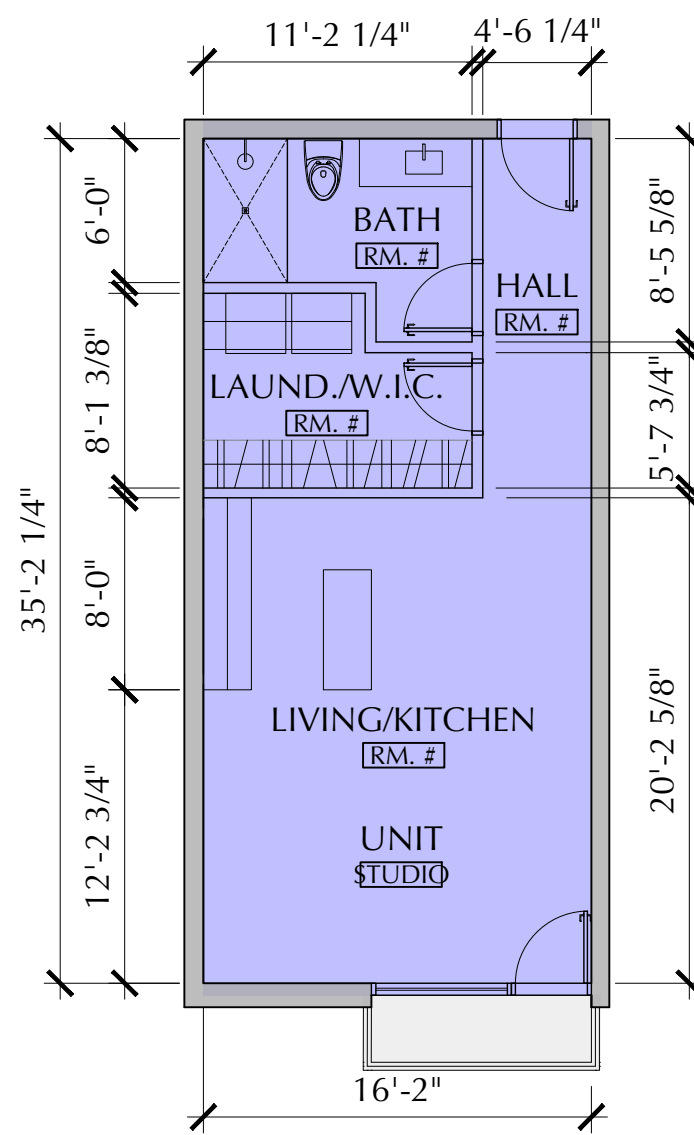
	PARKING
	RETAIL + RESIDENT SERVICES
	ANGILLARY
	EGRESS
	CIRCULATION
	STUDIO
	1 BEDROOM
	1 BEDROOM + DEN
	1 BEDROOM - 2 LEVELS
	2 BEDROOM
	2 BEDROOM + DEN
	2 BEDROOM - 2 LEVELS
	2 BEDROOM + DEN - 2 LEVELS
	3 BEDROOM



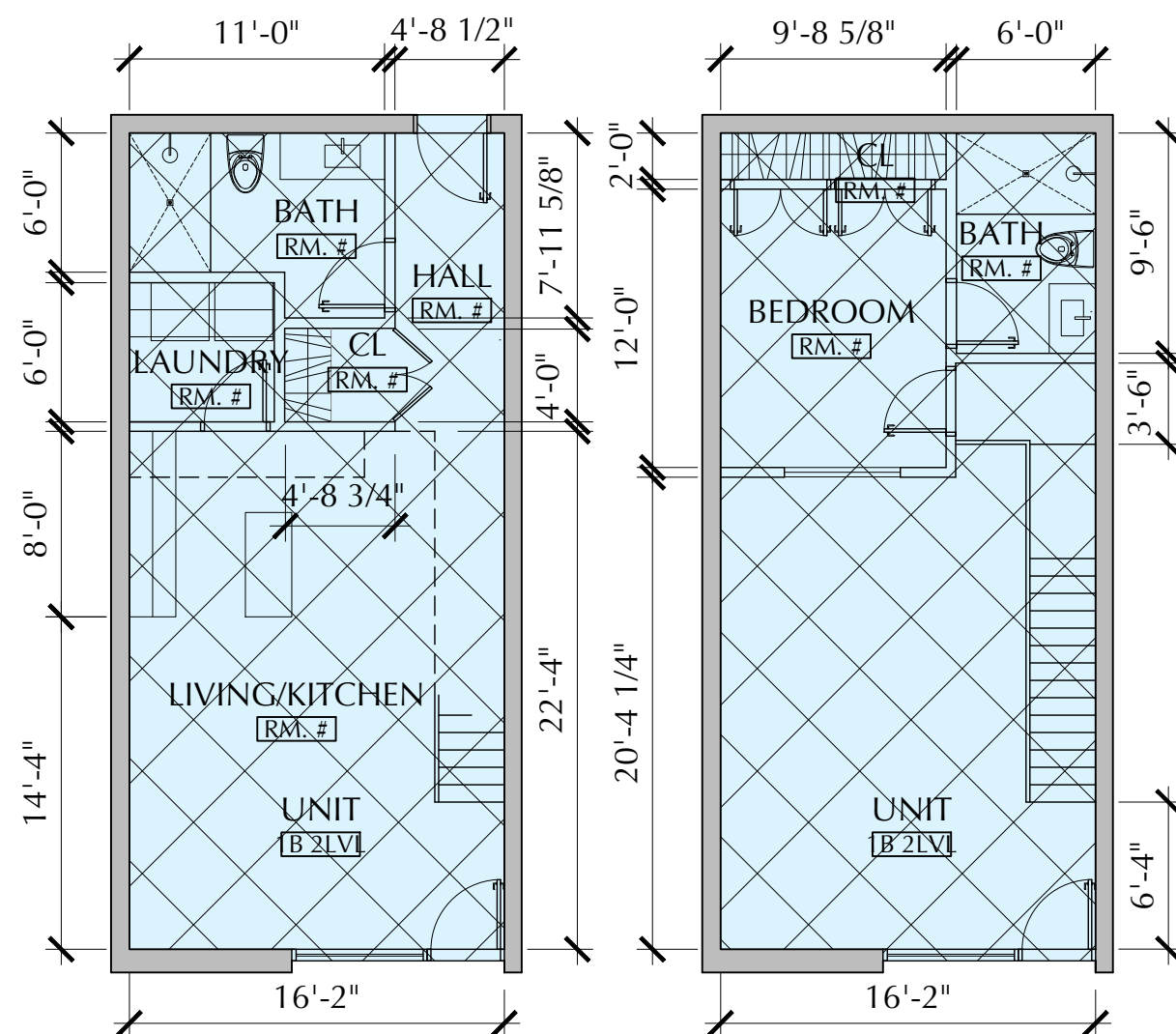
1 Bedroom + Den Unit - 51 @ 963 sf



1 Bedroom Unit - 14 @ 823 sf

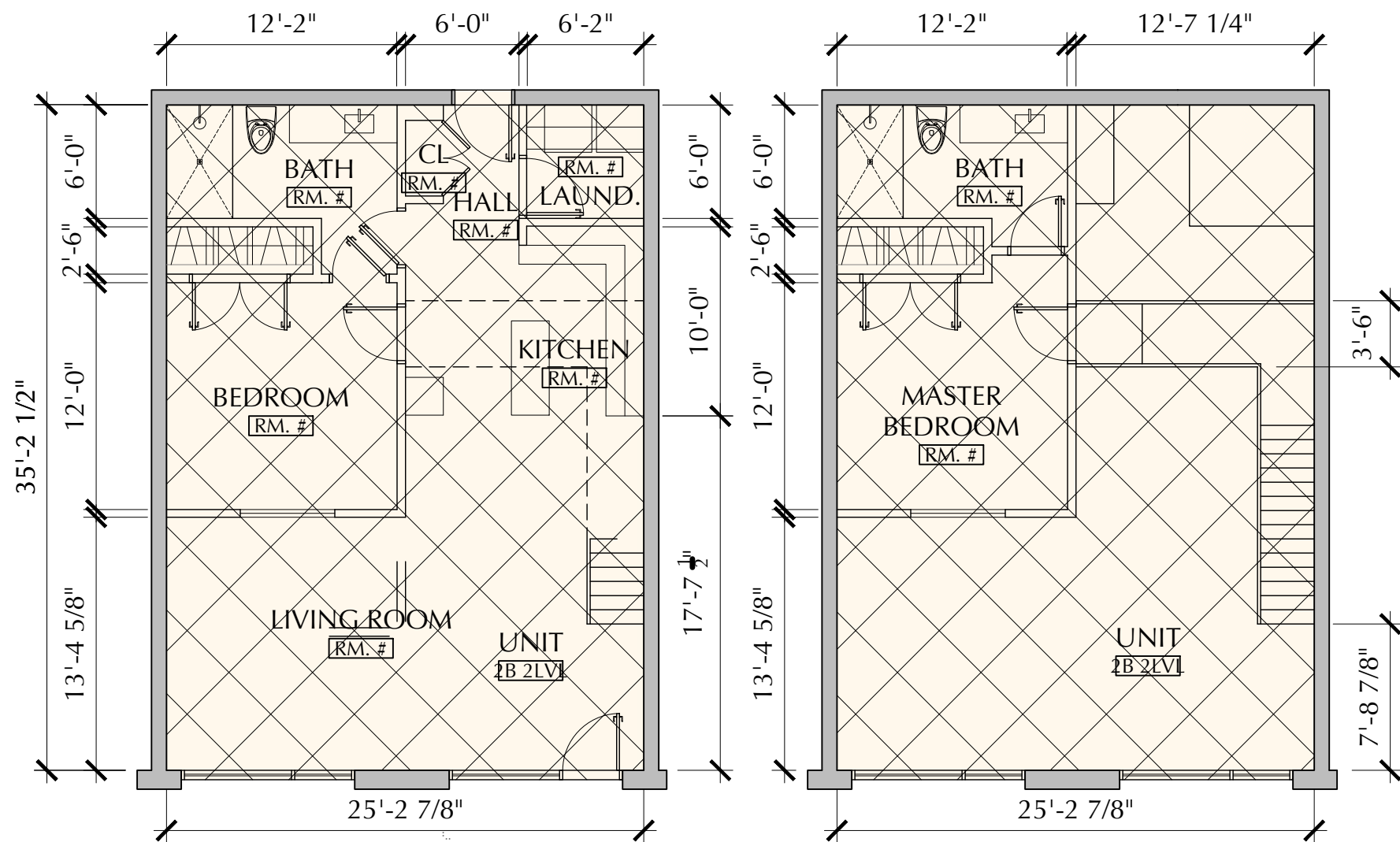


Studio - 4 @ 627 sf



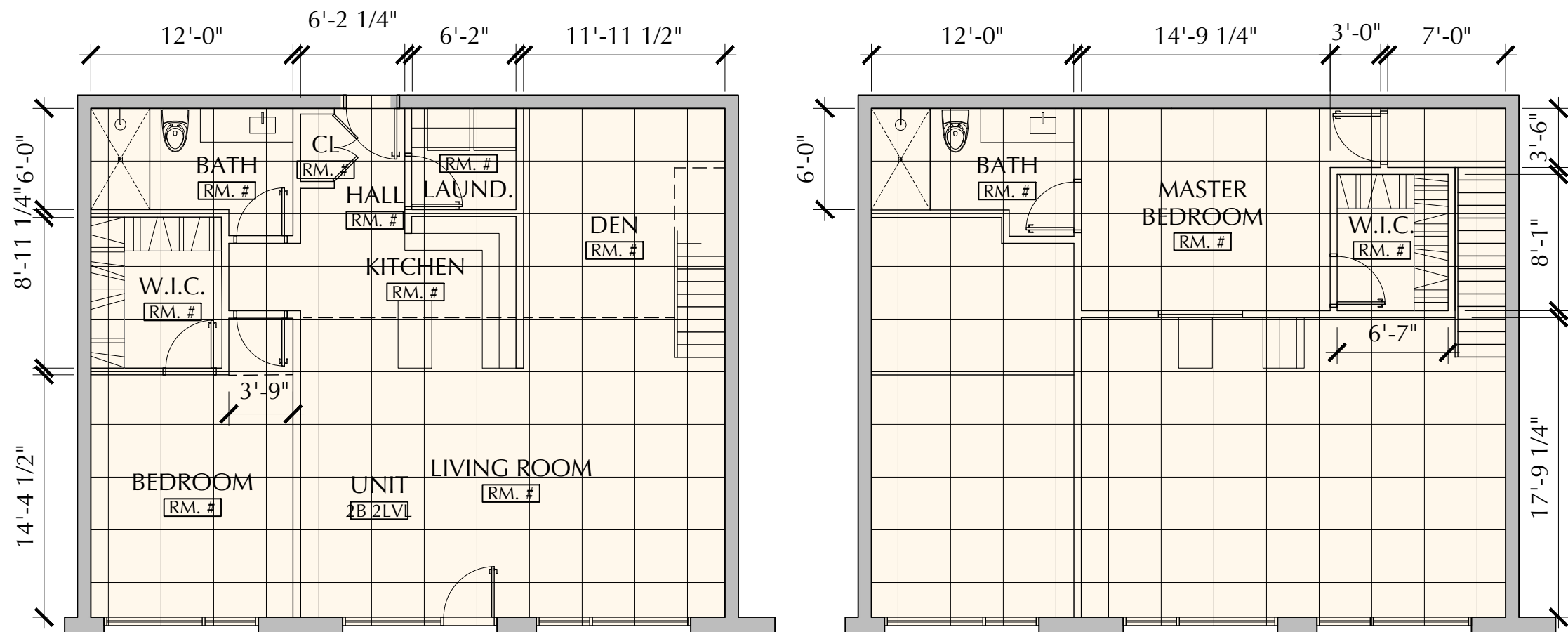
1 Bedroom 2 Level Unit (below Studio Units):

1st Level = 627 sf, Room Below = 469 sf
Mezzanine = 231 sf (< 50% Room Below) 2 @ 843 sf



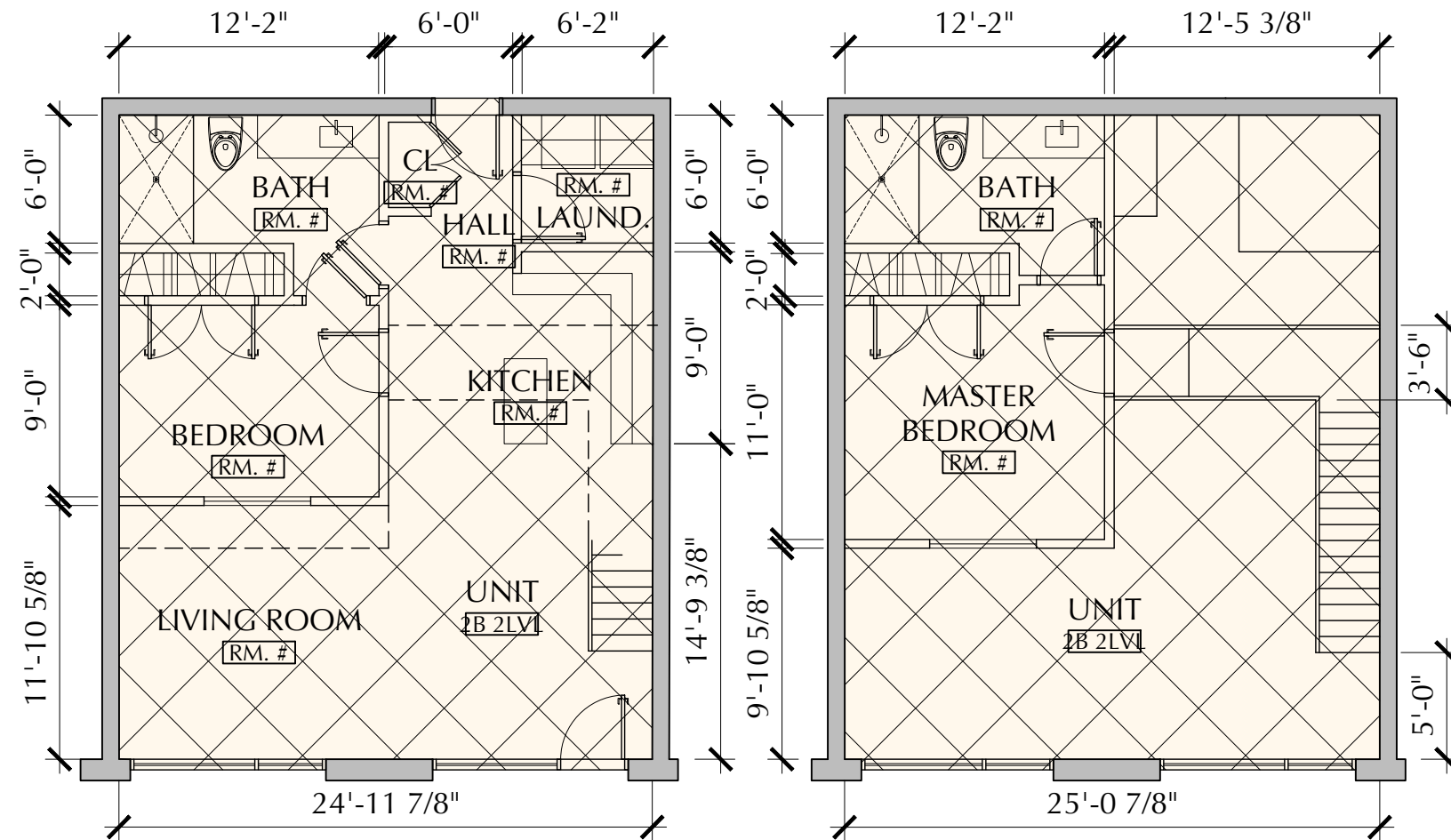
2 Bedroom 2 Level Unit (below + Den Units):

1st Level = 963 sf
Room Below = 596 sf
Mezzanine = 287 sf (< 50% Room Below)
13 @ 1,250 sf



2 Bedroom + Den 2 Level Unit (below No Den Units):

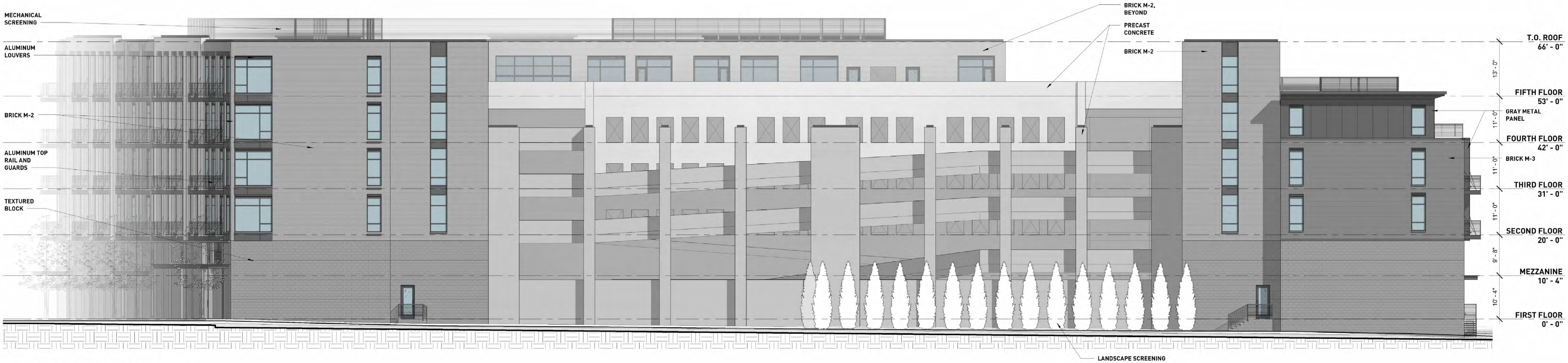
1st Level = 1,229 sf
Room Below = 774 sf
Mezzanine = 379 sf (< 50% Room Below)
3 @ 1,608 sf



2 Bedroom 2 Level Unit (below No Den Units):

1st Level = 823 sf
Room Below = 577 sf
Mezzanine = 268 sf (< 50% Room Below)
1 @ 1,066 sf

UNIT LAYOUTS



1 SOUTH ELEVATION (ALLEY)
SCALE: 3/32" = 1'-0"



2 EAST ELEVATION (ADAMS ST.)
SCALE: 3/32" = 1'-0"



1 NORTH ELEVATION (HAYNES)

SCALE: 3/32" = 1'-0"



2 WEST ELEVATION (WORTH ST.)

SCALE: 3/32" = 1'-0"

ADAMS/HAYNES DEVELOPMENT
1000 Haynes street
Michigan 48009



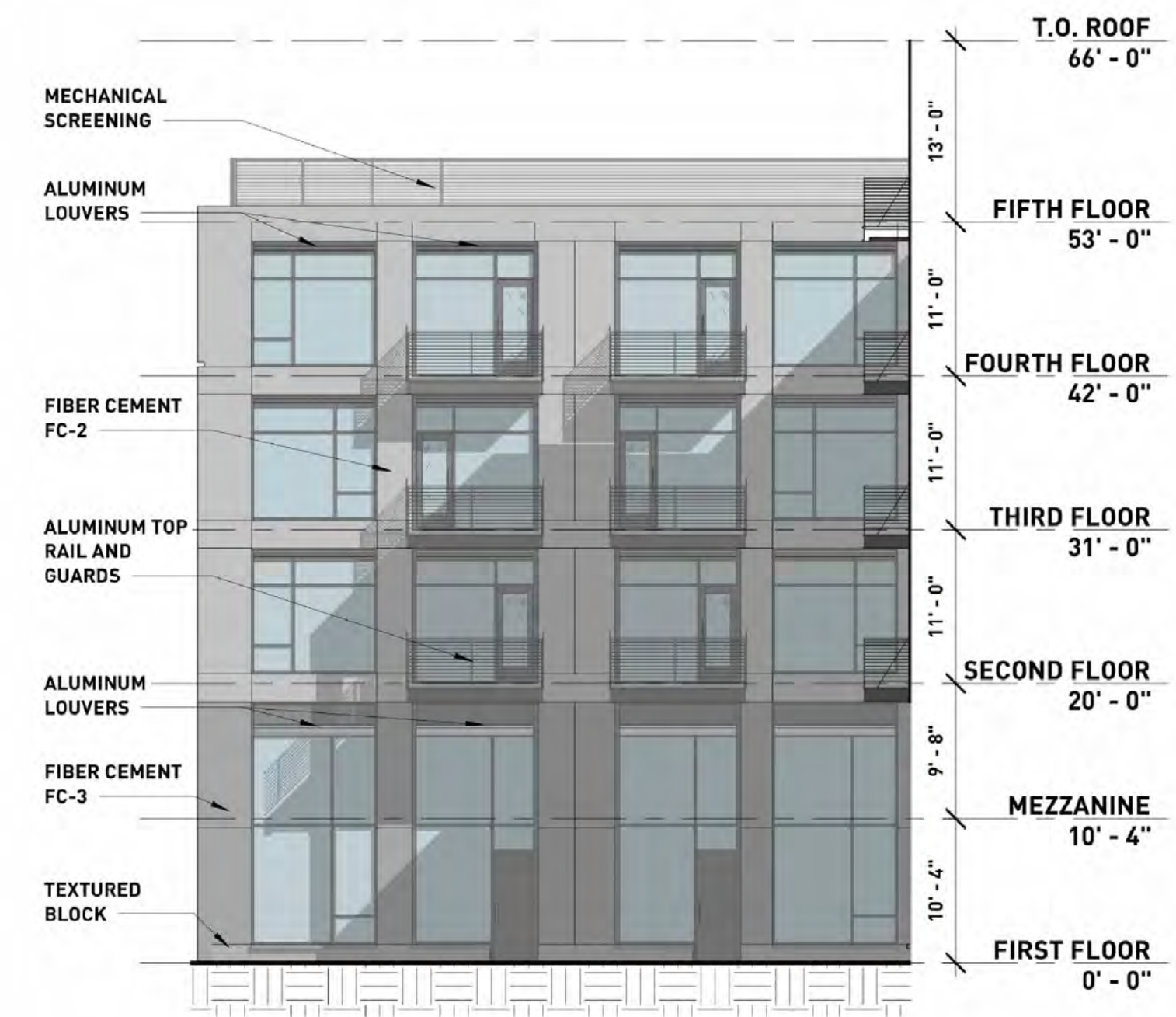
1 COURTYARD NORTH ELEVATION 3/32
SCALE: 3/32" = 1'-0"



2 COURTYARD WEST ELEVATION 3/32
SCALE: 3/32" = 1'-0"



3 COURTYARD SOUTH ELEVATION 3/32
SCALE: 3/32" = 1'-0"



4 COURTYARD EAST ELEVATION 3/32
SCALE: 3/32" = 1'-0"



HAYNES AND WORTH
(STREET VIEW)



WORTH STREET VIEW
(STREET VIEW)

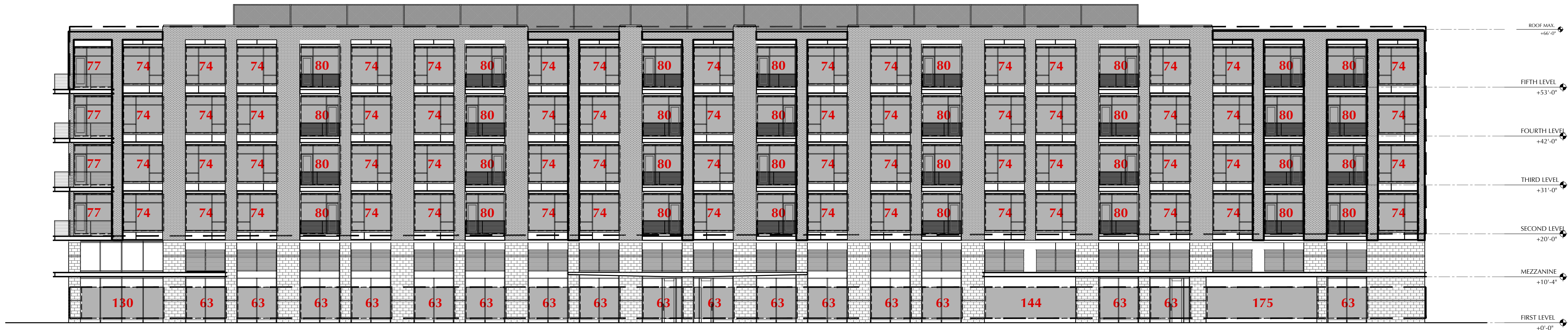


ADAMS VIEW
(STREET VIEW)



ADAMS VIEW
(STREET VIEW)

ADAMS/HAYNES DEVELOPMENT
770 South Adams + 1000 Haynes Street
Birmingham, Michigan 48009



SOUTH WORTH STREET

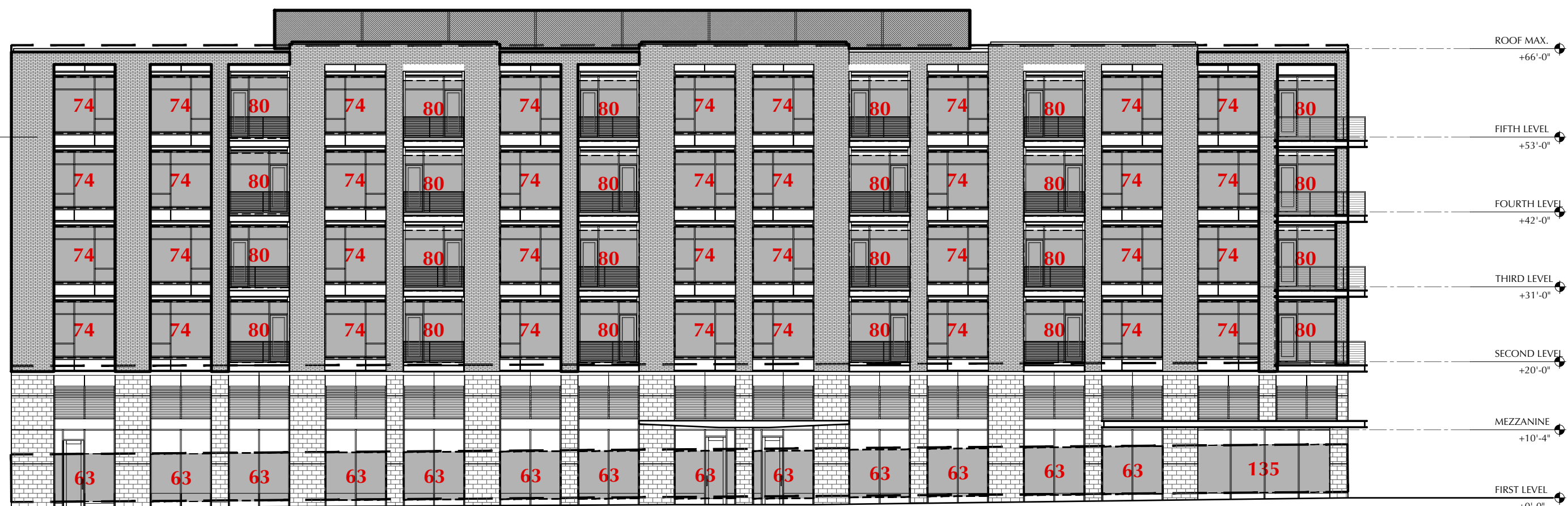
REQUIRED VLT:
10% FLOOR BETWEEN 1 AND 8 FT. MUST BE 70% MIN. VLT
UPPER FLOORS MUST BE 50% MAX. VLT

SOUTH WORTH STREET 1ST LEVEL FROM 1'-0" TO 10'-0"
UPPER FLOORS IN OCCUPANCY WITH PERSONS
GLAZING: 12,550 SF = 36%
SCALE: 1/8" = 1'-0"

(12,550/100) / 2.135 = 71.1%

SOUTH WORTH STREET UPPER LEVEL GLAZING
GLAZING: 12,550 SF = 36%
SCALE: 1/8" = 1'-0"

(12,550/100) / 14.296 = 51.6%



HAYNES STREET

REQUIRED VLT:
10% FLOOR BETWEEN 1 AND 8 FT. MUST BE 70% MIN. VLT
UPPER FLOORS MUST BE 50% MAX. VLT

HAYNES STREET 1ST LEVEL FROM 1'-0" TO 10'-0"
UPPER FLOORS IN OCCUPANCY WITH PERSONS
GLAZING: 954 SF = 6%
SCALE: 1/8" = 1'-0"

(954/100) / 1.383 = 69%

HAYNES STREET UPPER LEVEL GLAZING
GLAZING: 954 SF = 6%
SCALE: 1/8" = 1'-0"

(954/100) / 52.10 = 36%



SOUTH ADAMS STREET

REQUIRED VLT:
10% FLOOR BETWEEN 1 AND 8 FT. MUST BE 70% MIN. VLT
UPPER FLOORS MUST BE 50% MAX. VLT

SOUTH ADAMS STREET 1ST LEVEL FROM 1'-0" TO 10'-0"
UPPER FLOORS IN OCCUPANCY WITH PERSONS
GLAZING: 12,550 SF = 36%
SCALE: 1/8" = 1'-0"

(12,550/100) / 1.586 = 22%

SOUTH ADAMS STREET UPPER LEVEL GLAZING
GLAZING: 12,550 SF = 36%
SCALE: 1/8" = 1'-0"

(12,550/100) / 7.854 = 69%

GLAZING CALCULATIONS

CHRISTOPHER J LONGE AIA
ARCHITECTURE
INTERIORS
124 Peabody, Birmingham, Michigan 48009 248.258.8940



DTE PAD-MOUNTED TRANSFORMER
DIMENSIONS (THE PAD IS 7'-2" WIDE BY 6'-2" DEEP).
TRANSFORMER IS APPROXIMATELY 6" SHORTER IN EACH
DIMENSION. 72" HIGH.

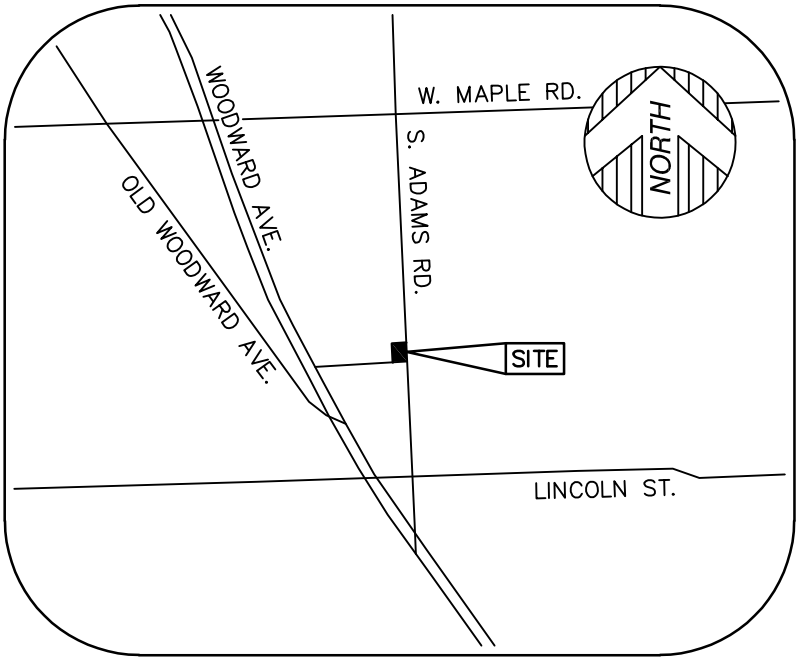


DTE PRIMARY SWITCH
PAD IS APPROXIMATELY 36" WIDE BY 44"
DEEP. SWITCH IS ABOUT 44" HIGH.



GENERATOR DIMENSIONS
222" LONG, 86" WIDE, 108" HIGH.

GROUND MOUNTED EQUIPMENT



VICINITY MAP
(NOT TO SCALE)

PARKING

HANDICAP PARKING = 2 STALLS
STANDARD PARKING = 53 STALLS

PARCEL AREA

28,760± SQUARE FEET = 0.660± ACRES

BASIS OF BEARING

SOUTH 03°28'46" EAST, BEING THE WEST LINE OF ADAMS ROAD, PER GPS OBSERVATION, MICHIGAN STATE PLANE COORDINATE SOUTH ZONE

BENCHMARK

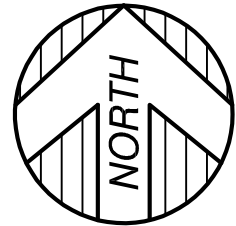
SITE BENCHMARK
MAG NAIL IN THE EAST FACE OF THE UTILITY POLE NEAR THE SOUTHWEST PROPERTY CORNER
ELEVATION = 756.13' (NAVD 88 DATUM)

SURVEYOR'S NOTE

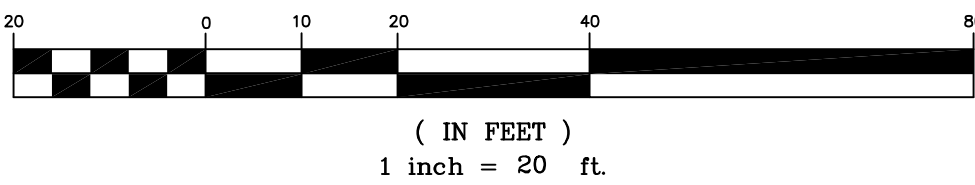
THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES OTHER THAN THE STRUCTURE INVENTORY SHOWN HEREON.

LEGEND

●	SET 1/2" REBAR WITH CAP P.S. 47976
●	FOUND MONUMENT (AS NOTED)
(R&M)	RECORD AND MEASURED DIMENSION
(R)	RECORD DIMENSION
(M)	MEASURED DIMENSION
X 0.00	GROUND ELEVATION
⊞	ELECTRIC PANEL
⊞	UTILITY POLE
⊞	GAS METER
⊞	GAS VALVE
⊞	GENERATOR
⊞	TELEPHONE MANHOLE
⊞	CLEANOUT
⊞	SANITARY MANHOLE
⊞	ROUND CATCH BASIN
⊞	SQUARE CATCH BASIN
⊞	WATER VALVE
⊞	LIGHTPOST/LAMP POST
⊞	MAIL BOX
⊞	SINGLE POST SIGN
⊞	HANDICAP PARKING
⊞	DECIDUOUS TREE (AS NOTED)
⊞	CONIFEROUS TREE (AS NOTED)
---	PARCEL BOUNDARY LINE
---	PLATTED LOT LINE
---	BUILDING
---	BUILDING OVERHANG
---	CONCRETE CURB
---	PARKING
---	EDGE OF CONCRETE (CONC.)
---	EDGE OF ASPHALT (ASPH.)
X	FENCE (AS NOTED)
---	WALL (AS NOTED)
---	OVERHEAD UTILITY LINE
---	COMMUNICATION LINE
---	GAS LINE
---	SEWER LINE
---	WATER LINE
---	MINOR CONTOUR LINE
---	MAJOR CONTOUR LINE
---	BUILDING AREA
---	ASPHALT
---	CONCRETE



GRAPHIC SCALE



PROPERTY DESCRIPTION

THE LAND IS LOCATED IN THE CITY OF BIRMINGHAM, COUNTY OF OAKLAND, STATE OF MICHIGAN, AND DESCRIBED AS FOLLOWS:

LOTS 15, 16 AND 17, O.E. SHATTUCK SUBDIVISION, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN LIBER 8 OF PLATS, PAGE 14, OAKLAND COUNTY RECORDS.

TITLE REPORT NOTE

ONLY THOSE EXCEPTIONS CONTAINED WITHIN THE WESTCOR LAND TITLE INSURANCE COMPANY FILE No. LIB153701, DATED 4/1/2021, AND RE-LISTED BELOW WERE CONSIDERED FOR THIS SURVEY. NO OTHER RECORDS RESEARCH WAS PERFORMED BY THE CERTIFYING SURVEYOR.

NO SPECIFIC EASEMENTS LISTED

FLOOD NOTE

SUBJECT PARCEL LIES WITHIN:

OTHER AREA (ZONE X): AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.

AS SHOWN ON FLOOD INSURANCE RATE MAP: MAP NUMBER 26125C0537F, DATED 9/29/2006, PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

MANHOLE SCHEDULE

SEWER CATCH BASIN (#15125) RIM=753.70' T/WATER=751.80' BOTTOM=750.40'	SEWER MANHOLE (#15301) RIM=752.81' INV. 12" RCP, SE=747.11' INV. 12" RCP, NW=746.64' INV. 12" RCP, S=748.21'
SEWER CATCH BASIN (#15304) UNABLE TO OPEN RIM=755.77' RIM=753.00'	SEWER MANHOLE (#15300) RIM=753.00' INV. 12" RCP, NW=746.55' INV. 42" RCP, N=741.20' INV. 42" RCP, S=741.20'
SEWER CATCH BASIN (#15010) RIM=754.59' INV. RCP, NE=749.62'	SEWER CATCH BASIN (#15010) RIM=754.59' INV. 12" RCP, NW=750.17' INV. 12" RCP, W=750.47'
SEWER CATCH BASIN (#15230) RIM=754.33' INV. 12" RCP, NW=750.17' INV. 12" RCP, W=750.47'	SEWER CATCH BASIN (#15230) RIM=754.33' INV. 12" RCP, NW=750.17' INV. 12" RCP, W=750.47'
SEWER MANHOLE (#15231) RIM=754.33' INV. 42" N=743.56' INV. 42" S=743.56'	SEWER MANHOLE (#10434) RIM=752.36' INV. 12" RCP, NE=747.26' INV. 12" RCP, W=744.06' INV. 42" RCP, N=742.66' INV. 42" RCP, S=742.56'
SEWER MANHOLE (#15232) RIM=754.66' INV. 12" RCP, SE=749.76' INV. 42" RCP, N=742.09' INV. 42" RCP, S=742.02'	SEWER CATCH BASIN (#10433) RIM=753.14' INV. 12" RCP, SE=747.99'
SEWER MANHOLE (#15222) RIM=754.38' INV. 12" RCP, E=750.68'	SEWER CATCH BASIN (#15124) RIM=753.70' T/WATER=751.80' BOTTOM=750.40'

SURVEYOR'S CERTIFICATION

TO WESTCOR LAND TITLE INSURANCE COMPANY; LIBERTY TITLE AGENCY; AND SOAVE REAL ESTATE GROUP:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 7A, 7B1, 7C, 8, 9, 11A, AND 11B OF TABLE A, THEREOF. THE FIELD WORK WAS COMPLETED ON 05/03/21.

DATE OF PLAT OR MAP: 05/04/21

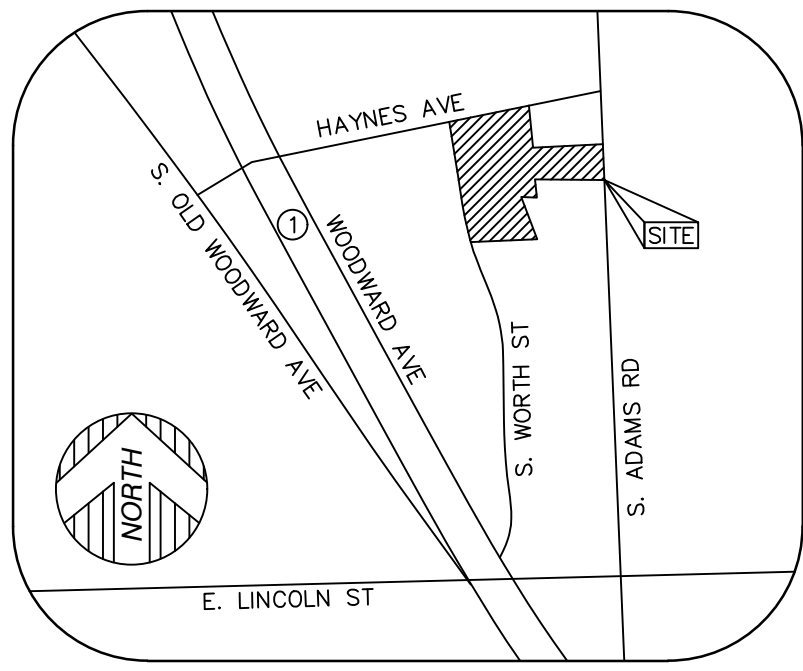
DRAFT

ANTHONY T. SYCKO, JR., P.S.
PROFESSIONAL SURVEYOR
MICHIGAN LICENSE NO. 47976
22556 GRATIOT AVE., EASTPOINTE, MI 48021
TSycko@kemttec-survey.com

ALTA / NSPS LAND TITLE SURVEY
PREPARED FOR: SOAVE REAL ESTATE GROUP
770 S. ADAMS RD., BIRMINGHAM, MICHIGAN,
PART OF SECTION 36,
TOWN 2 NORTH, RANGE 10 EAST

KEM-TEC
PROFESSIONAL ENGINEERING,
SURVEYING & ENVIRONMENTAL
SERVICES
A GROUP OF COMPANIES
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Ann Arbor
Detroit
Eastpointe
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www.kemttecgroupofcompanies.com

DRAWN BY: NS/MRJ	05/04/21
CHECKED BY: ATS	05/04/21
DATE: MAY 04, 2021	
PROJECT NO: 21-01434	SCALE: 1" = 20'



VICINITY MAP
(NOT TO SCALE)

PARKING

HANDICAP PARKING = 3 STALLS
STANDARD PARKING = 62 STALLS

PARCEL AREA

60,759± SQUARE FEET = 1.39± ACRES

BASIS OF BEARING

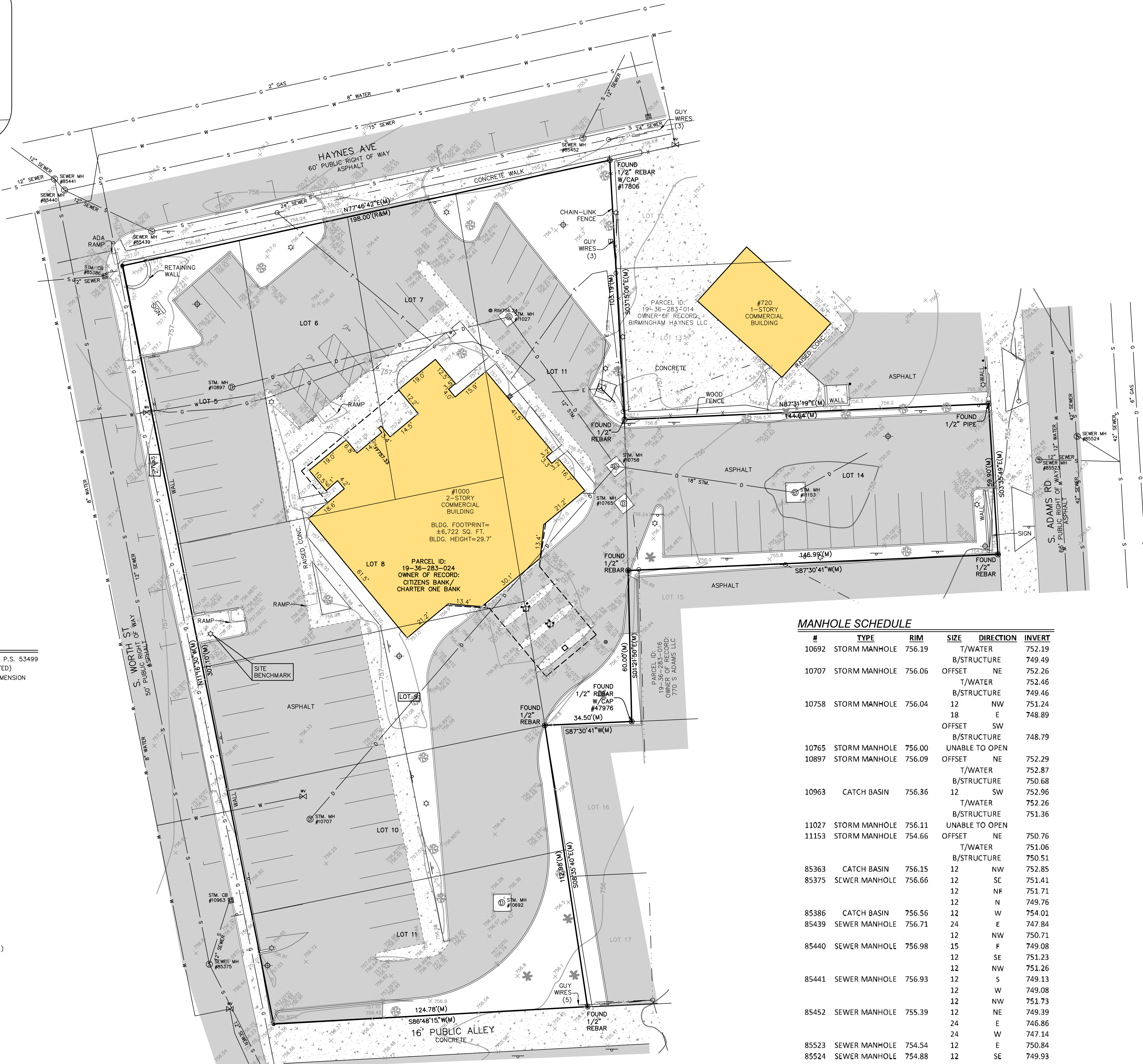
NORTH 77°32'52" EAST, BEING THE SOUTH LINE OF HAYNES ROAD, BASED ON GPS OBSERVATION, MICHIGAN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD83.

BENCHMARK

MAG NAIL IN UTILITY POLE.
ELEVATION = 757.70' (NAVD 88 DATUM)

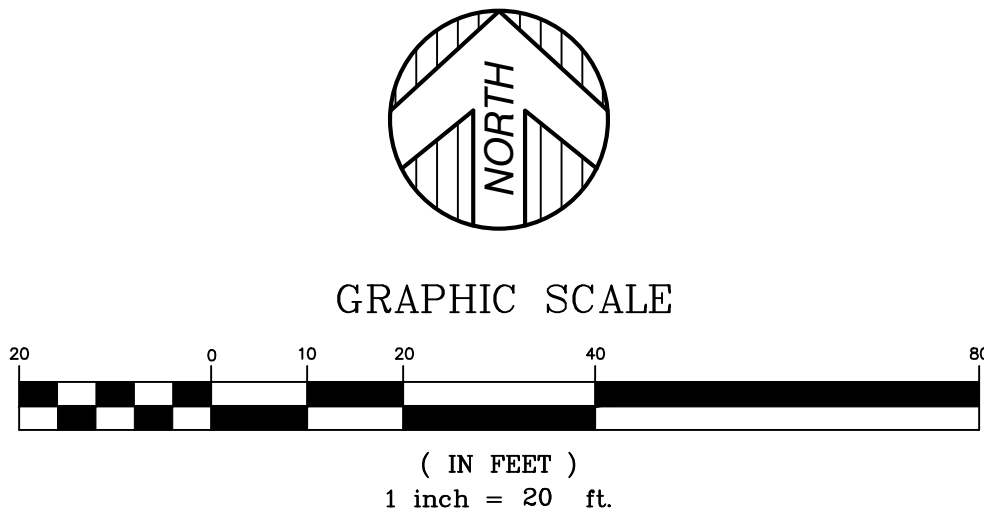
LEGEND

●	SET 1/2" REBAR WITH CAP P.S. 53499
●	FOUND MONUMENT (AS NOTED)
(R&M)	RECORD AND MEASURED DIMENSION
(R)	RECORD DIMENSION
(M)	MEASURED DIMENSION
△	TRANSFORMER
○	UTILITY POLE
⊗	GAS METER
○	CLEANOUT
⊙	SEWER MANHOLE
⊕	SQUARE CATCH BASIN
⊖	STORM DRAIN MANHOLE
⊗	WATER GATE MANHOLE
⊘	WATER VALVE
⊙	BANK CHUTE
⊕	BOLLARD
⊖	FLAGPOLE
⊗	LIGHTPOST/LAMP POST
⊘	SINGLE POST SIGN
⊙	SOIL BORING
⊕	HANDICAP PARKING
---	PARCEL BOUNDARY LINE
---	PLATTED LOT LINE
---	BUILDING
---	BUILDING OVERHANG
---	ASPHALT CURB
---	CONCRETE CURB
---	RAISED CONCRETE
---	PARKING
---	EDGE OF CONCRETE (CONC.)
---	EDGE OF ASPHALT (ASPH.)
---	FENCE (AS NOTED)
---	WALL (AS NOTED)
---	OVERHEAD UTILITY LINE
---	SEWER LINE
---	STORM LINE
---	WATER LINE
---	GAS LINE
---	BUILDING AREA
---	ASPHALT
---	CONCRETE



MANHOLE SCHEDULE

#	TYPE	RIM	SIZE	DIRECTION	INVERT
10692	STORM MANHOLE	756.19	T/WATER		752.19
			B/STRUCTURE		749.49
10707	STORM MANHOLE	756.06	OFFSET	NE	752.26
			T/WATER		752.46
			B/STRUCTURE		749.46
10758	STORM MANHOLE	756.04	12	NW	751.24
			18	E	748.89
			OFFSET	SW	
			B/STRUCTURE		748.79
10765	STORM MANHOLE	756.00	UNABLE TO OPEN		
10897	STORM MANHOLE	756.09	OFFSET	NE	752.29
			T/WATER		752.87
			B/STRUCTURE		750.68
10963	CATCH BASIN	756.36	12	SW	752.96
			T/WATER		752.26
			B/STRUCTURE		751.36
11027	STORM MANHOLE	756.11	UNABLE TO OPEN		
11153	STORM MANHOLE	754.66	OFFSET	NE	750.76
			T/WATER		751.06
			B/STRUCTURE		750.51
85363	CATCH BASIN	756.15	12	NW	752.85
85375	SEWER MANHOLE	756.66	12	SC	751.41
			12	NF	751.71
			12	N	749.76
85386	CATCH BASIN	756.56	12	W	754.01
85439	SEWER MANHOLE	756.71	24	E	747.84
			12	NW	750.71
85440	SEWER MANHOLE	756.98	15	F	749.08
			12	SE	751.23
			12	NW	751.26
85441	SEWER MANHOLE	756.93	12	S	749.13
			12	W	749.08
			12	NW	751.73
85452	SEWER MANHOLE	755.39	12	NE	749.39
			24	E	746.86
			24	W	747.14
85523	SEWER MANHOLE	754.54	12	E	750.84
85524	SEWER MANHOLE	754.88	12	SE	749.93
			42	N	742.33
			42	S	742.23



PROPERTY DESCRIPTION

LAND SITUATED IN THE CITY OF BIRMINGHAM, OAKLAND COUNTY, MICHIGAN, DESCRIBED AS FOLLOWS:

LOTS 11 AND 14, D. E. SHATTUCK SUBDIVISION, VILLAGE, NOW CITY OF BIRMINGHAM, OAKLAND COUNTY, MICHIGAN, ACCORDING TO THE RECORDED PLAT THEREOF, AS RECORDED IN LIBER 8 OF PLATS, PAGE 14, OAKLAND COUNTY RECORDS.

LOTS 5 THROUGH 11, INCLUSIVE, RURAL SUBDIVISION OF LOTS 5, 6, 7, 8, 9 AND 10 OF O.E. SHATTUCK SUBDIVISION IN THE VILLAGE OF BIRMINGHAM, ACCORDING TO THE RECORDED PLAT THEREOF AS RECORDED IN LIBER 16 OF PLATS, PAGE 14, OAKLAND COUNTY RECORDS.

TITLE REPORT NOTE

ONLY THOSE EXCEPTIONS CONTAINED WITHIN THE CHICAGO TITLE INSURANCE COMPANY COMMITMENT No. 63127970NBU, REVISION 3, DATED APRIL 1, 2021, AND RELISTED BELOW WERE CONSIDERED FOR THIS SURVEY. NO OTHER RECORDS RESEARCH WAS PERFORMED BY THE CERTIFYING SURVEYOR.

3. COVENANTS, CONDITIONS, RESTRICTIONS AND EASEMENTS BUT OMITTING ANY COVENANTS OR RESTRICTIONS, IF ANY, INCLUDING BUT NOT LIMITED TO THOSE BASED UPON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, FAMILIAL STATUS, MARITAL STATUS, DISABILITY, HANDICAP, NATIONAL ORIGIN, ANCESTRY, OR SOURCE OF INCOME, AS SET FORTH IN APPLICABLE STATE OR FEDERAL LAWS, EXCEPT TO THE EXTENT THAT SAID COVENANT OR RESTRICTION IS PERMITTED BY APPLICABLE LAW, AS SET FORTH IN THE DOCUMENT RECORDING NO: LIBER 2725, PAGE 284 (SEE DOCUMENT FOR TERMS AND CONDITIONS)

FLOOD NOTE

SUBJECT PARCEL LIES WITHIN:

OTHER AREA (ZONE X): AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.

AS SHOWN ON FLOOD INSURANCE RATE MAP: MAP NUMBER 26125C0537F, DATED 9/29/2006, PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

SURVEYOR'S NOTE

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES OTHER THAN THE STRUCTURE INVENTORY SHOWN HEREON.

SURVEYOR'S CERTIFICATION

TO CHICAGO TITLE INSURANCE COMPANY; CHICAGO TITLE OF MICHIGAN, INC., ARJA HAYNES, LLC, A MICHIGAN LIMITED LIABILITY COMPANY; AND SOAVE REAL ESTATE GROUP.

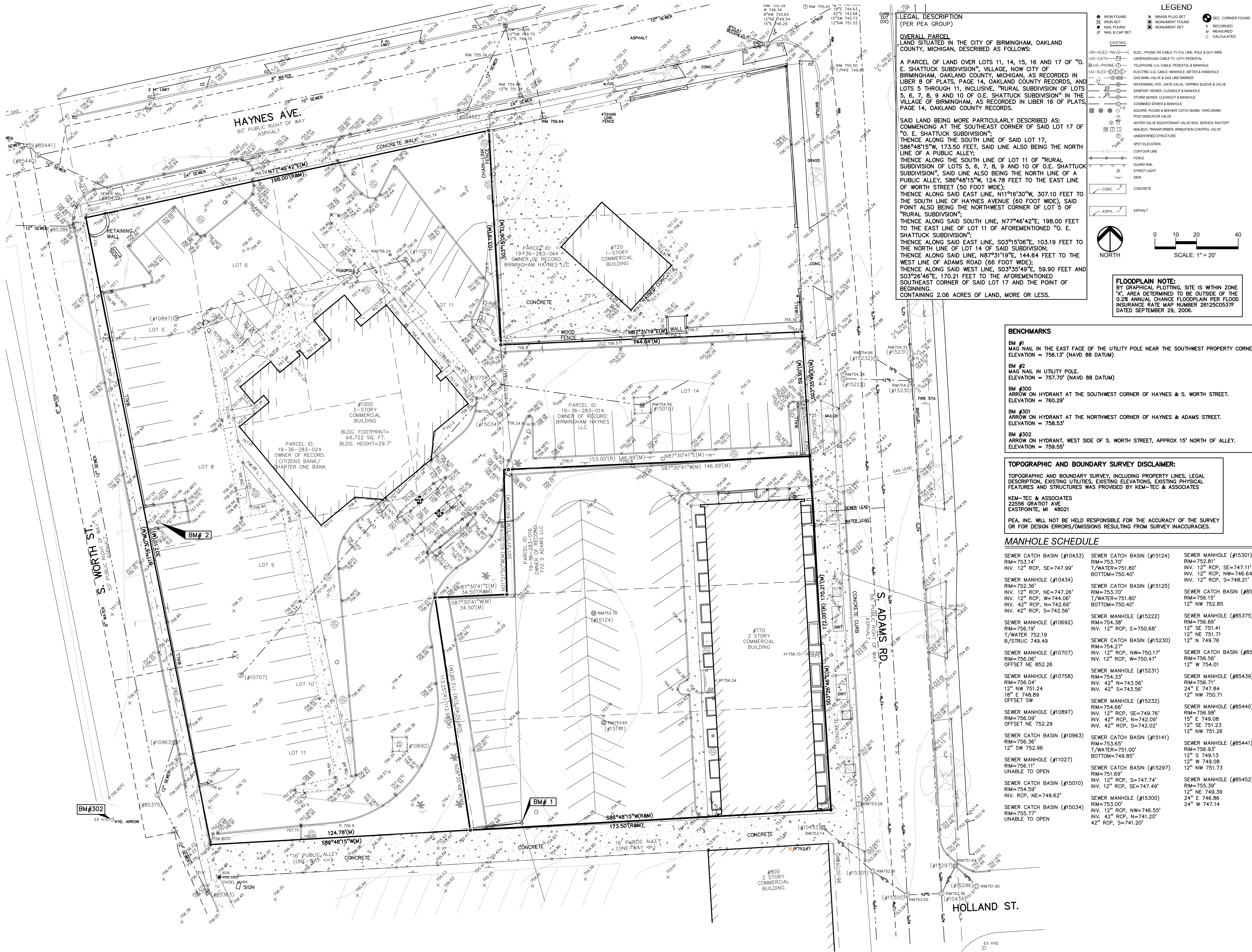
THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 7A, 7B1, 7C, 8, 9, 11A, AND 11B OF TABLE A, THEREOF. THE FIELD WORK WAS COMPLETED ON 05/11/21.

DATE OF PLAT OR MAP: 05/12/21

DRAFT

DANIEL J. JACKSON
PROFESSIONAL SURVEYOR
MICHIGAN LICENSE NO. 53499
22556 GRATIOT AVE., EASTPOINT, MI 48021
d.jackson@kemtec-survey.com

DATE	BY	REVISION	DESCRIPTION
05/12/21	MRJ		
05/12/21	DJ		
MAY 12, 2021			
21-01433			
1" = 20'			





HADCO LUMINAIRE C8191B
120-277 VAC
LED FIXTURE
4000K COLOR TEMP.
3000 LUMENS
QUANTITY: 17

NOTE:
THE DEVELOPER SHALL CONTACT DTE TO
COORDINATE AND CONTRACT THE INSTALLATION OF
THE LIGHTING FIXTURES TO THE CITY'S SYSTEM. THIS
WILL BE FUNDED BY THE DEVELOPER.

5 PEDESTRIAN LIGHTING

NOT TO SCALE



35 SIT BACKED BENCH, 72"
35 COLLECTION
SURFACE MOUNT
POWDER COAT: SILVER
LANDSCAPE FORMS
PHONE: 800.521.2546
QUANTITY: 4

4 BENCH

NOT TO SCALE



35 PITCH LITTER RECEPTACLE
35 COLLECTION
SIDE OPENING, SURFACE MOUNT
POWDER COAT: SILVER
BLACK POLYETHYLENE
LANDSCAPE FORMS
PHONE: 800.521.2546
QUANTITY: 4

3 TRASH RECEPTACLE

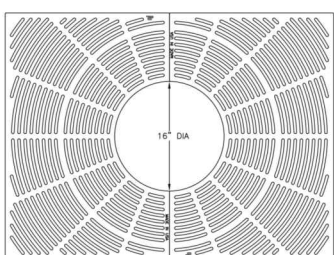
NOT TO SCALE



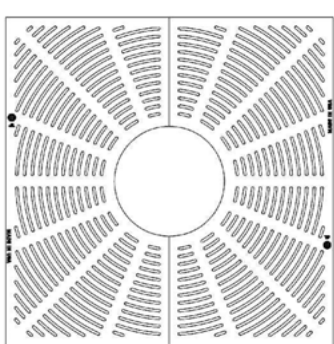
LOOP BIKE RACK
SURFACE MOUNT
POWDER COAT: SILVER
LANDSCAPE FORMS
PHONE: 800.521.2546
QUANTITY: 3

2 BIKE HOOP

NOT TO SCALE



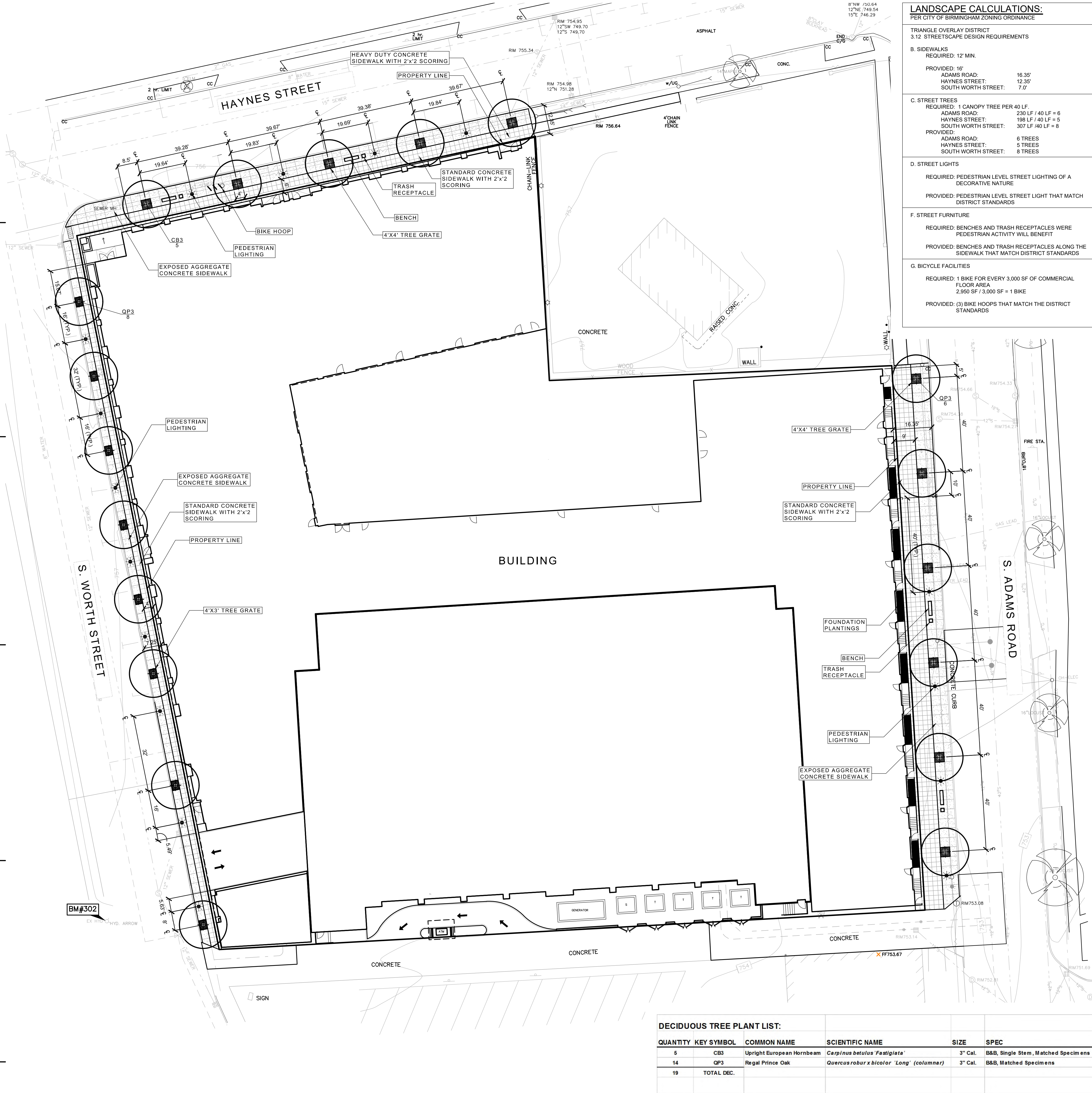
8650 48" X 36" TREE GRATE SET
PRODUCT NUMBER: 00869000
MATERIAL: GRAY IRON
MANUFACTURER: EJ
PHONE: 800.626.4653
QUANTITY: 8



V8954-1 PLAZA 48" SQUARE TREE GRATE
PRODUCT NUMBER: 48954100
MATERIAL: GRAY IRON
MANUFACTURER: EJ
PHONE: 800.626.4653
QUANTITY: 11

1 TREE GRATES

NOT TO SCALE



LANDSCAPE CALCULATIONS:

PER CITY OF BIRMINGHAM ZONING ORDINANCE

TRIANGLE OVERLAY DISTRICT
3.12 STREETScape DESIGN REQUIREMENTS

B. SIDEWALKS
REQUIRED: 12' MIN.

PROVIDED: 16'
ADAMS ROAD: 16.35'
HAYNES STREET: 12.35'
SOUTH WORTH STREET: 7.0'

C. STREET TREES

REQUIRED: 1 CANOPY TREE PER 40 LF
ADAMS ROAD: 230 LF / 40 LF = 6
HAYNES STREET: 188 LF / 40 LF = 5
SOUTH WORTH STREET: 307 LF / 40 LF = 8

PROVIDED:
ADAMS ROAD: 6 TREES
HAYNES STREET: 5 TREES
SOUTH WORTH STREET: 8 TREES

D. STREET LIGHTS

REQUIRED: PEDESTRIAN LEVEL STREET LIGHTING OF A
DECORATIVE NATURE
PROVIDED: PEDESTRIAN LEVEL STREET LIGHT THAT MATCH
DISTRICT STANDARDS

F. STREET FURNITURE

REQUIRED: BENCHES AND TRASH RECEPTACLES WERE
PEDESTRIAN ACTIVITY WILL BENEFIT
PROVIDED: BENCHES AND TRASH RECEPTACLES ALONG THE
SIDEWALK THAT MATCH DISTRICT STANDARDS

G. BICYCLE FACILITIES

REQUIRED: 1 BIKE FOR EVERY 3,000 SF OF COMMERCIAL
FLOOR AREA
2,950 SF / 3,000 SF = 1 BIKE
PROVIDED: (3) BIKE HOOPS THAT MATCH THE DISTRICT
STANDARDS

CHRISTOPHER J LONGE AIA
ARCHITECTURE
INTERIORS
124 Peabody, Birmingham, Michigan 48009 248.258.6940

FHS-BHM
Adams/Haynes Mixed
Use Development

PEA
GROUP

t: 844.813.2949
www.peagroup.com
PEA JOB #2021-0401

Issued for

12.16.2021 100% SD

Drawn ☐ Preliminary

Checked ☐ Construction

RMM

Approved

MW

Biopak Number

Do not scale
Use figured
dimensions only

Job Number

2021089

Title

PRELIMINARY
LANDSCAPE
PLAN

Sheet

L-1.0

SOUTHFIELD • DETROIT
400 Galleria Officecentre
Suite 555
Southfield, Michigan 48034
phone 248.352.8310
fax 248.352.1821
www.neumannsmith.com

CHRISTOPHER J LONGE AIA
ARCHITECTURE
INTERIORS
124 Peabody, Birmingham, Michigan 48009 248.258.6940

 **Oakwood Design**
31805 Bond, Blvd.
Farmington Hills, MI
248-254-3420

FHS-BHM
Adams/Haynes Mixed
Use Development



EXTERIOR LIGHTING DESIGN CONCEPT-WEST
3/52"=1'-0"

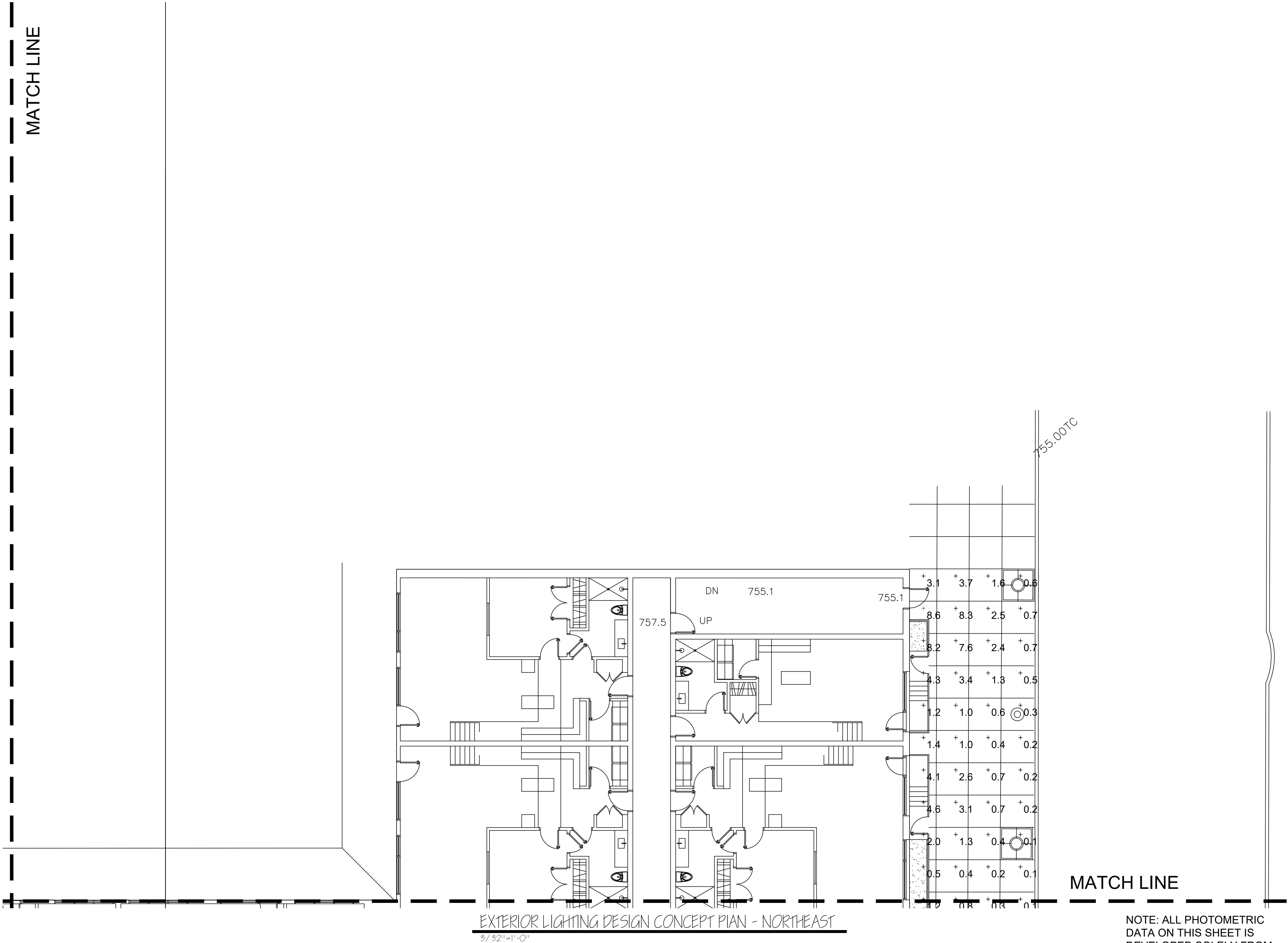
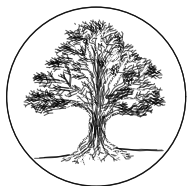
Issued for



EXTERIOR LIGHTING DESIGN CONCEPT-NORTH
3/52"=1'-0"

Drawn	☐ Preliminary
Checked	☐ Construction
	☐ Record
Approved	Do not scale Use figured dimensions only
Bidpak Number	
Job Number	2021089
Title	

Sheet



Issued for

Drawn ☐ Preliminary
☐ Construction
Checked ☐ Record
Approved **Do not scale**
Use figured dimensions only
Bidpak Number

Job Number
2021089
Title

Sheet

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INTERIORS
124 Peabody, Birmingham, Michigan 48009 248.258.6940



Oakwood Design

31805 Bond. Blvd.
Farmington Hills, MI
248-254-3420

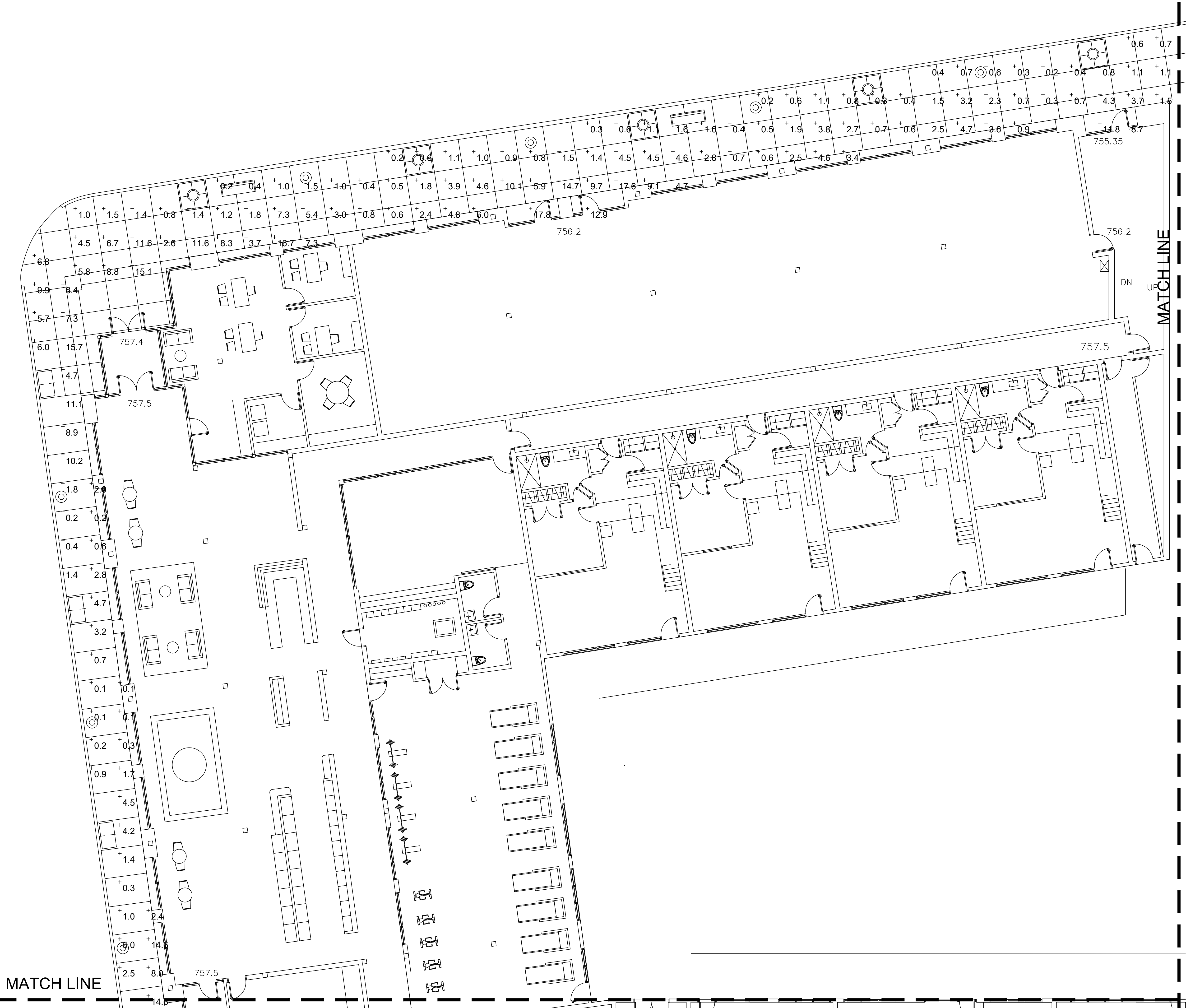
FHS-BHM
Adams/Haynes Mixed
Use Development

Issued for

Drawn	☐ Preliminary
Checked	☐ Construction
	☐ Record
Approved	Do not scale Use figured dimensions only
Bidpak Number	
Job Number	2021089
Title	

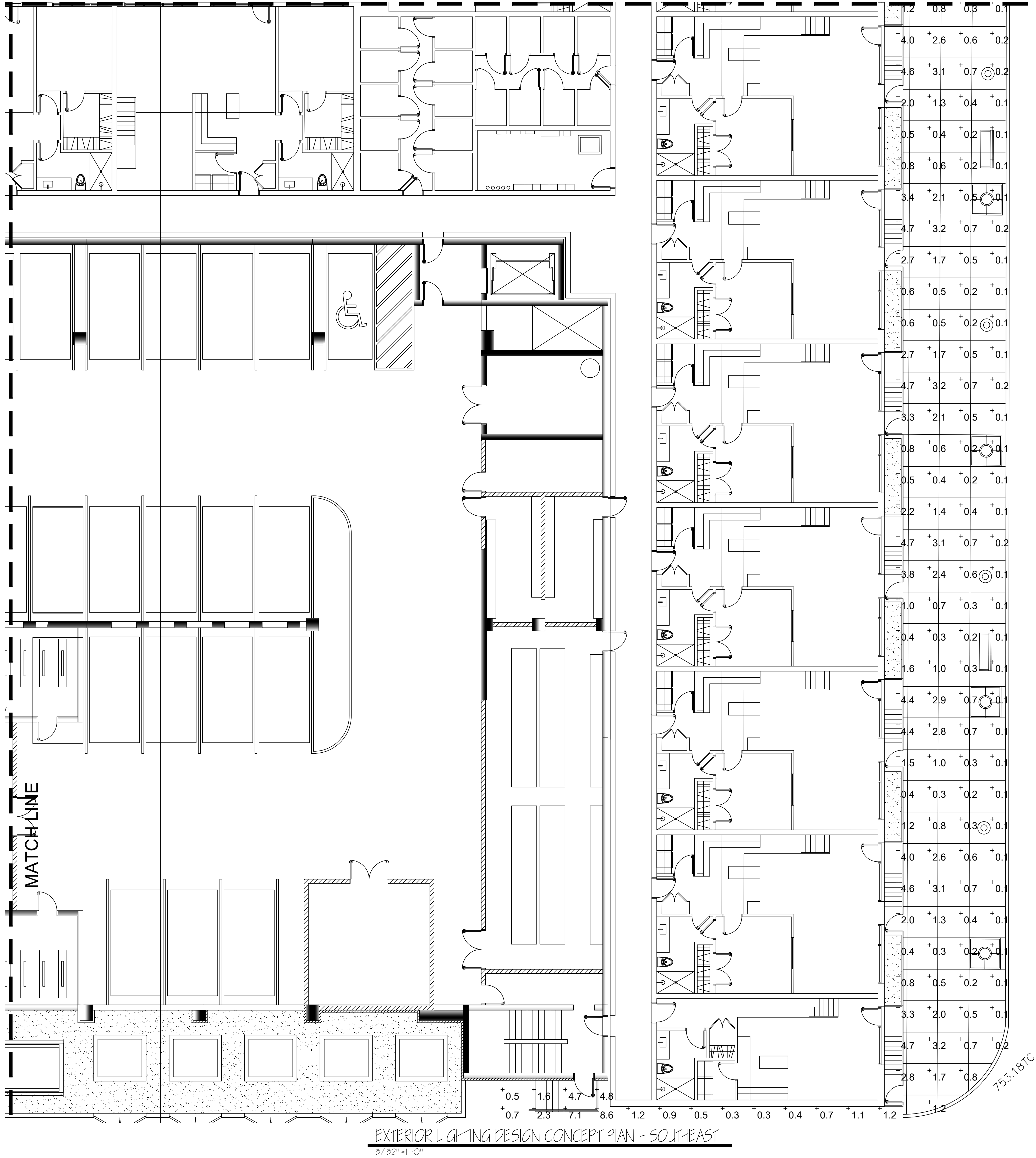
Sheet

NOTE: ALL PHOTOMETRIC DATA ON THIS SHEET IS DEVELOPED SOLELY FROM BUILDING MOUNTED LUMINAIRES AND MEASURED IN FOOTCANDLES AT GRADE LEVEL WITH THE METER FACING STRAIGHT UP. DATA ASSUMES UPPER LEVEL BALCONY LIGHTING IS CONTROLLED FROM THE UNIT PANELS AND TURNED OFF. PHOTOMETRIC DATA IS FOR CURRENT FIXTURE SELECTIONS AND SUBSTITUTIONS MAY ALTER VALUES.



MATCH LINE

EXTERIOR LIGHTING DESIGN CONCEPT PLAN - NORTHWEST
3/32"=1'-0"



MATCH LINE

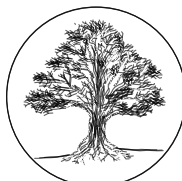
architecture

NEUMANN
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Oakewood Design
31805 Bond, Blvd.
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248-254-3420

FHS-BHM
Adams/Haynes Mixed
Use Development

Issued for

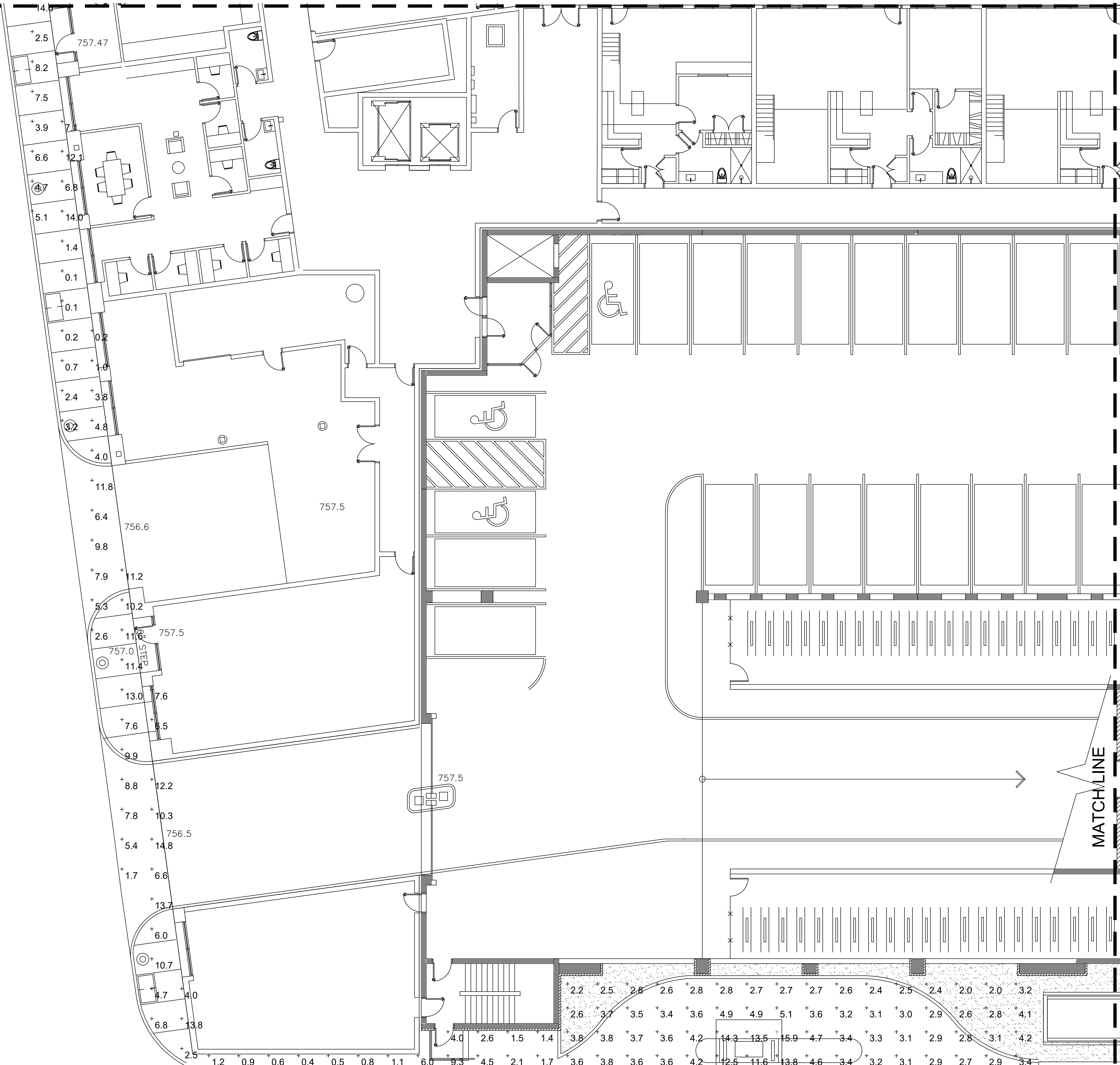
NOTE: ALL PHOTOMETRIC
DATA ON THIS SHEET IS
DEVELOPED SOLELY FROM
BUILDING MOUNTED
LUMINAIRES AND MEASURED
IN FOOTCANDLES AT GRADE
LEVEL WITH THE METER
FACING STRAIGHT UP.
DATA ASSUMES UPPER LEVEL
BALCONY LIGHTING IS
CONTROLLED FROM THE UNIT
PANELS AND TURNED OFF.
PHOTOMETRIC DATA IS FOR
CURRENT FIXTURE
SELECTIONS AND
SUBSTITUTIONS MAY ALTER
VALUES.

Drawn	☐ Preliminary
Checked	☐ Construction
	☐ Record
Approved	Do not scale
Bidpak Number	Use figured dimensions only

Job Number	2021089
Title	

Sheet

MATCH LINE



EXTERIOR LIGHTING DESIGN CONCEPT PLAN - SOUTHWEST

3/32"=1'-0"

NOTE: ALL PHOTOMETRIC DATA ON THIS SHEET IS DEVELOPED SOLELY FROM BUILDING MOUNTED LUMINAIRES AND MEASURED IN FOOTCANDLES AT GRADE LEVEL WITH THE METER FACING STRAIGHT UP. DATA ASSUMES UPPER LEVEL BALCONY LIGHTING IS CONTROLLED FROM THE UNIT PANELS AND TURNED OFF. PHOTOMETRIC DATA IS FOR CURRENT FIXTURE SELECTIONS AND SUBSTITUTIONS MAY ALTER VALUES.



SOUTHFIELD • DETROIT
400 Galleria Offcentre
Suite 555
Southfield, Michigan 48034
phone 248.352.8310
fax 248.352.1821
www.neumannsmith.com

CHRISTOPHER J LONGE AIA
ARCHITECTURE
INTERIORS
124 Peabody, Birmingham, Michigan 48009 248.258.6940



Oakwood Design
31805 Bond, Blvd.
Farmington Hills, MI
248-254-3420

FHS-BHM
Adams/Haynes Mixed
Use Development

Issued for

Drawn ☐ Preliminary
☐ Construction
Checked ☐ Record
Approved **Do not scale**
Use figured dimensions only
Bidpak Number

Job Number
2021089
Title

Sheet

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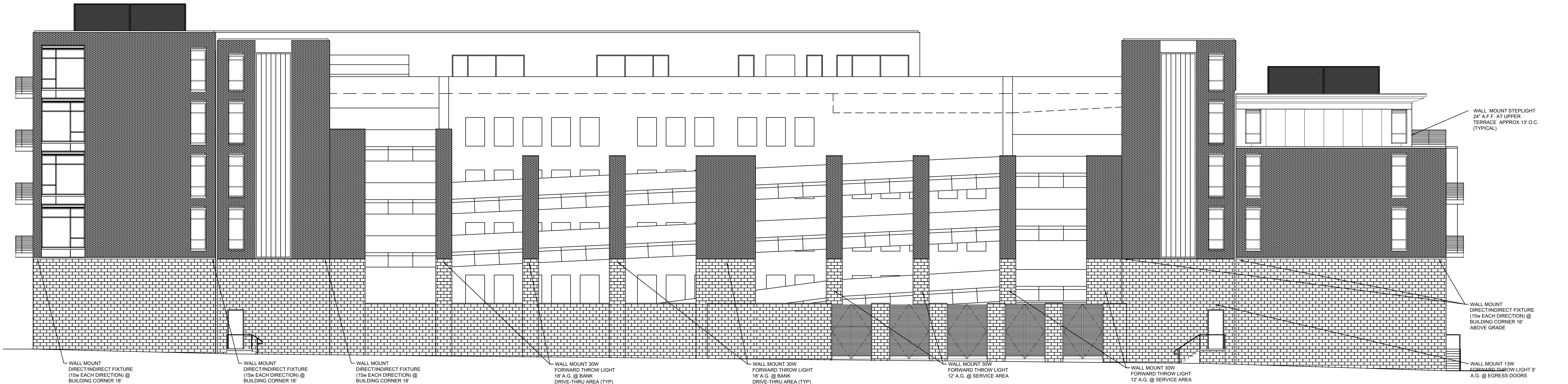
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FHS-BHM
Adams/Haynes Mixed
Use Development



EXTERIOR LIGHTING DESIGN CONCEPT-EAST

3/32"=1'-0"



EXTERIOR LIGHTING DESIGN CONCEPT-SOUTH

3/32"=1'-0"

Issued for

Drawn ☐ Preliminary
☐ Construction
Checked ☐ Record
Approved **Do not scale**
Use figured dimensions only
Bidpak Number
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2021089
Title

Sheet

Community Impact Study

Adams and Haynes

770 South Adams Road + 1000 Haynes Street
Birmingham, Michigan 48009



Prepared By

Christopher J. Longe, AIA
124 Peabody Street
Birmingham, Michigan 48009

Owner

FHS Birmingham, LLC
3400 East Lafayette
Detroit, Michigan 48207

Adam and Haynes

Birmingham, Michigan

Development Team

Owner:

FHS Birmingham, LLC
3400 East Lafayette
Detroit, Michigan 48207
(248) 760-6291
Contact: Nico Schultz

Civil Engineer:

PEA Group
2430 Rochester Ct. Suite 100
Troy, Michigan 48083
(734) 994-4000
Contact: John B. Thompson

Acoustical Engineer:

Kolano and Saha Engineers, Inc.
3559 Sashabaw Road
Waterford, Michigan 48329
(248) 674-4100
Contact: Darren Brown

Environmental Consultant

PM Environmental, Inc
Corporate Headquarters Lansing
3340 Ranger Road
Lansing, Michigan 49806
(800) 313-2966
Contact: Adam Patton

Soils/Environmental Engineer:

McDowell & Associates
21355 Hatcher Avenue
Ferndale, Michigan 48220
(248) 399-2066
Contact: Dan Kaniarz

Parking Consultant:

Rich & Associates, Inc.
26877 Northwestern Hwy, Suite 208
Southfield, Michigan 48033
(248) 353-5080
Contact: David Rich; Matthew Jobin

Design Architect:

Christopher J. Longe, AIA Architecture
124 Peabody Street
Birmingham, Michigan 48009
(248) 258-6940
Contact: Christopher Longe

Architect of Record:

Neumann/Smith Architecture
400 Galleria Officentre Suite 555
Southfield, Michigan 48034
(248) 352-8310
Contact: Joel Smith; Michael West; Bob McLean

Traffic Engineer:

ROWE Professional Services Company
540 Saginaw Street, Suite 200
Flint, Michigan 48502
(810) 341-7500
Contact: Mike Labadie

MEP Engineer:

MAEngineering
400 South Old Woodward, Suite 100
Birmingham, Michigan 48009
(248) 258-1610
Contact: Salim Sessine, Scott Wheeler, Chris Bayer

Structural Engineer:

RESURGET ENGINEERING PC
4219 Woodward Avenue, Suite 306
Detroit, Michigan 48201
(313) 315-3290
Contact: Marc Steinhobel; Jason Krolicki

Landscape Engineering:

Grissim Metz Andriese Associates
311 East Cady Street
Northville, Michigan 48167
(248) 347-7010
Contact: Randy Metz;, Andrew Parin

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Section 1

Combined CIS & Site Plan Review Application



Combined CIS & Site Plan Review Application Planning Division

Form will not be processed until it is completely filled out.

1. Applicant

Name: FHS FHS BIRMINGHAM, LLC
Address: 3400 EAST LAFAYETTE
DETROIT, MICHIGAN 48207
Phone Number: 248.760.6291
Fax Number: _____
Email address: NICO.SCHULTZ@SOAVE.COM

2. Property Owner

Name: FHS BIRMINGHAM, LLC
Address: 3400 EAST LAFAYETTE
DETROIT, MICHIGAN 48207
Phone Number: 248.760.6291
Fax Number: _____
Email address: NICO.SCHULTZ@SOAVE.COM

3. Applicant's Attorney/Contact Person

Name: RICK RATTNER (WWRP)
Address: 380 NORTH OLD WOODWARD
BIRMINGHAM, MICHIGAN 48009
Phone Number: 248.642.0333
Fax Number: _____
Email address: RDR@WWRPLAW.COM

4. Project Designer/Developer

Name: CHRISTOPHER J. LONGE, AIA.
Address: 124 PEABODY
BIRMINGHAM, MICHIGAN 48009
Phone Number: 248.258.6940
Fax Number: _____
Email address: CJLONGE@CJLONGEAIA.COM

5. Required Attachments

- I. Two (2) paper copies and one (1) digital copy of all project plans including:
 - i. A detailed Existing Conditions Plan including the subject site in its entirety, including all property lines, buildings, structures, curb cuts, sidewalks, drives, ramps and all parking on site and on the street(s) adjacent to the site, and must show the same detail for all adjacent properties within 200 ft. of the subject site's property lines;
 - ii. A detailed and scaled Site Plan depicting accurately and in detail the proposed construction, alteration or repair;
 - iii. A certified Land Survey;
 - iv. Interior floor plans;

- v. A Landscape Plan;
- vi. A Photometric Plan;
- vii. Colored elevation drawings for each building elevation;
- II. Specification sheets for all proposed materials, light fixtures and mechanical equipment;
- III. Samples of all proposed materials;
- IV. Photographs of existing conditions on the site including all structures, parking areas, landscaping and adjacent structures;
- V. Current aerial photographs of the site and surrounding properties;
- VI. Warranty Deed, or Consent of Property Owner if applicant is not the owner;
- VII. Any other data requested by the Planning Board, Planning Department, or other City Departments.

6. Project Information

Address/Location of the property: 770 SOUTH ADAMS / 1000 HAYNES STREET
Name of development: _____
Sidwell #: 19.36.283.016 (770) / 19.36.283.024 (1000)
Current Use: VACANT OFFICE / BANK
Current zoning: MU-3 / MU-5
Is the property located in the floodplain? NO

Name of Historic District Site is Located in N/A
Date of HDC Approval: N/A
Date of DRB Approval: N/A
Area of Site in Acres: N/A
Proposed Use: APARTMENTS -R3
Will proposed project require the division of platted lots? N/A
Will proposed project require the combination of platted lots? YES

7. Details of the Proposed Development (attach separate sheet if necessary)

770 SOUTH ADAMS ROAD- NEW 4 STORY APARTMENT

1000 HAYNES STREET- NEW 5 STORY APARTMENT

8. Buildings and Structures

Number of Buildings on Site: 1

Height of Buildings & # of Stories: 54 FT (MU-3) 4

66 FT (MU-5) 5

Use of Buildings: APARTMENT

Height of Rooftop Mechanical Equipment: 0

9. Floor Use and Area (in Square Feet)

Proposed Commercial Structures:

Total basement floor area: N/A

Number of square feet per upper floor:

Total floor area:

Floor area ratio (total floor area ÷ total land area):

Open space:

Percent of open space:

Office Space:

Retail Space:

Industrial Space:

Assembly Space:

Seating Capacity:

Maximum Occupancy Load:

Proposed Residential Structures:

Total number of units: 138

Number of one bedroom units: 71

Number of two bedroom units: 63

Number of three bedroom units: 4

Open space: N/A

Percent of open space: N/A

Rental units or condominiums? RENTAL

Size of one bedroom units: 627 TO 963 SF

Size of two bedroom units: 1,066 TO 1,643 SF

Size of three bedroom units: 1,855 SF

Seating Capacity: -

Maximum Occupancy Load:

Proposed Additions:

Total basement floor area, if any, of addition: N/A

Number of floors to be added:

Square footage added per floor:

Total building floor area (including addition):

Floor area ratio (total floor area ÷ total land area):

Open Space:

Percent of open space:

Use of addition:

Height of addition:

Office space in addition:

Retail space in addition:

Industrial space in addition:

Assembly space in addition:

Maximum building occupancy load (including addition):

10. Required and Proposed Setbacks

Required front setback: 0

Required rear setback: 0

Required total side setback: 0

Side setback: 1 FT

Proposed front setback: 1 FT

Proposed rear setback: 1 FT

Proposed total side setback: 2 FT

Second side setback: 1 FT

11. Required and Proposed Parking

Required number of parking spaces: 172

Typical angle of parking spaces: 90 DEGREES

Typical width of maneuvering lanes: 20'

Location of parking on site: INTERIOR PARKING

Location of parking off site: INTERIOR PARKING

Number of light standards in parking area: N/A

Screenwall material: INTERIOR PARKING

Proposed number of parking spaces: 251

Typical size of parking spaces: 9 X 20

Number of spaces <180 sq. ft.: 0

Number of handicap spaces: 12

Shared parking agreement? N/A

Height of light standards in parking area: N/A

Height of screenwall: N/A

12. Landscaping

Location of landscape areas: N/A

Proposed landscape material: _____

13. Streetscape

Sidewalk width: VARIES
Number of benches: 4
Number of planters: _____
Number of existing street trees: _____
Number of proposed street trees: 10
Streetscape Plan submitted? _____

Description of benches or planters: WROUGHT IRON

Species of existing trees: _____

Species of proposed trees: _____

14. Loading

Required number of loading spaces: 0
Typical angle of loading spaces: _____
Screenwall material: 1
Location of loading spaces on site: SOUTH PROPERTY LINE

Proposed number of loading spaces: 1
Typical size of loading spaces: 22 WIDE X 50 LONG X 20 HIGH
Height of screenwall: _____
Typical time loading spaces are used: SCHEDULED

15. Exterior Waste Receptacles

Required number of waste receptacles: TBD.
Location of waste receptacles: _____
Screenwall material: _____

Proposed number of waste receptacles: _____
Size of waste receptacles: _____
Height of screenwall: _____

16. Mechanical Equipment

Utilities and Transformers:

Number of ground mounted transformers: 4 ESTIMATED
Size of transformers (L•W•H): 6X6X6
Number of utility easements: TBD
Screenwall material: GATED/WALLED

Location of all ground mounted utilities: _____
SOUTH PROPERTY LINE

Height of screenwall: _____

Ground Mounted Mechanical Equipment:

Number of ground mounted units: N/A
Size of ground mounted units (L•W•H): _____
Screenwall material: _____

Location of all ground mounted units: _____

Height of screenwall: _____

Rooftop Mechanical Equipment:

Number of rooftop units: TBD.
Type of rooftop units: _____

Screenwall material: _____
Location of screenwall: _____

Location of all rooftop units: _____
Size of rooftop units (L•W•H): _____
Percentage of rooftop covered by mechanical units: _____
Height of screenwall: _____
Distance from rooftop units to all screenwalls: _____

17. Accessory Buildings

Number of accessory buildings: N/A
Location of accessory buildings: _____

Size of accessory buildings: _____
Height of accessory buildings: _____

18. Building Lighting

Number of light standards on building: _____
Size of light fixtures (L•W•H): _____

Type of light standards on building: _____

Height from grade: _____

Maximum wattage per fixture: _____
Light level at each property line: _____

Proposed wattage per fixture: _____

19. Site Lighting

Number of light fixtures: _____
Size of light fixtures (L•W•H): _____
Maximum wattage per fixture: _____
Light level at each property line: _____

Type of light fixtures: _____
Height from grade: _____
Proposed wattage per fixture: _____
Holiday tree lighting receptacles: _____

20. Adjacent Properties

Number of properties within 200 ft.: _____

Property #1

Number of buildings on site: 909 HAYNES
Zoning district: MU-5 (B2)
Use type: OFFICE
Square footage of principal building: UNKNOWN
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 19.36.281.030

North, south, east or west of property? NORTH

Property #2

Number of buildings on site: 999 HAYNES
Zoning district: MU-5 (B2)
Use type: OFFICE
Square footage of principal building: UNKNOWN
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 19.36.281.029

North, south, east or west of property? NORTH

Property #3

Number of buildings on site: 1006 HAYNES
Zoning district: MU-5 (B2)
Use type: OFFICE
Square footage of principal building: UNKNOWN
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 19.36.281.017

North, south, east or west of property? NORTH

Property #4

Number of buildings on site: 600 SOUTH ADAMS
Zoning district: MU-3 (B2)
Use type: OFFICE
Square footage of principal building: UNKNOWN
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 19.36.281.031

North, south, east or west of property? NORTH

Property #5

Number of buildings on site: 725 SOUTH ADAMS
Zoning district: B2
Use type: RETAIL / OFFICE
Square footage of principal building: UNKNOWN
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 20.31.151.002

North, south, east or west of property? EAST

Property #6

Number of buildings on site: 1165 HOLLAND
Zoning district: R3
Use type: RESIDENTIAL
Square footage of principal building: UNKNOWN
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 20.31.151.023

North, south, east or west of property? EAST

Maximum wattage per fixture: _____
Light level at each property line: _____

Proposed wattage per fixture: _____

19. Site Lighting

Number of light fixtures: _____
Size of light fixtures (L•W•H): _____
Maximum wattage per fixture: _____
Light level at each property line: _____

Type of light fixtures: _____
Height from grade: _____
Proposed wattage per fixture: _____
Holiday tree lighting receptacles: _____

20. Adjacent Properties

Number of properties within 200 ft.: _____

Property #7

Number of buildings on site: 1137 HOLLAND
Zoning district: O-2
Use type: OFFICE
Square footage of principal building: UNKNOWN
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 20.31.151.022

North, south, east or west of property? EAST

Property #8

Number of buildings on site: 1111 SOUTH ADAMS
Zoning district: O-2
Use type: OFFICE
Square footage of principal building: UNKNOWN
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 20.31.151.021

North, south, east or west of property? EAST

Property #9

Number of buildings on site: 801 SOUTH ADAMS
Zoning district: O-2
Use type: OFFICE
Square footage of principal building: UNKNOWN
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 20.31.153.066

North, south, east or west of property? EAST

Property #10

Number of buildings on site: 1164 HOLLAND
Zoning district: R3
Use type: RESIDENTIAL
Square footage of principal building: UNKNOWN
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 20.31.153.003

North, south, east or west of property? EAST

Property #11

Number of buildings on site: 1155 WEBSTER
Zoning district: R3
Use type: RESIDENTIAL
Square footage of principal building: UNKNOWN
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 20.31.153.034

North, south, east or west of property? EAST

Property #12

Number of buildings on site: 877 SOUTH ADAMS
Zoning district: O-2
Use type: OFFICE
Square footage of principal building: UNKNOWN
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 20.31.153.062

North, south, east or west of property? SOUTH

Maximum wattage per fixture: _____
Light level at each property line: _____

Proposed wattage per fixture: _____

19. Site Lighting

Number of light fixtures: _____
Size of light fixtures (L•W•H): _____
Maximum wattage per fixture: _____
Light level at each property line: _____

Type of light fixtures: _____
Height from grade: _____
Proposed wattage per fixture: _____
Holiday tree lighting receptacles: _____

20. Adjacent Properties

Number of properties within 200 ft.: _____

Property # 13

Number of buildings on site: 800 SOUTH ADAMS
Zoning district: MU3 & MU5 (B2)
Use type: OFFICE
Square footage of principal building: UNKNOWN
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 19.36.283.009

North, south, east or west of property? SOUTH

Property # 14

Number of buildings on site: VACANT
Zoning district: MU3 (B2)
Use type: PARKING LOT
Square footage of principal building: _____
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 19.36.283.025

North, south, east or west of property? SOUTH

Property # 15

Number of buildings on site: 875 SOUTH WORTH
Zoning district: MU5 (B2)
Use type: OFFICE
Square footage of principal building: UNKNOWN
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 19.36.283.021

North, south, east or west of property? SOUTH

Property # 16

Number of buildings on site: 34200 WOODWARD AVE
Zoning district: MU5 & MU7 (B2)
Use type: RETAIL
Square footage of principal building: UNKNOWN
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 19.36.282.005

North, south, east or west of property? _____

Property # 17

Number of buildings on site: 34300 WOODWARD AVE
Zoning district: MU3 & MU5 (B2)
Use type: RETAIL / OFFICE
Square footage of principal building: UNKNOWN
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 19.36.282.006

North, south, east or west of property? _____

Property # 18

Number of buildings on site: 720 SOUTH ADAMS
Zoning district: MU3 (B2)
Use type: RETAIL (VACANT)
Square footage of principal building: UNKNOWN
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 19.36.283.014

North, south, east or west of property? _____

The undersigned states the above information is true and correct, and understands that it is the responsibility of the applicant to advise the Planning Division and / or Building Division of any additional changes made to an approved site plan. The undersigned further states that they have reviewed the procedures and guidelines for Site Plan Review in Birmingham, and have complied with same. The undersigned will be in attendance at the Planning Board meeting when this application will be discussed.

By providing your e-mail to the City, you agree to receive news notifications from the City. If you do not wish to receive these messages, you may unsubscribe at any time.

Signature of Owner: _____ Date: 01.03.22

Print Name: _____ NICO SCHULTZ

Signature of Applicant: _____ Date: 01.03.22

Print Name: _____ NICO SCHULTZ

Signature of Architect: _____ Date: 01.03.22

Print Name: _____ CHRISTOPHER J. LONGE, AIA.

Office Use Only

Application #: _____ Date Received: _____ Fee: _____

Date of Approval: _____ Date of Denial: _____ Accepted by: _____

Section 2

CIS Checklist



COMBINED SITE PLAN REVIEW & COMMUNITY IMPACT STUDY APPLICATION CHECKLIST- PLANNING DIVISION

Applicant: FHS BIRMINGHAM, LLC Case #: _____ Date: 01.03.22
3400 EAST LAFAYETTE
Address: DETROIT, MICHIGAN 48207 Project: _____

All site plans and elevation drawings prepared for approval shall be prepared in accordance with the following specifications and other applicable requirements of the City of Birmingham. If more than one page is used, each page shall be numbered sequentially. All plans must be legible and of sufficient quality to provide for quality reproduction or recording. Plans must be no larger than 24" x 36", and must be folded and stapled together. The address of the site must be clearly noted on all plans and supporting documentation.

Site Plan

A full Site Plan detailing the proposed changes for which approval is requested shall be drawn at a scale no smaller than 1" = 100' (unless the drawing will not fit on one 24" X 36" sheet) and shall include:

- ☒ 1. Name and address of applicant and proof of ownership;
- ☐ 2. Name of Development (if applicable);
- ☒ 3. Address of site and legal description of the real estate;
- ☒ 4. Name and address of the land surveyor;
- ☒ 5. Legend and notes, including a graphic scale, north point, and date;
- ☒ 6. A separate location map;
- ☒ 7. A map showing the boundary lines of adjacent land and the existing zoning of the area proposed to be developed as well as the adjacent land;
- ☒ 8. Aerial photographs of the subject site and surrounding properties;
- ☒ 9. A detailed and scaled Site Plan depicting accurately and in detail the proposed construction, alteration or repair;
- ☒ 10. A detailed Existing Conditions Plan including the subject site in its entirety, including all property lines, buildings, structures, curb cuts, sidewalks, drives, ramps and all parking on site and on the street(s) adjacent to the site, and must show the same detail for all adjacent properties within 200 ft. of the subject site's property lines;
- ☒ 11. Interior floor plans;
- ☒ 12. A chart indicating the dates of any previous approvals by the Planning Board, Board of Zoning Appeals, Design Review Board, or the Historic District Commission ("HDC");
- ☒ 13. Existing and proposed layout of streets, open space and other basic elements of the plan;
- ☒ 14. Existing and proposed utilities and easements and their purpose;

- ☒ 15. Location of natural streams, regulated drains, 100-year flood plains, floodway, water courses, marshes, wooded areas, isolated preserve-able trees, wetlands, historic features, existing structures, dry wells, utility lines, fire hydrants and any other significant feature(s) that may influence the design of the development;
- ☒ 16. General description, location, and types of structures on site;
- ☒ 17. Location of sidewalks, curb cuts, and parking lots on subject site and all sites within 200 ft. of the property line;
- ☒ 18. Details of existing or proposed lighting, signage and other pertinent development features;
- ☒ 19. Elevation drawings showing proposed design;
- ☒ 20. Screening to be utilized in concealing any exposed mechanical or electrical equipment and all trash receptacle areas;
- ☒ 21. Location of all exterior lighting fixtures;
- ☒ 22. A Photometric Plan depicting proposed illuminance levels at all property lines;
- ☒ 23. A Landscape Plan showing all existing and proposed planting and screening materials, including the number, size, and type of plantings proposed and the method of irrigation; and
- ☒ 24. Any other information requested in writing by the Planning Division, the Planning Board, or the Building Official deemed important to the development.

Elevation Drawings

Complete elevation drawings detailing the proposed changes for which approval is requested shall be drawn at a scale no smaller than 1" = 100' (unless the drawing will not fit on one 24" X 36" sheet) and shall include:

- ☒ 25. Color elevation drawings showing the proposed design for each façade of the building;
- ☒ 26. List of all materials to be used for the building, marked on the elevation drawings;
- ☒ 27. Elevation drawings of all screenwalls to be utilized in concealing any exposed mechanical or electrical equipment, trash receptacle areas and parking areas;
- ☒ 28. Details of existing or proposed lighting, signage and other pertinent development features;
- ☒ 29. A list of any requested design changes;
- ☒ 30. Itemized list and specification sheets of all materials, light fixtures and mechanical equipment to be used, including exact size specifications, color, style, and the name of the manufacturer;
- ☒ 31. Location of all exterior lighting fixtures, exact size specifications, color, style and the name of the manufacturer of all fixtures, and a photometric analysis of all exterior lighting fixtures showing light levels to all property lines; and
- ☒ 32. Any other information requested in writing by the Planning Division, the Planning Board, or the Building Official deemed important to the development.

- ☒ 19. The volume of excavated soils to be removed from the site and /or delivered to the site, and a map of the proposed haul routes;
- ☒ 20. Identify the potential hazards and nuisances that may be created by the proposed development and the suggested methods of mitigating such hazards;

Private Utilities

- ☒ 21. Indicate the source of all required private utilities to be provided;
- ☒ 22. Provide verification that all required utility easements have been secured for necessary private utilities;

Noise Levels

- ☒ 23. Provide a reading of existing ambient noise and estimated future noise levels on the site;
- ☒ 24. Indicate whether the project will be exposed to or cause noise levels which exceed those levels prescribed in Chapter 50, Division 4, Section 50-71 through 50-77 of the Birmingham City Code, as amended;
- ☒ 25. Indicate whether the site is appropriate for the proposed activities and facilities given the existing ambient noise and the estimated future noise levels of the site;

Air Quality

- ☒ 26. Indicate whether the project is located in the vicinity of a monitoring station where air quality violations have been registered and, if so, provide information as to whether the project will increase air quality problems in the area;
- ☒ 27. Indicate if the nature of the project or its potential users would be particularly sensitive to existing air pollution levels and, if so, indicate how the project has been designed to mitigate possible adverse effects;
- ☒ 28. Indicate whether the proposal will establish a trend which, if continued, may lead to violation of air quality standards in the future;
- ☒ 29. Indicate whether the proposed project will have parking facilities for more than 75 cars and indicate percentage of required parking that is proposed;

Environmental Design and Historic Values

- ☒ 30. Indicate whether there will be demonstrable destruction or physical alteration of the natural or human-made environment on site or in the right-of-way (i.e. clearance of trees, substantial regrading etc.);
- ☒ 31. Indicate whether there will be an intrusion of elements out of character or scale with the existing physical environment (i.e. significant changes in size, scale of building, floor levels, entrance patterns, height, materials, color or style from that of surrounding developments);
- ☒ 32. Indicate all elements of the project that are eligible for LEED points if the building were to be LEED certified (i.e. extensive use of natural daylight, use of low VOC paint, use of renewable/recycled resources, energy efficient mechanical systems, use of wind and solar power, geothermal heating etc.);
- ☒ 33. Indicate whether the proposed structure will block or degrade views, change the skyline or create a new focal point;
- ☒ 34. Indicate whether there will be objectionable visual pollution introduced directly or indirectly due to loading docks, trash receptacles or parking, and indicate mitigation measures for same;
- ☒ 35. Indicate whether there will be an interference with or impairment of ambient conditions necessary for the enjoyment of the physical environment (i.e. vibration, dust, odor, heat, glare etc.);
- ☒ 36. Indicate whether the project area and environs contain any properties listed on the National Register of Historic Places or the City's inventory of historic structures;
- ☒ 37. Provide any information on the project area that the State Historic Preservation Office (SHPO) may have;

- ☒ 38. Indicate whether there will be other properties within the boundaries or in the vicinity of the project that appear to be historic and thus require consultation with the SHPO as to eligibility for the National Register;
- ☒ 39. Indicate whether the Department of the Interior has been requested to make a determination of eligibility on properties the SHPO or HDC deems eligible and affected by the project;
- ☒ 40. Provide proof that the HDC has been given an opportunity to comment on properties that are listed on or have been found eligible for the National Register and which would be affected by the project;

Refuse

- ☒ 41. Indicate whether the existing or planned solid waste disposal system will adequately service the proposed development including space for separation of recyclable materials;
- ☒ 42. Indicate whether the design capacity of the existing or planned solid waste disposal system will be exceeded as a result of the project;

Sanitary Sewer

- ☒ 43. Indicate whether existing or planned waste water systems will be able to adequately service the proposed development;
- ☒ 44. Indicate whether the design capacity of these facilities will be exceeded as a result of the project;
- ☒ 45. Indicate the elements of the project that have been incorporated to reduce the amount of water entering the sewer system (such as low flush toilets, EnergyStar appliances, restricted flow faucets, greywater recycling etc.);

Storm Sewer

- ☒ 46. Indicate whether existing or planned storm water disposal and treatment systems will adequately serve the proposed development;
- ☒ 47. Indicate whether the design capacity of these facilities will be exceeded as a result of the project;
- ☒ 48. Indicate the elements of the project that have been incorporated to reduce the amount of storm water entering the sewer system (such as the use of pervious concrete, rain gardens, greywater recycling, green pavers etc.);

Water Service

- ☒ 49. Indicate whether either the municipal water utility or on-site water supply system is adequate to serve the proposed project;
- ☒ 50. Indicate whether the water quality is safe from both a chemical and bacteriological standpoint;
- ☒ 51. Indicate whether the intended location of the service will be compatible with the location and elevation of the main;

Public Safety

- ☒ 52. Whether or not the project location provides adequate access to police, fire and emergency medical services;
- ☒ 53. Whether or not the proposed project design provides easy access for emergency vehicles and individuals (ie. are there obstacles to access, such as one-way roads, narrow bridges etc.);
- ☒ 54. Whether or not there are plans for a security system which can be expanded, and whether approval for same has been granted by the police department;
- ☒ 55. Detailed description of all fire access to the building, site, fire hydrants and water connections;
- ☒ 56. Whether or not there are plans for adherence to all city and N.F.P.A. fire codes;

- ☒ 57. Proof that one elevator has been designed to accommodate a medical cart;
- ☒ 58. Detailed specifications on all fire lanes/parking lot surfaces/alleys/streets to demonstrate the ability to accommodate the weight of emergency / fire vehicles;
- ☒ 59. Detailed description of all fire suppression systems;

Transportation issues

- ☒ 60. Provide completed FORM A – Transportation Study Questionnaire (Abbreviated);
- ☒ 61. Provide completed FORM B – Transportation Study Questionnaire if required by the city's transportation consultant;
- ☒ 62. Indicate whether transportation facilities and services will be adequate to meet the needs of all users (i.e. access to public transportation, bicycle accommodations, pedestrian connections, disabled, elderly etc.);
- ☒ 63. Indicate how the project will improve the mobility of all groups by providing transportation choices;
- ☒ 64. Indicate how the users of the building will be encouraged to use public transit and non-motorized forms of transportation;
- ☒ 65. Indicate the elements that have been incorporated into the site and surrounding right-of-way to encourage mode shift away from private vehicle trips;
- ☒ 66. Indicate the elements of the project that have been provided to improve the comfort and safety of cyclists (such as secured or covered bicycle parking, lockers, bike lanes/paths, bicycle share program etc.);
- ☒ 67. Indicate the elements of the project that have been provided to improve the comfort and safety of pedestrians (such as wheelchair ramps, crosswalk markings, pedestrian activated signal lights, bulb outs, benches, landscaping, lighting etc.);
- ☒ 68. Indicate the elements of the project that have been provided to encourage the use of sustainable transportation modes (such as receptacles for electric vehicle charging, parking for scooters/Smart cars etc.);

Natural Features

- ☒ 69. Indicate whether there are any visual indicators of pond and / or stream water quality problems on or near the site;
- ☒ 70. Indicate whether the project will involve any increase in impervious surface area and, if so, indicate the runoff control measures that will be undertaken;
- ☒ 71. Indicate whether the project will affect surface water flows on water levels of ponds or other water bodies;
- ☒ 72. Indicate whether the project may affect or be affected by a wetland, flood plain, or floodway;
- ☒ 73. Indicate whether the project location or construction will adversely impact unique natural features on or near the site;
- ☒ 74. Indicate whether the project will either destroy or isolate a unique natural feature from public access;
- ☒ 75. Indicate whether any unique natural feature will pose safety hazards for the proposed development;
- ☒ 76. Indicate whether the project will damage or destroy existing wildlife habitats; and

Other Information

- ☒ 77. Any other information as may reasonably be required by the City to assure an adequate analysis of all existing and proposed site features and conditions.

Professional Qualifications

The preparer(s) of the CIS must indicate their professional qualifications, which must include registration in the state of Michigan in their profession where licensing is a state requirement for the practice of the profession (i.e. engineer, surveyor, architect etc.). Where the state does not require licensing (ie. planner, urban designer, economist etc.), the

preparer must demonstrate acceptable credentials including, but not limited to, membership in professional societies, university degrees, documentation illustrating professional experience in preparing CIS related materials for similar projects.

Section 3

CIS Checklist Supplemental Information

Adams and Haynes Mixed Use
770 South Adams Road + 1000 Haynes Street
Birmingham, Michigan 48009

Combined CIS & Site Plan Review Application
Planning Division

General Information

1. Name and address of applicant and proof of ownership;

FHS Birmingham LLC
3400 East Lafayette
Detroit, Michigan 48207
(248) 760-6291
Contact: Nico Schultz

Proof of Ownership: See Appendix 4.1

2. Name of Development (if applicable);

Adams and Haynes Mixed Use

3. Address of site and legal description of the real estate;

770 South Adams Road + 1000 Haynes Street
See survey for legal description

4. Name and address of the land surveyor;

PEA Group
2430 Rochester Ct. Suite 100
Troy, Michigan 48083
(734) 994-4000
Contact: John B. Thompson

5. Legend and notes, including a graphic scale, north point, and date;

See Site Plan Drawing by PEA Group.

6. A separate location map;

Vicinity and Location map: See Appendix 4.2

7. A map showing the boundary lines of adjacent land and the existing zoning of the area proposed to be developed as well as the adjacent land;

Zoning Map: See Appendix 4.2

8. Details of all proposed site plan changes;

See Site Plan Drawing by PEA Group and Site/Exterior Amenities Drawing by Grissim Metz Andriese Associates.

Planning & Zoning Issues

9. Recommended land use of the subject property as designated on the future land use map of the city's Master Plan;

Reference: Triangle District Urban Design Plan

Development Plan Summary:

- **Building Design and Placement. (Page 4)**

Buildings should be designed in a contemporary style and oriented toward their primary street. Designs should incorporate sustainable building elements for the site and the structures. Scale, and size should be compatible with adjacent structures, and facades and rooflines should vary to create relief from continuous surfaces. Pedestrian friendly features should be incorporated.

- **Development Plan Summary: Building Height. (Page 5)**

Varied building heights are recommended to properly frame the streets and provide the massing necessary to relate to the scale of the streetscapes. The hierarchy of height ranges from taller mixed-use buildings along Woodward Avenue that are seven stories and higher, medium height mixed-use buildings of 4-5 stories in the District's interior and along Maple to create a more intimate urban neighborhood, and structures at a smaller scale of three stories when abutting existing residential neighborhoods. Buildings should step back from the street at the higher stories.

- **Development Plan Summary: Parking. (Page 5)**

Parking needs to be provided more efficiently than the current configuration of disjointed surface parking lots. Redevelopment should incorporate multi-level parking structures and maximize the use of on- street parking. More efficient use of shared parking facilities will allow for redevelopment that is more pedestrian oriented and less dominated by parking lots.

10. Goals and objectives of the city's Master Plans that demonstrate the city's support of the proposed development;

- **The proposed project is to be constructed within the boundaries of the Triangle District Urban Design Plan.**

- **The proposed use is as specified by the master plan and the regulations of the Triangle Overlay District. The proposed project encourages a form of development that will achieve the physical qualities necessary to enhance the economic vitality of the Triangle District Urban Design Plan by introducing 138 residential apartment units, with general street level retail, per the objectives of the Birmingham master plan.**

11. Whether or not the project site is located within an area of the city for which an Urban Design Plan has been adopted by the Planning Board in which special design criteria or other supplemental development requirements apply;

The proposed project is a mixed-use building that is primarily residential. It is located in the Triangle District which does have an Urban Design Plan and unique zoning characteristics. The project follows the Design Plan and Triangle District zoning and details.

12. The current zoning classification of the subject property;

The property is zoned B-2 with an overlay zoning of MU-3 on the Adams Road frontage, and MU-5 on the Worth and Haynes Street frontages.

13. The zoning classification required for the proposed development;

The project aims to maintain the MU-3 and MU-5 zoning. This mixed-use building meets all the requirements of these two zoning classifications and is encouraged by the ordinances of the Triangle District Urban Plan.

14. The existing land uses adjacent to the proposed project;

The adjacent property in the northeast corner is zoned B-2 and currently has a vacant retail use. The properties across the streets and alley are zoned B-2 except for the southeast corner across Adams street which is zoned O-2.

- **Existing Land Use: Bank and Office**
- **Land Use to the North: Office**
- **Land Use to the South: Office (Medical)**
- **Land Use to the East: Office and Retail**
- **Land Use to the West: Retail**

15. Complete the attached “Zoning Requirements Analysis” chart;

Zoning Analysis chart: See Appendix 4.3

Land Development Issues

16. A survey and site drainage plan;

See Survey and Civil drawings from PEA Group. Internal drain structures are currently planned in the parking garages that will connect to sanitary sewer on Adams Street. As noted on the PEA drawing, the ground level parking is anticipated to require a pumped discharge based on the elevation of the existing sewer on Adams.

17. Identify any sensitive soils on site that will require stabilization or alteration in order to support the proposed development;

The Phase I Environmental Plan by PM Environmental outlines that there is no evidence of recognized environmental conditions connected with this property. Current soil conditions suggest shallow foundations will be acceptable.

18. Whether or not the proposed development will occur on a steep slope, and if so, the measures that will be taken to overcome potential erosion, slope stability and runoff;

The proposed development will not occur on a steep slope.

19. The volume of excavated soils to be removed from the site and /or delivered to the site, and a map of the proposed haul routes;

The site will be excavated to accommodate for foundations immediately below grade only. Refer to the Appendix 4.2 for a map of proposed haul routes to Maple or Woodward Avenues.

20. Identify the potential hazards and nuisances that may be created by the proposed development and the suggested methods of mitigating such hazards;

Due to infill and excavating required for this development, and with the building located directly adjacent to public sidewalks and alleys, there is a need to prohibit public access to the site during construction and protect pedestrians on the sidewalk. An 8’ tall construction fence is proposed around the perimeter of the site throughout construction.

Private Utilities

21. Indicate the source of all required private utilities to be provided;
- **Electrical service is proposed to be delivered at the south (alley) side of the site via DTE Energy. The existing poles running north/south through the site and along Haynes adjacent to the site will be relocated or removed.**
 - **The gas service is proposed to come from Adams Road via Consumers Energy. Gas meters are located along the alley next to the parking garage.**
 - **A 6" fire suppression water main will be provided from Adams Road.**
 - **A domestic water service main will be provided from Adams Road.**

22. Provide verification that all required utility easements have been secured for necessary private utilities;

Verification for all required utility easements will be coordinated with the respective utility owner and determined during the site plan and building review process. Additional required easements to support the development will be proposed and secured prior to construction of the respective utility.

Noise Levels

23. Provide a reading of existing ambient noise and estimated future noise levels on the site;
Refer to the sound study completed by Kolano and Saha Consulting Engineers. See Appendix 4.4

24. Indicate whether the project will be exposed to or cause noise levels which exceed those levels prescribed in Chapter 50, Division 4, Section 50-71 through 50-77 of the Birmingham City Code, as amended;

All future activities associated with the Adams and Haynes Mixed Use will not exceed the noise levels demanded in the Birmingham City Code. Given the developments' occupancy, very little noise is anticipated. Any measurable noise will emanate from mechanical equipment such as heat pumps and exhaust fans. This equipment is typically very quiet. The emergency generator will be located and screened at the south (alley) side of the site.

25. Indicate whether the site is appropriate for the proposed activities and facilities given the existing ambient noise and the estimated future noise levels of the site;

There will be a slight increase in traffic from existing conditions to the proposed development, mostly from the potential of the retail component. The use and noise generated is similar to the existing uses that flank all sides of the development. See the Kolano and Saha Engineering Report for additional details.

Air Quality

26. Indicate whether the project is located in the vicinity of a monitoring station where air quality violations have been registered and, if so, provide information as to whether the project will increase air quality problems in the area;

The site is located in the Southeast Michigan Air Quality District, with monitoring stations in Pontiac, Rochester, Oak Park and Allen Park, as well as other communities. This district has attained and surpassed the National Ambient Air Quality Standards for Carbon Monoxide, Nitrogen Dioxide, Ozone, Sulfur Dioxide and particulate matter less than 10 microns and has attained the standard for Annual and 24-hour Fine Particulates, but is awaiting that designation by the EPA.

27. Indicate if the nature of the project or its potential users would be particularly sensitive to existing air pollution levels and, if so, indicate how the project has been designed to mitigate possible adverse effects;

The project is consistent with typical Triangle District projects and some additional pollution from vehicles and HVAC units is anticipated. All new HVAC units will be equipped with an approved filter system to protect potential users and individual unit occupants. To encourage the use of non-polluting electric vehicles 10% of the buildings' parking spaces will be equipped with charging stations.

28. Indicate whether the proposal will establish a trend which, if continued, may lead to violation of air quality standards in the future;

This proposed development will not establish a trend which may lead to a violation of air quality standards.

29. Indicate whether the proposed project will have parking facilities for more than 75 cars and indicate percentage of required parking that is proposed;

The proposed project will provide 251 on-site parking spaces, of which 172 are required for residents of the building and for the retail/office space, therefore 80.8% of the provided parking spaces are required. Approximately 18 street parking spaces are adjacent to the site.

Environmental Design and Historic Values

30. Indicate whether there will be demonstrable destruction or physical alteration of the natural or human-made environment on site or in the right-of-way (ie. clearance of trees, substantial regrading etc.);

The two existing commercial buildings will be removed as will the associated parking lot. Trees on Adams, Haynes, and Worth streets will be removed and replanted in accordance with the zoning requirements.

31. Indicate whether there will be an intrusion of elements out of character or scale with the existing physical environment (ie. significant changes in size, scale of building, floor levels, entrance patterns, height, materials, color or style from that of surrounding developments);

The proposed building is larger than the existing buildings and the adjacent building to the south. The proposed building meets all parts of the zoning ordinance, including height and scale.

32. Indicate all elements of the project that are eligible for LEED points if the building were to be LEED certified;

Project will be built to LEED Standards. **See LEED Project Checklist: See Appendix 4.10**

33. Indicate whether the proposed structure will block or degrade views, change the skyline or create a new focal point;

The proposed building will create a continuous streetscape oriented toward the primary streets, and will change the skyline as the new 5-6 story building replaces two 2 and 3-story buildings. The development will change some of the views from the surrounding properties, however the proposed building is stepped back on upper floors per ordinance and the new height conforms to the The Triangle District Building Design and Placement. The goal of the development is to increase the quality of the area while blending the urban fabric of the street and conforming to The Triangle District Building Design and Placement requirements.

34. Indicate whether there will be objectionable visual pollution introduced directly or indirectly due to loading docks, trash receptacles or parking, and indicate mitigation measures for same;

The development does not propose to introduce any pollutants to the site. All on-site parking will be enclosed and out of view. The trash receptacles will also be concealed indoors and out of view. Trash will be collected on South Worth Street. Loading and receiving will also occur on South Worth Street.

35. Indicate whether there will be an interference with or impairment of ambient conditions necessary for the enjoyment of the physical environment (ie. vibration, dust, odor, heat, glare etc.);

This development will not generate any ongoing vibrations, dust, odor, heat, or glare that would interfere with or impair the ambient conditions necessary for the enjoyment of the physical environment.

36. Indicate whether the project area and environs contain any properties listed on the National Register of Historic Places or the city's inventory of historic structures;

This property does not appear on the National Register of Historic Places or the City's inventory of historic structures.

37. Provide any information on the project area that the State Historic Preservation Office (SHPO) may have;

This office is not aware of the subject property appearing on the State registry of historic properties.

38. Indicate whether there will be other properties within the boundaries or in the vicinity of the project that appear to be historic and thus require consultation with the SHPO as to eligibility for the National register;

None of the properties adjacent to the site appear historic.

39. Indicate whether the Department of the Interior has been requested to make a determination of eligibility on properties the SHPO or HDC deems eligible and affected by the project;

There is no indication that the Department of the Interior has been requested to make a determination on the historic value of the surrounding properties.

40. Provide proof that the HDC has been given an opportunity to comment on properties that are listed on or have been found eligible for the National Register and which would be affected by the project;

Does Not Apply.

Refuse

41. Indicate whether the existing or planned solid waste disposal system will adequately service the proposed development including space for separation of recyclable materials;

The project will include two enclosed trash chutes with space for four dumpsters and the recycling bins that would be needed, in a similar fashion and size as other developments in the city and area. This trash will be collected via the ground level parking and loading/receiving area.

42. Indicate whether the design capacity of the existing or planned solid waste disposal system will be exceeded as a result of the project;

Solid waste generated from this facility will be standard and can be handled by local waste management companies.

Sanitary Sewer

43. Indicate whether existing or planned waste water systems will be able to adequately service the proposed development;

A 42 inch public combined gravity sanitary sewer exists within the South Adams Road right-of-way along the frontage of the proposed development. A 15 inch public sanitary sewer exists within the Haynes Avenue right-of-way along the frontage of the proposed development. A 12 inch sanitary sewer exists within the South Worth Street right-of-way along the frontage of the proposed development. The proposed development will plan to utilize the sewer within the Adams Road right-of-way for wastewater discharge. It is anticipated that the existing sanitary sewer will have the capacity to adequately service the proposed development. The proposed development anticipates a 6 inch service lead for the building that will connect to the existing sewer main in the right-of-way. Per preliminary discussions with the City Engineer, the existing sewer along either frontage of the property has the capacity to handle the flows from the proposed development and there are no known existing capacity issues. The planned sewer service flow basis of design and capacity of the existing sewer will be reviewed and confirmed by the City Engineer prior to site plan approvals.

44. Indicate whether the design capacity of these facilities will be exceeded as a result of the project;

It is not anticipated that the design capacity of the existing sanitary sewer will be exceeded by the development. Per preliminary discussions with the City Engineer, the existing sewer along either frontage of the property has the capacity to handle the flows from the proposed development and there are no known existing capacity issues. The planned sewer service flow basis of design and capacity of the existing sewer will be reviewed and confirmed by the City Engineer prior to site plan approvals.

45. Indicate the elements of the project that have been incorporated to reduce the amount of water entering the sewer system (such as low flush toilets, Energy Star appliances, restricted flow faucets, grey water recycling etc.);

The building design will include low flow toilets and faucets and Energy Star rated appliances.

Storm Sewer

46. Indicate whether existing or planned storm water disposal and treatment systems will adequately serve the proposed development;

A 42-inch public combined gravity storm sewer exists within the South Adams Road right-of-way along the frontage of the proposed development. The proposed development will plan to utilize the sewer within the right-of-way for the rooftop stormwater discharge. Per preliminary discussion with the City Engineer, the existing sewer along either frontage of the property has the capacity to handle the flows from the proposed development and there are no known existing capacity issues. The proposed development anticipates a 10-inch lead for the building that will connect to the existing sewer. The existing site is covered entirely with impervious parking areas or buildings and no increase in impervious area is proposed with the re-development. The existing on-site vehicular use areas will be removed, providing for a potential decrease in pollutants typically found within runoff from these areas (oil, grit, trash, etc.) and to increase the quality of the storm water discharge. The planned storm sewer service flow basis of design and capacity of the existing storm sewer will be reviewed and confirmed by the City Engineer prior to the site plan approvals.

47. Indicate whether the design capacity of these facilities will be exceeded as a result of the project;
It is not anticipated that the design capacity of the municipal sewer system will be exceeded by the proposed development. Per preliminary discussion with the City Engineer, the existing sewer along either frontage of the property has the capacity to handle the flows from the proposed development and there are no known existing capacity issues. The planned storm sewer service flow basis of design and capacity of the existing storm sewer will be reviewed and confirmed by the City Engineer prior to the site plan approvals.

48. Indicate the elements of the project that have been incorporated to reduce the amount of storm water entering the sewer system (such as the use of pervious concrete, rain gardens, grey water recycling, green pavers etc.);

The proposed project does not add to the amount of impervious surface that exists currently on the site. If required, additional detention as necessary will be designed and incorporated per the City of Birmingham standard.

Water Service

49. Indicate whether either the municipal water utility or on-site water supply system is adequate to serve the proposed project;

Public water main exists within the Adams and Haynes right-of-way along the frontage of the proposed development. The existing development utilizes this water main for domestic and fire protection service. It is anticipated that this existing water main will also have the capacity to adequately service the proposed development. Per preliminary discussions with the City Engineer, the existing 12-inch water main along the Adams frontage of the property is a looped system and has the capacity to handle the flows from the proposed development. There are no known existing capacity issues or complaints with the service pressures at the recent building re-development directly adjacent to the south. The proposed development currently anticipates a proposed 4" domestic service line and a 6" fire suppression line for the building that will connect to the existing water main within the right-of-way. The planned water usage design and capacity of the existing water main will be reviewed and confirmed by the City Engineer prior to site plan approvals.

50. Indicate whether the water quality is safe from both a chemical and bacteriological standpoint;
Birmingham's Annual Water Quality Report indicates the City's public water supply surpasses the EPA and MDEQ water quality standards, and is safe from a chemical and biological standpoint.

51. Indicate whether the intended location of the service will be compatible with the location and elevation of the main;

The water service connection will be designed in accordance with City standards to be compatible with the location and elevation of the public water main.

Public Safety

52. Whether or not the project location provides adequate access to police, fire and emergency medical services;

- **Building is directly accessible on all four sides: South Adams Road, Haynes Avenue, South Worth Street and the alley right of ways, and offers direct access for emergency personnel.**
- **The Adams fire station is one block to the north of the site.**
- **Access to the residential units and commercial spaces is via the main entrance at the corner of Haynes Avenue and South Worth Street and/or the Alley entrance to Ground Level Parking.**
- **(2) elevators that can accommodate a stretcher are proposed.**

53. Whether or not the proposed project design provides easy access for emergency vehicles and individuals (ie. are there obstacles to access, such as one-way roads, narrow bridges etc.);

Project located on (3) two-way roads and a one way alley with direct access to all local arteries.

54. Whether or not there are plans for a security system which can be expanded, and whether approval for same has been granted by the police department;

Project is considered to be the highest end of the commercial and residential market. The proposed security system will be interfaced with the police department. The building will be designed with security features. The main lobby door will be locked with an intercom system. A garage door will be installed for parking levels with a key fob for resident access.

55. Detailed description of all fire access to the building, site, fire hydrants and water connections;

The building will conform to all applicable fire codes for layout, access, hydrant coverage and water connections.

- **Fire department connection available at their direction**
- **Full fire suppression throughout**
- **Access to all floors via multiple fire stairs and elevators**

56. Whether or not there are plans for adherence to all city and N.F.P.A. fire codes;

All NFPA codes will be followed or exceeded.

57. Proof that one elevator has been designed to accommodate a medical cart;

Two elevators will be able to accommodate a medical cart per MBC 2015 3002.4 as required by the Michigan Building Code. The permit drawings will show dimensions of the elevator cab and compliance with this requirement.

58. Detailed specifications on all fire lanes/parking lot surfaces/alleys/streets to demonstrate the ability to accommodate the weight of emergency/fire vehicles;

See proposed site plan for all emergency access routes and designs. All the access for fire and emergency vehicles will be on public streets and alleys already in place.

59. Detailed description of all fire suppression systems;

The fire suppression system has not yet been designed, however the fire suppression system for the building will be designed to meet all applicable City and National (NFPA) fire codes. The entire building, including all covered parking, will be fully fire suppressed per NFPA 13 and include a fire pump, which will be required to have an alternative power source (generator) exist. Fire alarm occupant notification will be provided for all occupiable exterior balconies or terraces located above ground level.

Transportation Issues

60. Provide completed FORM A – Transportation Study Questionnaire (Abbreviated);

See attached transportation FORM A prepared by Rowe Professional Services Company.

61. Provide completed FORM B – Transportation Study Questionnaire if required by the city's transportation consultant;

Form B not required by city's transportation consultant.

62. Indicate whether transportation facilities and services will be adequate to meet the needs of all users (i.e. access to public transportation, bicycle accommodations, pedestrian connections, disabled, elderly etc.);

The transportation facilities available to the site (SMART bus service, train service, shuttle bus service, pedestrian connections, bicycle facilities) will be adequate to serve the needs of the residents and staff of the site.

63. Indicate how the project will improve the mobility of all groups by providing transportation choices;

Occupants and visitors can easily access the facility by foot via sidewalks, by car from parking on the street, parking inside the covered parking facility, by bicycle and by bus. Site walkways connect to the right of way walks for pedestrian travel, bike storage/parking is provided, there is a Smart bus stop near the site and an Amtrak station nearby. On-site parking is provided for private vehicles. The building is barrier free accessible to all aspects of the development.

64. Indicate how the users of the building will be encouraged to use public transit and non-motorized forms of transportation;

There are multiple bus stops in the immediate area, along with the Amtrak Station that is ½ mile east. Bicycle racks are available for residents and visitors and provided at locations near the public sidewalks around the site (see Site Plan).

65. Indicate the elements that have been incorporated into the site and surrounding right-of-way to encourage mode shift away from private vehicle trips;

The ground floor retail will encourage walking from the nearby residential neighborhoods.

66. Indicate the elements of the project that have been provided to improve the comfort and safety of cyclists (such as secured or covered bicycle parking, lockers, bike lanes/paths, bicycle share program etc.);

On site, enclosed biking storage for 96 bikes is provided for the building users. Public bike racks will also be included per the streetscape design guidelines.

67. Indicate the elements of the project that have been provided to improve the comfort and safety of pedestrians (such as wheelchair ramps, crosswalk markings, pedestrian activated signal lights, bulb outs, benches, landscaping, lighting etc.);

- **Wheelchair and all barrier free access provided**
- **Crosswalks available at road intersections**
- **Municipal path fully illuminated**
- **Planting areas and benches**

68. Indicate the elements of the project that have been provided to encourage the use of sustainable transportation modes (such as receptacles for electric vehicle charging, parking for scooters/Smart cars etc.);

Smart cars, scooter, and electric vehicle charging options for individual vehicle charging stations could be considered upon request from unit owners.

Natural Features

69. Indicate whether there are any visual indicators of pond and / or stream water quality problems on or near the site;

There are no visual indicators of ponds or streams near the site.

70. Indicate whether the project will involve any increase in impervious surface area and, if so, indicate the runoff control measures that will be undertaken;

The present site is occupied by buildings or asphalt parking. The project will not increase impervious surface area.

71. Indicate whether the project will affect surface water flows or water levels of ponds or other water bodies;

This project will not affect surface water flows or water levels in ponds or other bodies of water. There are no visual indicators of ponds or streams near the site.

72. Indicate whether the project may affect or be affected by a wetland, flood plain, or floodway;

The existing site is completely developed and there are no wetlands located onsite. There is no existing floodplain or floodway located onsite per FIRM Community Panel 26125C0537E, dated September 29, 2006. It is not anticipated that the development will be impacted by or impose impact on any existing wetland, floodplain, or floodway.

73. Indicate whether the project location or construction will adversely impact unique natural features on or near the site;

There are no natural features on site.

74. Indicate whether the project will either destroy or isolate a unique natural feature from public access;

This project will not destroy or isolate any unique natural feature.

75. Indicate whether any unique natural feature will pose safety hazards for the proposed development;

No unique natural feature poses a safety hazard for this proposed project.

76. Indicate whether the project will damage or destroy existing wildlife habitats;

Proposed project will not destroy any existing wildlife or habitats.

Other Information

77. Any other information as may reasonably be required by the city to assure an adequate analysis of all existing and proposed site features and conditions.

Our office will be happy to supply all additional requested information by the city.

Professional Qualifications

The preparer(s) of the CIS must indicate their professional qualifications, which must include registration in the state of Michigan in their profession where licensing is a state requirement for the practice of the profession (i.e. engineer, surveyor, architect etc.). Where the state does not require licensing (ie. planner, urban designer, economist etc.), the preparer must demonstrate acceptable credentials including, but not limited to, membership in professional societies, university degrees, documentation illustrating professional experience in preparing CIS related materials for similar projects.

**Preparer: Christopher J Longe, NCARB. State of Michigan Architectural Registration
no. 31781**

Section 4

Appendix

- 4.1 Proof of Ownership
- 4.2 Maps
- 4.3 Zoning Requirements Analysis
- 4.4 Noise Impact Study
- 4.5 Traffic Impact Study
- 4.6 Phase 1 Environmental Site Assessment
- 4.7 Geotechnical Investigation
- 4.8 Air Quality Information
- 4.9 Proposed Security System
- 4.10 LEED Project Checklist
- 4.11 Site Photographs

4.1 Proof of Ownership

OAKLAND COUNTY TREASURERS CERTIFICATE
 This is to certify that there are no delinquent property taxes as of this date owed to our office on this property. No representation is made as to the status of any taxes, tax liens or titles owed to any other entities.

JUN 07 2021



ANDREW E. MEISNER, County Treasurer
 Sec. 135, Act 206, 1893 as amended

5.00

LIBER 56348 PAGE 757
 \$21.00 DEED - COMBINED
 \$4.00 REMONUMENTATION
 \$5.00 AUTOMATION

06/09/2021 10:59:14 AM RECEIPT# 112707
 PAID RECORDED - Oakland County, MI
 Lisa Brown, Clerk/Register of Deeds

COVENANT DEED

770 S. ADAMS, LLC, a Michigan limited liability company ("Grantor"), whose address is 915 E. Maple Road, Birmingham, Michigan 48009, does hereby sell, convey, grant and bargain to **FHS BIRMINGHAM L.L.C.**, a Michigan limited liability company ("Grantee"), whose address is 3400 E. Lafayette, Detroit, Michigan 48207, the land situated in the City of Birmingham, County of Oakland, State of Michigan, described on **Exhibit A**, together with any buildings, structures, and other improvements on or within such land and all fixtures attached to and being a part of such buildings, structures, and improvements, all appurtenances related to such land, all easements, water rights, mineral and riparian rights, air rights, developmental rights, and other tenements, hereditaments, privileges, and appurtenances pertaining or belonging or in any way appertaining to the land, and the right to use any appurtenant easements, whether or not of record, and any strips and rights-of-way abutting, contiguous to, or adjoining the land, for the consideration set forth on the Real Estate Transfer Tax Valuation Affidavit filed simultaneously herewith, subject only to applicable zoning ordinances and taxes and assessments that have become a lien against the subject property but are not yet due and payable (the "Permitted Encumbrances").

TO HAVE AND TO HOLD unto Grantee and its successors and assigns forever, and Grantor hereby covenants to Grantee and binds Grantor to warrant and forever defend all and singular the above-described property unto Grantee and its successors and assigns against all persons or entities claiming by, through, or under Grantor, except for the Permitted Encumbrances.

The property may be located within the vicinity of farmland or a farm operation. Generally-accepted agricultural and management practices, which may generate noise, dust, odors, and other associated conditions, may be used and are protected by the Michigan Right to Farm Act.

Grantor grants to Grantee the right to make all available divisions under Section 108 of the Land Division Act, Act No. 288 of Public Acts of 1967, as amended.

[Signature and notarization are contained on the following page.]

RECEIVED
 OAKLAND COUNTY
 REGISTER OF DEEDS

2021 JUN -3 PM 12:47

REVENUE TO BE AFFIXED
 AFTER RECORDING

OK - MH

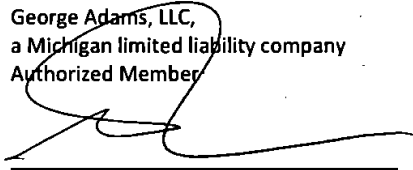
3P
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13

uB153701

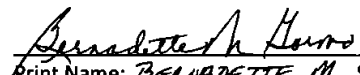
[Signature Page to Covenant Deed]¹Dated this 24TH day of MAY, 2021

GRANTOR:

770 S. ADAMS, LLC,
a Michigan limited liability companyBy: George Adams, LLC,
a Michigan limited liability company
Its: Authorized MemberBy: 
Name: Michael George
Its: Authorized ManagerSTATE OF MICHIGAN)
) SS.
COUNTY OF OAKLAND)

The foregoing instrument was acknowledged before me this 24 day of MAY, 2021, by Michael George, the Authorized Manager of George Adams, LLC, a Michigan limited liability company, the Authorized Member of 770 S. Adams, LLC, a Michigan limited liability company, on behalf of said entity.

BERNADETTE M. GARMO
NOTARY PUBLIC, STATE OF MI
COUNTY OF OAKLAND
MY COMMISSION EXPIRES Jan 30, 2024
ACTING IN COUNTY OF OAKLAND


Print Name: BERNADETTE M. GARMO
Notary Public, OAKLAND County, MICHIGAN
Acting in the County of OAKLAND
My commission expires: 1/30/2024

Send subsequent tax bills to:

FHS Birmingham L.L.C.
3400 E. Lafayette
Detroit, Michigan 48207
Attention: _____

Drafted by and when recorded return to:

Michelle R. Puricelli
Associate Counsel
Soave Enterprises LLC
3400 E. Lafayette
Detroit, Michigan 48207

Recording Fee: \$ _____
Transfer Taxes: Real Estate Transfer Tax Valuation Affidavit filed

~~NTD: Seller to confirm signature block.~~

EXHIBIT A

Legal Description

Real property in the City of Birmingham, County of Oakland, State of Michigan, described as follows:

Lots 15, 16, and 17, O.E. Shattuck Subdivision, according to the plat thereof, as recorded in Liber 8 of Plats, Page 14, Oakland County Records.

Also known as property address: 770 S. Adams Road, Birmingham, Michigan 48009

Tax Parcel Number: 19-36-283-016

RECEIVED
OAKLAND COUNTY
REGISTER OF DEEDS

2021 MAY 26 AM 11:11

LIBER 56304 PAGE 719
\$21.00 DEED - COMBINED
\$4.00 REMONUMENTATION
\$5.00 AUTOMATION

05/28/2021 12:17:23 PM RECEIPT# 107378
PAID RECORDED - Oakland County, MI
Lisa Brown, Clerk/Register of Deeds

QUIT CLAIM DEED

KNOW ALL MEN BY THESE PRESENTS: That CITIZENS BANK, N.A., formerly known as First Federal Savings and Loan Association of Detroit whose address is 1 Citizens Plaza, Providence, Rhode Island, Quit Claims to FHS BIRMINGHAM L.L.C., whose street address is 3400 East Lafayette, Detroit, Michigan, the following described premises situated in the City of Birmingham, County of Oakland in State of Michigan, to-wit:

Lots 11 and 14, O. E. Shattuck Subdivision, Village, now City of Birmingham, Oakland County, Michigan, according to the recorded plat thereof, as recorded in Liber 8 of Plats, Page 14, Oakland County Records.

Lots 5 through 11, inclusive, Rural Subdivision of Lots 5, 6, 7, 8, 9 and 10 of O.E. Shattuck Subdivision in the Village of Birmingham, according to the recorded plat thereof as recorded in Liber 16 of Plats, Page 14, Oakland County Records.

together with all and singular the tenements, hereditaments and appurtenances thereunto belonging or in anywise appertaining. SEE REAL ESTATE TRANSFER TAX VALUATION AFFIDAVIT ON FILE.

Effective Dated this 25th day of MAY 2021.

Signed by:

CITIZENS BANK, N.A.

By

Its

Jared Wallace
Senior Vice President



REVENUE TO BE AFFIXED
AFTER RECORDING

STATE OF RI)
COUNTY OF Providence) SS.

OK - AB

The foregoing instrument was acknowledged before me this 21st day of May, 2021, by Jared Wallace Senior VP of CITIZENS BANK, N.A.

My commission expires: 7/29/2021

MARY E. HASSAN
NOTARY PUBLIC #37471
STATE OF RHODE ISLAND
EXPIRATION: 7/29/2021

When Recorded return to:

Christopher O. Corden, Esq.
Soave Enterprises LLC
3400 E. Lafayette
Detroit, MI 48207

RETURN TO:
Chicago Title of Michigan
Commercial Division
941 West Milham Road
Portage, MI 49024

Business Address: Citizens Bank, N.A.
One Citizens Bank Way
Johnston, RI 02919

Dated by: Mary E. Hassan, Senior Paralegal

Send Subsequent Tax Bills To:

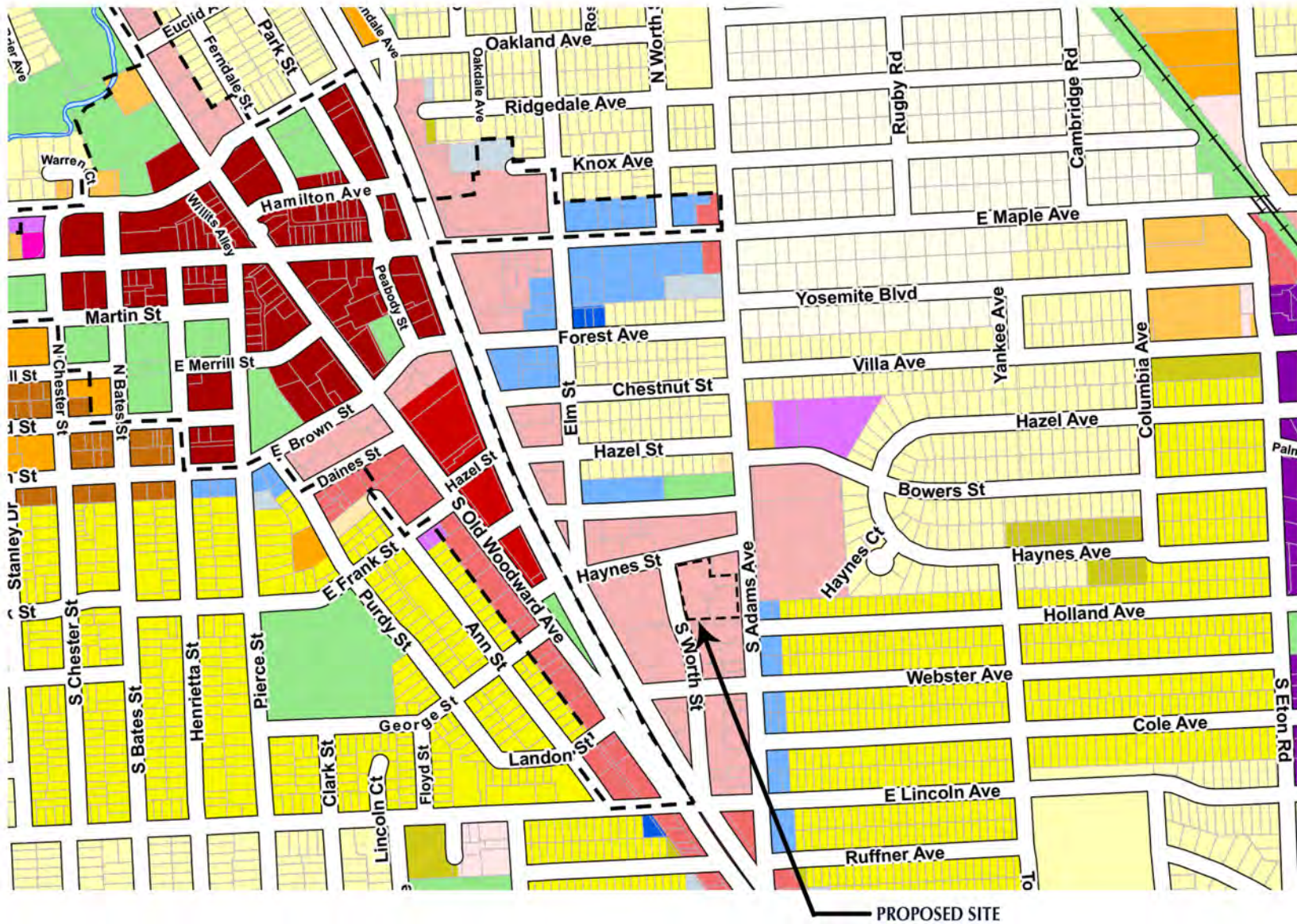
FHS Birmingham L.L.C.
c/o Nico Schultz, Sr., VP, Real Estate
Soave Enterprises LLC
3400 East Lafayette
Detroit, MI 48207

Tax Parcel #: 08-19-36-283-024

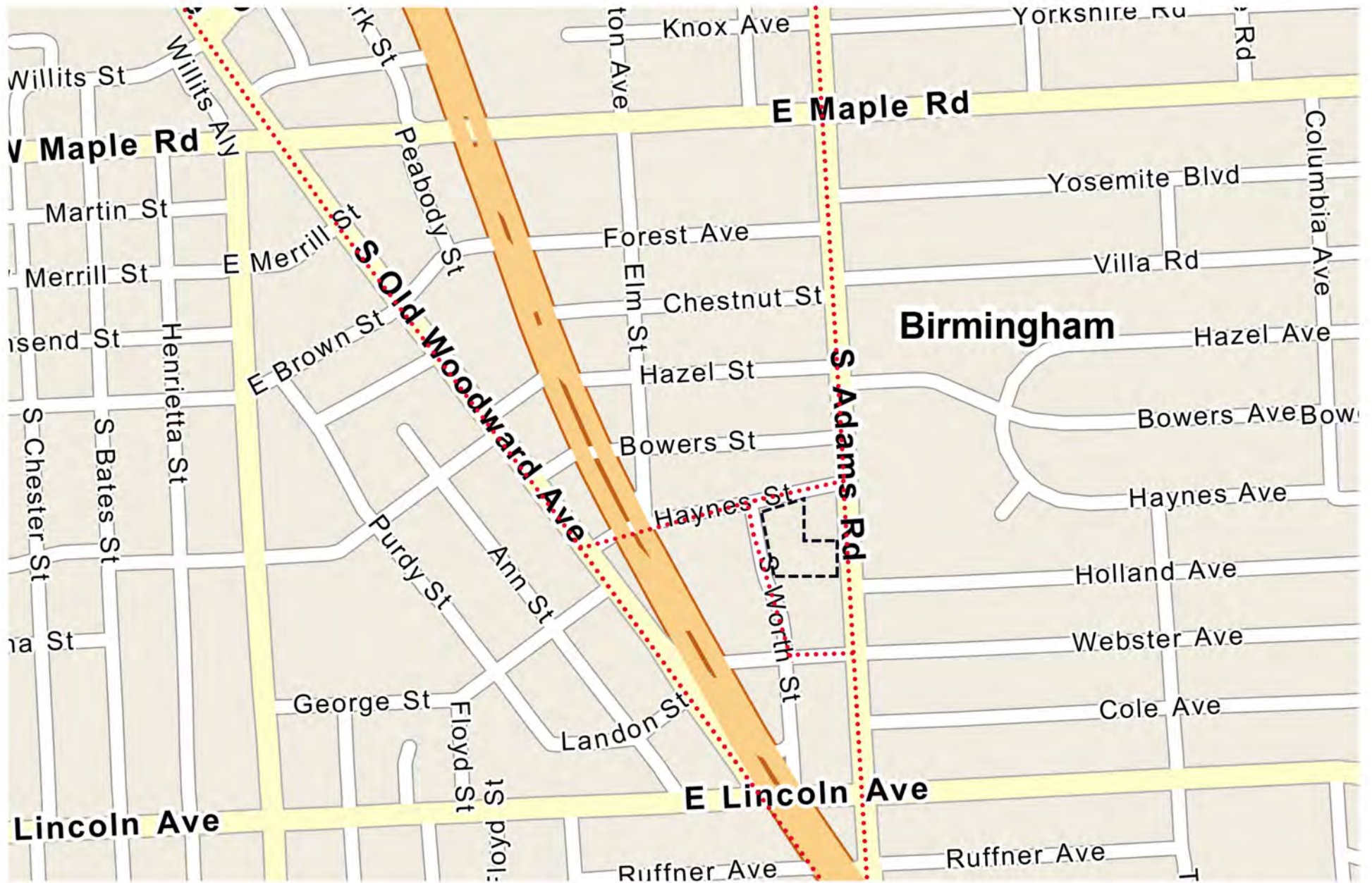
Recording Fee:

Revenue Stamps:

4.2 Maps



City Of Birmingham Zoning Map			
Zoning Districts			
R1 Single-Family Residential	R7 Multiple-Family Residential	B-2B General Business	
R1-A Single-Family Residential	R8 Multiple-Family Residential	B-3 Office-Residential	
R2 Single-Family Residential	TZ1 Transitional Zoning 1	B-4 Business-Residential	
R3 Single-Family Residential	TZ3 Transitional Zoning	O-2 Office Commercial	
R4 Two-Family Residential	MX Mixed-Use	O-1 Office	
R5 Multiple-Family Residential	B-1 Neighborhood Business	P Parking	
R6 Multiple-Family Residential	B-2 General Business	PP Public Property	
	B-2 General Business Limited to Grocery Store Use		
			Downtown Overlay Boundary



Haul Route

Not to Scale

North Bound Haul

Site Boundary - - - - -

4.3 Zoning Requirements Analysis

ZONING REQUIREMENTS ANALYSIS

Development Standard	Required	Proposed	Variance Required
Zoning Classification	B2 – (MU-3 & MU-4)	B2 – (MU-3 & MU-4)	No
Front Setback	0'	1'-0"	No
Rear Setback	0'	1'-0"	No
Side Setback	1'-0"	2'-0"	No
FAR - Percentage	N / A	N / A	N / A
FAR - Square Footage	N / A	N / A	N / A
Open Space - Percentage	N / A	N / A	N / A
Open Space - Square Footage	N / A	N / A	N / A
Number of Residential Units	1	138	No
Minimum Floor Area	600 s.f per unit	627 s.f. per unit	No
Parking	Retail $(4,950/300) = 17$ Residential 1-2 bedroom 1 space/unit $(71 \times 1) = 71$ 3 bedroom 1.25 space/unit $(67 \times 1.25= 84)$ Total: 172 spaces	parking = 226 spaces	No
Loading	1 usable loading space	1	No
Screening	DNA		

4.4 Noise Impact Study



2021-143

Updated December 2, 2021

Mr. Timothy M. Andres, AIA
Group VP Real Estate
Soave Enterprises, LLC
3400 East Lafayette
Detroit, MI 48207

Subject: **Birmingham CIS - Sound Level Measurements and Noise Impact Assessment**
re: Adams/Haynes Development – Updated Design Drawings Dated 11/10/2021
Birmingham, MI

Mr. Andres:

At your request and authorization, Kolano and Saha Engineers, Inc. (K&SE) has updated our noise impact review of the Adams/Haynes Development project to include the latest design changes (reflected in drawings dated 11/10/2021). This investigation includes a review of our measurements at the development site to understand the current ambient noise condition with an evaluation of the proposed development to help assess if noise associated with the new building will be compatible at this location.

On-Site Sound Level Measurements

We conducted measurements using a Brüel & Kjær 2270 environmental noise analyzer with a precision outdoor microphone assembly. This instrumentation was calibrated before and after measurements using an acoustic calibrator traceable to the National Institute for Standards and Technology.

Measurements were conducted near the proposed site for a 24-hour period to capture the existing ambient sound levels. Measurements were conducted on the proposed Adams/Haynes development site, at a location 190-feet south of Haynes Street and 24-feet west of S. Adams Road. Details of this measurement position are provided in **Exhibit 1**.

The measurement equipment captured sound levels for a continuous 24-hour period on Sept. 9, 2021. The measurement results are provided in **Exhibit 2**. The results of the measurements are presented in a graph of sound level versus time. These graphs contain three plot lines; the 5-minute L_{eq} (energy average level), the hourly L_{eq} and the daytime and nighttime averaged sound levels.

From this data we calculated the DNL or day-night sound level average. The DNL is an average of both the daytime and nighttime sound levels where the nighttime sound levels have been raised by 10 dB to account for people's greater sensitivity to noise in the nighttime hours. Measurement results, in terms of the day-night sound level average (DNL), were determined and compared to U.S. Government guidelines promulgated by the U.S. Environmental Protection Agency (EPA) and the

department of Housing and Urban Development (HUD). EPA guidelines define DNL 55dB (or less) as a desirable goal for residential land use; HUD guidelines consider outdoor noise levels up to DNL 65dB as “normally acceptable” for residential land use. HUD guidelines consider outdoor noise levels between 65dB and 75dB as “normally unacceptable” for residential land use. For the Adams/Haynes development, we measured a site sound level of **71dB(A) DNL**. The purpose of these guidelines is to ensure that sensitive interior living spaces are not unduly impacted by traffic noise.

The ambient noise at this location, which is essentially at the proposed east façade of the building that would face S. Adams Road, falls within the “normally unacceptable” range. This is due to the large volume of traffic on S. Adams Road, which has notable events that include emergency and other loud vehicles. This traffic noise has the potential to create an adverse noise impact to future residents of the Adams/Haynes development, particularly the residences facing S. Adams Road. Additionally, the residences in the center of the building, facing the Outdoor Amenity Lawn Area, also have potential for traffic noise impact. Overcoming traffic sound levels above the “normally acceptable” range, can be addressed with building materials that better attenuate traffic noise.

City of Birmingham Noise Ordinance

The City of Birmingham addresses noise in their ordinance under *Part II – City Code, Chapter 50 – Environment, Article II. Nuisances, Division 4 – Noise*. This ordinance provides information of definitions, general prohibitions, specific prohibitions, decibel level prohibitions, general exemptions and test procedures.

The objective limits cited in this ordinance (as Table 1) are:

Use of Property Producing the Sound	Use of Property Receiving the Sound	Sunday to Saturday 7:00 a.m. to 7:00 p.m.	Sunday to Saturday 7:00 p.m. to 7:00 a.m.
Residential	Residential	75	60
Commercial	Residential	80	60
Residential	Commercial	80	60
Commercial	Commercial	90	75

Exemptions to these limits include power equipment operations between 7AM and 7PM that do not exceed 100 dB(A) at or beyond the property line, construction noise between 7AM and 7PM Monday-Saturday excluding holidays (with additional provisions), and snow removal which does not exceed 90 dB(A) at or beyond the property line.

The properties adjacent to this development are office buildings, a bank, a shopping strip mall, a multi-family residential building, and single-family residential homes. The noise associated with these buildings is expected to be primarily related to on-site building services, vehicular noise, and building mechanical equipment.

Proposed Development Noise Impact

The proposed residential building is generally similar to other vertical, mixed-use multifamily buildings in Birmingham. The proposed 5-story building is expected to have a lobby & service area, resident workshare space, parking, a retail space, and residential spaces on the ground level floor. The second through fifth floors are planned to be residential, with indoor and outdoor amenity spaces on the fifth floor. Additionally, there will be a five-story parking structure rising through the middle-south area of the building. At this preliminary stage of development, the details for mechanical systems, which are the primary sources of noise expected for this development, are not yet established. We understand that these will be designed to comply with the Ordinance noise limits. The sources of noise expected from the building include the following:

Parking Structure

The five-story residential building will wrap around the north, east and west sides of a five-story parking structure. This configuration will close off the north, east and west sides of the parking structure. This configuration will require forced ventilation to keep air circulating through the parking structure. Generally, fans and ventilation equipment for parking structures need to move large volumes of air and as a result can be a source of significant noise. Ventilation of the parking structure will need to be properly planned and designed to comply with the City of Birmingham Ordinance noise limits. This system may require the use of fans that produce a lower level of noise and/or noise control devices. It is our understanding that Soave intends the design of the ventilation system to comply with the ordinance noise limits.

Building Wide & Individual Unit Heating and Cooling Mechanical Systems

Like other large buildings in Birmingham, centralized roof mounted heating and cooling equipment are expected to control the climate of building areas separate from individual residential units. If located sufficiently away from the property lines and at appropriate heights, these elements are not expected to exceed the ordinance limits.

Emergency Power Generator

Currently, plans show an emergency power generator located on grade at the middle-south side of the parking structure. At this location, the generator is approximately 200-feet from nearby residential properties to the east. This system will likely need to be designed with deliberate noise controls to comply with the Ordinance noise limits. It is our understanding that Soave intends the design of the generator system to comply with the ordinance noise limits.

Building Services

Deliveries to the Adams/Haynes building are not expected to be imposing though are expected to occur on a daily basis. Most delivery vehicles are expected to be box trucks and panel vans, though an occasional semi-truck may be used. With the location of the loading and receiving area planned to be on the west side of the building, this activity should be shielded from the residential properties on the east side of S. Adams Road.

Waste collection is another source of noise that can be problematic. As this service is expected to be located on the west side of the building near the Loading & Receiving area, it too should be shielded from the residential properties to the east.

Conclusion

Based on the information we have been provided, we anticipate that the proposed development can be designed to meet the City of Birmingham ordinance noise limits and have reasonable protections to limit noise to the local residential community.

Should there be any questions or need for additional assistance on this matter, we can be readily contacted.

Sincerely,

KOLANO AND SAHA ENGINEERS, INC.



Darren Brown, P.E.
INCE Board Certified
Consultant

EXHIBIT 1

**SITE PLAN SHOWING THE LOCATION OF
AMBIENT SOUND LEVEL MEASUREMENTS FOR
THE ADAMS/HAYNES DEVELOPMENT COMMUNITY IMPACT STUDY**

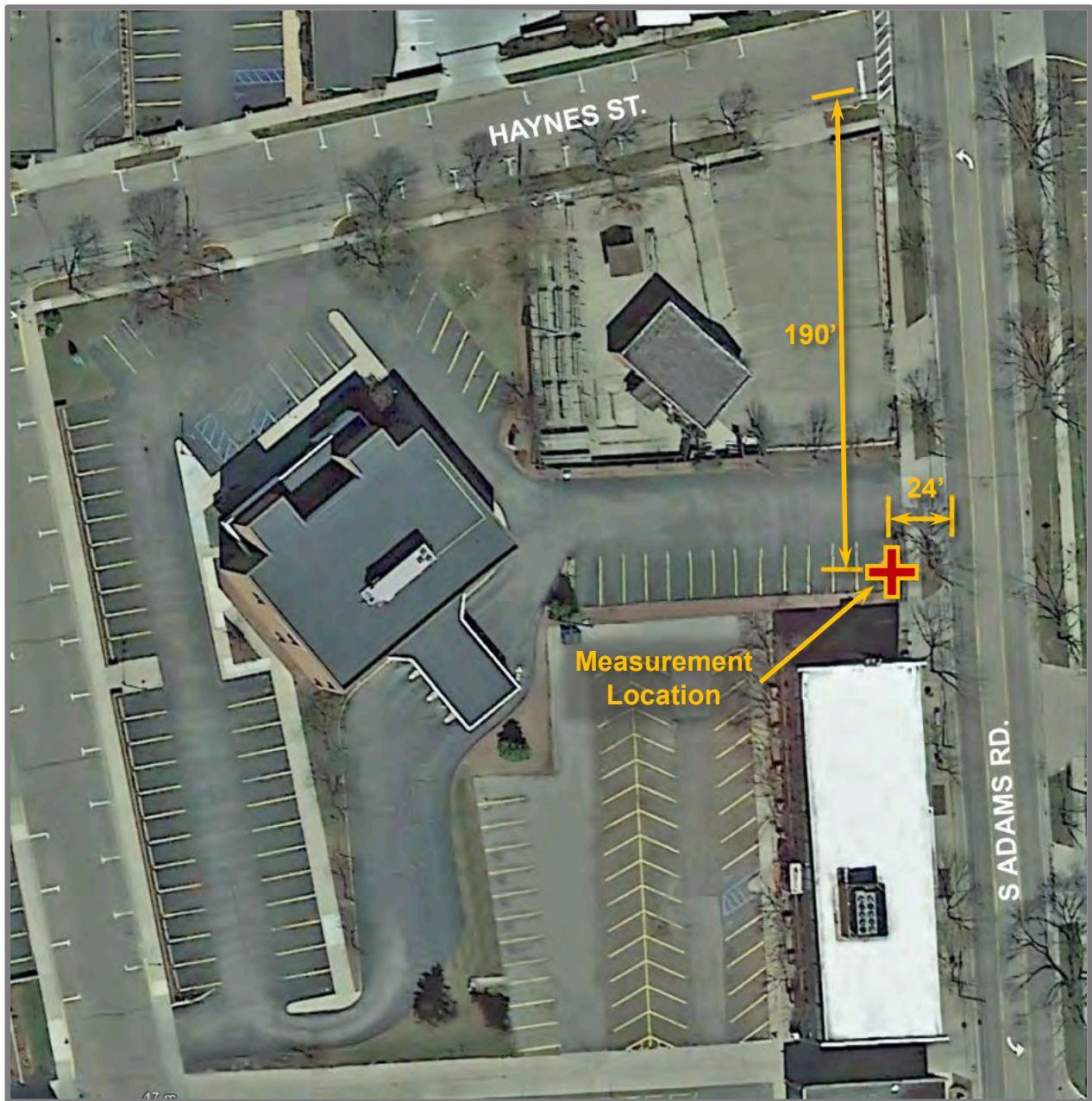
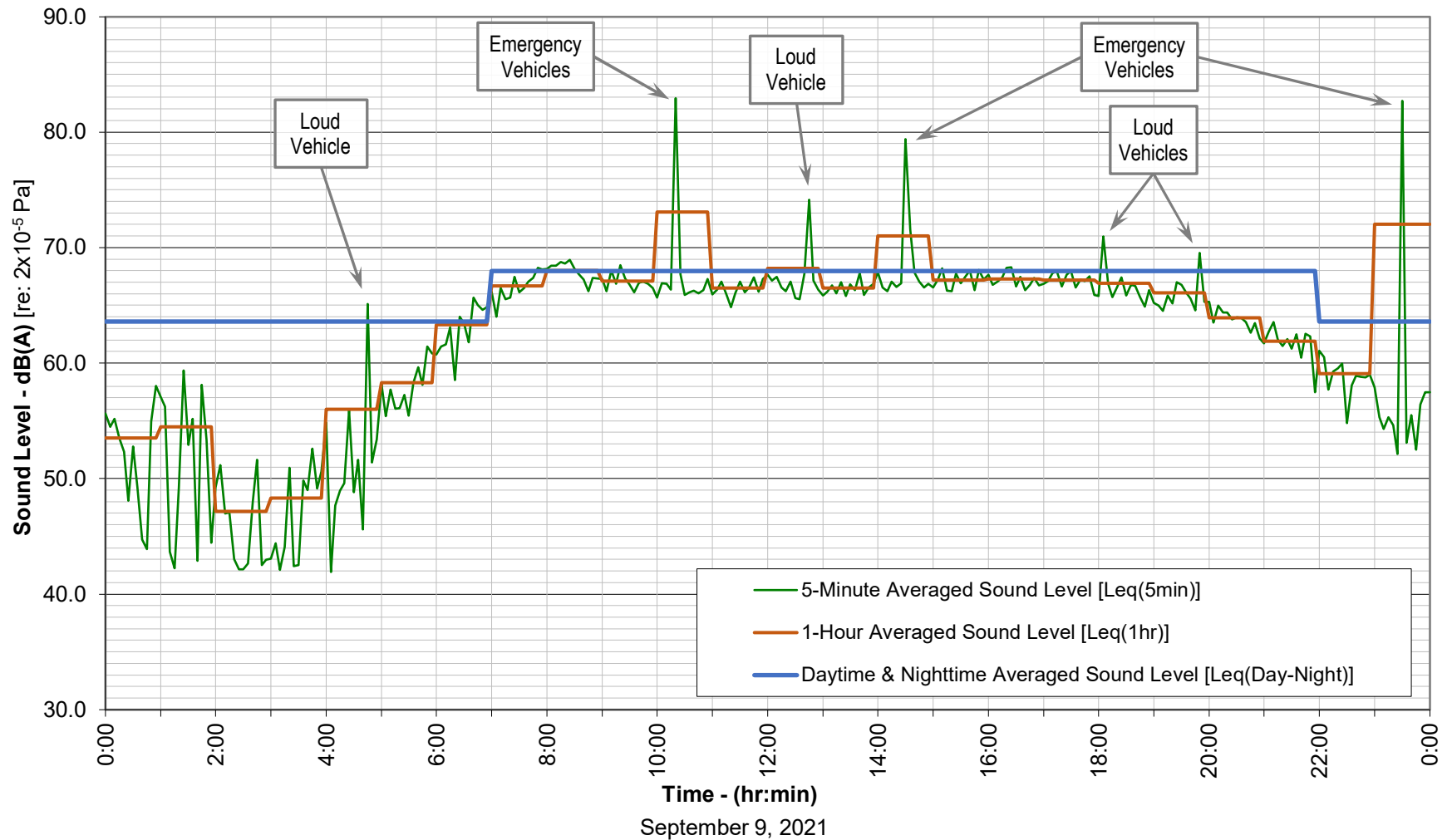


EXHIBIT 2

Ambient Sound Levels at the Proposed Adams/Haynes Development Site

Measured at a Position 190-ft South of Haynes St, and 24-ft West of Adams Road

Study Conducted For: SOAVE Enterprises



4.5 Traffic Impact Study



Memorandum

To: Timothy Andres, AIA
From: Paul T. O'Meara, PE and Alyssa M. Wambold, PE
Date: December 23, 2021
RE: Traffic Impact Study for 770 S Adams Road

ROWE Professional Services Company has completed a Traffic Impact Study (TIS) related to the proposed mixed-use development to be located on the west side of S Adams Road between Haynes Street and the Holland Street in Birmingham, MI. The current site plan (included in the materials attached to this report) shows 4,950 square feet (SF) of retail and 138 dwelling units with an anticipated opening date in 2025. This TIS was prepared to determine if any improvements would be necessary to mitigate traffic impacts to the adjacent road network. This report has been completed in accordance with the requirements specified by the City of Birmingham and their consultant.

TRAFFIC IMPACT STUDY

Existing Conditions

Table 1 summarizes the roadway characteristics for all roadways within the study area determined by the city's consultant.

Table 1 : Roadway Characteristics

Roadway	Jurisdiction	Speed Limit (MPH)	Roadway Classification	AADT (vpd) ¹
S Adams Road	City of Birmingham	25	Principal Arterial	12,300
Haynes Street		25	Local	-
S Worth Street		25	Local	-
Alley		25	Local	-
Holland Street		25	Local	-

¹SEMOG TCDS

The Alley running along the south side of the proposed site is designed to operate with one-way traffic. Between S Adams Street and Worth Street, traffic is designed to travel westbound only. Between Woodward Avenue and Worth Street, traffic is designed to travel eastbound only. The only signing to designate this operation was a single "One Way" sign in the northwest corner of the intersection of S Adams Road and Alley.

Traffic Counts

Turning movement counts (TMCs) were collected during the weekday AM (7 a.m. to 9 a.m.) and PM (4 p.m. to 6 p.m.) peak periods on September 11, 2019 at the intersections of:

- S Adams Road and Haynes Street/Shopping Center
- S Adams Road and Holland Street/Alley
- Worth Street and Alley

Additional TMCs were collected during the weekday AM (7 a.m. to 9 a.m.) and PM (4 p.m. to 6 p.m.) peak periods on November 16, 2021 at the intersection of:

- Haynes Street and Worth Street

Due to the impact of COVID-19, current traffic volume data may not be representative of typical operations. All TMCs collected in 2019 were adjusted to 2021 by applying the city-approved 0.5 percent yearly growth rate.

Subsequently, a comparison was drawn between the 2019 counts that were adjusted to 2021 and the counts collected in 2021. The traffic volume comparison indicated the following for the AM peak hour:

- Northbound exiting volume: Worth Street and Alley (2019 TMCs adjusted to 2021): **11 vph**
- Northbound entering volume: Haynes Street and Worth Street (2021 TMCs): **18 vph**
- Eastbound entering volume: S Adams Road and Haynes Street (2019 TMCs adjusted to 2021): **43 vph**
- Eastbound exiting volume: Haynes Street and Worth Street (2021 TMCs): **67 vph**
- Westbound exiting volume: S Adams Road and Haynes Street (2019 TMCs adjusted to 2021): **75 vph**
- Westbound entering volume: Haynes Street and Worth Street (2021 TMCs): **30 vph**

Therefore, at the intersection of Haynes Street and Worth Street, in the AM peak hour, northbound traffic was not adjusted, eastbound traffic was not adjusted, and westbound traffic was increased by 250 percent to normalize the traffic volumes collected in 2021.

The traffic volume comparison indicated the following for the PM peak hour:

- Northbound exiting volume: Worth Street and Alley (2019 TMCs adjusted to 2021): **75 vph**
- Northbound entering volume: Haynes Street and Worth Street (2021 TMCs): **60 vph**
- Eastbound entering volume: S Adams Road and Haynes Street (2019 TMCs adjusted to 2021): **117 vph**
- Eastbound exiting volume: Haynes Street and Worth Street (2021 TMCs): **98 vph**
- Westbound exiting volume: S Adams Road and Haynes Street (2019 TMCs adjusted to 2021): **92 vph**
- Westbound entering volume: Haynes Street and Worth Street (2021 TMCs): **74 vph**

Therefore, at the intersection of Haynes Street and Worth Street, in the PM peak hour, northbound traffic was increased by 25 percent, eastbound traffic was increased by 19 percent, and westbound traffic was increased by 24 percent to normalize the traffic volumes collected in 2021.

All studied intersections are shown in Figure 1 attached to this memorandum. All traffic counts used in this study are attached to this memorandum. The existing adjusted peak hour traffic volumes are shown in Figure 2 attached to this memorandum.

Background Traffic Scenario

Historical traffic data was referenced to determine the applicable growth rate for the existing traffic volumes for the project build-out year in 2025. Based on this review, a background growth rate of 0.5 percent was utilized. The background traffic volumes are shown in Figure 3 attached to this memorandum.

Trip Generation

Using the information and methodologies specified in the latest version of Trip Generation (Trip Generation Manual, 11th Edition, 2021), ROWE forecast the weekday AM and PM peak hour trips associated with the proposed development. Land Use Code (LUC) 231 – Mid-Rise Residential with Ground-Floor Commercial – GFA (1-25k) was reviewed, however this land use does not have sufficient data plots, and LUC 221 and LUC 822 was determined to be a better fit for this development. The results of the trip generation forecasts are provided below in Table 2.

Table 2: Trip Generation for Proposed Development

Land Use	Land Use Code	Units	AM Peak Hour			PM Peak Hour			Week Day
			In	Out	Total	In	Out	Total	
Multifamily Housing (Mid-Rise)	221	138 DU	11	38	49	33	21	54	627
Strip Retail Plaza (<40k)	822	4,950 SF	7	5	12	23	24	47	439
Total	-	-	18	43	61	56	45	101	1,066
Internal Capture Reductions: 16% PM (14% In, 18% Out)			-	-	-	8	8	16	-
Total External Trips			18	43	61	48	37	85	1,066
Pass-By Rates, LUC 822 ¹ : 40% PM			-	-	-	8	8	16	-
Total New Trips			18	43	61	40	29	69	1,066

¹Pass-By rates for LUC 821 – Shopping Plaza (40-150K) were utilized

In multi-use developments, not all the trips generated are from sources outside the boundaries of the development but are rather trips that are “internally captured” within the site. The methodology presented in *NCHRP Report 684: Enhancing Internal Trip Capture Estimation for Mixed-Use Developments* was followed to determine an appropriate internal capture rate for the proposed development. The results of this analysis indicate no AM internal capture and a 16 percent (14 percent in, 18 percent out) PM peak hour internal capture rate for the combination of land uses. With the inclusion of the internal capture reductions, the proposed development will generate 61 external trips during the AM peak hour (18 inbound and 43 outbound) and 85 external trips during the PM peak hour (48 inbound and 37 outbound).

Not all the traffic generated by the proposed development will be new traffic added onto the adjacent roadway network. As with most new commercial development, a significant amount of the site-generated traffic is considered “pass-by” traffic. Pass-by trips are trips already present on the adjacent roadway network, which are interrupted to visit the site. Pass-by trips are accounted for by reducing the number of forecast new trips to be added to the roadway network; however, actual driveway volumes are not reduced. Pass-by trips are normally expressed as a percentage of trips generated by the new development. These pass-by rates are published in the Trip Generation Handbook.

The Trip Generation Handbook indicates a 40 percent PM pass-by rate for the retail uses (LUC 822). With the application of these pass-by trip factors, the site-generated trips can be

classified as “pass-by” and “new” trips. The proposed development is expected to generate 61 total trips during the AM peak hour and 101 total trips during the PM peak hour. However, only 69 of the PM peak hour trips will be new traffic not currently using the adjacent street network, whose primary purpose is to visit the new development.

The vehicle trips in Table 2 were converted to person-trips by using the baseline vehicle mode split and baseline vehicle occupancy rates published by ITE in Appendix B of the *ITE Trip Generation Handbook, 3rd Edition*. The vehicle mode splits and vehicle occupancy rates for the studies contained within the *Trip Generation Handbook* are provided in Table 3 below.

Table 3 : Vehicle Occupancy and Mode Share

Land Use	Land Use Code	AM Peak Hour					PM Peak Hour				
		Vehicle Occupancy	Mode Share				Vehicle Occupancy	Mode Share			
			Vehicle	Walking	Cycling	Transit		Vehicle	Walking	Cycling	Transit
Multifamily (Mid-Rise)	221	1.13	0.873	0.017	0.002	0.002	1.15	0.873	0.017	0.002	0.002
Strip Retail Plaza (>40k)	822	1.17	0.96	0.02	0.01	0.01	1.21	0.96	0.02	0.01	0.01

Appendix B of the *Trip Generation Handbook, 3rd Edition* specifies weekday average vehicle occupancy rates of 1.13 (AM peak hour) and 1.15 (PM peak hour) for LUC 221 vehicle-based trips and weekday average vehicle occupancy rates of 1.17 (AM peak hour) and 1.21 (PM peak hour) for LUC 822 vehicle-based trips. Appendix B also specifies a *minimum* vehicle mode share of 96 percent for the LUC 822 person-trips. Therefore, it was assumed that the remaining 4 percent of person-trips were made via walking (2 percent), cycling (1 percent), and transit (1 percent). Data provided by the City of Birmingham and their consultants based on the SEMCOG Community Profile for the city shows a vehicle mode share of 87.3 percent, walking mode share of 1.7 percent, and cycling/transit mode shares of 0.2 percent each associated with residential land uses (LUC 221). The vehicular trip generation associated with the new development was converted to a person-trip generation by applying the vehicle occupancy rate to the vehicular trip generation (prior to implementation of the Internal Capture reductions). These calculations are shown in Table 4 and Table 5 for LUC 221 and LUC 822, respectively. Next, the Internal Capture reductions were applied to the person-trip generation by applying the aforementioned factors. These calculations are shown in Table 6 and Table 7 for the LUC 221 and LUC 822 development components, respectively. Finally, the vehicle mode share percentages were applied to the total number of person-trips to project the number of person-trips utilizing vehicle travel, walking, cycling, and transit travel to the site. These calculations are shown in Table 8 and Table 9 for the LUC 221 and LUC 822 development components, respectively.

Table 4: Person-Trip Generation - LUC 221 (Prior to Internal Capture Reductions)

Land Use	Land Use Code	Units	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Multifamily Housing (Mid-Rise)	221	138 DU	13	42	55	38	24	62

Table 5: Person-Trip Generation - LUC 882 (Prior to Internal Capture Reductions)

Land Use	Land Use Code	Units	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Strip Retail Plaza (<40k)	822	4,950 SF	8	6	14	29	28	57

Table 6: Person-Trip Generation - LUC 221 (After Internal Capture Reductions)

Land Use	Land Use Code	Units	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Multifamily Housing (Mid-Rise)	221	138 DU	13	42	55	32	21	53

Table 7: Person-Trip Generation - LUC 822 (After Internal Capture Reductions)

Land Use	Land Use Code	Units	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Strip Retail Plaza (<40k)	822	4,950 SF	8	6	14	24	23	47

Table 8: Person-Trip Generation by Travel Mode- LUC 221

Travel Mode	Land Use Code	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Vehicle	221	11	37	48	28	18	46
Walking	221	1	0	1	0	1	1
Cycling	221	0	0	0	0	0	0
Transit	221	0	0	0	0	0	0
Work From Home	221	1	5	6	4	2	6
Total New Person-Trips		13	42	55	32	21	53

Table 9: Person-Trip Generation by Travel Mode- LUC 822

Travel Mode	Land Use Code	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Vehicle	822	8	5	13	23	22	45
Walking	822	0	1	1	1	1	2
Cycling	822	0	0	0	0	0	0
Transit	822	0	0	0	0	0	0
Total New Person-Trips		8	6	14	24	23	47

Trip Distribution

Typically, existing traffic volumes are used to develop a trip distribution model for the AM and PM peak hours for the new traffic that will be generated by the proposed development. However, this site is in close proximity to a major northbound/southbound arterial roadway (Woodward Avenue) without any direct access to that roadway. It is anticipated that many vehicles coming to or from the north and south will utilize this major arterial instead of S Adams Road. To assign site generated trips appropriately, traffic data on Woodward Avenue was reviewed.

The city had previously provided a TMC at the intersection of Woodward Avenue and E Lincoln Street that was collected in 2019. This TMC only contained data for Northbound Woodward Avenue. A TMC was available on the Michigan Department of Transportation's (MDOT) Transportation Data Management System (TDMS) from 2013 on Woodward Avenue just north of E Lincoln Street. This count contained data for northbound and southbound Woodward Avenue. The northbound data from the TMC collected in 2019 was adjusted to 2021 by applying the city-approved 0.5 percent yearly growth rate. The southbound data from the 2013 TMC was adjusted to 2021 by applying the city-approved 0.5 percent yearly growth rate. Trip distribution was then completed based on the existing traffic patterns plus the influence of Woodward Avenue. Table 10 shows the result of this analysis.

Table 10: Trip Distribution

Direction	Via	AM Peak Hour		PM Peak Hour	
		To	From	To	From
North	Woodward Avenue	47%	36%	38%	43%
	S Adams Road	8%	9%	8%	9%
South	Woodward Avenue	36%	47%	43%	39%
	S Adams Road	9%	8%	8%	8%
	S Worth Street	0%	0%	2%	1%
East	Holland St	0%	0%	1%	0%
Total		100%	100%	100%	100%

The trip distribution for the site is shown in Figure 4 and Figure 5 attached to this memorandum. The background traffic volumes were combined with the site generated traffic volumes to obtain the total future traffic volumes, which are shown in Figure 6 attached to this memorandum.

Level of Service Analysis

Level of service (LOS) analyses for existing, background, and total future (build) conditions for the AM and PM peak hours were performed for the intersections of:

- S Adams Road and Haynes Street/Shopping Center
 - Unsignalized Intersection
- S Adams Road and Holland Street/Alley
 - Unsignalized Intersection
- Worth Street and Alley
 - Unsignalized Intersection
- Haynes Street and Worth Street
 - Unsignalized Intersection
- Worth Street & Site Driveway
 - Proposed driveway approximately 50 feet north of Alley

According to the most recent (6th) edition of the Highway Capacity Manual (HCM), LOS is a qualitative measure describing operational conditions of a traffic stream or intersection. LOS ranges from A to F, with LOS A being the best and LOS D generally being considered acceptable. Table 11 presents the criteria for defining the various LOS for unsignalized intersections. LOS D is considered acceptable in urban/suburban areas.

Table 11: LOS Criteria – Unsignalized Intersection

LOS	Average Stopped Delay/Vehicle (seconds)
A	≤ 10
B	> 10 and ≤ 15
C	> 15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50

The results of the LOS analyses for the intersection listed above are summarized in Table 12 through Table 17. Full LOS output reports are attached to this memorandum.

Existing Conditions

The results of the LOS analysis for existing conditions reveals that most approaches and movements of the studied intersections operate at LOS D or better during the AM and PM peak hours, with the following exceptions:

- S Adams Road and Haynes Street/Shopping Center
 - The eastbound approach operates at LOS E in the AM peak hour
 - The eastbound approach operates at LOS F in the PM peak hour

95th percentile queue lengths were reviewed at the studied intersections. No significant queue lengths were observed in the simulations. At the intersection of S Adams Road and Haynes Street/Shopping Center, queues on the eastbound approach do not exceed 70 feet (3 vehicles) in the AM peak hour and 124 feet (5 vehicles) in the PM peak hour.

The operational results for existing conditions are presented in Table 12.

Table 12: LOS Analysis for Existing Conditions

Intersection	Control Type	Approach	AM Peak	PM Peak
S Adams Road & Haynes Street/Shopping Center	Stop	Eastbound	E 42.9	F 106.4
		Westbound	C 23.9	C 24.6
	Free	Northbound	A 0.6	A 0.5
		Southbound	A 0.1	A 0.1
	Two-Way Stop Control	Overall	A 3.6	B 10.5
S Adams Road & Holland Street/Alley	Stop	Eastbound	B 12.7	C 20.1
		Westbound	C 19.1	C 22.1
	Free	Northbound	A 0.1	A 0.0
		Southbound	A 0.2	A 0.4
	Two-Way Stop Control	Overall	A 0.7	A 0.8
Worth Street & Alley	Stop	Eastbound	A 8.6	A 9.1
		Westbound	A 8.6	A 9.3
	Free	Northbound	A 0.0	A 0.0
		Southbound	A 0.3	A 0.0
	Two-Way Stop Control	Overall	A 3.6	A 4.1
Haynes Street & Worth Street	Free	Eastbound	A 0.0	A 0.0
		Westbound	A 1.8	A 2.5
	Stop	Northbound	A 9.2	A 9.9
	Two-Way Stop Control	Overall	A 2.6	A 3.7

XX.X Average seconds of delay per vehicle

Background Conditions

The results of the LOS analysis for background conditions reveals that most approaches and movements of the studied intersections would continue to operate at LOS D or better during the AM and PM peak hours, with the following exceptions:

- S Adams Road & Haynes Street/Shopping Center
 - The eastbound approach would continue to operate at LOS E in the AM peak hour
 - The eastbound approach would continue to operate at LOS F in the PM peak hour

95th percentile queue lengths were reviewed at the studied intersections. No significant queue lengths were observed in the simulations. At the intersection of S Adams Road and Haynes

Street/Shopping Center, queues on the eastbound approach do not exceed 81 feet (3 vehicles) in the AM peak hour and 118 feet (5 vehicles) in the PM peak hour.

The operational results for background conditions are presented in Table 14.

Table 13: LOS Analysis for Background Conditions

Intersection	Control Type	Approach	AM Peak	PM Peak
S Adams Road & Haynes Street/Shopping Center	Stop	Eastbound	E 45.9	F 126.2
		Westbound	C 24.9	D 25.2
	Free	Northbound	A 0.6	A 0.5
		Southbound	A 0.1	A 0.1
	Two-Way Stop Control	Overall	A 3.8	B 12.3
S Adams Road & Holland Street/Alley	Stop	Eastbound	B 12.8	C 20.7
		Westbound	C 19.5	C 22.8
	Free	Northbound	A 0.1	A 0.0
		Southbound	A 0.2	A 0.4
	Two-Way Stop Control	Overall	A 0.7	A 0.8
Worth Street & Alley	Stop	Eastbound	A 8.6	A 9.1
		Westbound	A 8.6	A 9.3
	Free	Northbound	A 0.0	A 0.0
		Southbound	A 0.3	A 0.0
	Two-Way Stop Control	Overall	A 3.6	A 4.1
Haynes Street & Worth Street	Free	Eastbound	A 0.0	A 0.0
		Westbound	A 1.8	A 2.6
	Stop	Northbound	A 9.2	B 10.0
		Two-Way Stop Control	Overall	A 2.6
			A 3.8	

XX.X Average seconds of delay per vehicle

Future Conditions

The results of the LOS analysis for future conditions reveals that most approaches and movements of the studied intersections would continue to operate at LOS D or better during the AM and PM peak hours, with the following exceptions:

- S Adams Road and Haynes Street/Shopping Center
 - The eastbound approach would operate at LOS F in the AM peak hour
 - The eastbound approach would continue to operate at LOS F in the PM peak hour

95th percentile queue lengths were reviewed at the studied intersections. No significant queue lengths were observed in the simulations. At the intersection of S Adams Road and Haynes Street/Shopping Center, queues on the eastbound approach do not exceed 85 feet (3 vehicles) in the AM peak hour and 157 feet (6 vehicles) in the PM peak hour.

Improvements to the eastbound approach at the intersection of S Adams Road and Haynes Street/Shopping center were investigated. The addition of an eastbound turn lane was modeled. However, the results of this analysis revealed that the eastbound approach would continue to operate at LOS E in the AM peak hour and LOS F in the PM peak hour. Queue lengths on this approach would not exceed 64 feet (2 vehicles) in the AM peak hour and 102 feet (4 vehicles) in the PM peak hour. A right turn lane is not expected to greatly improve the operations of this intersection and is not recommended.

The operational results for future conditions are presented in Table 16.

Table 14: LOS Analysis for Future Conditions

Intersection	Control Type	Approach	AM Peak	PM Peak
S Adams Road & Haynes Street/Shopping Center	Stop	Eastbound	F 53.5	F 171.1
		Westbound	D 25.1	D 25.9
	Free	Northbound	A 0.7	A 0.6
		Southbound	A 0.1	A 0.1
	Two-Way Stop Control	Overall	A 4.5	C 17.8
S Adams Road & Holland Street/Alley	Stop	Eastbound	B 12.8	C 20.7
		Westbound	C 19.5	C 22.8
	Free	Northbound	A 0.1	A 0.0
		Southbound	A 0.2	A 0.4
	Two-Way Stop Control	Overall	A 0.7	A 0.8
Worth Street & Alley	Stop	Eastbound	A 8.8	A 9.4
		Westbound	A 8.6	A 9.4
	Free	Northbound	A 0.0	A 0.0
		Southbound	A 0.3	A 0.0
	Two-Way Stop Control	Overall	A 3.6	A 4.2
Haynes Street & Worth Street	Free	Eastbound	A 0.0	A 0.0
		Westbound	A 2.0	A 3.3
	Stop	Northbound	B 10.1	B 10.8
	Two-Way Stop Control	Overall	A 4.4	A 4.8
Worth Street & Site Driveway	Stop	Westbound	A 8.7	A 9.0
	Free	Northbound	A 0.0	A 0.0
		Southbound	A 1.9	A 2.4
	TWSC	Overall	A 4.0	A 2.4

XX.X Average seconds of delay per vehicle

Site Access

There is one proposed driveway off Worth Street for this development, which is located approximately 50 feet north of the Alley. This driveway will lead to the on site parking structure for the residential uses. The retail traffic will be able to use the on site parking structure or the street parking adjacent to the site. No changes to the roadway are needed to improve access for all roadway users (vehicles, pedestrians, and bicyclists).

95th percentile queues lengths were assessed at the proposed driveway on Worth Street. These queue lengths exiting the site did not exceed 4 feet (1 vehicle) in the AM peak hour and 11 feet (1 vehicle) in the PM peak hour. On northbound Worth Street, queue lengths did not exceed 6 feet (1 vehicle) in the AM peak hour and 12 feet (1 vehicle) in the PM peak hour. On southbound Worth Street, queue lengths did not exceed 47 feet 2 vehicles) in the AM peak hour and 43 feet (2 vehicles) in the PM peak hour.

Site Circulation and Parking

This development includes an underground parking structure with 236 proposed spaces. 172 of these spaces will be reserved for residential parking, with the remaining 64 spaces being reserved for building staff or retail parking. Traffic to/from the retail development and residential visitors also have the option to utilize the existing on-street parking facilities.

Multimodal Considerations

Cyclists

Bicycle parking will be provided in the underground parking structure. These facilities can accommodate 96 bicycles. No further enhancements are required to support the subject development.

Pedestrians

Adjacent to the site, sidewalks are located on both sides of S Adams Road, Haynes Street, and Worth Street. At the intersection of S Adams Road and Haynes Street/Shopping Center, there is a marked crosswalk for northbound/southbound traffic on the west side of the intersection; however, the sidewalk ramps are not ADA-compliant. At the intersection of S Adams Road and Alley/Holland Street, there are ADA-complaint sidewalk ramps for northbound/southbound traffic on the east side of the intersection, and non-ADA-compliant sidewalk ramps for northbound/southbound traffic on the west side of the intersection. If pedestrians wish to cross S Adams Road, they can use the existing ADA-compliant facilities at Bowers Street (approximately 200 feet north of site) or Webster Street (approximately 350 feet south of site). Due to the vehicular volumes on S Adams Road and the number of driveways, a mid-block pedestrian crossing is not feasible on S Adams Road.

At the intersection of Haynes Street and Worth Street, there is a marked crosswalk and ADA-compliant sidewalk ramps for eastbound/westbound traffic on the south side of the intersection. If pedestrians wish to cross Haynes Street, they can use the existing facilities at S Adams Road (described above) or the ADA-compliant facilities at Woodward Avenue. A mid-block pedestrian crossing is not feasible due to the on-street parking facilities on Haynes Street.

At the intersection of Worth Street and Alley, there are non-ADA-compliant sidewalk ramps for northbound/southbound traffic on the east and west sides on the intersection. There are no pedestrian facilities along the Alley; however, it is not recommended to route pedestrians through an Alley when other options are available nearby.

The city should review the locations noted above that are non-ADA compliant. No further enhancements to pedestrian access are required to support the development.

Transit Users

Route 450/460 – Woodward Local has scheduled stop locations at Woodward Avenue and Worth Street, Woodward Avenue and E Lincoln Street, and S Elm Street and Bowers Street. These routes, administered by SMART, run for approximately 18 hours on weekdays and Saturday's, and approximately 16 hours on Sunday's. Headways are approximately 60 minutes for each of the two independent numbered routes. No additional bus stops, or routes are required to support the subject development.

Non-motorized Routing

Anticipated routes for all non-motorized traffic associated with the development were determined. These routes are shown in Figure 7 attached to this memorandum. These routes will utilize the existing pedestrian facilities and crosswalks.

Crash Analysis

A crash analysis was conducted for all intersections included in this study. Traffic crash data was reviewed for the most recent completed five years (November 15, 2016 – November 15, 2021) of available data. The results of this analysis revealed there was a total of 23 crashes on these

segments. Of these 23 crashes, there were no fatal or serious injury (A) crashes, 1 minor injury (B) crashes, 4 potential injury (C) crashes, and 18 property damage only (O) crashes. None of these crashes involved alcohol, drugs, pedestrians, or bicyclists. Table 21 shows the number of crashes associated with different contributing factors.

Table 21 shows a summary of all crash types within the studied segments.

Table 15 : Overall Crash Summary - Contributing Circumstances

Contributing Circumstance	Number of Crashes by Severity						Percentage of Total Crashes with Contributing Circumstance
	Fatal	A-Level	B-Level	C-Level	PDO	Total	
Parking/Parked Cars	-	-	-	-	2	2	9%
Traffic Congestion	-	-	1	4	15	20	87%
Total	-	-	1	4	17	22	-

Table 16 : Overall Crash Summary - Crash Type

Crash Type	Number of Crashes by Severity						Percentage
	Fatal	A-Level	B-Level	C-Level	PDO	Total	
Rear End	-	-	1	4	9	14	61%
Angle	-	-	-	-	4	4	17%
Backing	-	-	-	-	1	1	4%
Other	-	-	-	-	1	1	4%
Sideswipe Opposite Direction	-	-	-	-	1	1	4%
Sideswipe Same Direction	-	-	-	-	1	1	4%
Unknown	-	-	-	-	1	1	4%
Total	-	-	1	4	18	23	100%

The most frequent crash type in the studied area was rear end (61 percent), followed by angle (17 percent) and backing, other, sideswipe opposite direction, sideswipe same direction, and unknown (4 percent each). Most of the crashes (20 crashes, 87 percent) occurred due to traffic congestion.

Crash data was separated by intersection and roadway segment. Based on the methodologies described in the SEMCOG Traffic Safety Manual (Southeast Michigan Council of Governments (SEMCOG), 2016), crash frequencies and crash rates were determined for each studied intersection and roadway segments. The calculated values were then compared to average values and critical values for roadways of similar characteristics. The results of these analyses are shown in Table 23 through Table 26 below.

Table 17 : Location Crash Summary – Contributing Circumstances

	Contributing Circumstance		
	Parked Cars	Traffic Congestion	Other
S Adams Rd & Haynes St/Shopping Center	-	4	1
Total	-	4	1
S Adams Rd	-	18	1
Haynes St		2	-
Worth St	2	-	-
Total	2	20	1

Table 18 : Location Crash Summary – Crash Type

	Crash Type							
	Angle	Backing	Other	Rear End	Sideswipe Opposite Direction	Sideswipe Same Direction	Unknown	Total
S Adams Rd & Haynes St/Shopping Center	2	1	1	-	1	-	-	5
Total	2	1	1	-	1	-	-	5
S Adams Rd	3	1	1	13	1	-	-	19
Haynes St	1			1	-	-	-	2
Worth St	-	-	-	-	-	1	1	2
Total	4	1	1	14	1	1	1	23

Table 19: Number of Crashes by Location

	Total Crashes	Crash Frequency	Average Crash Frequency ²	Critical Crash Frequency ²	Crash Rate ¹	Average Crash Rate ^{1,2}
S Adams Rd & Haynes St/Shopping Center	5	1.0	3.68	7.14	0.08	0.69
Total	5	1.0	-	-	-	-
S Adams Rd	19	3.8	3.68	7.14	0.30	0.69
Haynes St	2	0.4	1.82	3.87	0.1	1.19
Worth St	2	0.4	1.82	3.87	0.1	1.19
Total	23	4.6	-	-	-	-

¹Crashes per million entering vehicles

²SEMOG Traffic Safety Manual 2016 Chapter 3

Table 20: Number of Injury Crashes by Location

	B-Level	C-Level	PDO	Casualty Ratio	Average Casualty Ratio ¹	Critical Casualty Ratio ¹
S Adams Rd & Haynes St/Shopping Center	-	-	5	0.0	.22	.43
Total	-	-	5	-	-	-
S Adams Rd	1	4	14	0.26	.22	.43
Haynes St	-	-	2	0.0	.22	.49
Worth St	-	-	2	0.0	.22	.49
Total	1	4	18	-	-	-

¹SEMOG Traffic Safety Manual 2016 Chapter 3

The crash frequency along S Adams Road is greater than the average rate for roadways of similar characteristics. However, the crash frequency is below the critical crash frequency. The casualty ratio along S Adams Road is greater than the average rate for intersections of similar characteristics. However, the causality ratio is below the critical casualty ratio for roadways of similar characteristics. A summary of the crash data is attached to this memorandum.

Conclusions and Recommendations for the Traffic Impact Study

The proposed project consists of a mixed-use development located in on the west side of S Adams Road between Haynes Street and the Alley in Birmingham, MI. The current site plan shows 4,950 square feet (SF) of retail and 138 dwelling units with an anticipated opening date in 2025. The proposed development will have an on site parking structure with access to Worth Street via one proposed driveway.

The proposed development is forecast to generate 61 new trips during the AM peak hour (18 inbound and 43 outbound from the site) and 69 new trips during the PM peak hour (40 inbound and 29 outbound from the site).

An operational analysis was performed for existing, background, and total future (build) conditions for the intersections of:

- S Adams Road and Haynes Street/Shopping Center
- S Adams Road and Holland Street/Alley
- Worth Street and Alley
- Haynes Street and Worth Street
- Worth Street and Site Driveway

The operational analysis indicated that most approaches of the study intersections would operate at acceptable levels during both the AM and PM peak hours. The eastbound approach at the intersection of S Adams Road and Haynes Street/Shopping center currently operates at LOS E in the AM and LOS F in the PM. With the addition of the site generated traffic, this approach would operate at LOS F in the AM and PM peak hours. However, 95th percentile queue lengths were reviewed on this approach, and no queue length exceeds 85 feet (3 vehicles) in the AM peak hour and 157 feet (6 vehicles) in the PM peak hour.

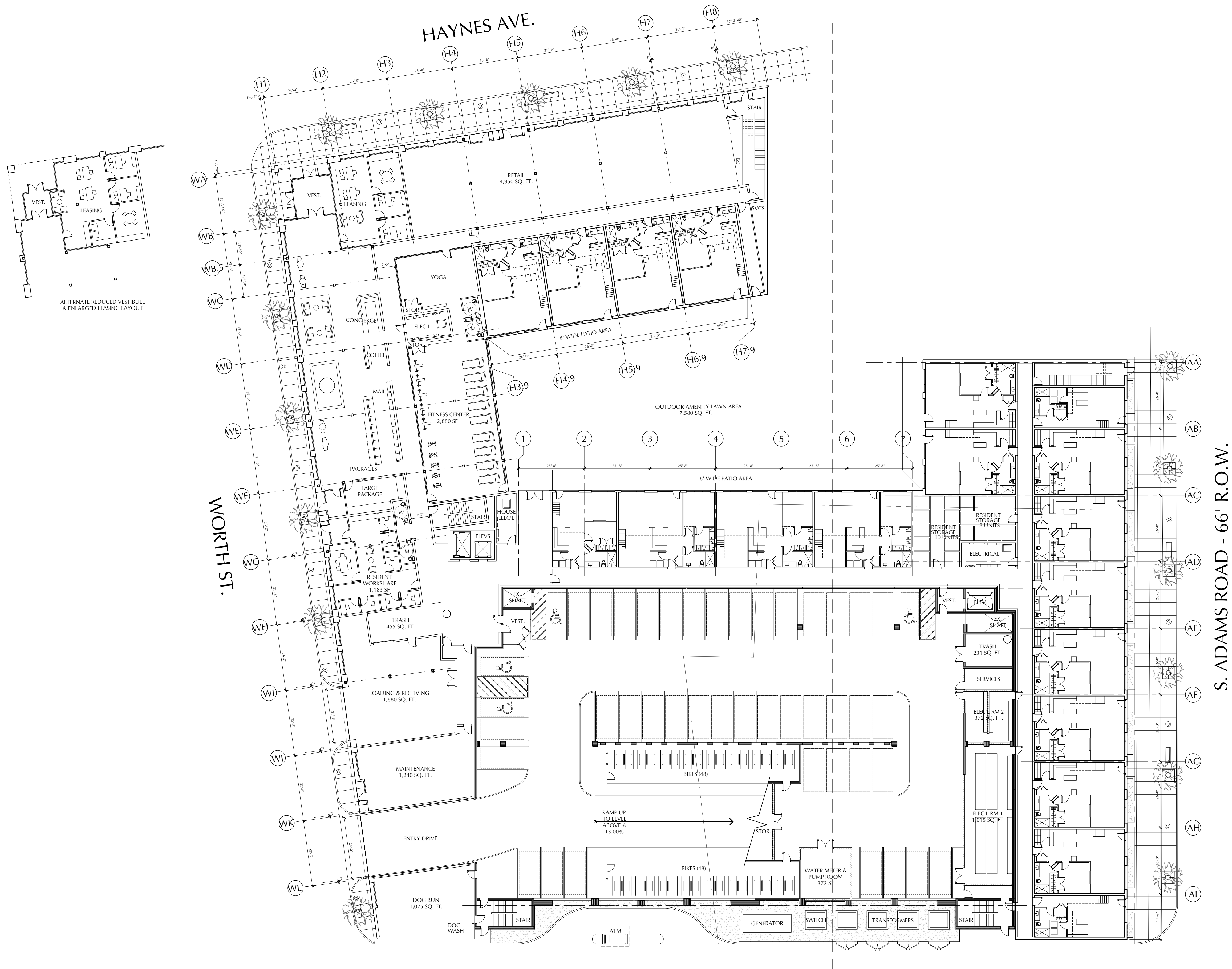
At the intersection of S Adams Road and Haynes Street/Shopping Center, the addition of an eastbound turn lane was modeled. However, the results of this analysis revealed no significant improvement in the operations of this intersection and is not recommended.

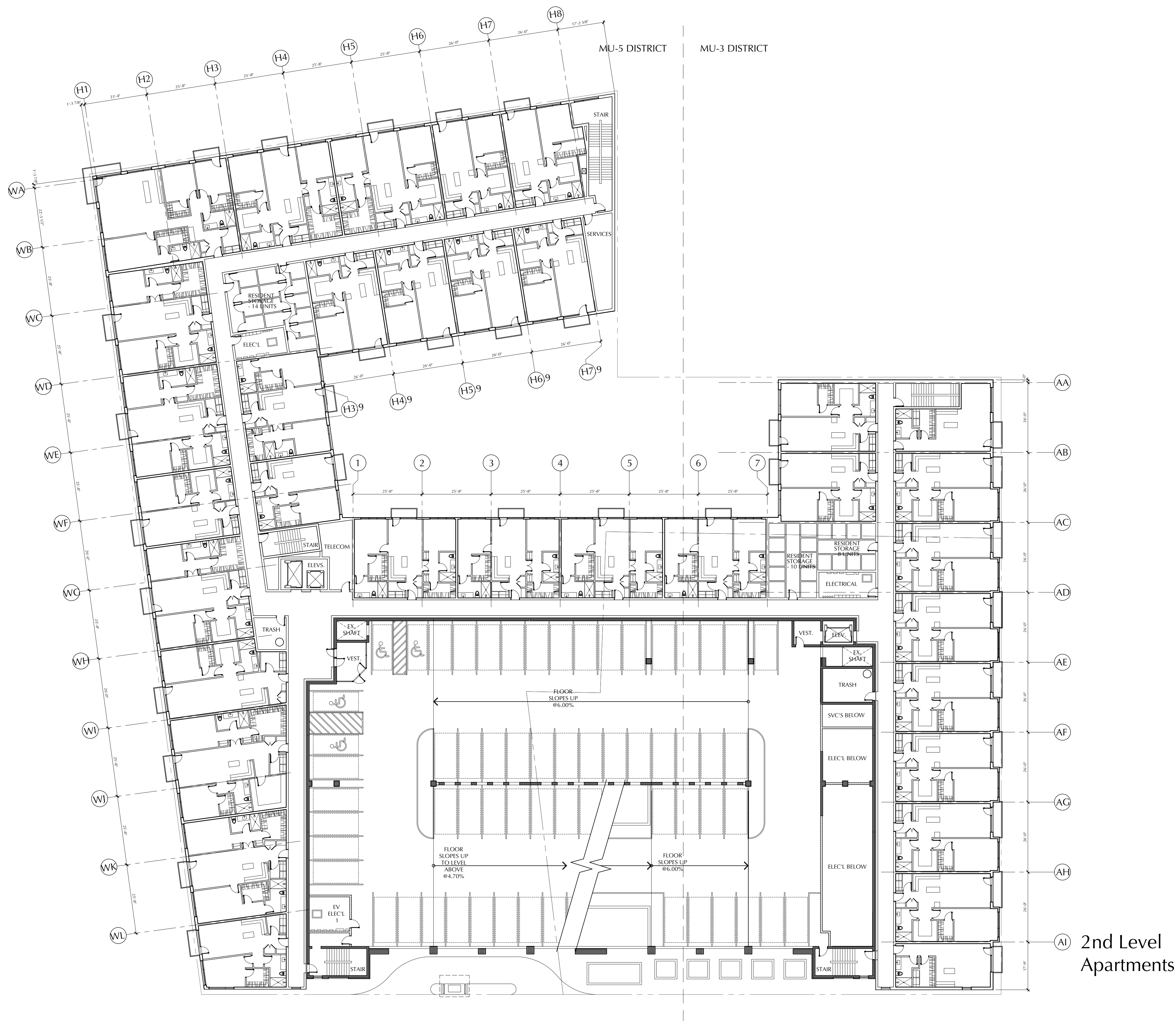
Overall, the proposed project does not have a significant impact at the studied intersections or on the surrounding road network. No transportation improvements will be required to support the development on opening day.

Attachments

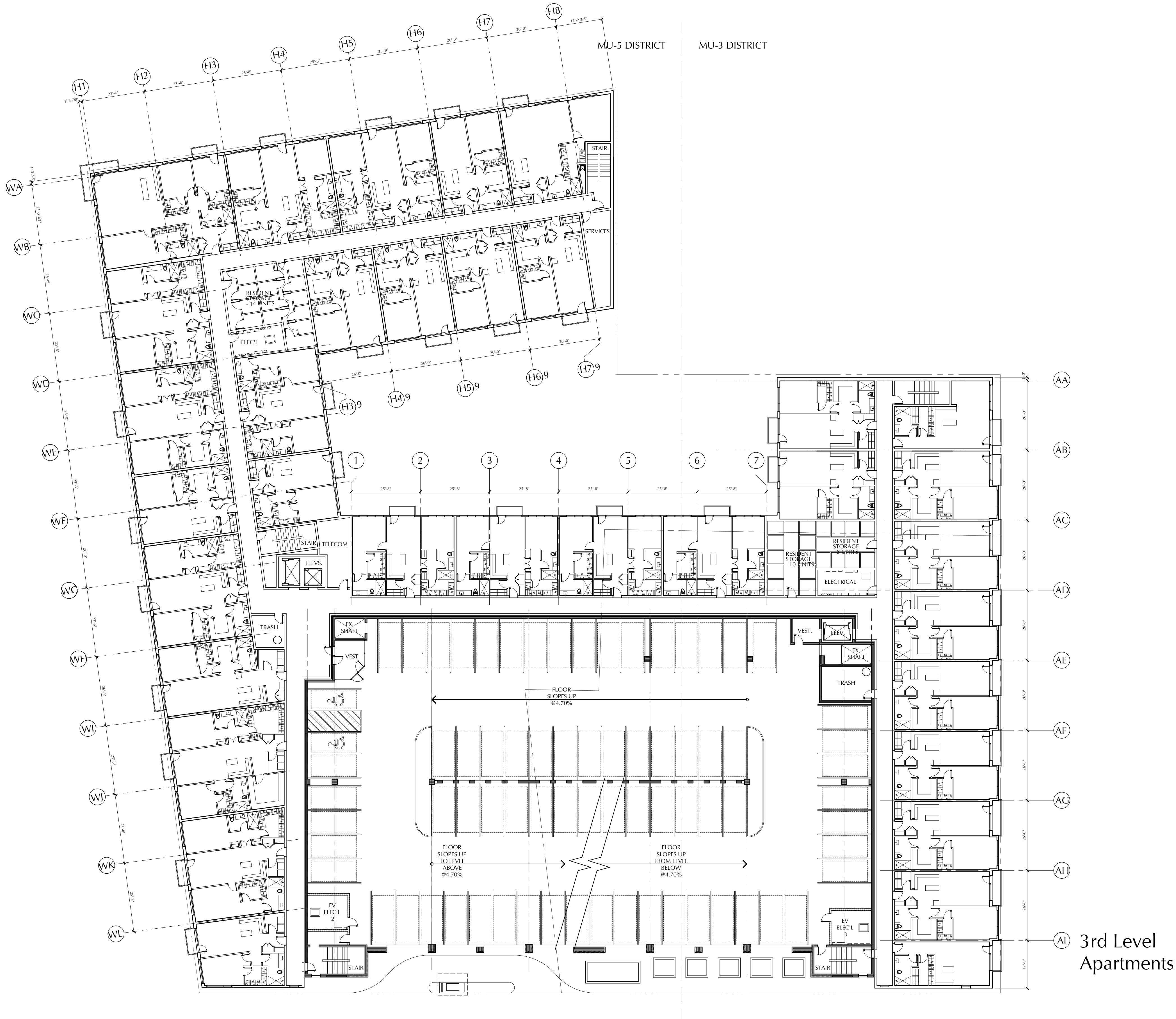
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SITE PLAN

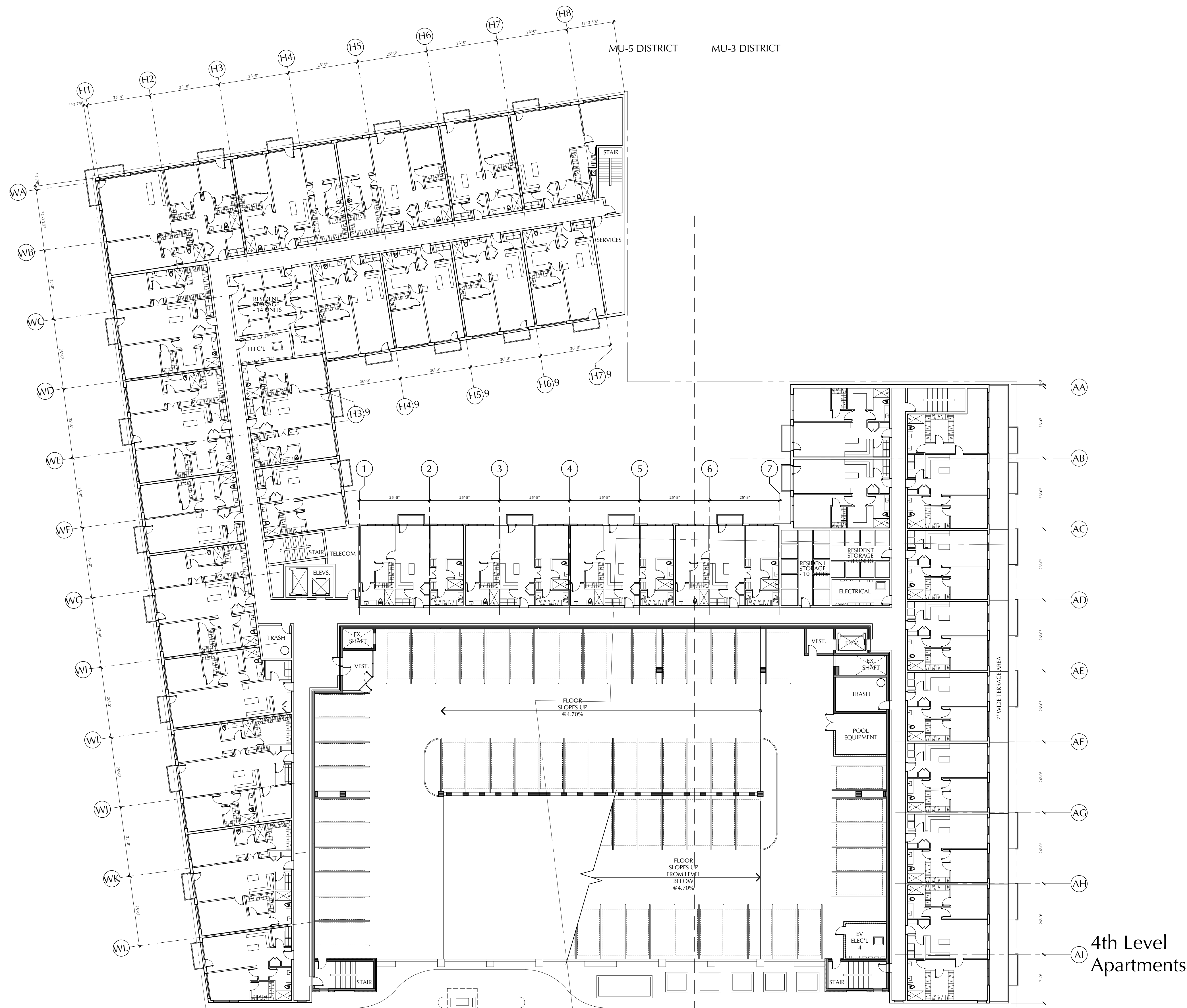




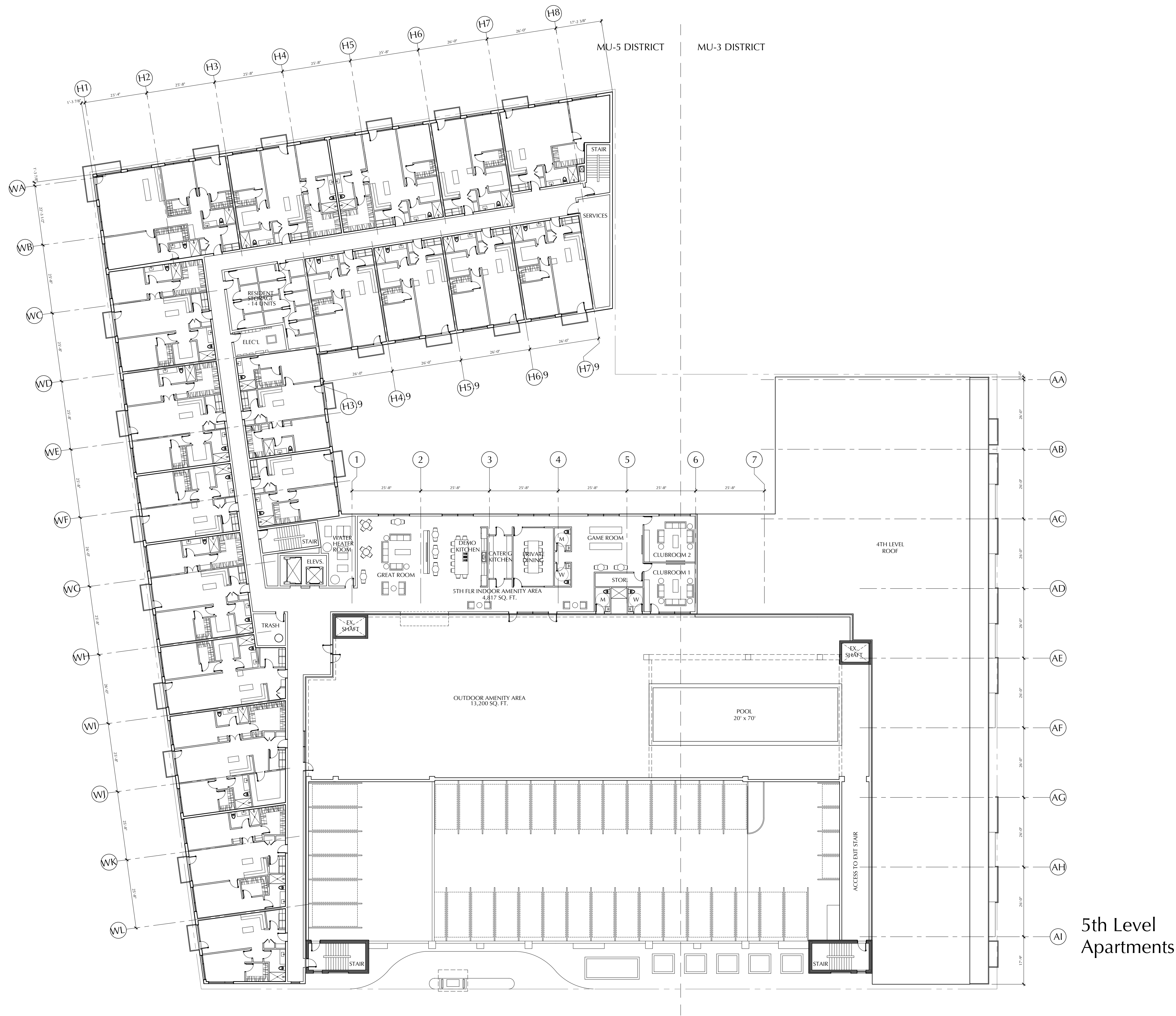
2nd Level
Apartments

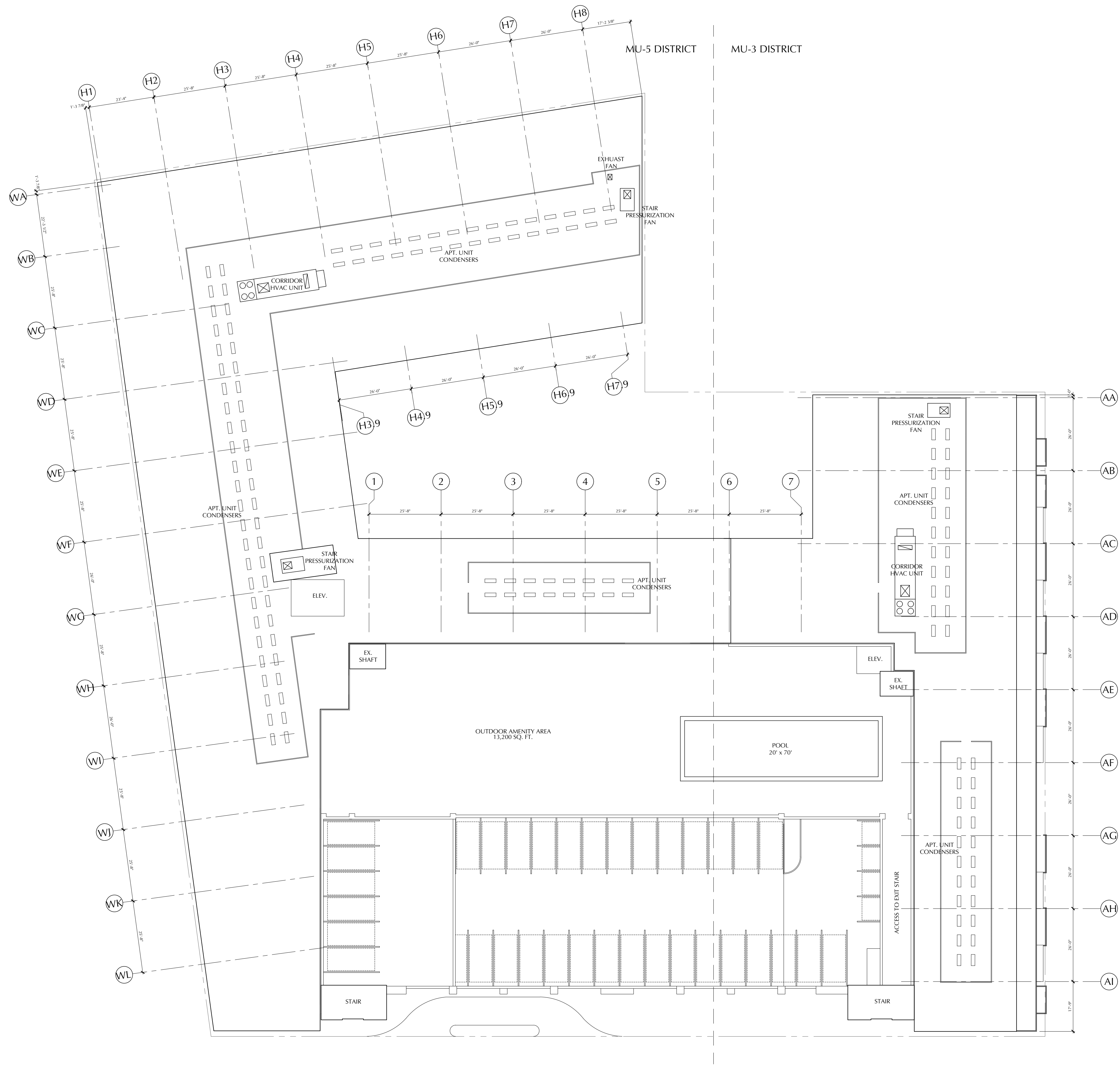


3rd Level
Apartments



4th Level
Apartments





Roof Plan

OPTION 'B' UNIT DATA
(w/Adams Bonus 4th Level & Mezzanines)

Type	# of Units						Unit Mix %	
	Lvl 1	Lvl 2	Lvl 3	Lvl 4	Lvl 5	Total		
Studio	0	2	2	0	0	4	2.9%	2.9%
1 Bedroom	0	2	2	7	3	14	10.1%	
1 Bedroom + Den	0	17	17	10	7	51	37.0%	48.6%
1 Bedroom, 2 Levels	2	0	0	0	0	2	1.5%	
2 Bedroom	0	6	6	8	2	22	15.9%	
2 Bedroom + Den	0	6	6	6	6	24	17.4%	
2 Bedroom, 2 Levels	14	0	0	0	0	14	10.1%	45.6%
2 Bedroom + Den, 2 Levels	3	0	0	0	0	3	2.2%	
3 Bedroom	0	1	1	1	1	4	2.9%	2.9%
Total	19	34	34	32	19	138	100%	100%

TOTAL PARKING
236 SPACES
(10 BARRED PER LOT/UNIT)

TOTAL BIKE STORAGE
96 SPACES

TOTAL RESIDENT STORAGE
128 UNITS

PARKING DATA

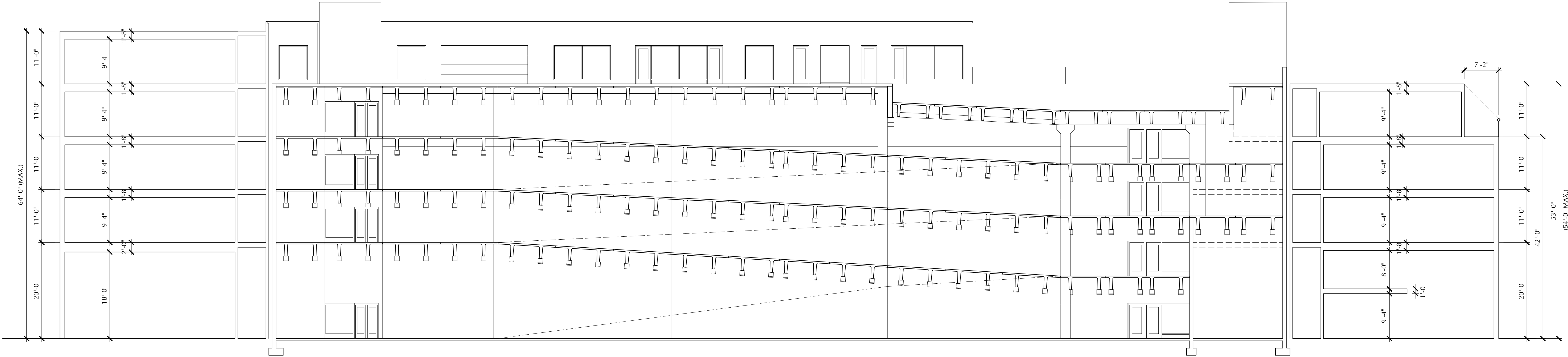
Level	Use	Unit	Parking Required	Parking Provided
Ground Level	Retail (1 per 300 sq.ft.)	4,950 sf	17	
Levels 1 thru 5	2-Room Apts. (1.0 per unit)	71 units	71	
	3-Room Apts. (1.25 per unit)	67 units	84	
Total		1,71 sp/unit	172	236

OPTION 'B' SQUARE FOOT AREA DATA - w/Room Below-Based Mezzanines

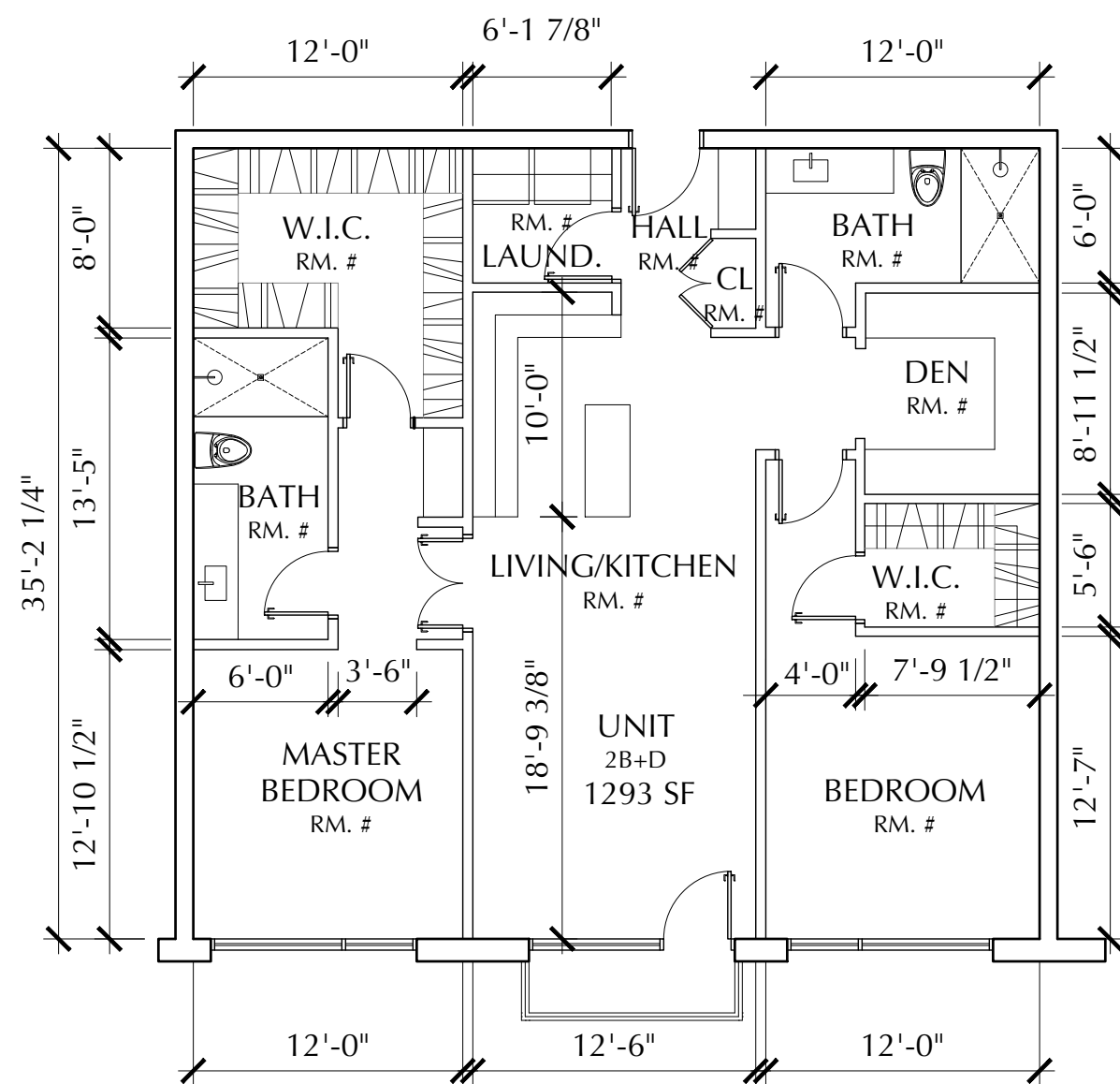
		Apts. SF	Resident Storage SF	Retail SF	% Eff'y
5th Level Apartments Area =	28,926 GSF	22,738	1,042		
Indoor Amenity Area =	4,817 GSF				
Total 5th Level Area =	33,743 GSF				70.5%
Total 4th Level Apartments Area =	46,370 GSF	36,293	2,224		83.1%
Total 3rd Level Apartments Area =	48,196 GSF	37,715	2,224		82.9%
Total 2nd Level Apartments Area =	48,196 GSF	37,715	2,224		82.9%
1st Level Apartments Area =	27,614 GSF	23,826	1,182		
Fitness Center =	2,924 GSF				
Resident Workshare =	1,183 GSF				
Retail Area =	4,950 GSF			4,950	
Lobby, Leasing, Mail & Pkgs. Area =	5,303 GSF				
Loading/Receiving Area =	1,880 GSF				
Trash Collection Area =	455 GSF				
Dog Run & Wash Area =	1,074 GSF				
Maintenance Area =	912 GSF				
Total 1st Level Area =	46,295 GSF				64.7%
Total Building Indoor Area =	222,800 GSF				
=====					
			Total Rentable Area = 172,133 SF		77.3%

Total Mezzanine Area = 5,543 SF
Outdoor 5th Level Amenity Deck Area = 14,800 GSF
Outdoor 1st Level Amenity Lawn Area = 7,580 GSF
Parking Deck Total Area = 102,036 GSF (Includes 6 Electrical Rooms, Water Meter & Pump Room,
4 Trash Rooms & 8 Vestibules)
Balconies = 4,842 GSF
Terraces = 1,614 GSF
Patos = 2,802 GSF

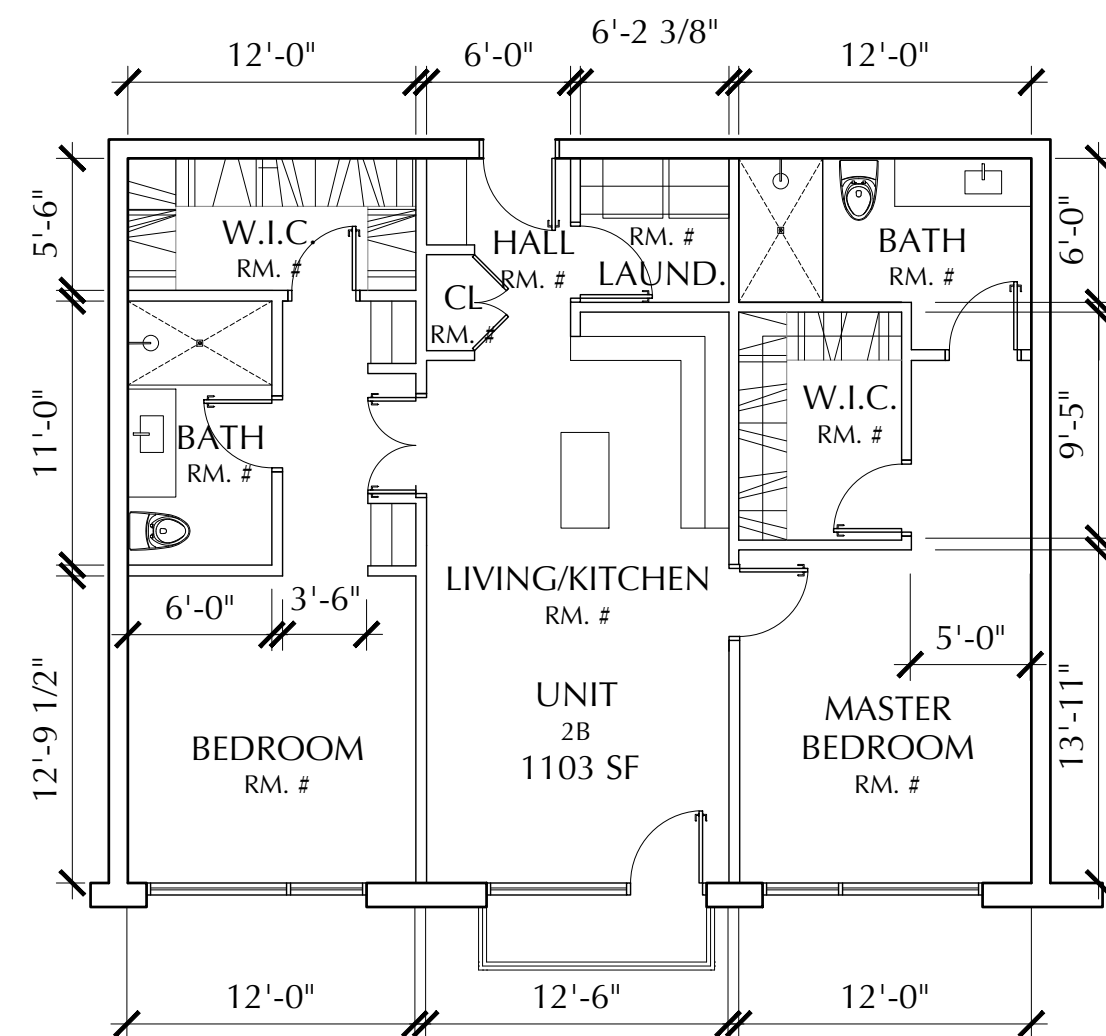
NOTE: Total Mezzanine area must be added to Total Building Indoor Area for actual constructed square footage.



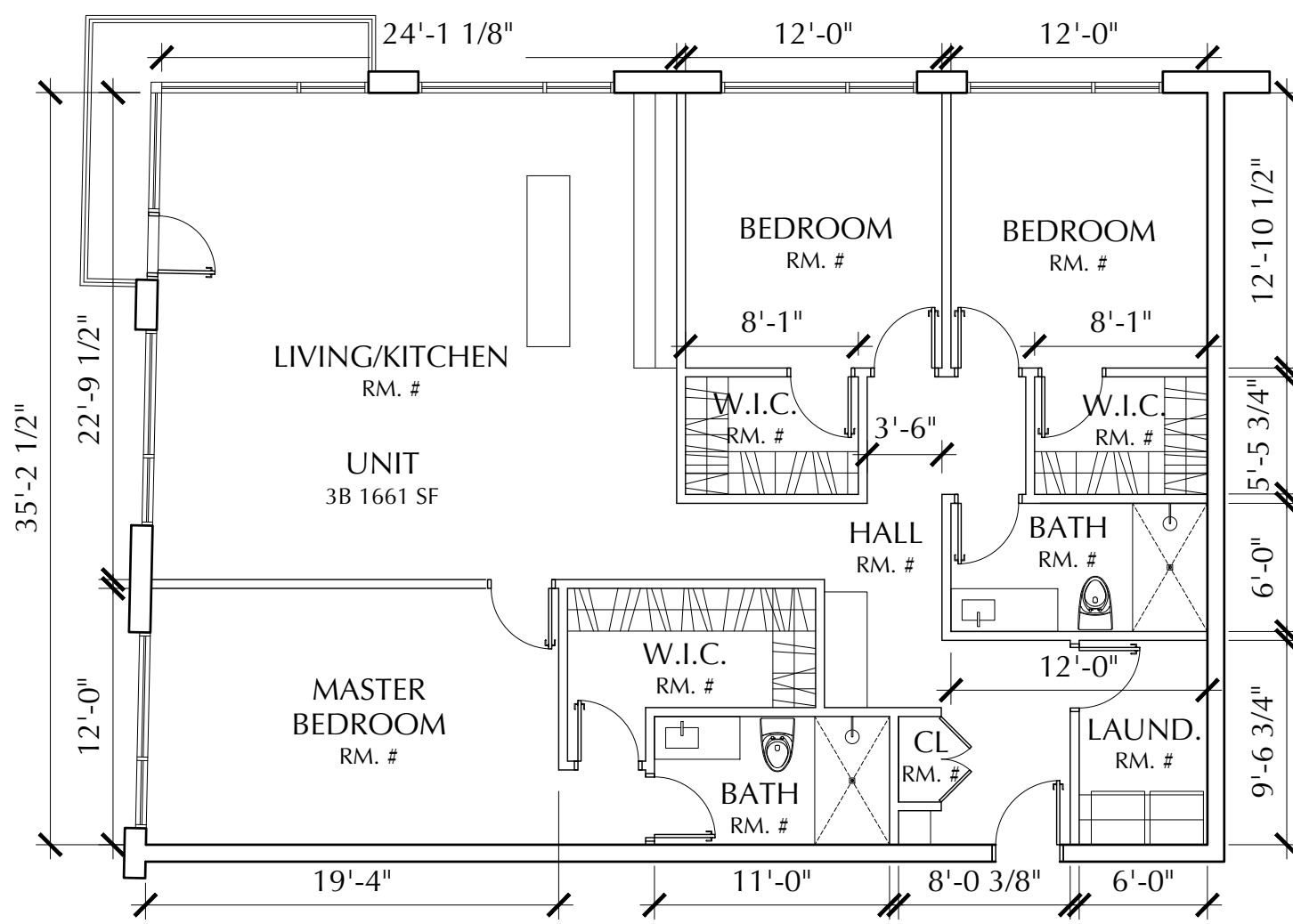
BUILDING SECTION @ PARKING DECK



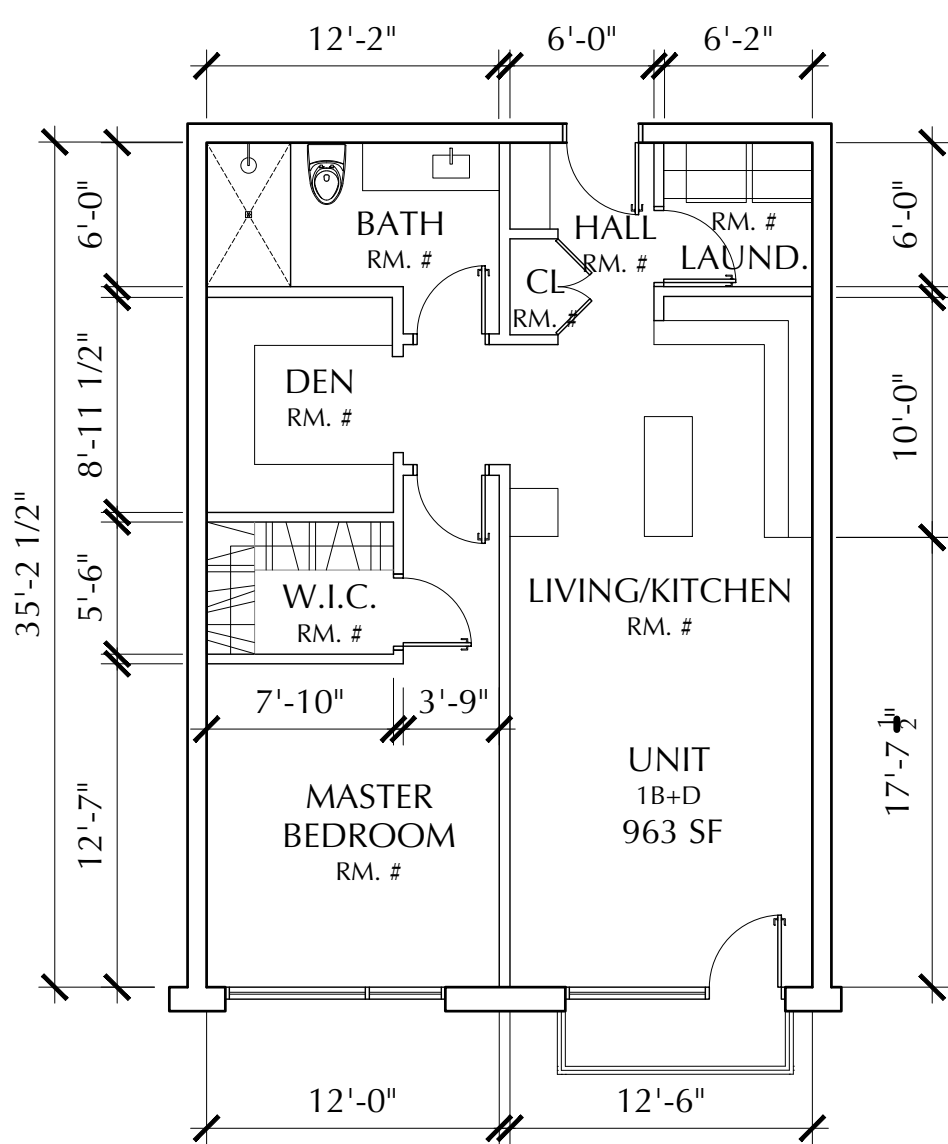
2 Bedroom + Den Unit - 24 @ 1,423 sf



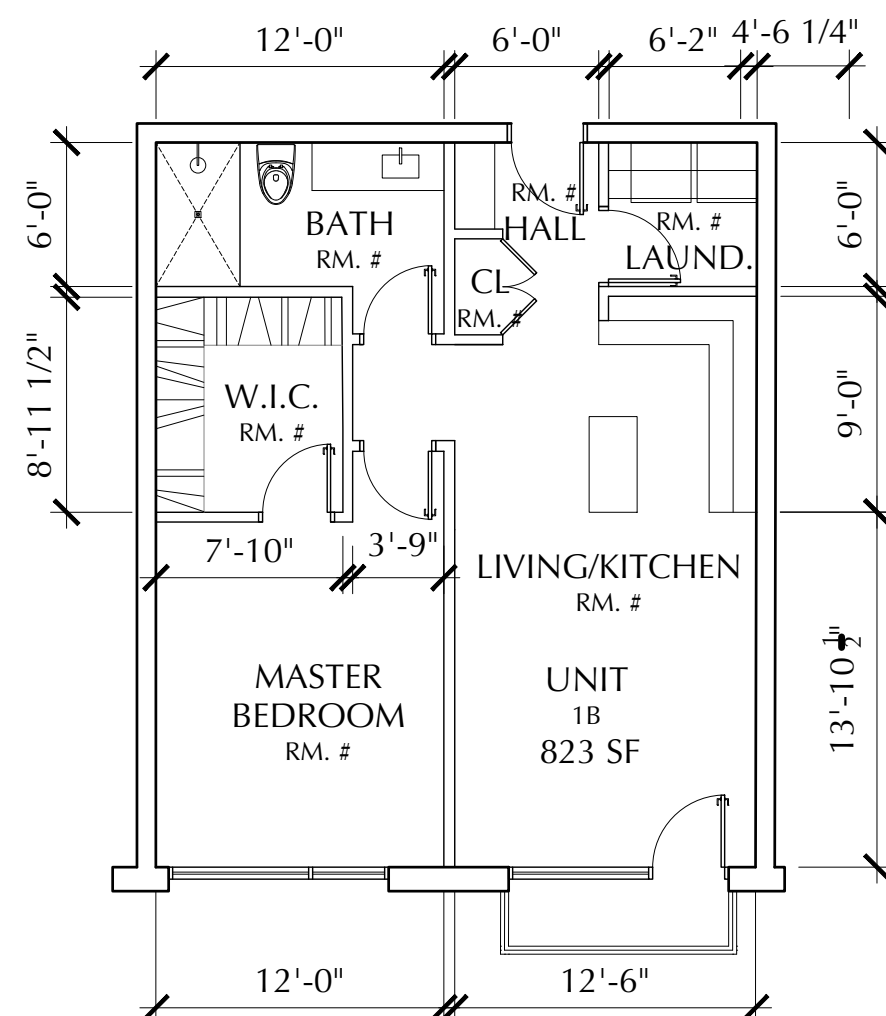
2 Bedroom Unit - 22 @ 1,229 sf



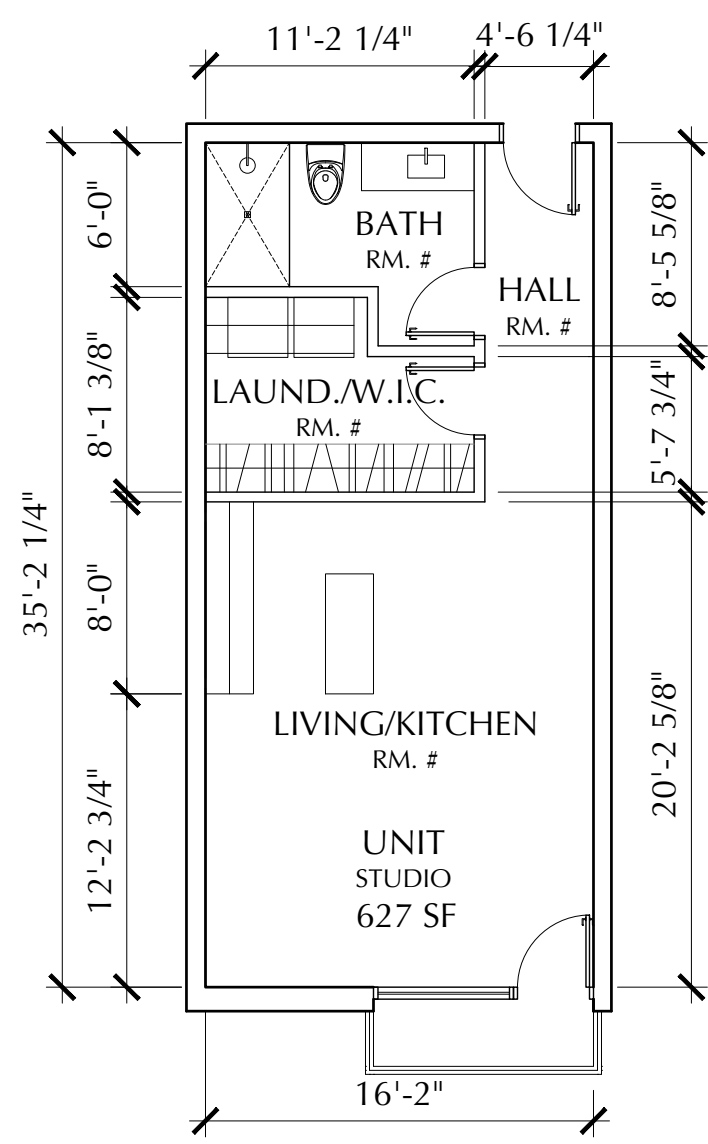
3 Bedroom Unit,
4 @ 1,855 sf



1 Bedroom + Den Unit - 51 @ 963 sf



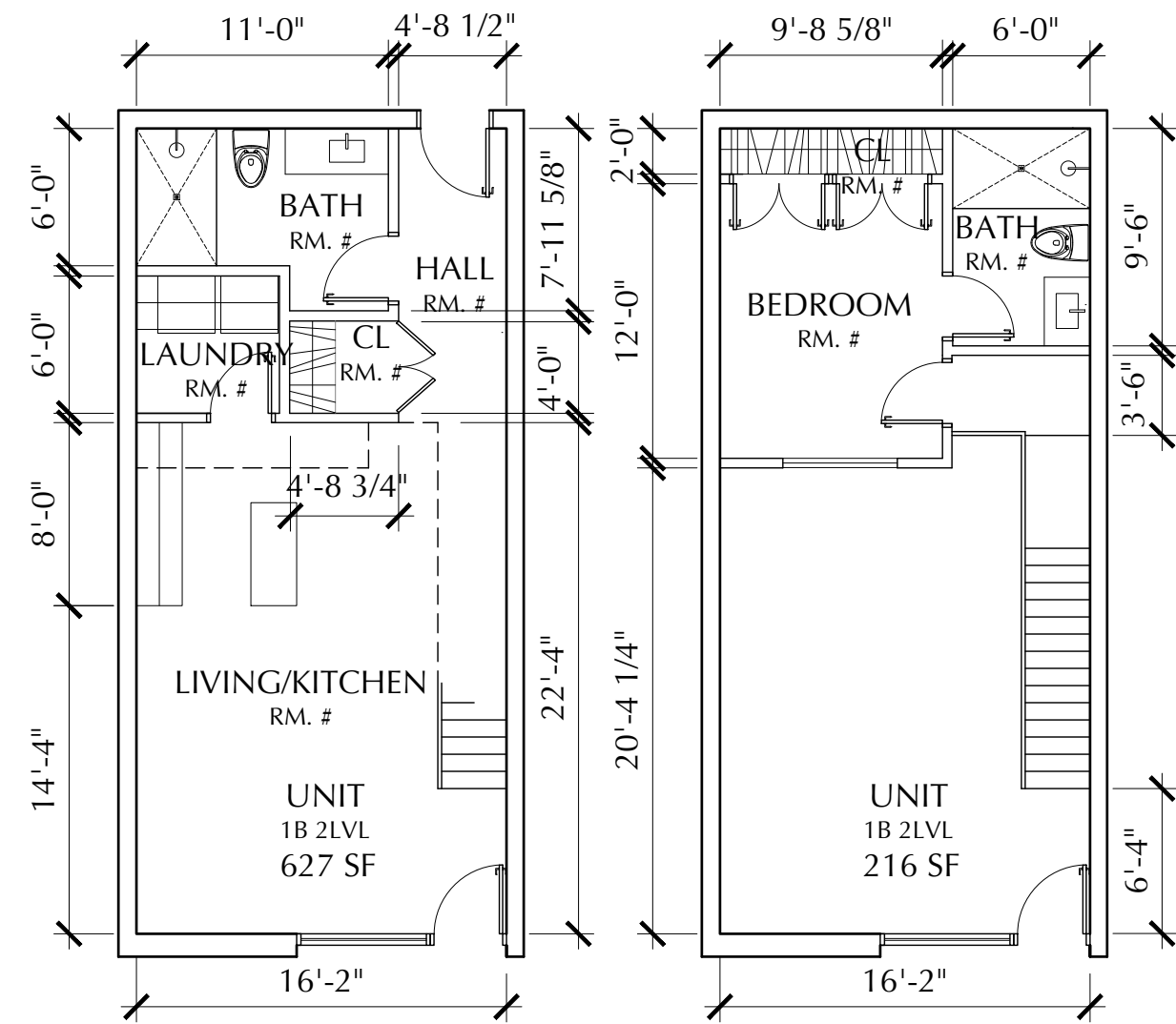
1 Bedroom Unit - 14 @ 823 sf



Studio - 4 @ 627 sf

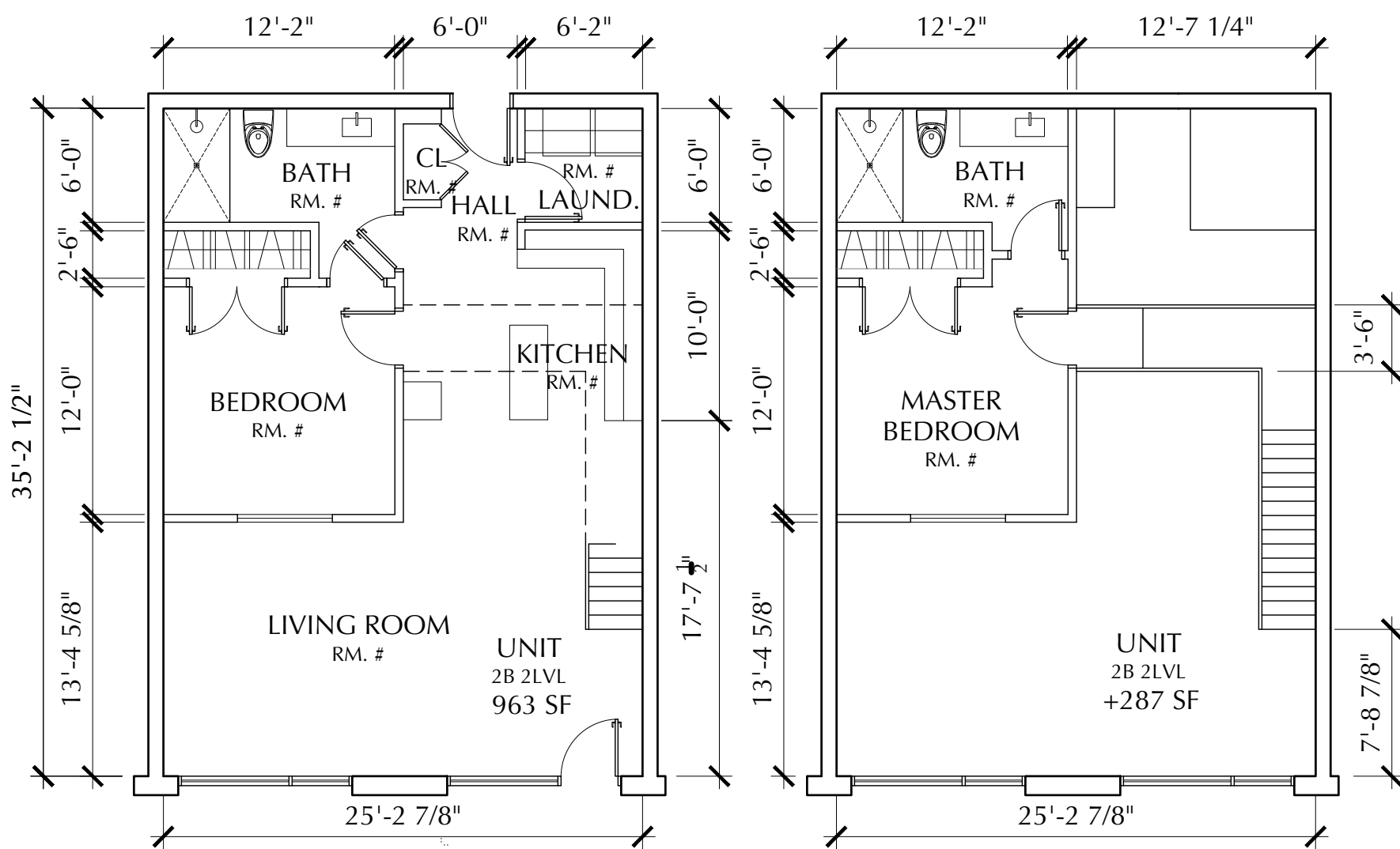
Southwest Worth Units:

- 1 Bedroom Unit = 4 @ 865 sf
- 1 Bedroom + Den Unit = 4 @ 1,166 sf
- 2 Bedroom Unit = 4 @ 1,440 sf
- 2 Bedroom + Den Unit = 4 @ 1,644 sf



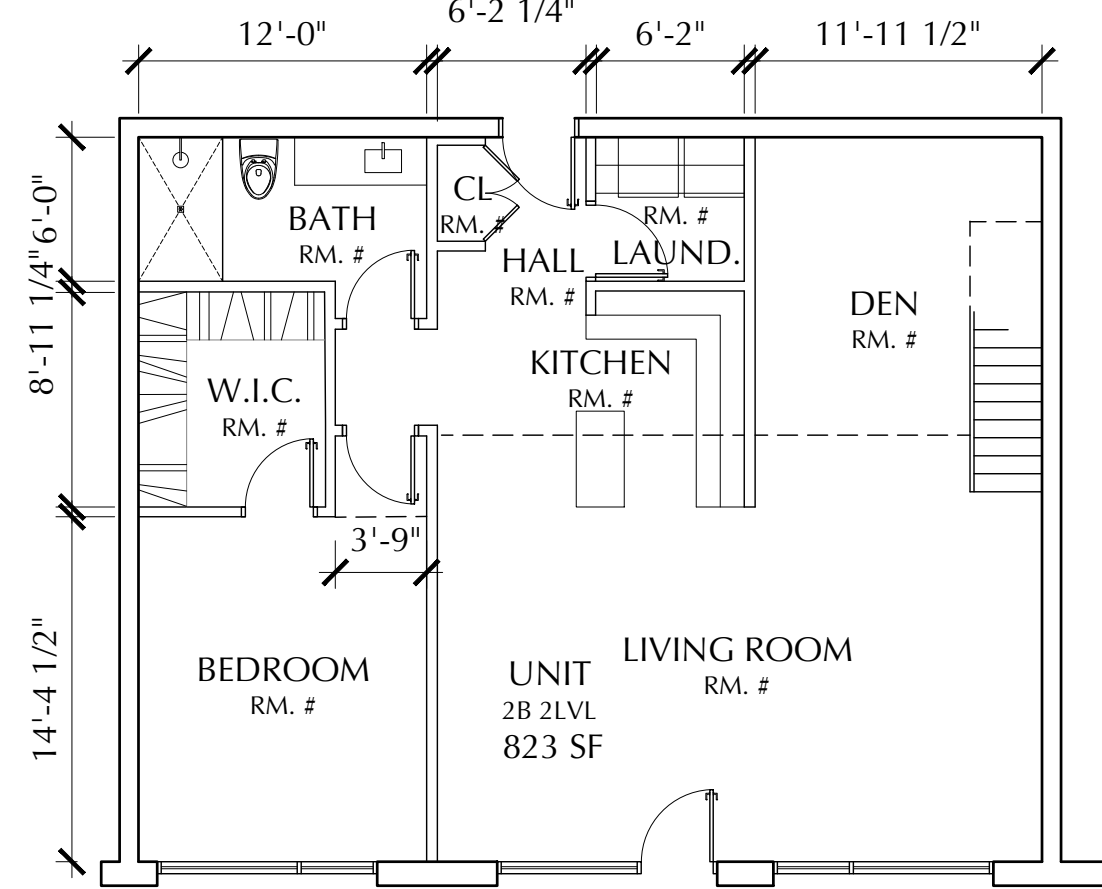
1 Bedroom 2 Level Unit (below Studio Units):

- 1st Level = 627 sf
- Room Below = 469 sf
- Mezzanine = 231 sf (< 50% Room Below)
- 2 @ 843 sf



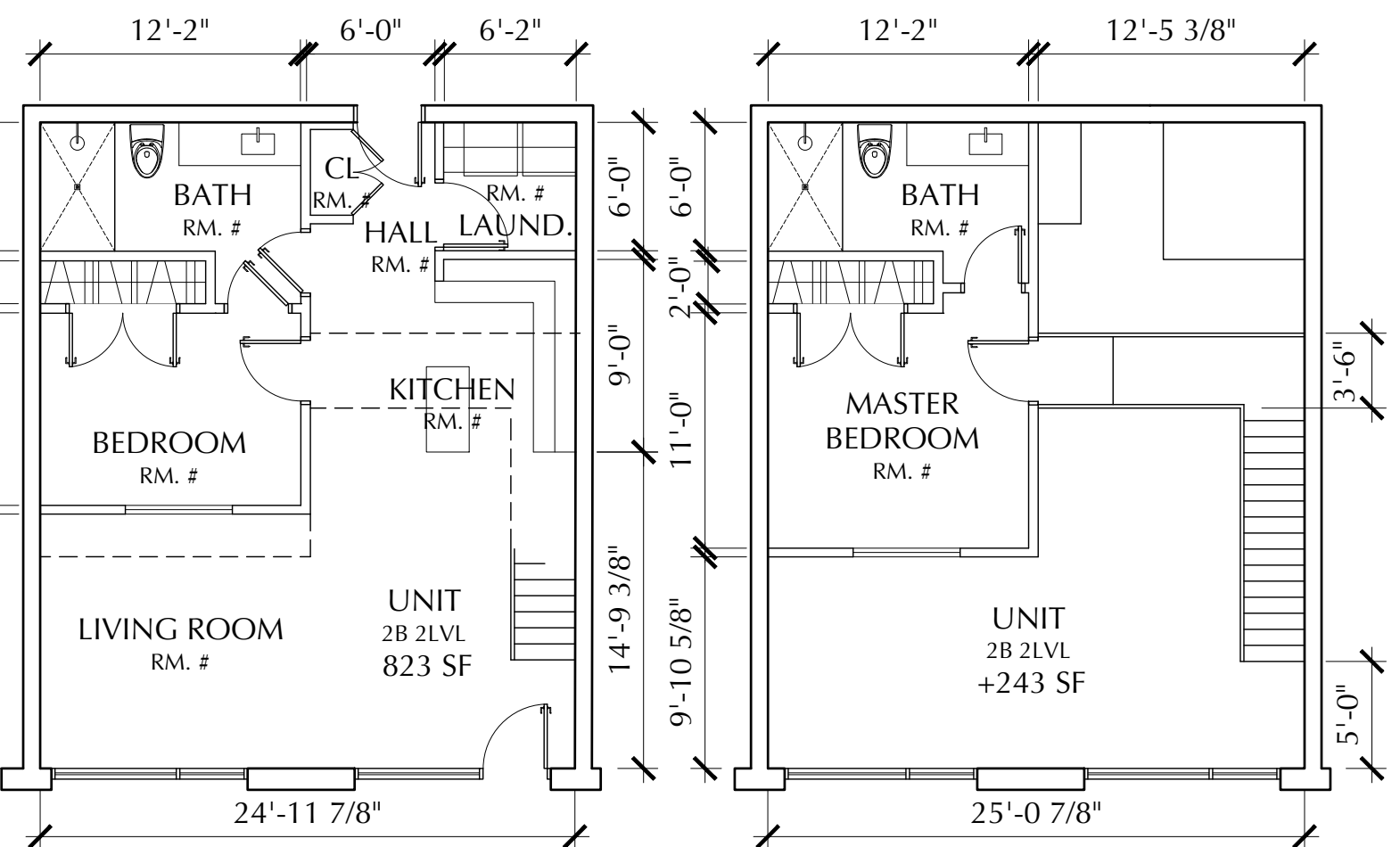
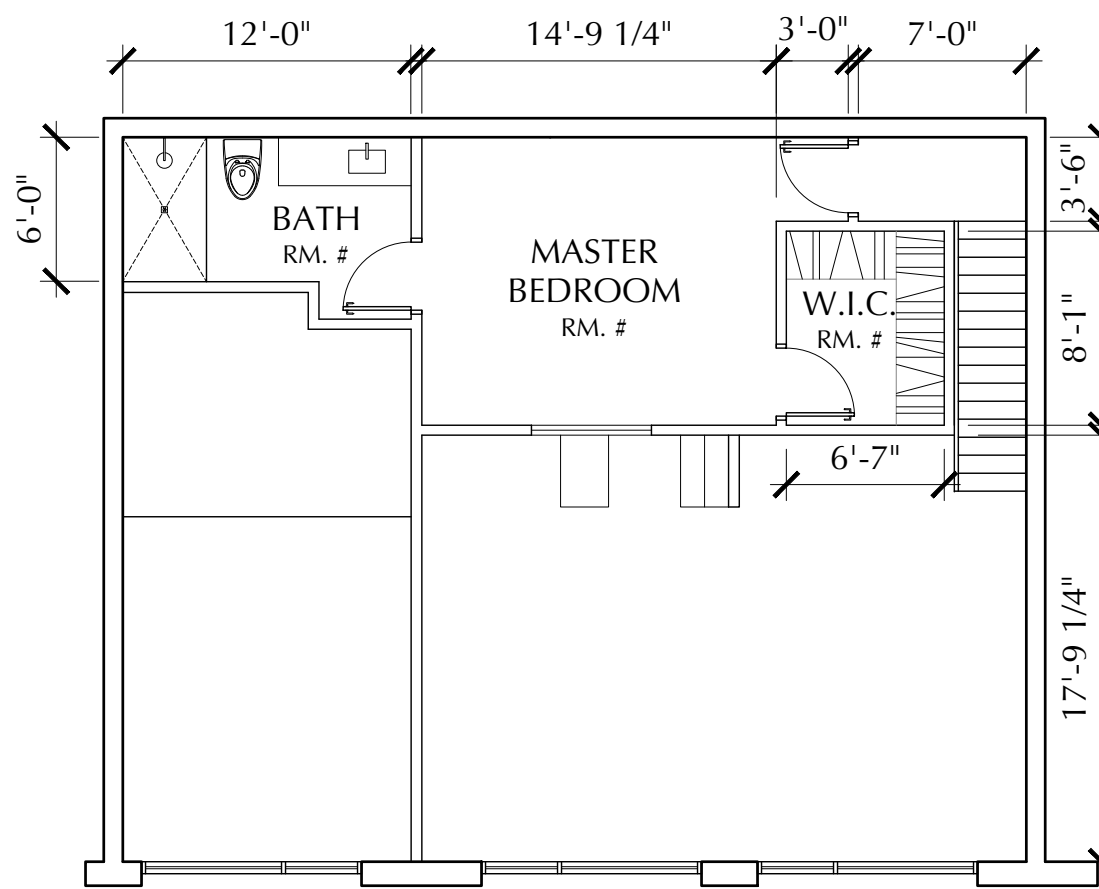
2 Bedroom 2 Level Unit (below + Den Units):

- 1st Level = 963 sf
- Room Below = 596 sf
- Mezzanine = 287 sf (< 50% Room Below)



2 Bedroom + Den 2 Level Unit (below No Den Units):

- 1st Level = 1,229 sf
- Room Below = 774 sf
- Mezzanine = 379 sf (< 50% Room Below)
- 3 @ 1,608 sf



2 Bedroom 2 Level Unit (below No Den Units):

- 1st Level = 823 sf
- Room Below = 577 sf
- Mezzanine = 268 sf (< 50% Room Below)
- 1 @ 1,066 sf

REPORT FIGURES



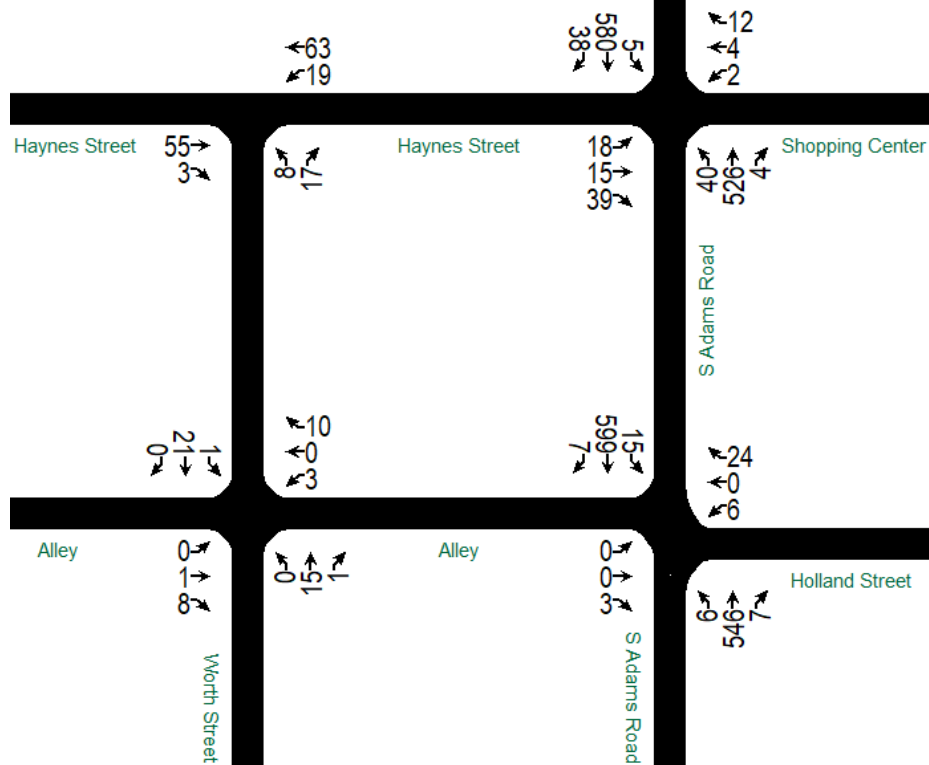
ROWE PROFESSIONAL
SERVICES COMPANY

Large Firm Resources. Personal Attention.

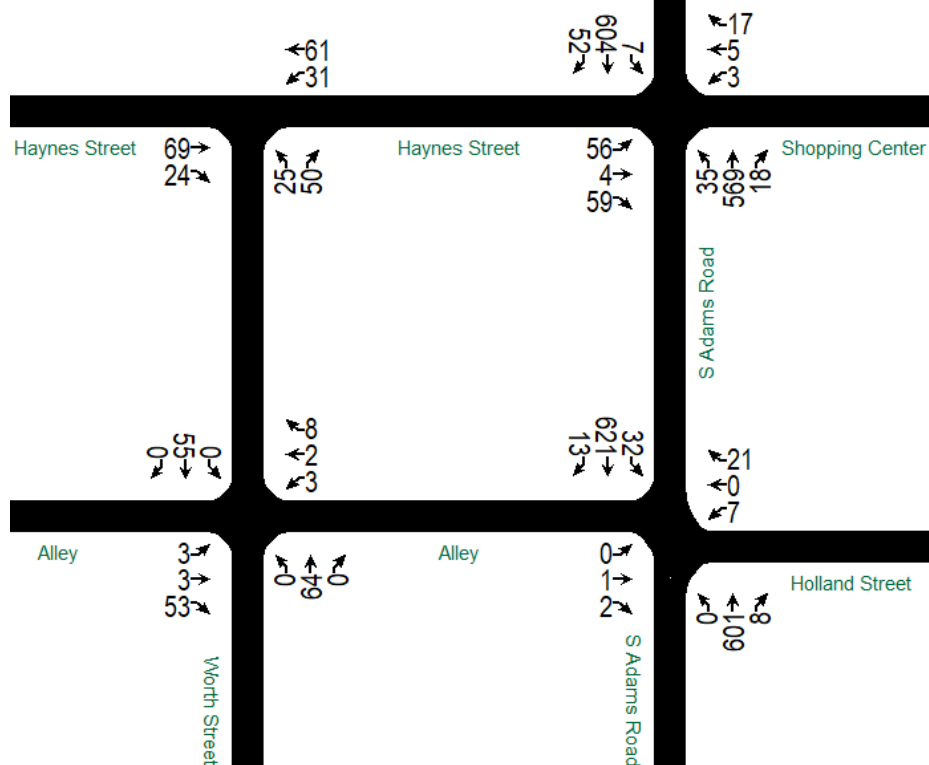
Project Location
770 S Adams Road TIS
Figure 1

Not to scale – for illustrative purposes only

AM Peak Hour



PM Peak Hour



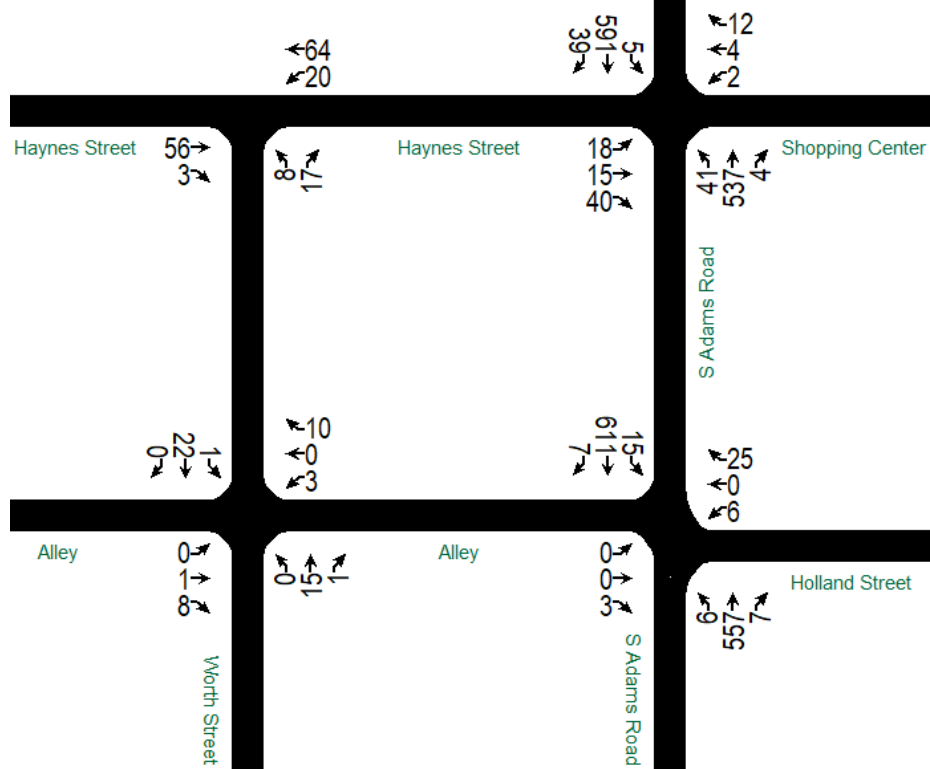
**ROWE PROFESSIONAL
SERVICES COMPANY**

Large Firm Resources. Personal Attention.

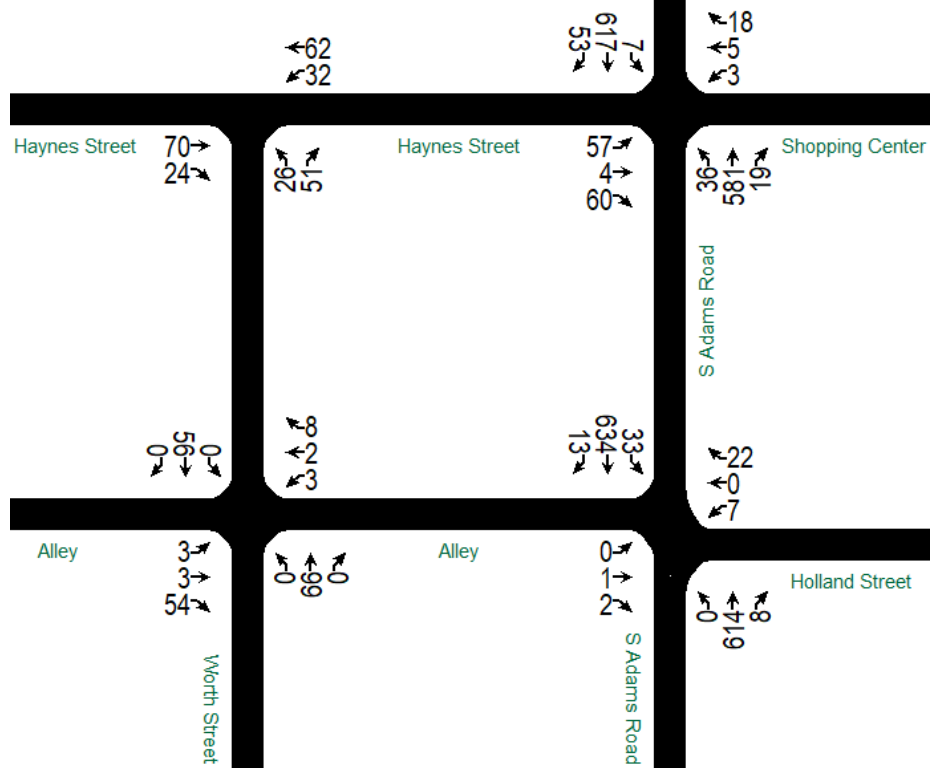
**2021 Existing Conditions Volumes
770 S Adams Road TIS
Figure 2**

Not to scale – for illustrative purposes only

AM Peak Hour



PM Peak Hour



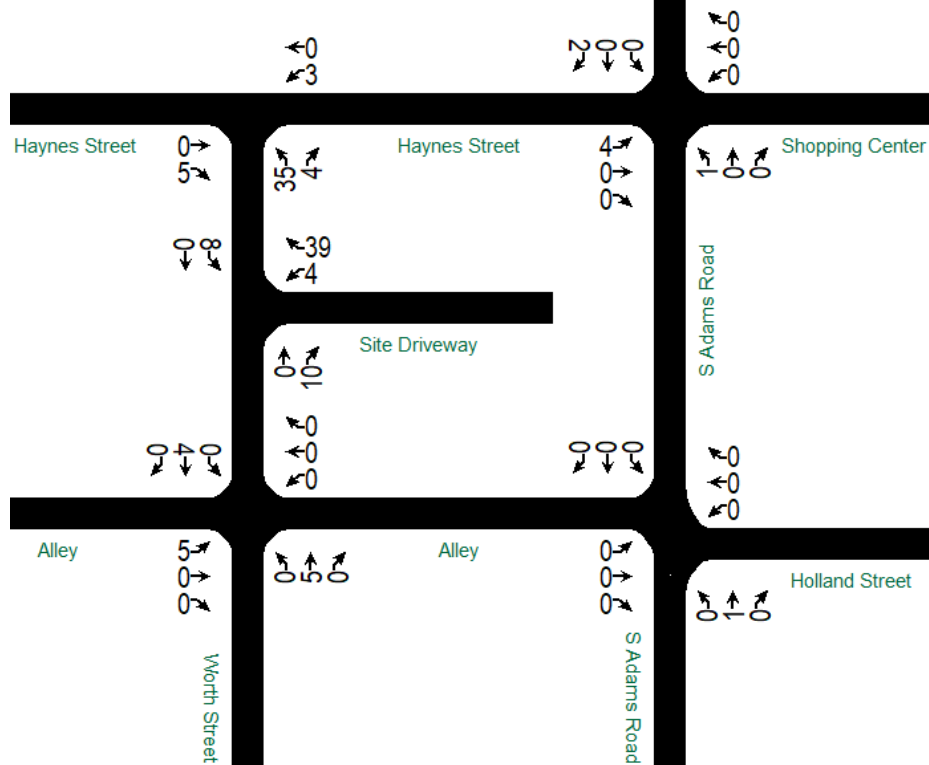
ROWE PROFESSIONAL
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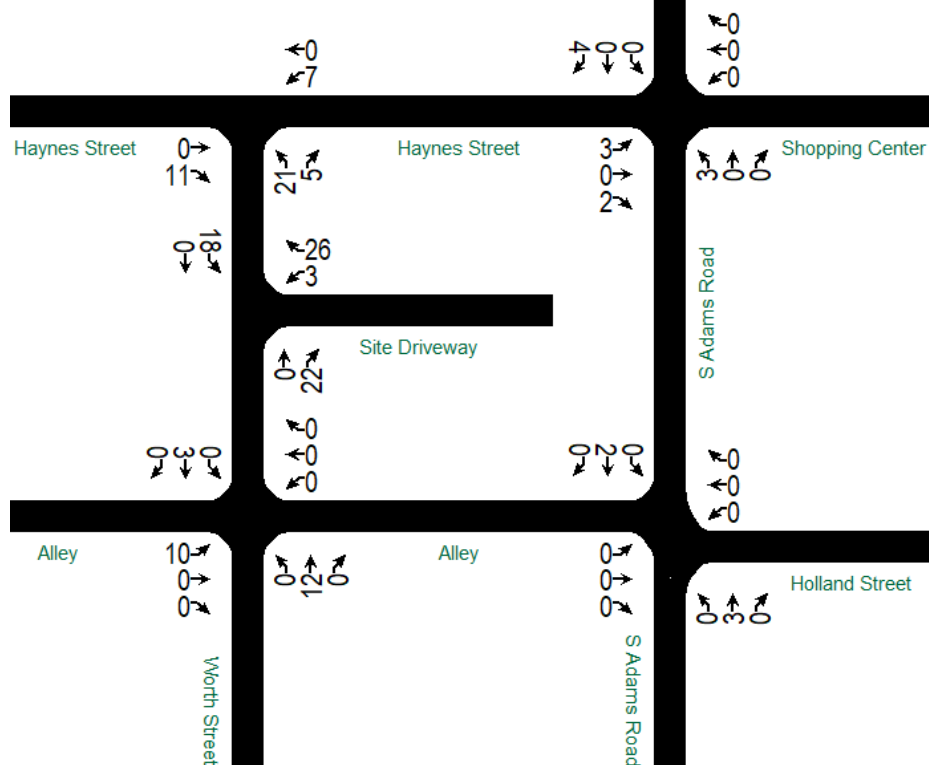
2025 Background Conditions Volumes
770 S Adams Road TIS
Figure 3

Not to scale – for illustrative purposes only

AM Peak Hour



PM Peak Hour



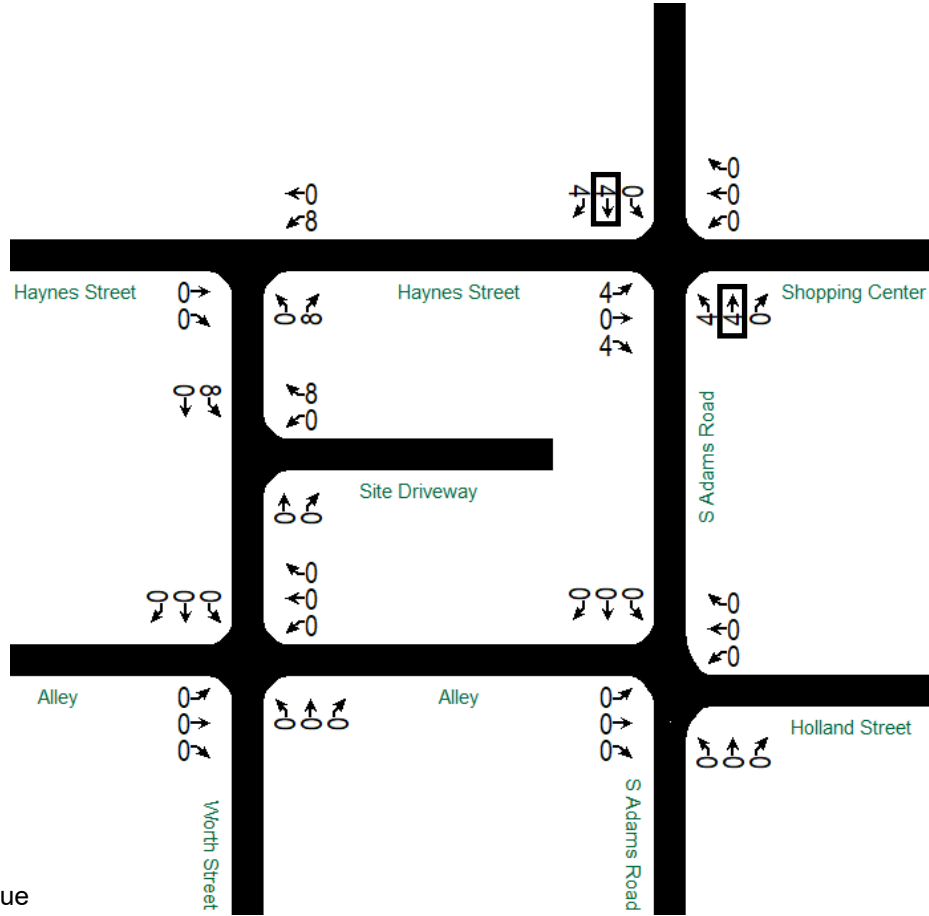
ROWE PROFESSIONAL
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Trip Generation Volumes
770 S Adams Road TIS
Figure 4

Not to scale – for illustrative purposes only

NO AM PASS-BY TRIPS



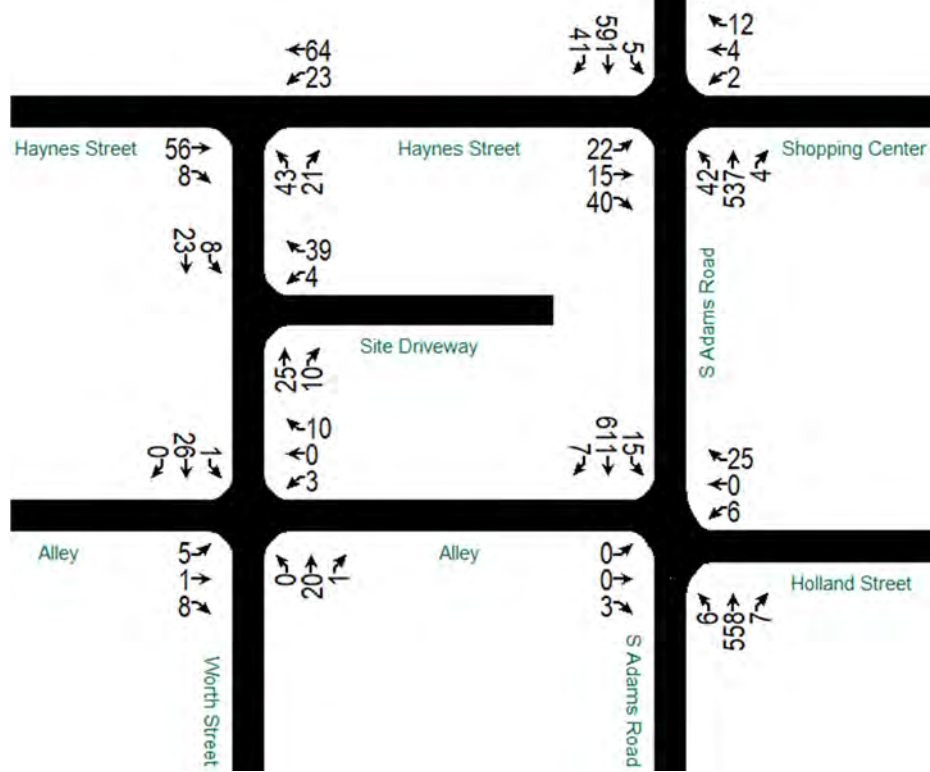
ROWE PROFESSIONAL
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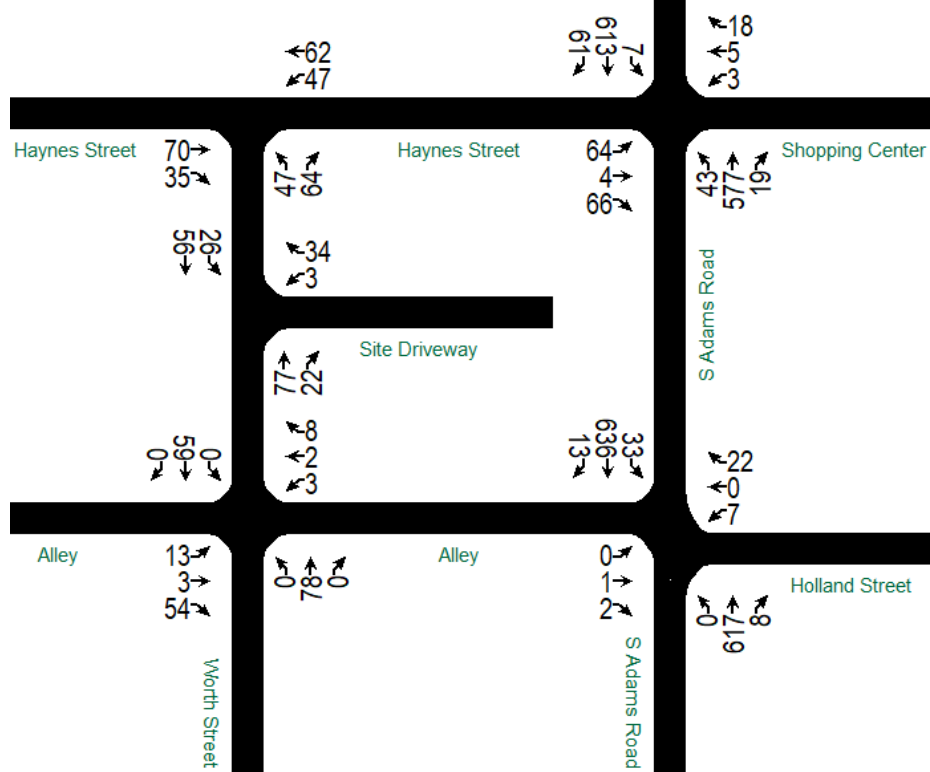
Pass-By Volumes
770 S Adams Road TIS
Figure 5

Not to scale – for illustrative purposes only

AM Peak Hour



PM Peak Hour



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2025 Future Conditions Volumes
770 S Adams Road TIS
Figure 6

Not to scale – for illustrative purposes only



Crosswalk & Anticipated Crossing Location (typ.)

Proposed Bicycle Parking
(In underground parking garage)

Development
Entrance

SMART Bus
Stop (typ.)



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Pedestrian & Bicycle Routing
770 S Adams Road TIS
Figure 7

Not to scale – for illustrative purposes only

TRAFFIC COUNTS

Intersection	Time period	Year	Movement	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
#1 - S Adams Road & Haynes Street/Shopping Center	AM Peak 09/11/19		PHF	0.78			0.95			0.72			0.64		
			% Heavy	2%			2%			0%			0%		
		2019	Existing	36	479	4	5	574	35	11	9	23	2	4	12
		2021	Existing Adj.	40	526	4	5	580	38	18	15	39	2	4	12
		2025	Background	41	537	4	5	591	39	18	15	40	2	4	12
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	41	537	4	5	591	39	18	15	40	2	4	12
			Site Generated	1					2	4					
			Pass By												
			Total Site Gen	1	0	0	0	0	2	4	0	0	0	0	0
			Total Future	42	537	4	5	591	41	22	15	40	2	4	12

Count Date: **Varies**

Count Year: **2019**

Existing Adj. Year: **2021**

Existing Adjustment Rate: **1.01**

Growth Rate: **0.5%**

Buildout Year: **2025**

Scenario: **AM Peak**

Bckgrd. Dev. A:

Bckgrd. Dev. B:

Bckgrd. Dev. C:

Intersection	Time period	Year	Movement	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
#2 - S Adams Road & Holland Street/Alley	AM Peak 09/11/19		PHF	0.82			0.93			0.60			0.83		
			% Heavy	2%			2%			0%			3%		
		2019	Existing	6	541	7	15	587	7	0	0	0	6	0	24
		2021	Existing Adj.	6	546	7	15	599	7	0	0	3	6	0	24
		2025	Background	6	557	7	15	611	7	0	0	3	6	0	25
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	6	557	7	15	611	7	0	0	3	6	0	25
			Site Generated		1										
			Pass By												
			Total Site Gen	0	1	0	0	0	0	0	0	0	0	0	0
			Total Future	6	558	7	15	611	7	0	0	3	6	0	25

Intersection	Time period	Year	Movement	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
#3 - Worth Street & Alley	AM Peak 09/11/19		PHF	0.83			0.79			0.60			0.75		
			% Heavy	10%			0%			0%			0%		
		2019	Existing	0	9	1	1	21	0	0	1	8	1	0	2
		2021	Existing Adj.	0	15	1	1	21	0	0	1	8	3	0	10
		2025	Background	0	15	1	1	22	0	0	1	8	3	0	10
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	0	15	1	1	22	0	0	1	8	3	0	10
			Site Generated		5			4		5					
			Pass By												
			Total Site Gen	0	5	0	0	4	0	5	0	0	0	0	0
			Total Future	0	20	1	1	26	0	5	1	8	3	0	10

Intersection	Time period	Year	Movement	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
#4 - Haynes Street & Worth Street	AM Peak 11/16/21		PHF	0.60						0.79			0.83		
			% Heavy	11%						2%			0%		
		2019	Existing	6		12				55	2	5	25		
		2021	Existing Adj.	8		17				55	3	19	63		
		2025	Background	8		17				56	3	20	64		
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	8		17				56	3	20	64		
			Site Generated	35		4					5	3			
			Pass By												
			Total Site Gen	35		4				0	5	3	0		
			Total Future	43		21				56	8	23	64		

Intersection	Time period	Year	Movement	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
#5 - Worth Street & Site Driveway	AM Peak 11/16/21		PHF	0.92									0.92		
			% Heavy	2%									2%		
		2019	Existing	24	0	0	22						0		0
		2021	Existing Adj.	24	0	0	22						0		0
		2025	Background	25	0	0	23						0		0
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	25	0	0	23						0		0
			Site Generated			10	8						4		39
			Pass By												
			Total Site Gen	0	10	8	0						4		39
			Total Future	25	10	8	23						4		39

Intersection	Time period	Year	Movement	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
#1 - S Adams Road & Haynes Street/Shopping Center	PM Peak 09/11/19		PHF	0.87			0.95			0.82			0.63		
			% Heavy	1%			1%			3%			0%		
		2019	Existing	35	523	18	7	562	51	54	4	57	3	5	17
		2021	Existing Adj.	35	569	18	7	604	52	56	4	59	3	5	17
		2025	Background	36	581	19	7	617	53	57	4	60	3	5	18
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	36	581	19	7	617	53	57	4	60	3	5	18
			Site Generated	3				4	3			2			
			Pass By	4	-4			-4	4	4		4			
			Total Site Gen	7	-4	0	0	-4	8	7	0	6	0	0	0
			Total Future	43	577	19	7	613	61	64	4	66	3	5	18

Count Date: **Varies**

Count Year: **2019**

Existing Adj. Year: **2021**

Existing Adjustment Rate: **1.01**

Growth Rate: **0.5%**

Buildout Year: **2025**

Scenario: **PM Peak**

Bckgrd. Dev. A:

Bckgrd. Dev. B:

Bckgrd. Dev. C:

Intersection	Time period	Year	Movement	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
#2 - S Adams Road & Holland Street/Alley	PM Peak 09/11/19		PHF	0.87			0.92			0.60			0.78		
			% Heavy	1%			1%			0%			0%		
		2019	Existing	0	595	8	32	615	7	0	1	2	7	0	21
		2021	Existing Adj.	0	601	8	32	621	13	0	1	2	7	0	21
		2025	Background	0	614	8	33	634	13	0	1	2	7	0	22
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	0	614	8	33	634	13	0	1	2	7	0	22
			Site Generated		3			2							
			Pass By												
			Total Site Gen	0	3	0	0	2	0	0	0	0	0	0	0
			Total Future	0	617	8	33	636	13	0	1	2	7	0	22

Intersection	Time period	Year	Movement	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
#3 - Worth Street & Alley	PM Peak 09/11/19		PHF	0.75			0.90			0.60			0.65		
			% Heavy	0%			0%			0%			0%		
		2019	Existing	0	63	0	0	54	0	3	3	52	3	2	8
		2021	Existing Adj.	0	64	0	0	55	0	3	3	53	3	2	8
		2025	Background	0	66	0	0	56	0	3	3	54	3	2	8
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	0	66	0	0	56	0	3	3	54	3	2	8
			Site Generated		12			3		10					
			Pass By												
			Total Site Gen	0	12	0	0	3	0	10	0	0	0	0	0
			Total Future	0	78	0	0	59	0	13	3	54	3	2	8

Intersection	Time period	Year	Movement	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
#4 - Haynes Street & Worth Street	PM Peak 11/16/21		PHF	0.71						0.69			0.77		
			% Heavy	0%						0%			0%		
		2019	Existing	20		40					58	0	25	49	
		2021	Existing Adj.	25		50					69	24	31	61	
		2025	Background	26		51					70	24	32	62	
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	26		51					70	24	32	62	
			Site Generated	21		5					11	7			
			Pass By			8							8		
			Total Site Gen	21		13					0	11	15	0	
			Total Future	47		64					70	35	47	62	

Intersection	Time period	Year	Movement	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
#5 - Worth Street & Site Driveway	PM Peak 11/16/21		PHF	0.92			0.92						0.92		
			% Heavy	2%			2%						2%		
		2019	Existing		75	0	0	54					0		0
		2021	Existing Adj.		76	0	0	55					0		0
		2025	Background		77	0	0	56					0		0
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background		77	0	0	56					0		0
			Site Generated			22	18						3		26
			Pass By				8								8
			Total Site Gen		0	22	26	0					3		34
			Total Future		77	22	26	56					3		34

Northbound 5/20/13

Time	15-min Interval				Hourly Count
	1st	2nd	3rd	4th	
0:00-1:00	43	45	34	22	144
1:00-2:00	20	20	10	18	68
2:00-3:00	10	15	20	20	65
3:00-4:00	10	12	14	8	44
4:00-5:00	16	14	28	25	83
5:00-6:00	30	68	87	111	296
6:00-7:00	117	152	293	351	913
7:00-8:00	415	516	626	732	2,289
8:00-9:00	737	721	703	671	2,832
9:00-10:00	540	453	479	472	1,944
10:00-11:00	401	426	425	431	1,683
11:00-12:00	380	448	432	506	1,766
12:00-13:00	502	518	496	572	2,088
13:00-14:00	545	537	539	545	2,166
14:00-15:00	486	494	568	549	2,097
15:00-16:00	631	612	622	673	2,538
16:00-17:00	712	694	692	726	2,824
17:00-18:00	727	842	696	708	2,973
18:00-19:00	649	604	578	473	2,304
19:00-20:00	405	376	345	315	1,441
20:00-21:00	327	290	309	270	1,196
21:00-22:00	215	206	188	147	756
22:00-23:00	141	129	145	125	540
23:00-24:00	104	101	85	56	346
Total					33,396
AM Peak	07:45-08:45 2,893				
PM Peak	16:45-17:45 2,991				

Northbound 7/9/19

Time	15-min Interval				Hourly Count
	1st	2nd	3rd	4th	
0:00-1:00					
1:00-2:00					
2:00-3:00					
3:00-4:00					
4:00-5:00					
5:00-6:00					
6:00-7:00					
7:00-8:00	445	629	708	767	2,549
8:00-9:00	768	839	850	825	3,282
9:00-10:00					
10:00-11:00					
11:00-12:00	463	510	516	522	2,011
12:00-13:00	553	535	582	620	2,290
13:00-14:00					
14:00-15:00					
15:00-16:00					
16:00-17:00	629	673	699	741	2,742
17:00-18:00	669	696	785	646	2,796
18:00-19:00					
19:00-20:00					
20:00-21:00					
21:00-22:00					
22:00-23:00					
23:00-24:00					
Total					
AM Peak	08:00 - 09:00 3,282				
PM Peak	16:45-17:45 2,891				

Northbound 2021 (Adjusted from 2019)

Time	15-min Interval				Hourly Count
	1st	2nd	3rd	4th	
0:00-1:00					
1:00-2:00					
2:00-3:00					
3:00-4:00					
4:00-5:00					
5:00-6:00					
6:00-7:00					
7:00-8:00	449	635	715	775	2,575
8:00-9:00	776	847	859	833	3,315
9:00-10:00					
10:00-11:00					
11:00-12:00	468	515	521	527	2,031
12:00-13:00	559	540	588	626	2,313
13:00-14:00					
14:00-15:00					
15:00-16:00					
16:00-17:00	635	680	706	748	2,769
17:00-18:00	676	703	793	652	2,824
18:00-19:00					
19:00-20:00					
20:00-21:00					
21:00-22:00					
22:00-23:00					
23:00-24:00					
Total					
AM Peak	07:45-08:45 3,315				
PM Peak	17:00-18:00 2,920				

Southbound 5/20/13

Time	15-min Interval				Hourly Count
	1st	2nd	3rd	4th	
0:00-1:00	47	33	38	32	150
1:00-2:00	17	18	10	14	59
2:00-3:00	14	10	14	12	50
3:00-4:00	17	12	8	16	53
4:00-5:00	6	9	16	28	59
5:00-6:00	49	60	99	114	322
6:00-7:00	143	222	331	311	1,007
7:00-8:00	382	504	564	593	2,043
8:00-9:00	635	630	586	563	2,414
9:00-10:00	412	417	396	373	1,598
10:00-11:00	363	365	357	366	1,451
11:00-12:00	445	384	420	469	1,718
12:00-13:00	472	410	474	430	1,786
13:00-14:00	450	415	399	413	1,677
14:00-15:00	438	436	450	440	1,764
15:00-16:00	471	508	494	520	1,993
16:00-17:00	541	605	624	648	2,418
17:00-18:00	813	900	770	651	3,134
18:00-19:00	593	522	474	415	2,004
19:00-20:00	364	305	333	272	1,274
20:00-21:00	273	243	286	264	1,066
21:00-22:00	221	224	172	143	760
22:00-23:00	124	130	130	99	483
23:00-24:00	88	93	66	55	302
Total					29,585
AM Peak	07:45-08:45 2,444				
PM Peak	17:00-18:00 3,134				

Southbound 2021 (Calculated)

Time	15-min Interval				Hourly Count
	1st	2nd	3rd	4th	
0:00-1:00	49	34	40	33	156
1:00-2:00	18	19	10	15	61
2:00-3:00	15	10	15	12	52
3:00-4:00	18	12	8	17	55
4:00-5:00	6	9	17	29	61
5:00-6:00	51	62	103	119	335
6:00-7:00	149	231	344	324	1,048
7:00-8:00	398	525	587	617	2,126
8:00-9:00	661	656	610	586	2,512
9:00-10:00	429	434	412	388	1,663
10:00-11:00	378	380	372	381	1,510
11:00-12:00	463	400	437	488	1,788
12:00-13:00	491	427	493	448	1,859
13:00-14:00	468	432	415	430	1,745
14:00-15:00	456	454	468	458	1,836
15:00-16:00	490	529	514	541	2,074
16:00-17:00	563	630	649	674	2,516
17:00-18:00	846	937	801	678	3,262
18:00-19:00	617	543	493	432	2,086
19:00-20:00	379	317	347	283	1,326
20:00-21:00	284	253	298	275	1,109
21:00-22:00	230	233	179	149	791
22:00-23:00	129	135	135	103	503
23:00-24:00	92	97	69	57	314
Total					30,789
AM Peak	07:45-08:45 2,543				
PM Peak	17:00-18:00 3,262				

Traffic Data Collection, LLC

www.tdccounts.com

Phone: 586.786-5407

Traffic Study Performed For:

ROWE Professional Services Company



Project: Birmingham Traffic Impact Study
Study: 4 Hr. Video Turning Movement Count
Weather: Sunny. Cldy. Dry Deg's 70s
Count By: Mivision Video VCU 4PU SW

File Name : TMC_1 Adams & Haynes 9-11-19
Site Code : TMC 1
Start Date : 9/11/2019
Page No : 1

4 Hour traffic study was conducted during typical weekday (Wednesday) from 7:00 AM - 9:00 AM morning & 4:00 PM - 6:00 PM afternoon peak hours, while school was in session.

Groups Printed- Pass Cars - Single Units - Heavy Trucks - Peds

	S. Adams Road Southbound					Shopping Center Dw. Westbound					S. Adams Road Northbound					Haynes Street Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	4	172	1	0	177	2	6	3	1	12	3	51	1	0	55	5	4	0	0	9	253
07:15 AM	6	155	1	0	162	0	0	1	2	3	0	84	1	0	85	2	0	3	1	6	256
07:30 AM	9	131	1	0	141	1	0	0	0	1	0	112	6	0	118	5	1	3	0	9	269
07:45 AM	10	147	0	0	157	1	0	1	3	5	3	153	10	0	166	6	0	1	0	7	335
Total	29	605	3	0	637	4	6	5	6	21	6	400	18	0	424	18	5	7	1	31	1113
08:00 AM	10	148	2	0	160	2	2	0	1	5	0	104	4	0	108	8	1	2	0	11	284
08:15 AM	7	145	3	0	155	6	1	0	0	7	1	100	11	0	112	6	6	3	1	16	290
08:30 AM	8	134	0	0	142	3	1	1	1	6	0	122	11	0	133	3	2	5	0	10	291
08:45 AM	10	143	0	0	153	2	0	0	1	3	1	120	8	0	129	6	0	1	0	7	292
Total	35	570	5	0	610	13	4	1	3	21	2	446	34	0	482	23	9	11	1	44	1157
*** BREAK ***																					
04:00 PM	7	124	2	0	133	3	3	0	1	7	1	114	5	0	120	9	2	4	0	15	275
04:15 PM	19	137	3	0	159	4	1	0	0	5	6	149	11	0	166	15	2	5	0	22	352
04:30 PM	10	144	1	0	155	4	0	0	1	5	7	130	7	0	144	16	1	18	0	35	339
04:45 PM	13	140	1	0	154	5	2	3	2	12	1	126	10	0	137	14	0	18	3	35	338
Total	49	545	7	0	601	16	6	3	4	29	15	519	33	0	567	54	5	45	3	107	1304
05:00 PM	9	141	2	0	152	4	2	0	0	6	4	118	7	0	129	12	1	13	0	26	313
05:15 PM	12	121	0	0	133	4	1	1	1	7	3	120	10	0	133	12	3	11	0	26	299
05:30 PM	7	127	3	0	137	5	1	1	1	8	2	137	9	0	148	9	5	9	0	23	316
05:45 PM	13	149	1	0	163	5	4	2	0	11	3	116	8	0	127	11	3	6	1	21	322
Total	41	538	6	0	585	18	8	4	2	32	12	491	34	0	537	44	12	39	1	96	1250
Grand Total	154	2258	21	0	2433	51	24	13	15	103	35	1856	119	0	2010	139	31	102	6	278	4824
Apprch %	6.3	92.8	0.9	0		49.5	23.3	12.6	14.6		1.7	92.3	5.9	0		50	11.2	36.7	2.2		
Total %	3.2	46.8	0.4	0	50.4	1.1	0.5	0.3	0.3	2.1	0.7	38.5	2.5	0	41.7	2.9	0.6	2.1	0.1	5.8	
Pass Cars	154	2226	21	0	2401	51	24	13	0	88	35	1825	118	0	1978	135	31	101	0	267	4734
% Pass Cars	100	98.6	100	0	98.7	100	100	100	0	85.4	100	98.3	99.2	0	98.4	97.1	100	99	0	96	98.1
Single Units	0	29	0	0	29	0	0	0	0	0	0	29	1	0	30	4	0	1	0	5	64
% Single Units	0	1.3	0	0	1.2	0	0	0	0	0	0	1.6	0.8	0	1.5	2.9	0	1	0	1.8	1.3
Heavy Trucks	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	5
% Heavy Trucks	0	0.1	0	0	0.1	0	0	0	0	0	0	0.1	0	0	0.1	0	0	0	0	0	0.1
Peds	0	0	0	0	0	0	0	0	15	15	0	0	0	0	0	0	0	0	6	6	21
% Peds	0	0	0	0	0	0	0	0	100	14.6	0	0	0	0	0	0	0	0	100	2.2	0.4

TDC Traffic Comments: Signalized controlled intersection, ped. signals for all quadrants, no push buttons. NTOR signed for NB approach. Video VCU camera was located within SW intersection quadrant. Traffic study was performed for Birmingham 770 S. Adams Road Traffic Impact Study for ROWE Professional Services Company.

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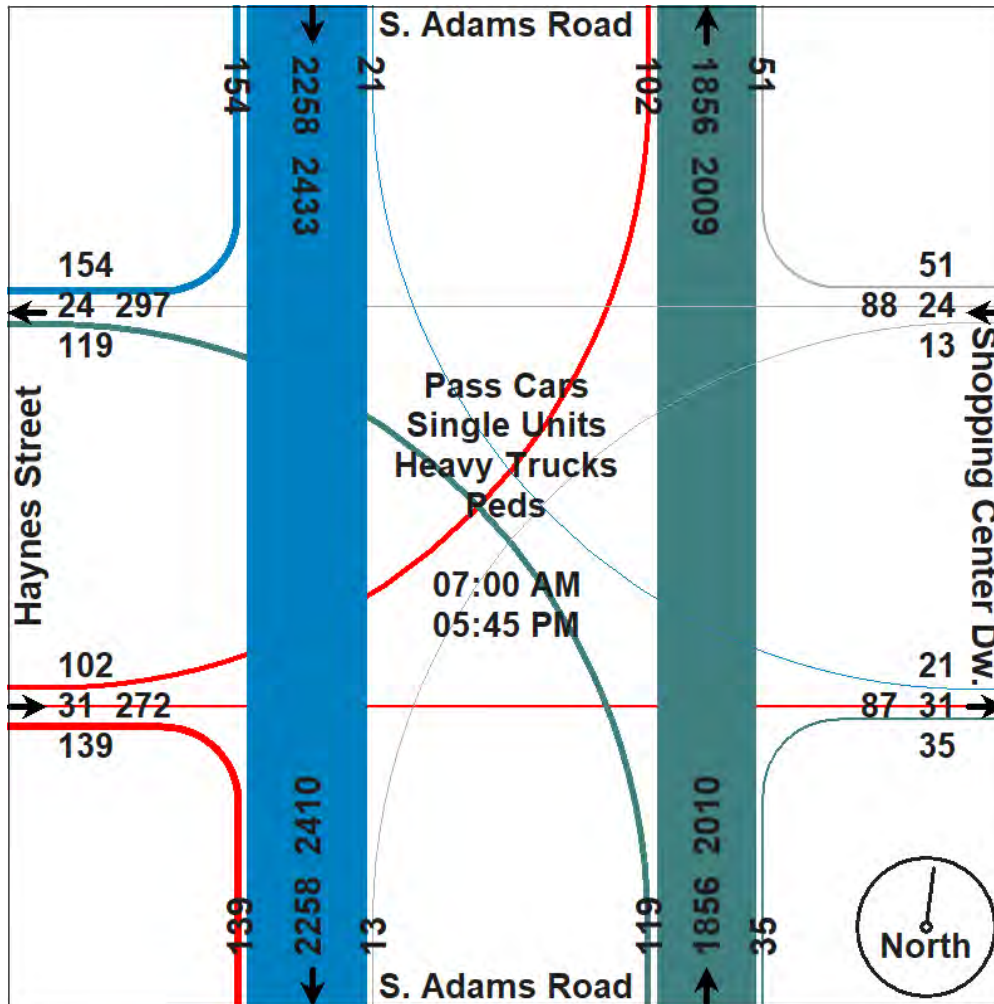
Traffic Study Performed For:

ROWE Professional Services Company



Project: Birmingham Traffic Impact Study
Study: 4 Hr. Video Turning Movement Count
Weather: Sunny. Cldy. Dry Deg's 70s
Count By: Movision Video VCU 4PU SW

File Name : TMC_1 Adams & Haynes_9-11-19
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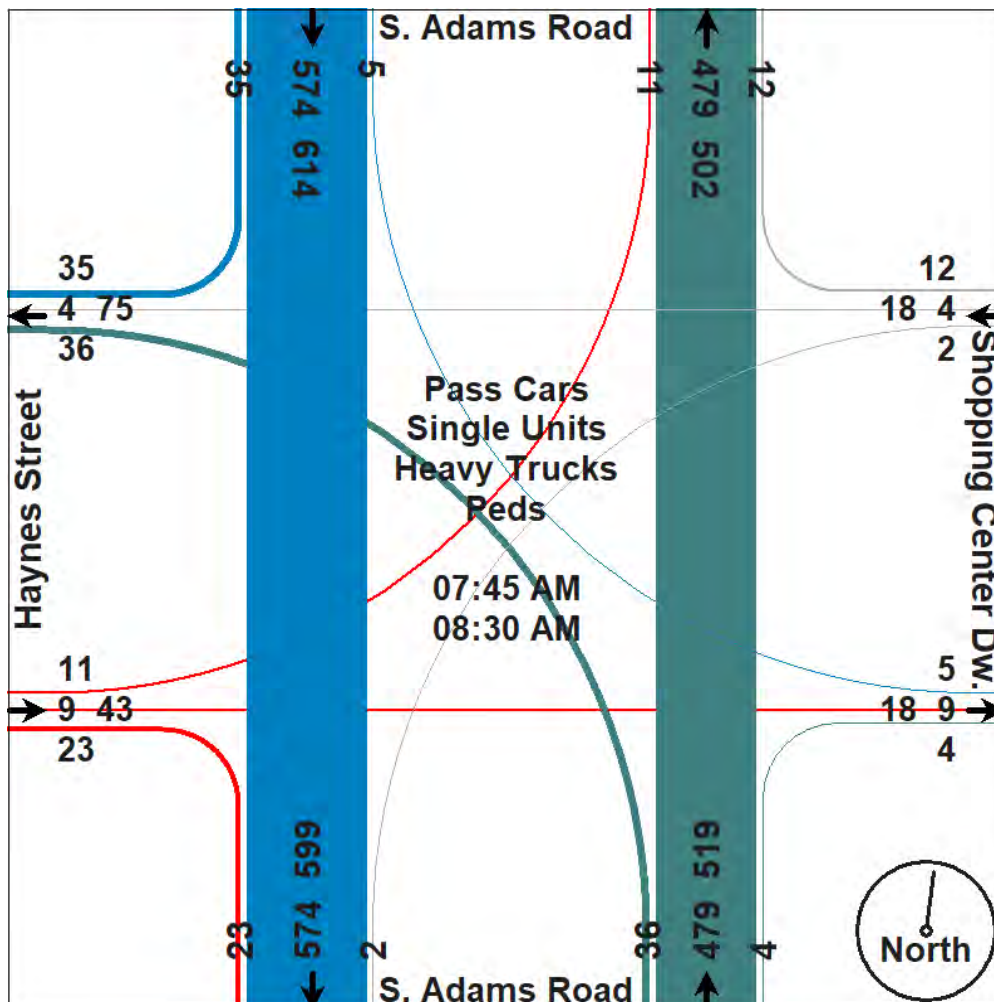
ROWE Professional Services Company



Project: Birmingham Traffic Impact Study
Study: 4 Hr. Video Turning Movement Count
Weather:: Sunny. Cldy. Dry Deg's 70s
Count By Miovision Video VCU 4PU SW

File Name : TMC_1 Adams & Haynes_9-11-19
Site Code : TMC_1
Start Date : 9/11/2019
Page No : 3

	S. Adams Road Southbound				Shopping Center Dw. Westbound				S. Adams Road Northbound				Haynes Street Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 12:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	10	147	0	157	1	0	1	2	3	153	10	166	6	0	1	7	332
08:00 AM	10	148	2	160	2	2	0	4	0	104	4	108	8	1	2	11	283
08:15 AM	7	145	3	155	6	1	0	7	1	100	11	112	6	6	3	15	289
08:30 AM	8	134	0	142	3	1	1	5	0	122	11	133	3	2	5	10	290
Total Volume	35	574	5	614	12	4	2	18	4	479	36	519	23	9	11	43	1194
% App. Total	5.7	93.5	0.8		66.7	22.2	11.1		0.8	92.3	6.9		53.5	20.9	25.6		
PHF	.875	.970	.417	.959	.500	.500	.500	.643	.333	.783	.818	.782	.719	.375	.550	.717	.899
Pass Cars	35	565	5	605	12	4	2	18	4	470	36	510	23	9	11	43	1176
% Pass Cars	100	98.4	100	98.5	100	100	100	100	100	98.1	100	98.3	100	100	100	100	98.5
Single Units	0	9	0	9	0	0	0	0	0	8	0	8	0	0	0	0	17
% Single Units	0	1.6	0	1.5	0	0	0	0	0	1.7	0	1.5	0	0	0	0	1.4
Heavy Trucks	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
% Heavy Trucks	0	0	0	0	0	0	0	0	0	0.2	0	0.2	0	0	0	0	0.1
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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Traffic Study Performed For:

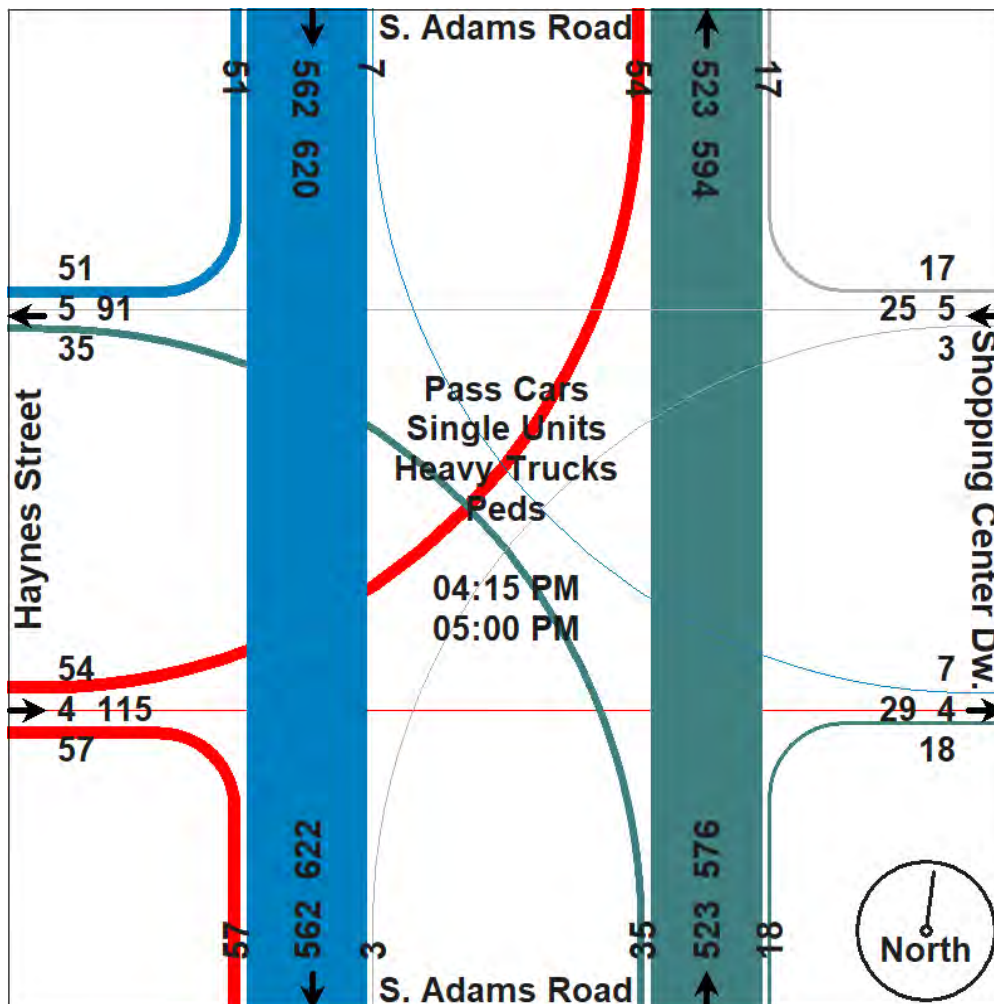
ROWE Professional Services Company



Project: Birmingham Traffic Impact Study
Study: 4 Hr. Video Turning Movement Count
Weather: Sunny. Cldy. Dry Deg's 70s
Count By: Movision Video VCU 4PU SW

File Name : TMC_1 Adams & Haynes_9-11-19
Site Code : TMC_1
Start Date : 9/11/2019
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	S. Adams Road Southbound				Shopping Center Dw. Westbound				S. Adams Road Northbound				Haynes Street Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 12:45 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	19	137	3	159	4	1	0	5	6	149	11	166	15	2	5	22	352
04:30 PM	10	144	1	155	4	0	0	4	7	130	7	144	16	1	18	35	338
04:45 PM	13	140	1	154	5	2	3	10	1	126	10	137	14	0	18	32	333
05:00 PM	9	141	2	152	4	2	0	6	4	118	7	129	12	1	13	26	313
Total Volume	51	562	7	620	17	5	3	25	18	523	35	576	57	4	54	115	1336
% App. Total	8.2	90.6	1.1		68	20	12		3.1	90.8	6.1		49.6	3.5	47		
PHF	.671	.976	.583	.975	.850	.625	.250	.625	.643	.878	.795	.867	.891	.500	.750	.821	.949
Pass Cars	51	557	7	615	17	5	3	25	18	520	34	572	54	4	54	112	1324
% Pass Cars	100	99.1	100	99.2	100	100	100	100	100	99.4	97.1	99.3	94.7	100	100	97.4	99.1
Single Units	0	5	0	5	0	0	0	0	0	3	1	4	3	0	0	3	12
% Single Units	0	0.9	0	0.8	0	0	0	0	0	0.6	2.9	0.7	5.3	0	0	2.6	0.9
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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Traffic Study Performed For:

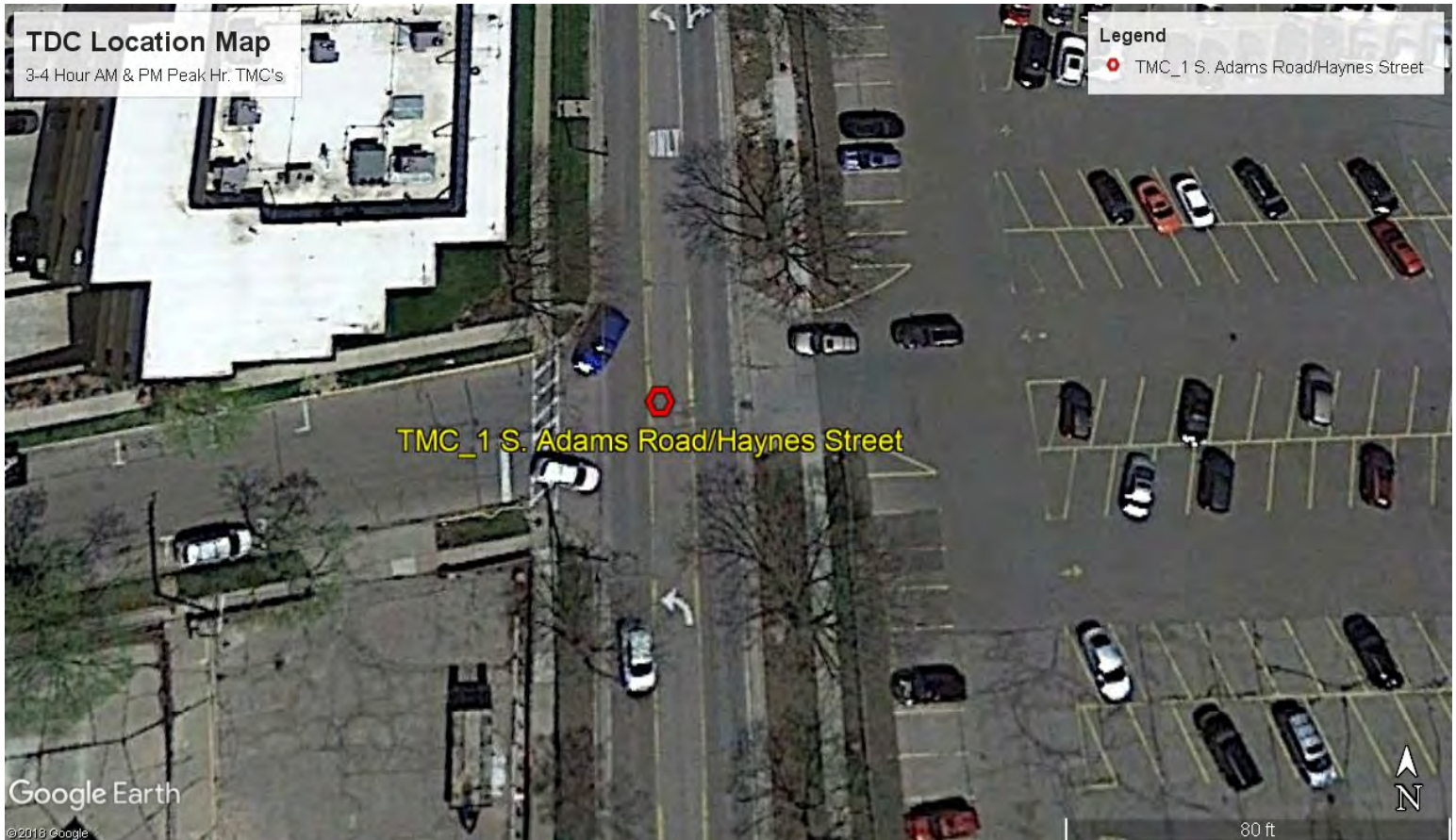
ROWE Professional Services Company



Project: Birmingham Traffic Impact Study
Study: 4 Hr. Video Turning Movement Count
Weather: Sunny. Cldy. Dry Deg's 70s
Count By: Miovision Video VCU 4PU SW

File Name : TMC_1 Adams & Haynes 9-11-19
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Aerial Photo



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Weather: Sunny. Cldy. Dry Deg's 70s
Count By: Mivision Video VCU 224 NE

File Name : TMC_2 Worth & Alley_9-11-19
Site Code : TMC_2
Start Date : 9/11/2019
Page No : 1

4 Hour traffic study was conducted during typical weekday (Wednesday) from 7:00 AM - 9:00 AM morning & 4:00 PM - 6:00 PM afternoon peak hours, while school was in session.

Groups Printed- Pass Cars - Single Units - Heavy Trucks - Peds

	S. Worth Street Southbound					Alley Westbound					S. Worth Street Northbound					Alley Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	0	1	1	0	2	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	4
07:15 AM	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	0	0	0	1	1	3
07:30 AM	0	2	0	0	2	1	0	0	0	1	0	0	0	1	1	2	0	0	0	2	6
07:45 AM	0	2	0	0	2	0	0	0	0	0	0	4	0	0	4	3	0	0	1	4	10
Total	0	5	1	0	6	2	0	0	0	2	0	6	0	1	7	6	0	0	2	8	23
08:00 AM	0	5	0	0	5	0	0	0	1	1	1	1	0	0	2	0	0	0	0	0	8
08:15 AM	0	4	0	0	4	1	0	0	1	2	0	3	0	1	4	2	1	0	0	3	13
08:30 AM	0	6	0	0	6	0	0	1	0	1	0	3	0	1	4	4	0	0	0	4	15
08:45 AM	0	6	1	0	7	1	0	0	0	1	0	2	0	0	2	2	0	0	0	2	12
Total	0	21	1	0	22	2	0	1	2	5	1	9	0	2	12	8	1	0	0	9	48
*** BREAK ***																					
04:00 PM	0	8	0	0	8	1	0	0	0	1	0	5	0	0	5	18	0	2	0	20	34
04:15 PM	0	15	0	0	15	1	0	1	0	2	0	11	0	0	11	21	2	3	0	26	54
04:30 PM	0	12	0	0	12	4	0	0	0	4	0	21	0	0	21	11	0	0	0	11	48
04:45 PM	0	14	0	0	14	0	0	2	0	2	0	14	0	0	14	7	0	0	0	7	37
Total	0	49	0	0	49	6	0	3	0	9	0	51	0	0	51	57	2	5	0	64	173
05:00 PM	0	13	0	0	13	3	2	0	0	5	0	17	0	0	17	13	1	0	0	14	49
05:15 PM	0	13	0	0	13	1	1	1	0	3	0	5	0	0	5	7	0	3	0	10	31
05:30 PM	0	13	0	0	13	1	0	2	0	3	0	9	0	0	9	12	0	2	0	14	39
05:45 PM	0	11	0	0	11	1	0	1	1	3	0	7	0	0	7	18	0	3	1	22	43
Total	0	50	0	0	50	6	3	4	1	14	0	38	0	0	38	50	1	8	1	60	162
Grand Total	0	125	2	0	127	16	3	8	3	30	1	104	0	3	108	121	4	13	3	141	406
Apprch %	0	98.4	1.6	0		53.3	10	26.7	10		0.9	96.3	0	2.8		85.8	2.8	9.2	2.1		
Total %	0	30.8	0.5	0	31.3	3.9	0.7	2	0.7	7.4	0.2	25.6	0	0.7	26.6	29.8	1	3.2	0.7	34.7	
Pass Cars	0	125	2	0	127	16	3	8	0	27	1	100	0	0	101	120	4	13	0	137	392
% Pass Cars	0	100	100	0	100	100	100	100	0	90	100	96.2	0	0	93.5	99.2	100	100	0	97.2	96.6
Single Units	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	1	0	0	0	1	3
% Single Units	0	0	0	0	0	0	0	0	0	0	0	1.9	0	0	1.9	0.8	0	0	0	0.7	0.7
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
% Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	1.9	0	0	1.9	0	0	0	0	0	0.5
Peds	0	0	0	0	0	0	0	0	3	3	0	0	0	3	3	0	0	0	3	3	9
% Peds	0	0	0	0	0	0	0	0	100	10	0	0	0	100	2.8	0	0	0	100	2.1	2.2

TDC Traffic Comments: Nonsignalized controlled intersection. Video VCU camera was located within NE intersection quadrant. Traffic study was performed for Birmingham 770 S. Adams Road Traffic Impact Study for ROWE Professional Services Company.

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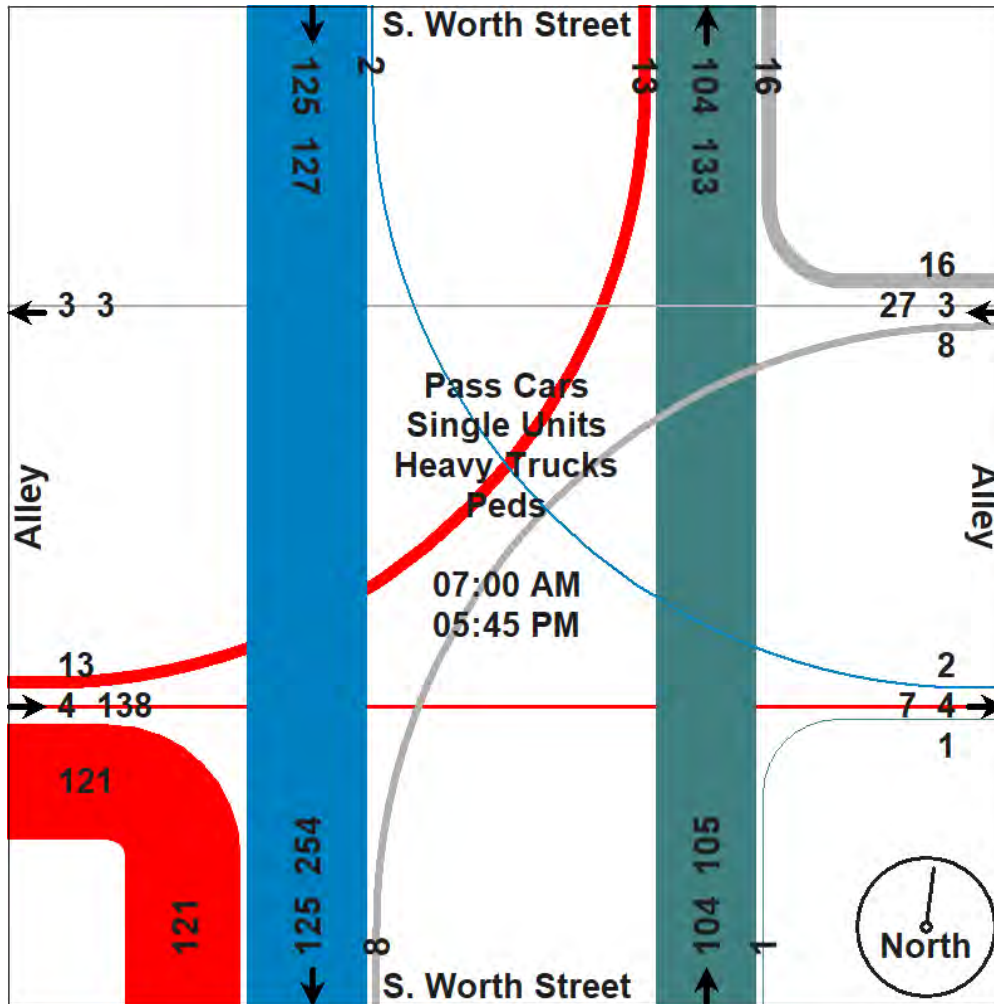
Traffic Study Performed For:

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Weather: Sunny. Cldy. Dry Deg's 70s
Count By: Mivision Video VCU 224 NE

File Name : TMC_2 Worth & Alley_9-11-19
Site Code : TMC_2
Start Date : 9/11/2019
Page No : 2



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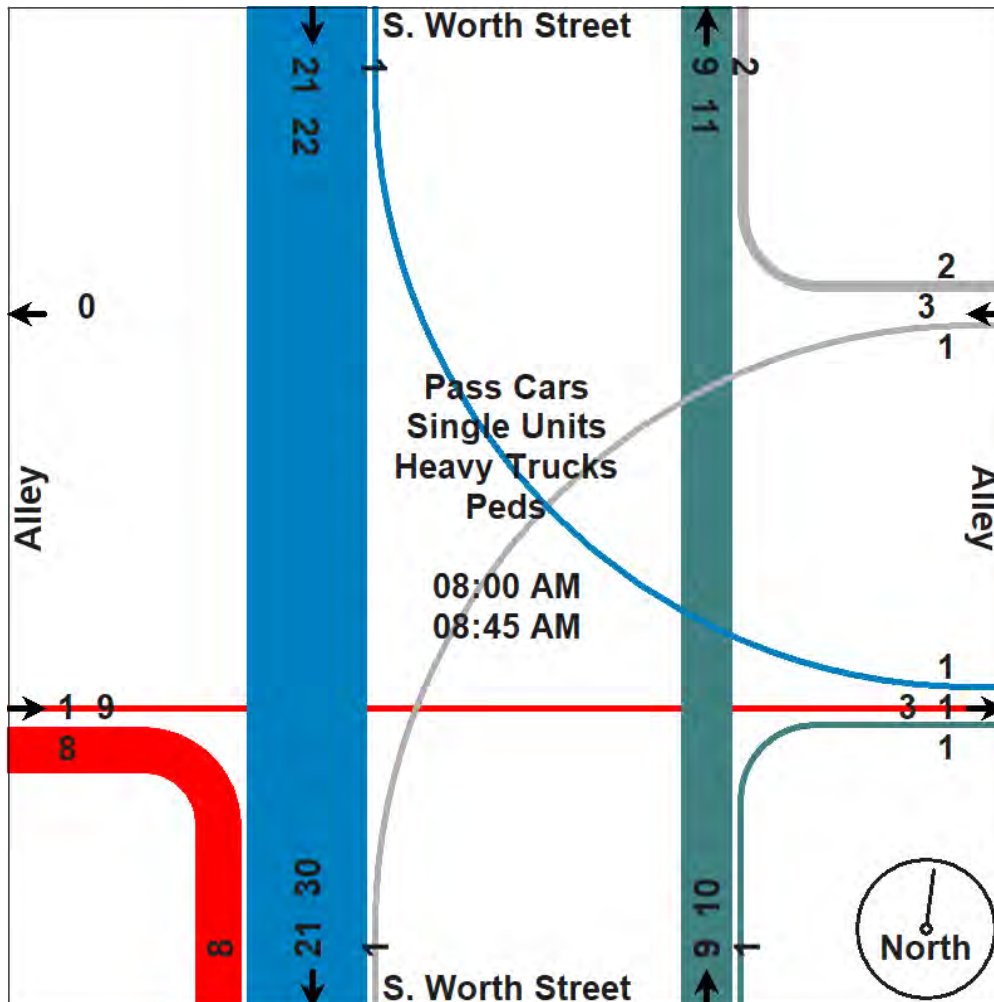
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File Name : TMC_2 Worth & Alley_9-11-19
Site Code : TMC_2
Start Date : 9/11/2019
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	S. Worth Street Southbound				Alley Westbound				S. Worth Street Northbound				Alley Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 12:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	5	0	5	0	0	0	0	1	1	0	2	0	0	0	0	7
08:15 AM	0	4	0	4	1	0	0	1	0	3	0	3	2	1	0	3	11
08:30 AM	0	6	0	6	0	0	1	1	0	3	0	3	4	0	0	4	14
08:45 AM	0	6	1	7	1	0	0	1	0	2	0	2	2	0	0	2	12
Total Volume	0	21	1	22	2	0	1	3	1	9	0	10	8	1	0	9	44
% App. Total	0	95.5	4.5		66.7	0	33.3		10	90	0		88.9	11.1	0		
PHF	.000	.875	.250	.786	.500	.000	.250	.750	.250	.750	.000	.833	.500	.250	.000	.563	.786
Pass Cars	0	21	1	22	2	0	1	3	1	8	0	9	8	1	0	9	43
% Pass Cars	0	100	100	100	100	0	100	100	100	88.9	0	90.0	100	100	0	100	97.7
Single Units	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Single Units	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Trucks	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
% Heavy Trucks	0	0	0	0	0	0	0	0	0	11.1	0	10.0	0	0	0	0	2.3
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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Traffic Study Performed For:

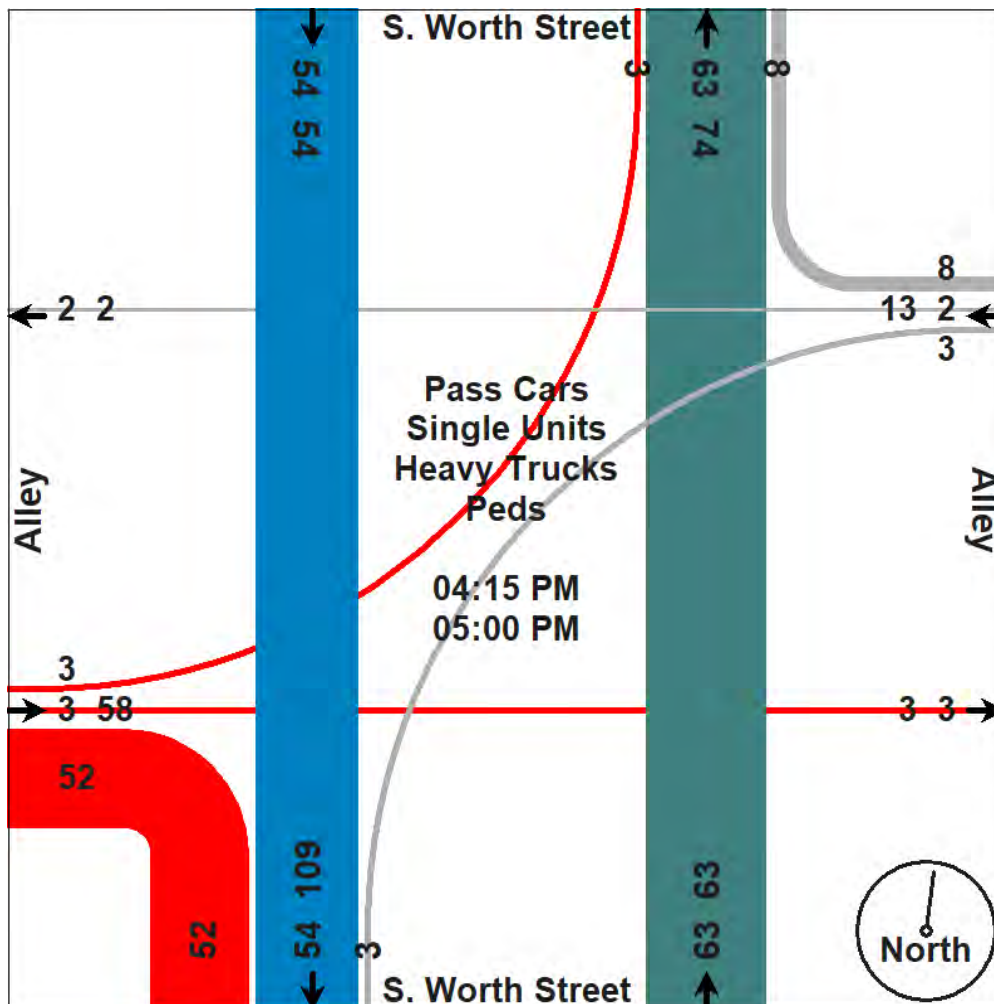
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	S. Worth Street Southbound				Alley Westbound				S. Worth Street Northbound				Alley Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 12:45 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	15	0	15	1	0	1	2	0	11	0	11	21	2	3	26	54
04:30 PM	0	12	0	12	4	0	0	4	0	21	0	21	11	0	0	11	48
04:45 PM	0	14	0	14	0	0	2	2	0	14	0	14	7	0	0	7	37
05:00 PM	0	13	0	13	3	2	0	5	0	17	0	17	13	1	0	14	49
Total Volume	0	54	0	54	8	2	3	13	0	63	0	63	52	3	3	58	188
% App. Total	0	100	0		61.5	15.4	23.1		0	100	0		89.7	5.2	5.2		
PHF	.000	.900	.000	.900	.500	.250	.375	.650	.000	.750	.000	.750	.619	.375	.250	.558	.870
Pass Cars	0	54	0	54	8	2	3	13	0	63	0	63	52	3	3	58	188
% Pass Cars	0	100	0	100	100	100	100	100	0	100	0	100	100	100	100	100	100
Single Units	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Single Units	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Traffic Data Collection, LLC

www.tdccounts.com

Phone: 586.786-5407

Traffic Study Performed For:

ROWE Professional Services Company



Project: Birmingham Traffic Impact Study
Study: 4 Hr. Video Turning Movement Count
Weather: Sunny. Cldy. Dry Deg's 70s
Count By: Mivision Video VCU 224 NE

File Name : TMC_2 Worth & Alley_9-11-19
Site Code : TMC_2
Start Date : 9/11/2019
Page No : 5

Aerial Photo



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Traffic Study Performed For:

ROWE Professional Services Company



Project: Birmingham Traffic Impact Study
Study: 4 Hr. Video Turning Movement Count
Weather: Sunny. Cldy. Dry Deg's 70s
Count By: Movision Video VCU 34C NW

File Name : TMC_3 Adams & Holland 9-11-19
Site Code : TMC_3
Start Date : 9/11/2019
Page No : 1

4 Hour traffic study was conducted during typical weekday (Wednesday) from 7:00 AM - 9:00 AM morning & 4:00 PM - 6:00 PM afternoon peak hours, while school was in session.

Groups Printed- Pass Cars - Single Units - Heavy Trucks - Peds

	S. Adams Road Southbound					Holland Street Westbound					S. Adams Road Northbound					WB Alley Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	0	176	2	0	178	2	0	4	1	7	1	64	0	0	65	0	0	0	0	0	250
07:15 AM	1	157	5	0	163	5	0	3	1	9	2	84	0	0	86	0	0	0	0	0	258
07:30 AM	2	133	3	0	138	5	0	4	0	9	1	115	2	0	118	0	0	0	1	1	266
07:45 AM	0	150	4	0	154	9	0	0	5	14	3	162	3	0	168	0	0	0	0	0	336
Total	3	616	14	0	633	21	0	11	7	39	7	425	5	0	437	0	0	0	1	1	1110
08:00 AM	2	155	6	0	163	5	0	2	1	8	0	115	1	0	116	0	0	0	0	0	287
08:15 AM	3	147	4	0	154	2	0	3	0	5	1	129	2	0	132	0	0	0	1	1	292
08:30 AM	2	135	1	0	138	8	0	1	2	11	3	135	0	0	138	0	0	0	0	0	287
08:45 AM	2	138	2	0	142	2	0	2	0	4	0	139	3	0	142	0	0	0	0	0	288
Total	9	575	13	0	597	17	0	8	3	28	4	518	6	0	528	0	0	0	1	1	1154

*** BREAK ***

04:00 PM	4	127	4	0	135	3	0	0	1	4	6	119	0	0	125	0	0	0	0	0	264
04:15 PM	2	152	7	0	161	4	0	2	0	6	0	173	0	0	173	2	0	0	0	2	342
04:30 PM	1	170	7	0	178	5	0	3	1	9	3	151	0	0	154	0	0	0	0	0	341
04:45 PM	3	144	13	0	160	7	0	2	3	12	2	143	0	3	148	0	0	0	3	3	323
Total	10	593	31	0	634	19	0	7	5	31	11	586	0	3	600	2	0	0	3	5	1270
05:00 PM	1	149	5	0	155	5	0	0	0	5	3	128	0	0	131	0	1	0	0	1	292
05:15 PM	0	125	14	0	139	9	0	1	1	11	1	137	0	0	138	0	0	0	0	0	288
05:30 PM	1	134	12	0	147	7	0	0	1	8	7	153	0	0	160	0	0	0	1	1	316
05:45 PM	1	155	16	0	172	6	0	3	0	9	2	137	1	0	140	0	0	0	0	0	321
Total	3	563	47	0	613	27	0	4	2	33	13	555	1	0	569	0	1	0	1	2	1217

*** BREAK ***

Grand Total	25	2347	105	0	2477	84	0	30	17	131	35	2084	12	3	2134	2	1	0	6	9	4751
Apprch %	1	94.8	4.2	0		64.1	0	22.9	13		1.6	97.7	0.6	0.1		22.2	11.1	0	66.7		
Total %	0.5	49.4	2.2	0	52.1	1.8	0	0.6	0.4	2.8	0.7	43.9	0.3	0.1	44.9	0	0	0	0.1	0.2	
Pass Cars	25	2311	104	0	2440	83	0	29	0	112	34	2053	12	0	2099	2	1	0	0	3	4654
% Pass Cars	100	98.5	99	0	98.5	98.8	0	96.7	0	85.5	97.1	98.5	100	0	98.4	100	100	0	0	33.3	98
Single Units	0	31	1	0	32	1	0	1	0	2	1	29	0	0	30	0	0	0	0	0	64
% Single Units	0	1.3	1	0	1.3	1.2	0	3.3	0	1.5	2.9	1.4	0	0	1.4	0	0	0	0	0	1.3
Heavy Trucks	0	5	0	0	5	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	7
% Heavy Trucks	0	0.2	0	0	0.2	0	0	0	0	0	0	0.1	0	0	0.1	0	0	0	0	0	0.1
Peds	0	0	0	0	0	0	0	0	17	17	0	0	0	3	3	0	0	0	6	6	26
% Peds	0	0	0	0	0	0	0	0	100	13	0	0	0	100	0.1	0	0	0	100	66.7	0.5

TDC Traffic Comments: Non-signalized controlled intersection, Holland St. is offset with WB Alley. Video VCU camera was located within NW intersection quadrant. Traffic study was performed for Birmingham 770 S. Adams Road Traffic Impact Study for ROWE Professional Services Company.

Traffic Data Collection, LLC

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Phone: 586.786-5407

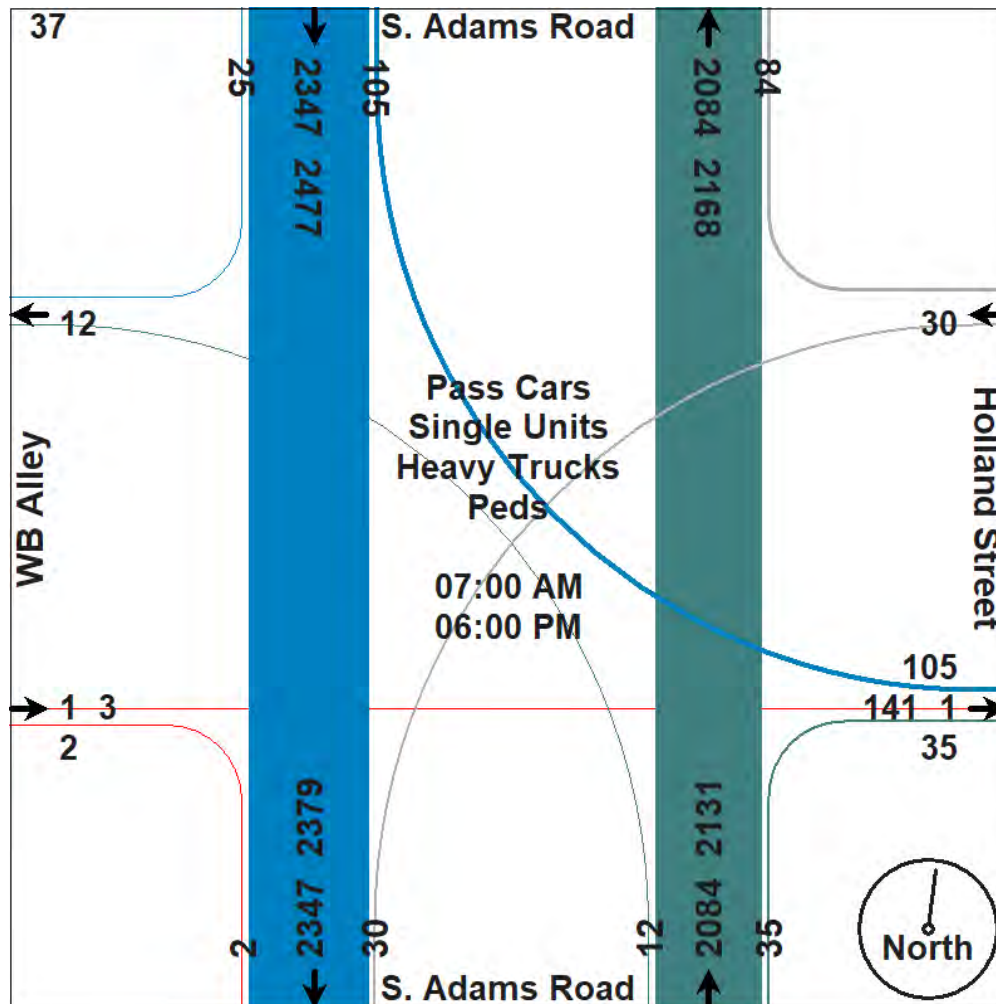
Traffic Study Performed For:

ROWE Professional Services Company



Project: Birmingham Traffic Impact Study
Study: 4 Hr. Video Turning Movement Count
Weather: Sunny. Cldy. Dry Deg's 70s
Count By: Movision Video VCU 34C NW

File Name : TMC_3 Adams & Holland_9-11-19
Site Code : TMC_3
Start Date : 9/11/2019
Page No : 2



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Phone: 586.786-5407

Traffic Study Performed For:

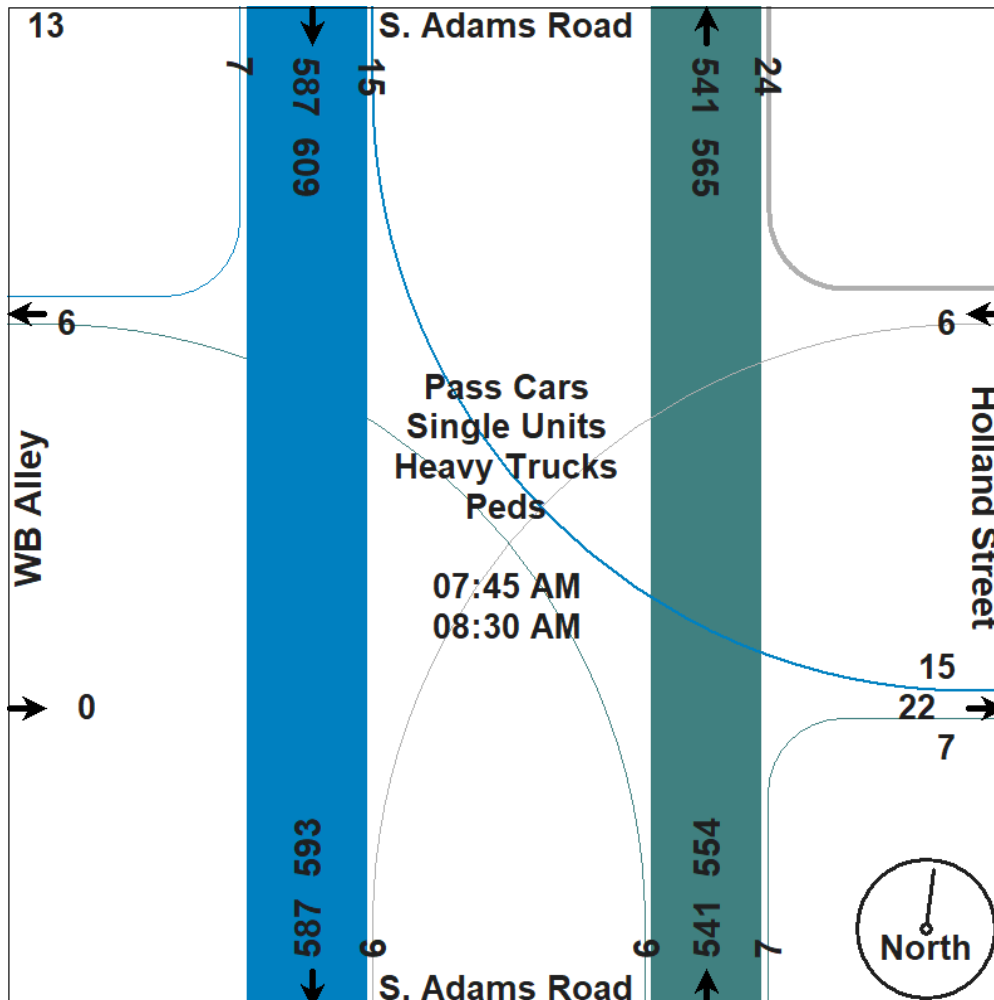
ROWE Professional Services Company



Project: Birmingham Traffic Impact Study
Study: 4 Hr. Video Turning Movement Count
Weather: Sunny. Cldy. Dry Deg's 70s
Count By: Miovision Video VCU 34C NW

File Name : TMC_3 Adams & Holland_9-11-19
Site Code : TMC_3
Start Date : 9/11/2019
Page No : 3

	S. Adams Road Southbound				Holland Street Westbound				S. Adams Road Northbound				WB Alley Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 12:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	150	4	154	9	0	0	9	3	162	3	168	0	0	0	0	331
08:00 AM	2	155	6	163	5	0	2	7	0	115	1	116	0	0	0	0	286
08:15 AM	3	147	4	154	2	0	3	5	1	129	2	132	0	0	0	0	291
08:30 AM	2	135	1	138	8	0	1	9	3	135	0	138	0	0	0	0	285
Total Volume	7	587	15	609	24	0	6	30	7	541	6	554	0	0	0	0	1193
% App. Total	1.1	96.4	2.5		80	0	20		1.3	97.7	1.1		0	0	0		
PHF	.583	.947	.625	.934	.667	.000	.500	.833	.583	.835	.500	.824	.000	.000	.000	.000	.901
Pass Cars	7	578	15	600	24	0	5	29	7	532	6	545	0	0	0	0	1174
% Pass Cars	100	98.5	100	98.5	100	0	83.3	96.7	100	98.3	100	98.4	0	0	0	0	98.4
Single Units	0	9	0	9	0	0	1	1	0	7	0	7	0	0	0	0	17
% Single Units	0	1.5	0	1.5	0	0	16.7	3.3	0	1.3	0	1.3	0	0	0	0	1.4
Heavy Trucks	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
% Heavy Trucks	0	0	0	0	0	0	0	0	0	0.4	0	0.4	0	0	0	0	0.2
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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Phone: 586.786-5407

Traffic Study Performed For:

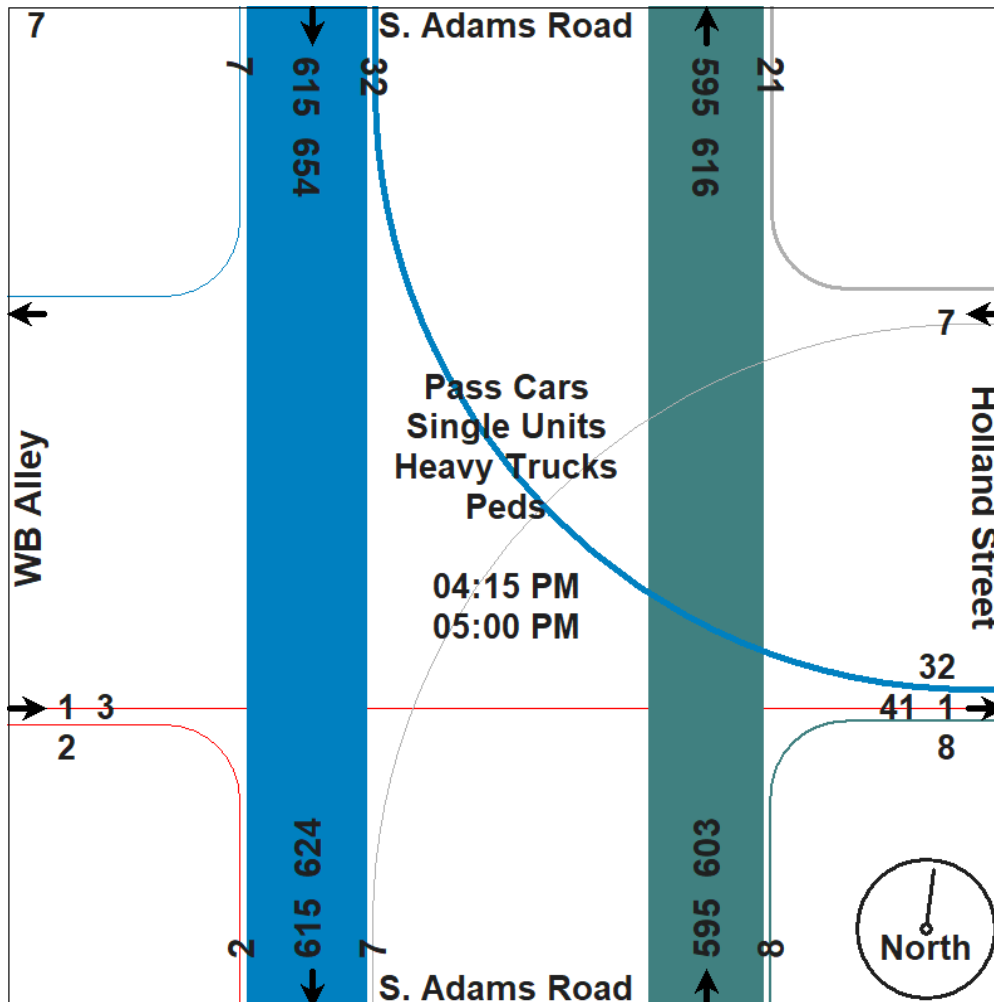
ROWE Professional Services Company



Project: Birmingham Traffic Impact Study
Study: 4 Hr. Video Turning Movement Count
Weather: Sunny. Cldy. Dry Deg's 70s
Count By: Mivision Video VCU 34C NW

File Name : TMC_3 Adams & Holland_9-11-19
Site Code : TMC_3
Start Date : 9/11/2019
Page No : 4

	S. Adams Road Southbound				Holland Street Westbound				S. Adams Road Northbound				WB Alley Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 12:45 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	2	152	7	161	4	0	2	6	0	173	0	173	2	0	0	2	342
04:30 PM	1	170	7	178	5	0	3	8	3	151	0	154	0	0	0	0	340
04:45 PM	3	144	13	160	7	0	2	9	2	143	0	145	0	0	0	0	314
05:00 PM	1	149	5	155	5	0	0	5	3	128	0	131	0	1	0	1	292
Total Volume	7	615	32	654	21	0	7	28	8	595	0	603	2	1	0	3	1288
% App. Total	1.1	94	4.9		75	0	25		1.3	98.7	0		66.7	33.3	0		
PHF	.583	.904	.615	.919	.750	.000	.583	.778	.667	.860	.000	.871	.250	.250	.000	.375	.942
Pass Cars	7	607	31	645	21	0	7	28	7	591	0	598	2	1	0	3	1274
% Pass Cars	100	98.7	96.9	98.6	100	0	100	100	87.5	99.3	0	99.2	100	100	0	100	98.9
Single Units	0	6	1	7	0	0	0	0	1	4	0	5	0	0	0	0	12
% Single Units	0	1.0	3.1	1.1	0	0	0	0	12.5	0.7	0	0.8	0	0	0	0	0.9
Heavy Trucks	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
% Heavy Trucks	0	0.3	0	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0.2
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Peds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Traffic Data Collection, LLC

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Phone: 586.786-5407

Traffic Study Performed For:

ROWE Professional Services Company



Project: Birmingham Traffic Impact Study
Study: 4 Hr. Video Turning Movement Count
Weather: Sunny. Cldy. Dry Deg's 70s
Count By: Miovision Video VCU 34C NW

File Name : TMC_3 Adams & Holland 9-11-19
Site Code : TMC_3
Start Date : 9/11/2019
Page No : 5

Aerial Photo



Haynes Street & Worth Street - TMC

Tue Nov 16, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 899384, Location: 42.542465, -83.207047



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Worth Northbound				Haynes Eastbound				Haynes Westbound				
Time	L	R	U	App	T	R	U	App	L	T	U	App	Int
2021-11-16 7:00AM	2	0	0	2	5	1	0	6	1	7	0	8	16
7:15AM	1	0	0	1	6	1	0	7	0	1	0	1	9
7:30AM	2	0	0	2	4	0	0	4	0	4	0	4	10
7:45AM	0	0	0	0	17	0	0	17	1	5	0	6	23
Hourly Total	5	0	0	5	32	2	0	34	2	17	0	19	58
8:00AM	4	1	0	5	15	1	0	16	0	6	0	6	27
8:15AM	0	2	0	2	17	1	0	18	1	6	0	7	27
8:30AM	0	3	0	3	11	0	0	11	1	8	0	9	23
8:45AM	2	6	0	8	12	0	0	12	3	5	0	8	28
Hourly Total	6	12	0	18	55	2	0	57	5	25	0	30	105
4:00PM	3	5	0	8	15	1	0	16	8	8	0	16	40
4:15PM	6	8	0	14	14	0	0	14	7	9	0	16	44
4:30PM	4	10	0	14	21	0	0	21	6	7	0	13	48
4:45PM	5	16	0	21	10	0	0	10	6	18	0	24	55
Hourly Total	18	39	0	57	60	1	0	61	27	42	0	69	187
5:00PM	5	6	0	11	13	0	0	13	6	15	0	21	45
5:15PM	3	11	0	14	12	2	0	14	6	10	0	16	44
5:30PM	5	7	0	12	15	0	0	15	7	11	0	18	45
5:45PM	2	8	0	10	12	0	0	12	4	7	0	11	33
Hourly Total	15	32	0	47	52	2	0	54	23	43	0	66	167
Total	44	83	0	127	199	7	0	206	57	127	0	184	517
% Approach	34.6%	65.4%	0%	-	96.6%	3.4%	0%	-	31.0%	69.0%	0%	-	-
% Total	8.5%	16.1%	0%	24.6%	38.5%	1.4%	0%	39.8%	11.0%	24.6%	0%	35.6%	-
Lights	40	80	0	120	196	7	0	203	57	127	0	184	507
% Lights	90.9%	96.4%	0%	94.5%	98.5%	100%	0%	98.5%	100%	100%	0%	100%	98.1%
Articulated Trucks	2	0	0	2	0	0	0	0	0	0	0	0	2
% Articulated Trucks	4.5%	0%	0%	1.6%	0%	0%	0%	0%	0%	0%	0%	0%	0.4%
Buses and Single-Unit Trucks	2	3	0	5	3	0	0	3	0	0	0	0	8
% Buses and Single-Unit Trucks	4.5%	3.6%	0%	3.9%	1.5%	0%	0%	1.5%	0%	0%	0%	0%	1.5%

*L: Left, R: Right, T: Thru, U: U-Turn

Haynes Street & Worth Street - TMC

Tue Nov 16, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

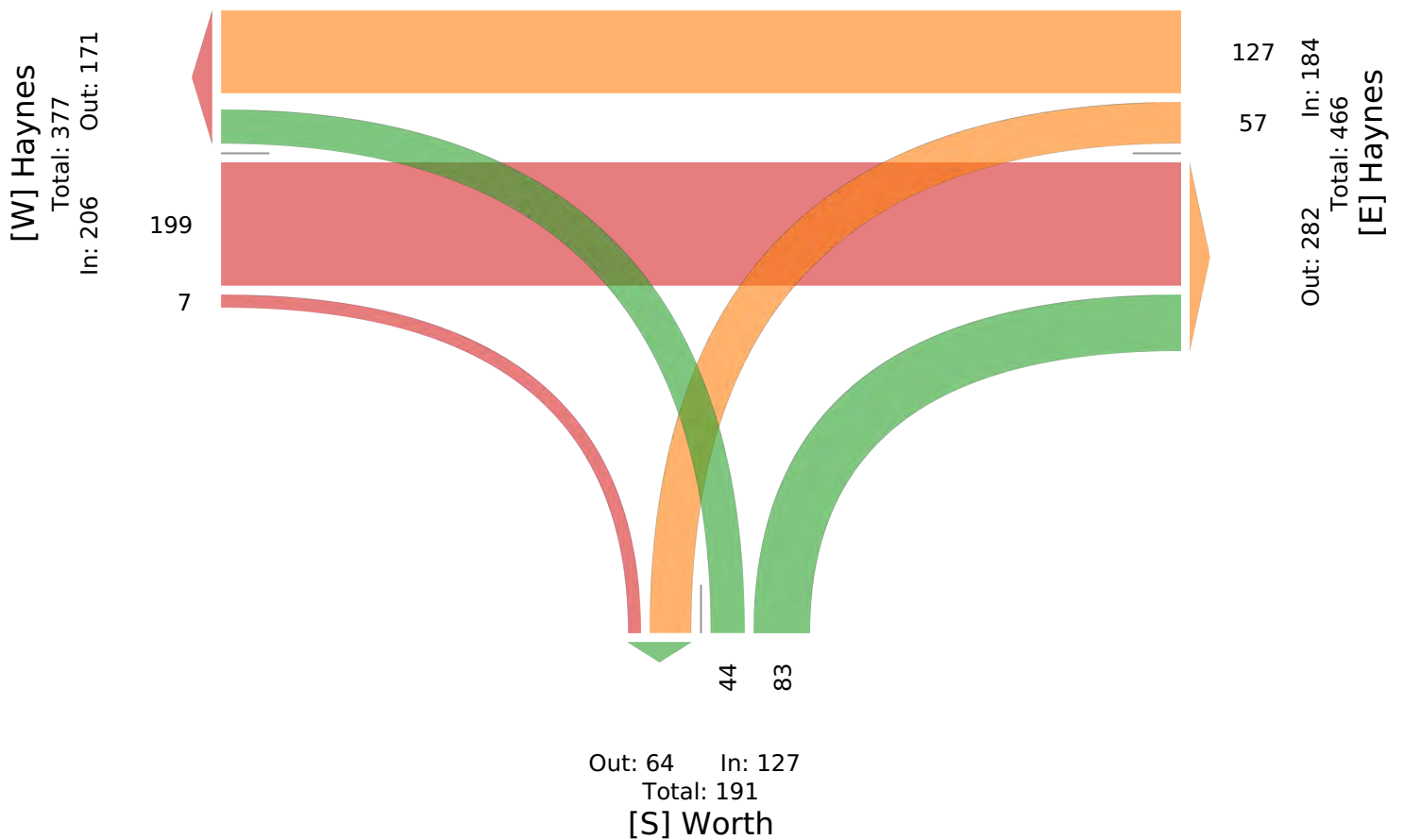
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 899384, Location: 42.542465, -83.207047



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Haynes Street & Worth Street - TMC

Tue Nov 16, 2021

AM Peak (8 AM - 9 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 899384, Location: 42.542465, -83.207047



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Worth Northbound				Haynes Eastbound				Haynes Westbound				
Time	L	R	U	App	T	R	U	App	L	T	U	App	Int
2021-11-16 8:00AM	4	1	0	5	15	1	0	16	0	6	0	6	27
8:15AM	0	2	0	2	17	1	0	18	1	6	0	7	27
8:30AM	0	3	0	3	11	0	0	11	1	8	0	9	23
8:45AM	2	6	0	8	12	0	0	12	3	5	0	8	28
Total	6	12	0	18	55	2	0	57	5	25	0	30	105
% Approach	33.3%	66.7%	0%	-	96.5%	3.5%	0%	-	16.7%	83.3%	0%	-	-
% Total	5.7%	11.4%	0%	17.1%	52.4%	1.9%	0%	54.3%	4.8%	23.8%	0%	28.6%	-
PHF	0.375	0.500	-	0.563	0.809	0.500	-	0.792	0.417	0.781	-	0.833	0.938
Lights	6	10	0	16	54	2	0	56	5	25	0	30	102
% Lights	100%	83.3%	0%	88.9%	98.2%	100%	0%	98.2%	100%	100%	0%	100%	97.1%
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated Trucks	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Buses and Single-Unit Trucks	0	2	0	2	1	0	0	1	0	0	0	0	3
% Buses and Single-Unit Trucks	0%	16.7%	0%	11.1%	1.8%	0%	0%	1.8%	0%	0%	0%	0%	2.9%

* L: Left, R: Right, T: Thru, U: U-Turn

Haynes Street & Worth Street - TMC

Tue Nov 16, 2021

AM Peak (8 AM - 9 AM)

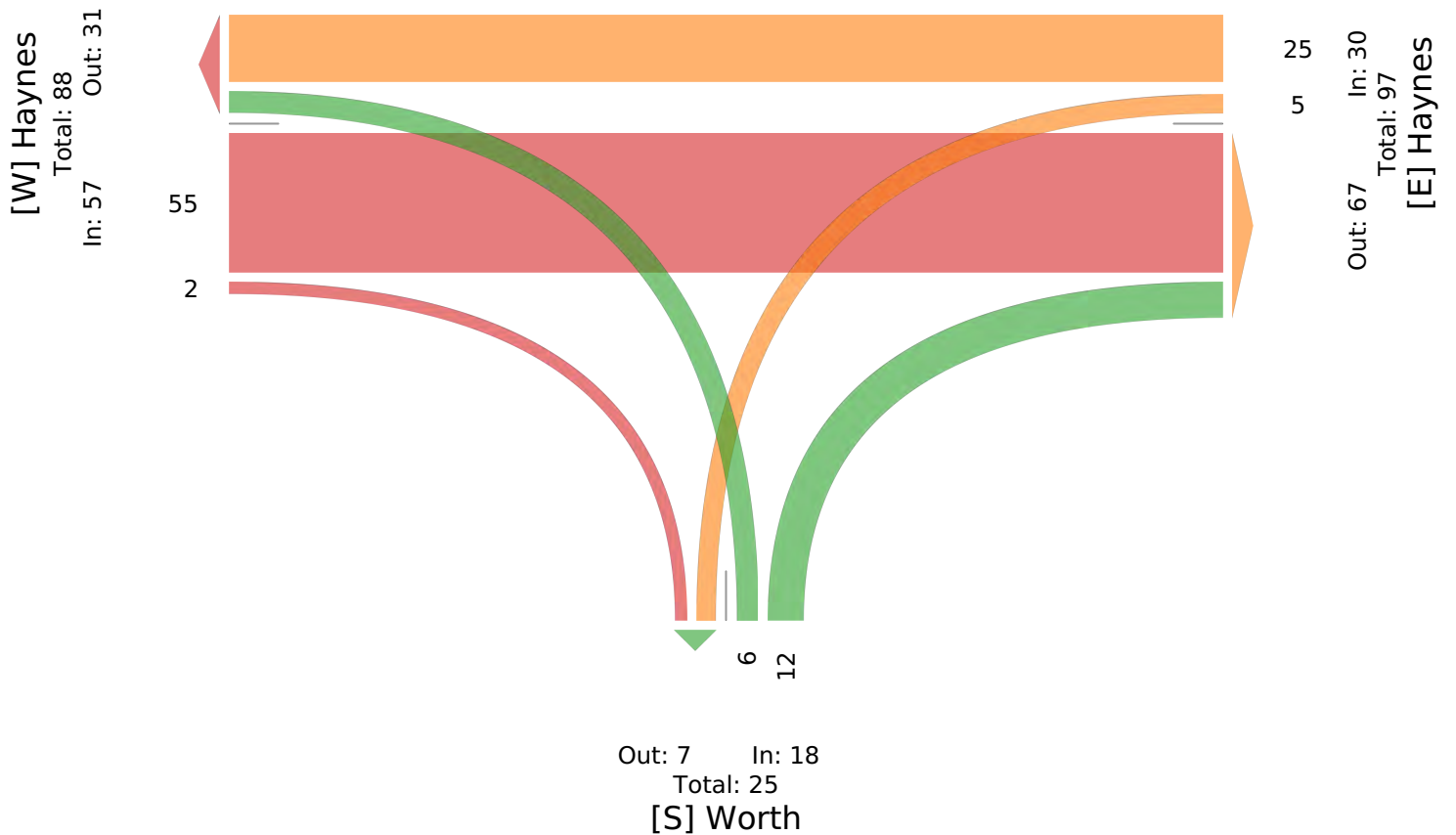
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 899384, Location: 42.542465, -83.207047



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Haynes Street & Worth Street - TMC

Tue Nov 16, 2021

PM Peak (4:15 PM - 5:15 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 899384, Location: 42.542465, -83.207047

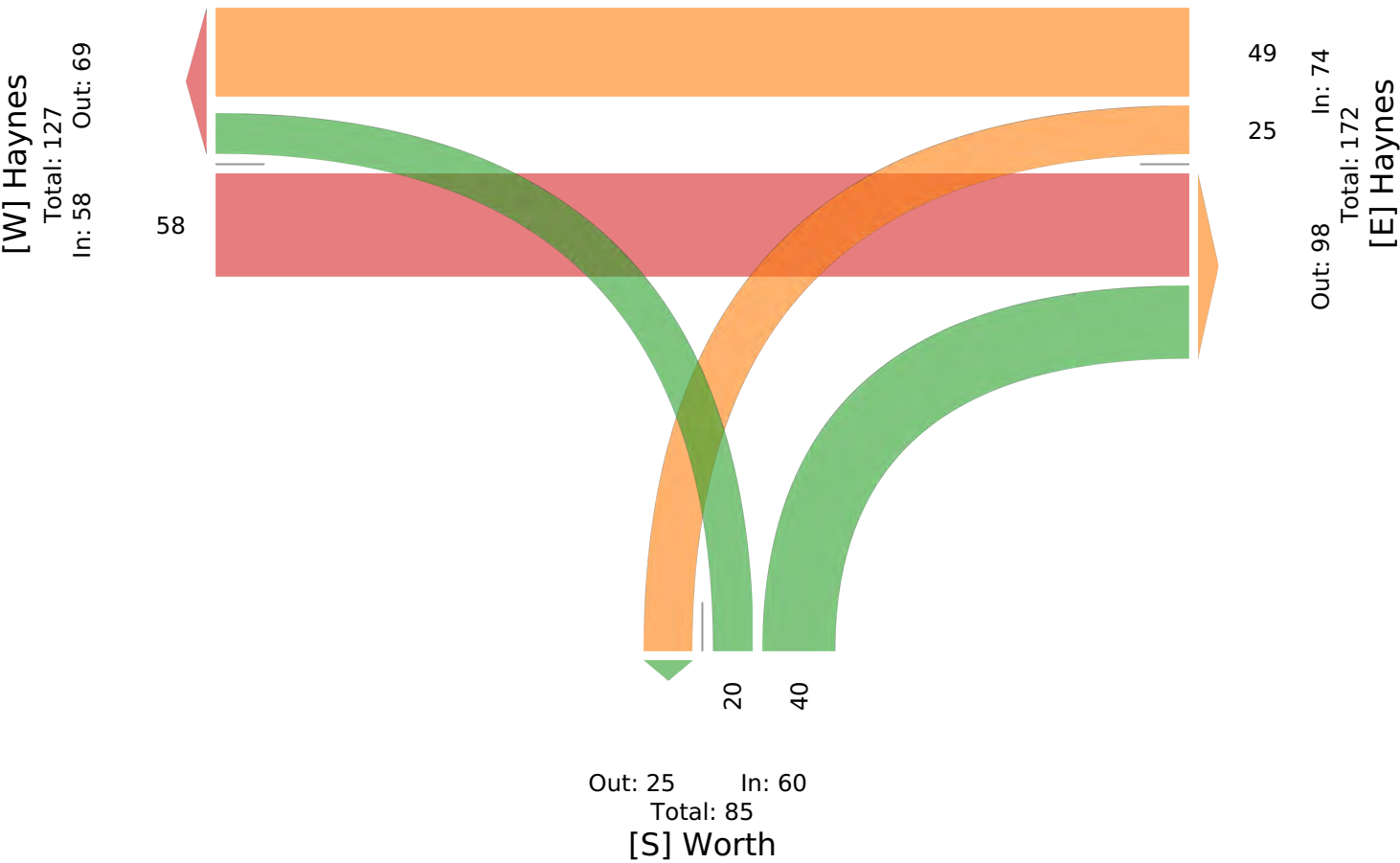


Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Worth Northbound				Haynes Eastbound				Haynes Westbound				
Time	L	R	U	App	T	R	U	App	L	T	U	App	Int
2021-11-16 4:15PM	6	8	0	14	14	0	0	14	7	9	0	16	44
4:30PM	4	10	0	14	21	0	0	21	6	7	0	13	48
4:45PM	5	16	0	21	10	0	0	10	6	18	0	24	55
5:00PM	5	6	0	11	13	0	0	13	6	15	0	21	45
Total	20	40	0	60	58	0	0	58	25	49	0	74	192
% Approach	33.3%	66.7%	0%	-	100%	0%	0%	-	33.8%	66.2%	0%	-	-
% Total	10.4%	20.8%	0%	31.3%	30.2%	0%	0%	30.2%	13.0%	25.5%	0%	38.5%	-
PHF	0.833	0.625	-	0.714	0.690	-	-	0.690	0.893	0.681	-	0.771	0.873
Lights	20	40	0	60	58	0	0	58	25	49	0	74	192
% Lights	100%	100%	0%	100%	100%	0%	0%	100%	100%	100%	0%	100%	100%
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated Trucks	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Buses and Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses and Single-Unit Trucks	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

* L: Left, R: Right, T: Thru, U: U-Turn

Haynes Street & Worth Street - TMC
Tue Nov 16, 2021
PM Peak (4:15 PM - 5:15 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 899384, Location: 42.542465, -83.207047



Haynes Street & Worth Street - TMC

Tue Nov 16, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 904511, Location: 42.542465, -83.207047



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	North Southbound		Haynes Westbound		Worth Northbound			Haynes Eastbound		
Time	App	Ped*	App	Ped*	U	App	Ped*	App	Ped*	Int
2021-11-16 7:00AM	0	0	0	0	0	0	0	0	0	0
7:15AM	0	0	0	1	0	0	0	0	0	0
7:30AM	0	0	0	0	0	0	0	0	0	0
7:45AM	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	1	0	0	0	0	0	0
8:00AM	0	0	0	0	0	0	0	0	0	0
8:15AM	0	0	0	0	0	0	0	0	0	0
8:30AM	0	0	0	0	0	0	0	0	0	0
8:45AM	0	1	0	0	0	0	0	0	0	0
Hourly Total	0	1	0	0	0	0	0	0	0	0
4:00PM	0	2	0	1	0	0	0	0	0	0
4:15PM	0	4	0	0	0	0	0	0	0	0
4:30PM	0	3	0	0	0	0	0	0	2	0
4:45PM	0	0	0	0	0	0	1	0	0	0
Hourly Total	0	9	0	1	0	0	1	0	2	0
5:00PM	0	0	0	1	0	0	1	0	0	0
5:15PM	0	0	0	0	0	0	0	0	0	0
5:30PM	0	1	0	0	0	0	0	0	1	0
5:45PM	0	1	0	0	0	0	0	0	0	0
Hourly Total	0	2	0	1	0	0	1	0	1	0
Total	0	12	0	3	0	0	2	0	3	0
% Approach	-	-	-	-	0%	-	-	-	-	-
% Total	-	-	-	-	-	-	-	-	-	-
Lights	0	-	0	-	0	0	-	0	-	0
% Lights	-	-	-	-	0%	-	-	-	-	-
Articulated Trucks	0	-	0	-	0	0	-	0	-	0
% Articulated Trucks	-	-	-	-	0%	-	-	-	-	-
Buses and Single-Unit Trucks	0	-	0	-	0	0	-	0	-	0
% Buses and Single-Unit Trucks	-	-	-	-	0%	-	-	-	-	-
Pedestrians	-	12	-	3	-	-	2	-	3	
% Pedestrians	-	100%	-	100%	-	-	100%	-	100%	-
Bicycles on Crosswalk	-	0	-	0	-	-	0	-	0	
% Bicycles on Crosswalk	-	0%	-	0%	-	-	0%	-	0%	-

* Pedestrians and Bicycles on Crosswalk. U: U-Turn

Haynes Street & Worth Street - TMC

Tue Nov 16, 2021

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks,
Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 904511, Location: 42.542465, -83.207047



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

[N] North



[W] Haynes



[E] Haynes



[S] Worth

LOS OUTPUT REPORTS

HCM 6th TWSC
1: S Adams Road & Haynes Street/Shopping Center

2021 Existing Conditions
AM Peak Hour

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↔	↔		↔	↔	
Traffic Vol, veh/h	18	15	39	2	4	12	40	526	4	5	580	38
Future Vol, veh/h	18	15	39	2	4	12	40	526	4	5	580	38
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	64	64	64	78	78	78	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	2	2	2	2	2	2
Mvmt Flow	25	21	54	3	6	19	51	674	5	5	611	40

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1432	1422	631	1458	1440	677	651	0	0	679	0	0
Stage 1	641	641	-	779	779	-	-	-	-	-	-	-
Stage 2	791	781	-	679	661	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	113	137	485	109	134	456	935	-	-	913	-	-
Stage 1	466	473	-	392	409	-	-	-	-	-	-	-
Stage 2	386	408	-	445	463	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	100	129	485	81	126	456	935	-	-	913	-	-
Mov Cap-2 Maneuver	100	129	-	81	126	-	-	-	-	-	-	-
Stage 1	440	471	-	370	387	-	-	-	-	-	-	-
Stage 2	344	386	-	376	461	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	42.9		23.9		0.6		0.1	
HCM LOS	E		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	935	-	-	191 218	913	-	-
HCM Lane V/C Ratio	0.055	-	-	0.524 0.129	0.006	-	-
HCM Control Delay (s)	9.1	-	-	42.9 23.9	9	-	-
HCM Lane LOS	A	-	-	E C	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	2.7 0.4	0	-	-

HCM 6th TWSC
2: S Adams Road & Alley/Holland Street

2021 Existing Conditions
AM Peak Hour

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↔	↔		↔	↔	
Traffic Vol, veh/h	0	0	3	6	0	24	6	546	7	15	599	7
Future Vol, veh/h	0	0	3	6	0	24	6	546	7	15	599	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	60	60	60	83	83	83	82	82	82	93	93	93
Heavy Vehicles, %	0	0	0	3	3	3	2	2	2	2	2	2
Mvmt Flow	0	0	5	7	0	29	7	666	9	16	644	8

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1379	1369	648	1368	1369	671	652	0	0	675	0	0
Stage 1	680	680	-	685	685	-	-	-	-	-	-	-
Stage 2	699	689	-	683	684	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.13	6.53	6.23	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.527	4.027	3.327	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	123	148	474	123	146	455	935	-	-	916	-	-
Stage 1	444	454	-	436	447	-	-	-	-	-	-	-
Stage 2	434	450	-	438	447	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	113	144	474	119	142	455	935	-	-	916	-	-
Mov Cap-2 Maneuver	113	144	-	119	142	-	-	-	-	-	-	-
Stage 1	441	446	-	433	444	-	-	-	-	-	-	-
Stage 2	403	447	-	426	439	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.7		19.1		0.1		0.2	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	935	-	-	474	291	916	-
HCM Lane V/C Ratio	0.008	-	-	0.011	0.124	0.018	-
HCM Control Delay (s)	8.9	-	-	12.7	19.1	9	-
HCM Lane LOS	A	-	-	B	C	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.4	0.1	-

HCM 6th TWSC
3: Worth Street & Alley

2021 Existing Conditions
AM Peak Hour

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	1	8	3	0	10	0	15	1	1	21	0
Future Vol, veh/h	0	1	8	3	0	10	0	15	1	1	21	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	60	60	60	75	75	75	83	83	83	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	10	10	10	0	0	0
Mvmt Flow	0	2	13	4	0	13	0	18	1	1	27	0
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	54	48	27	56	48	19	27	0	0	19	0	0
Stage 1	29	29	-	19	19	-	-	-	-	-	-	-
Stage 2	25	19	-	37	29	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.2	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.29	-	-	2.2	-	-
Pot Cap-1 Maneuver	949	847	1054	946	847	1065	1536	-	-	1611	-	-
Stage 1	993	875	-	1005	884	-	-	-	-	-	-	-
Stage 2	998	884	-	984	875	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	937	846	1054	932	846	1065	1536	-	-	1611	-	-
Mov Cap-2 Maneuver	937	846	-	932	846	-	-	-	-	-	-	-
Stage 1	993	874	-	1005	884	-	-	-	-	-	-	-
Stage 2	986	884	-	969	874	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	8.6		8.6			0			0.3			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1536	-	-	1026 1031	1611	-	-					
HCM Lane V/C Ratio	-	-	-	0.015 0.017	0.001	-	-					
HCM Control Delay (s)	0	-	-	8.6 8.6	7.2	0	-					
HCM Lane LOS	A	-	-	A A	A	A	-					
HCM 95th %tile Q(veh)	0	-	-	0 0.1	0	-	-					

HCM 6th TWSC
4: Worth Street & Haynes Street

2021 Existing Conditions
AM Peak Hour

Intersection						
Int Delay, s/veh	2.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	55	3	19	63	8	17
Future Vol, veh/h	55	3	19	63	8	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	79	79	83	86	60	60
Heavy Vehicles, %	2	2	0	0	11	11
Mvmt Flow	70	4	23	73	13	28
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	74	0	191	72
Stage 1	-	-	-	-	72	-
Stage 2	-	-	-	-	119	-
Critical Hdwy	-	-	4.1	-	6.51	6.31
Critical Hdwy Stg 1	-	-	-	-	5.51	-
Critical Hdwy Stg 2	-	-	-	-	5.51	-
Follow-up Hdwy	-	-	2.2	-	3.599	3.399
Pot Cap-1 Maneuver	-	-	1538	-	778	966
Stage 1	-	-	-	-	929	-
Stage 2	-	-	-	-	884	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1538	-	766	966
Mov Cap-2 Maneuver	-	-	-	-	766	-
Stage 1	-	-	-	-	929	-
Stage 2	-	-	-	-	870	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.8		9.2	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	892	-	-	1538	-	
HCM Lane V/C Ratio	0.047	-	-	0.015	-	
HCM Control Delay (s)	9.2	-	-	7.4	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Intersection: 1: S Adams Road & Haynes Street/Shopping Center

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	L	L	TR
Maximum Queue (ft)	98	40	44	28	4
Average Queue (ft)	36	13	15	2	0
95th Queue (ft)	70	39	39	12	5
Link Distance (ft)	333	267			283
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			100	100	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 2: S Adams Road & Alley/Holland Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	L	L
Maximum Queue (ft)	36	65	9	29
Average Queue (ft)	2	22	1	7
95th Queue (ft)	17	51	4	26
Link Distance (ft)	272	909		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			100	100
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Worth Street & Alley

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (ft)	27	21
Average Queue (ft)	7	6
95th Queue (ft)	25	21
Link Distance (ft)	310	272
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Worth Street & Haynes Street

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	30	58
Average Queue (ft)	1	19
95th Queue (ft)	12	49
Link Distance (ft)	333	283
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

Zone wide Queuing Penalty: 0

HCM 6th TWSC
1: S Adams Road & Haynes Street/Shopping Center

2021 Existing Conditions
PM Peak Hour

Intersection												
Int Delay, s/veh	10.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	56	4	59	3	5	17	35	569	18	7	604	52
Future Vol, veh/h	56	4	59	3	5	17	35	569	18	7	604	52
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	63	63	63	87	87	87	95	95	95
Heavy Vehicles, %	3	3	3	0	0	0	1	1	1	1	1	1
Mvmt Flow	68	5	72	5	8	27	40	654	21	7	636	55

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1440	1433	664	1461	1450	665	691	0	0	675	0	0
Stage 1	678	678	-	745	745	-	-	-	-	-	-	-
Stage 2	762	755	-	716	705	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.1	6.5	6.2	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.5	4	3.3	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	110	133	459	108	132	464	908	-	-	921	-	-
Stage 1	440	450	-	409	424	-	-	-	-	-	-	-
Stage 2	396	415	-	424	442	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	95	126	459	85	125	464	908	-	-	921	-	-
Mov Cap-2 Maneuver	95	126	-	85	125	-	-	-	-	-	-	-
Stage 1	421	446	-	391	405	-	-	-	-	-	-	-
Stage 2	350	397	-	351	438	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	106.4		24.6		0.5		0.1	
HCM LOS	F		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	908	-	-	159 223	921	-	-
HCM Lane V/C Ratio	0.044	-	-	0.913 0.178	0.008	-	-
HCM Control Delay (s)	9.1	-	-	106.4 24.6	8.9	-	-
HCM Lane LOS	A	-	-	F C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	6.6 0.6	0	-	-

HCM 6th TWSC
2: S Adams Road & Alley/Holland Street

2021 Existing Conditions
PM Peak Hour

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↔	↔		↔	↔	
Traffic Vol, veh/h	0	1	2	7	0	21	0	601	8	32	621	13
Future Vol, veh/h	0	1	2	7	0	21	0	601	8	32	621	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	60	60	60	78	78	78	87	87	87	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	1	1	1	1	1	1
Mvmt Flow	0	2	3	9	0	27	0	691	9	35	675	14

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1461	1452	682	1451	1455	696	689	0	0	700	0	0
Stage 1	752	752	-	696	696	-	-	-	-	-	-	-
Stage 2	709	700	-	755	759	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	108	132	453	110	131	445	910	-	-	902	-	-
Stage 1	405	421	-	435	446	-	-	-	-	-	-	-
Stage 2	428	444	-	404	418	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	98	127	453	105	126	445	910	-	-	902	-	-
Mov Cap-2 Maneuver	98	127	-	105	126	-	-	-	-	-	-	-
Stage 1	405	405	-	435	446	-	-	-	-	-	-	-
Stage 2	402	444	-	384	402	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20.1	22.1	0	0.4
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	910	-	-	244 246	902	-	-
HCM Lane V/C Ratio	-	-	-	0.02 0.146	0.039	-	-
HCM Control Delay (s)	0	-	-	20.1 22.1	9.2	-	-
HCM Lane LOS	A	-	-	C C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1 0.5	0.1	-	-

HCM 6th TWSC
3: Worth Street & Alley

2021 Existing Conditions
PM Peak Hour

Intersection												
Int Delay, s/veh	4.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	3	53	3	2	8	0	64	0	0	55	0
Future Vol, veh/h	3	3	53	3	2	8	0	64	0	0	55	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	60	60	60	65	65	65	75	75	75	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	5	88	5	3	12	0	85	0	0	61	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	154	146	61	193	146	85	61	0	0	85	0	0
Stage 1	61	61	-	85	85	-	-	-	-	-	-	-
Stage 2	93	85	-	108	61	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	817	749	1010	771	749	980	1555	-	-	1524	-	-
Stage 1	955	848	-	928	828	-	-	-	-	-	-	-
Stage 2	919	828	-	902	848	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	804	749	1010	700	749	980	1555	-	-	1524	-	-
Mov Cap-2 Maneuver	804	749	-	700	749	-	-	-	-	-	-	-
Stage 1	955	848	-	928	828	-	-	-	-	-	-	-
Stage 2	904	828	-	818	848	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	9.1		9.3		0		0					
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1555	-	-	980 860	1524	-	-					
HCM Lane V/C Ratio	-	-	-	0.1 0.023	-	-	-					
HCM Control Delay (s)	0	-	-	9.1 9.3	0	-	-					
HCM Lane LOS	A	-	-	A A	A	-	-					
HCM 95th %tile Q(veh)	0	-	-	0.3 0.1	0	-	-					

HCM 6th TWSC
4: Worth Street & Haynes Street

2021 Existing Conditions
PM Peak Hour

Intersection						
Int Delay, s/veh	3.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	69	24	31	61	25	50
Future Vol, veh/h	69	24	31	61	25	50
Conflicting Peds, #/hr	0	2	2	0	1	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	69	69	77	77	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	100	35	40	79	35	70
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	137	0	280	122
Stage 1	-	-	-	-	120	-
Stage 2	-	-	-	-	160	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1459	-	714	935
Stage 1	-	-	-	-	910	-
Stage 2	-	-	-	-	874	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1456	-	691	931
Mov Cap-2 Maneuver	-	-	-	-	691	-
Stage 1	-	-	-	-	908	-
Stage 2	-	-	-	-	848	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2.5		9.9	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	834	-	-	1456	-	
HCM Lane V/C Ratio	0.127	-	-	0.028	-	
HCM Control Delay (s)	9.9	-	-	7.5	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-	

Intersection: 1: S Adams Road & Haynes Street/Shopping Center

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	L	L	TR
Maximum Queue (ft)	115	48	40	28	10
Average Queue (ft)	54	17	15	3	0
95th Queue (ft)	96	45	38	18	5
Link Distance (ft)	333	267			283
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			100	100	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 2: S Adams Road & Alley/Holland Street

Movement	EB	WB	SB
Directions Served	LTR	LTR	L
Maximum Queue (ft)	31	55	36
Average Queue (ft)	3	18	12
95th Queue (ft)	17	47	34
Link Distance (ft)	272	909	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			100
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Worth Street & Alley

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (ft)	53	21
Average Queue (ft)	25	8
95th Queue (ft)	46	25
Link Distance (ft)	310	272
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Worth Street & Haynes Street

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	35	56
Average Queue (ft)	3	29
95th Queue (ft)	19	48
Link Distance (ft)	333	283
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

Zone wide Queuing Penalty: 0

HCM 6th TWSC
1: S Adams Road & Haynes Street/Shopping Center

2025 Background Conditions
AM Peak Hour

Intersection												
Int Delay, s/veh	3.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	18	15	40	2	4	12	41	537	4	5	591	39
Future Vol, veh/h	18	15	40	2	4	12	41	537	4	5	591	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	64	64	64	78	78	78	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	2	2	2	2	2	2
Mvmt Flow	25	21	56	3	6	19	53	688	5	5	622	41

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1462	1452	643	1488	1470	691	663	0	0	693	0	0
Stage 1	653	653	-	797	797	-	-	-	-	-	-	-
Stage 2	809	799	-	691	673	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	108	132	477	103	129	448	926	-	-	902	-	-
Stage 1	460	467	-	383	401	-	-	-	-	-	-	-
Stage 2	377	401	-	438	457	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	95	124	477	76	121	448	926	-	-	902	-	-
Mov Cap-2 Maneuver	95	124	-	76	121	-	-	-	-	-	-	-
Stage 1	434	464	-	361	378	-	-	-	-	-	-	-
Stage 2	335	378	-	368	454	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	45.8		24.9		0.6		0.1	
HCM LOS	E		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	926	-	-	185 209	902	-	-
HCM Lane V/C Ratio	0.057	-	-	0.548 0.135	0.006	-	-
HCM Control Delay (s)	9.1	-	-	45.8 24.9	9	-	-
HCM Lane LOS	A	-	-	E C	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	2.9 0.5	0	-	-

HCM 6th TWSC
2: S Adams Road & Alley/Holland Street

2025 Background Conditions
AM Peak Hour

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	0	3	6	0	25	6	557	7	15	611	7
Future Vol, veh/h	0	0	3	6	0	25	6	557	7	15	611	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	60	60	60	83	83	83	82	82	82	93	93	93
Heavy Vehicles, %	0	0	0	3	3	3	2	2	2	2	2	2
Mvmt Flow	0	0	5	7	0	30	7	679	9	16	657	8

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1406	1395	661	1394	1395	684	665	0	0	688	0	0
Stage 1	693	693	-	698	698	-	-	-	-	-	-	-
Stage 2	713	702	-	696	697	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.13	6.53	6.23	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.527	4.027	3.327	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	118	143	466	118	141	447	924	-	-	906	-	-
Stage 1	437	448	-	429	441	-	-	-	-	-	-	-
Stage 2	426	443	-	430	441	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	108	139	466	114	137	447	924	-	-	906	-	-
Mov Cap-2 Maneuver	108	139	-	114	137	-	-	-	-	-	-	-
Stage 1	434	440	-	426	437	-	-	-	-	-	-	-
Stage 2	394	439	-	418	433	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.8		19.5		0.1		0.2	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	924	-	-	466	286	906	-
HCM Lane V/C Ratio	0.008	-	-	0.011	0.131	0.018	-
HCM Control Delay (s)	8.9	-	-	12.8	19.5	9	-
HCM Lane LOS	A	-	-	B	C	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.4	0.1	-

HCM 6th TWSC
3: Worth Street & Alley

2025 Background Conditions
AM Peak Hour

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	1	8	3	0	10	0	15	1	1	22	0
Future Vol, veh/h	0	1	8	3	0	10	0	15	1	1	22	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	60	60	60	75	75	75	83	83	83	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	10	10	10	0	0	0
Mvmt Flow	0	2	13	4	0	13	0	18	1	1	28	0
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	55	49	28	57	49	19	28	0	0	19	0	0
Stage 1	30	30	-	19	19	-	-	-	-	-	-	-
Stage 2	25	19	-	38	30	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.2	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.29	-	-	2.2	-	-
Pot Cap-1 Maneuver	948	846	1053	945	846	1065	1535	-	-	1611	-	-
Stage 1	992	874	-	1005	884	-	-	-	-	-	-	-
Stage 2	998	884	-	982	874	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	936	845	1053	931	845	1065	1535	-	-	1611	-	-
Mov Cap-2 Maneuver	936	845	-	931	845	-	-	-	-	-	-	-
Stage 1	992	873	-	1005	884	-	-	-	-	-	-	-
Stage 2	986	884	-	967	873	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	8.6		8.6			0			0.3			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1535	-	-	1025 1031	1611	-	-					
HCM Lane V/C Ratio	-	-	-	0.015 0.017	0.001	-	-					
HCM Control Delay (s)	0	-	-	8.6 8.6	7.2	0	-					
HCM Lane LOS	A	-	-	A A	A	A	-					
HCM 95th %tile Q(veh)	0	-	-	0 0.1	0	-	-					

HCM 6th TWSC
4: Worth Street & Haynes Street

2025 Background Conditions
AM Peak Hour

Intersection						
Int Delay, s/veh	2.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	56	3	20	64	8	17
Future Vol, veh/h	56	3	20	64	8	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	79	79	83	86	60	60
Heavy Vehicles, %	2	2	0	0	11	11
Mvmt Flow	71	4	24	74	13	28
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	75	0	195	73
Stage 1	-	-	-	-	73	-
Stage 2	-	-	-	-	122	-
Critical Hdwy	-	-	4.1	-	6.51	6.31
Critical Hdwy Stg 1	-	-	-	-	5.51	-
Critical Hdwy Stg 2	-	-	-	-	5.51	-
Follow-up Hdwy	-	-	2.2	-	3.599	3.399
Pot Cap-1 Maneuver	-	-	1537	-	774	964
Stage 1	-	-	-	-	928	-
Stage 2	-	-	-	-	882	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1537	-	762	964
Mov Cap-2 Maneuver	-	-	-	-	762	-
Stage 1	-	-	-	-	928	-
Stage 2	-	-	-	-	868	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.8		9.2	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	889	-	-	1537	-	
HCM Lane V/C Ratio	0.047	-	-	0.016	-	
HCM Control Delay (s)	9.2	-	-	7.4	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Intersection: 1: S Adams Road & Haynes Street/Shopping Center

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	L	L	TR
Maximum Queue (ft)	112	49	45	28	7
Average Queue (ft)	36	15	14	1	0
95th Queue (ft)	81	42	39	11	4
Link Distance (ft)	333	267			283
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			100	100	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 2: S Adams Road & Alley/Holland Street

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	LTR	L	TR	L
Maximum Queue (ft)	31	75	10	3	29
Average Queue (ft)	3	22	1	0	4
95th Queue (ft)	17	56	7	2	20
Link Distance (ft)	272	909		454	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			100		100
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: Worth Street & Alley

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (ft)	32	21
Average Queue (ft)	8	8
95th Queue (ft)	28	25
Link Distance (ft)	310	272
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Worth Street & Haynes Street

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	24	61
Average Queue (ft)	1	19
95th Queue (ft)	12	48
Link Distance (ft)	333	283
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

Zone wide Queuing Penalty: 0

HCM 6th TWSC
1: S Adams Road & Haynes Street/Shopping Center

2025 Background Conditions
PM Peak Hour

Intersection												
Int Delay, s/veh	12.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	57	4	60	3	5	18	36	581	19	7	617	53
Future Vol, veh/h	57	4	60	3	5	18	36	581	19	7	617	53
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	63	63	63	87	87	87	95	95	95
Heavy Vehicles, %	3	3	3	0	0	0	1	1	1	1	1	1
Mvmt Flow	70	5	73	5	8	29	41	668	22	7	649	56

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1471	1463	677	1491	1480	679	705	0	0	690	0	0
Stage 1	691	691	-	761	761	-	-	-	-	-	-	-
Stage 2	780	772	-	730	719	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.1	6.5	6.2	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.5	4	3.3	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	105	128	451	103	127	455	898	-	-	909	-	-
Stage 1	433	444	-	401	417	-	-	-	-	-	-	-
Stage 2	387	408	-	417	436	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	90	121	451	80	120	455	898	-	-	909	-	-
Mov Cap-2 Maneuver	90	121	-	80	120	-	-	-	-	-	-	-
Stage 1	413	440	-	383	398	-	-	-	-	-	-	-
Stage 2	339	389	-	343	433	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	126.2		25.2		0.5		0.1	
HCM LOS	F		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	898	-	-	151 219	909	-	-
HCM Lane V/C Ratio	0.046	-	-	0.977 0.188	0.008	-	-
HCM Control Delay (s)	9.2	-	-	126.2 25.2	9	-	-
HCM Lane LOS	A	-	-	F D	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	7.2 0.7	0	-	-

HCM 6th TWSC
2: S Adams Road & Alley/Holland Street

2025 Background Conditions
PM Peak Hour

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	1	2	7	0	22	0	614	8	33	634	13
Future Vol, veh/h	0	1	2	7	0	22	0	614	8	33	634	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	60	60	60	78	78	78	87	87	87	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	1	1	1	1	1	1
Mvmt Flow	0	2	3	9	0	28	0	706	9	36	689	14

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1493	1483	696	1482	1486	711	703	0	0	715	0	0
Stage 1	768	768	-	711	711	-	-	-	-	-	-	-
Stage 2	725	715	-	771	775	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	103	126	445	104	126	436	899	-	-	890	-	-
Stage 1	397	414	-	427	439	-	-	-	-	-	-	-
Stage 2	420	438	-	396	411	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	93	121	445	99	121	436	899	-	-	890	-	-
Mov Cap-2 Maneuver	93	121	-	99	121	-	-	-	-	-	-	-
Stage 1	397	397	-	427	439	-	-	-	-	-	-	-
Stage 2	393	438	-	376	395	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	20.7		22.8		0		0.4	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	899	-	-	235 239	890	-	-
HCM Lane V/C Ratio	-	-	-	0.021 0.156	0.04	-	-
HCM Control Delay (s)	0	-	-	20.7 22.8	9.2	-	-
HCM Lane LOS	A	-	-	C C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1 0.5	0.1	-	-

HCM 6th TWSC
3: Worth Street & Alley

2025 Background Conditions
PM Peak Hour

Intersection												
Int Delay, s/veh	4.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	3	54	3	2	8	0	66	0	0	56	0
Future Vol, veh/h	3	3	54	3	2	8	0	66	0	0	56	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	60	60	60	65	65	65	75	75	75	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	5	90	5	3	12	0	88	0	0	62	0
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	158	150	62	198	150	88	62	0	0	88	0	0
Stage 1	62	62	-	88	88	-	-	-	-	-	-	-
Stage 2	96	88	-	110	62	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	813	745	1009	765	745	976	1554	-	-	1520	-	-
Stage 1	954	847	-	925	826	-	-	-	-	-	-	-
Stage 2	916	826	-	900	847	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	800	745	1009	693	745	976	1554	-	-	1520	-	-
Mov Cap-2 Maneuver	800	745	-	693	745	-	-	-	-	-	-	-
Stage 1	954	847	-	925	826	-	-	-	-	-	-	-
Stage 2	901	826	-	815	847	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	9.1		9.3			0			0			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1554	-	-	979 855	1520	-	-					
HCM Lane V/C Ratio	-	-	-	0.102 0.023	-	-	-					
HCM Control Delay (s)	0	-	-	9.1 9.3	0	-	-					
HCM Lane LOS	A	-	-	A A	A	-	-					
HCM 95th %tile Q(veh)	0	-	-	0.3 0.1	0	-	-					

HCM 6th TWSC
4: Worth Street & Haynes Street

2025 Background Conditions
PM Peak Hour

Intersection						
Int Delay, s/veh	3.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	70	24	32	62	26	51
Future Vol, veh/h	70	24	32	62	26	51
Conflicting Peds, #/hr	0	2	2	0	1	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	69	69	77	77	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	101	35	42	81	37	72
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	138	0	287	123
Stage 1	-	-	-	-	121	-
Stage 2	-	-	-	-	166	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1458	-	708	933
Stage 1	-	-	-	-	909	-
Stage 2	-	-	-	-	868	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1455	-	685	929
Mov Cap-2 Maneuver	-	-	-	-	685	-
Stage 1	-	-	-	-	907	-
Stage 2	-	-	-	-	841	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	2.6		10		
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	829	-	-	1455	-	
HCM Lane V/C Ratio	0.131	-	-	0.029	-	
HCM Control Delay (s)	10	-	-	7.5	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-	

Intersection: 1: S Adams Road & Haynes Street/Shopping Center

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	L	L	TR
Maximum Queue (ft)	154	49	50	29	4
Average Queue (ft)	59	17	15	3	0
95th Queue (ft)	118	46	42	17	3
Link Distance (ft)	333	267			283
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			100	100	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 2: S Adams Road & Alley/Holland Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	TR	L
Maximum Queue (ft)	31	52	3	45
Average Queue (ft)	3	20	0	13
95th Queue (ft)	17	48	2	36
Link Distance (ft)	272	909	454	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			100	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Worth Street & Alley

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (ft)	58	21
Average Queue (ft)	24	8
95th Queue (ft)	46	25
Link Distance (ft)	310	272
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Worth Street & Haynes Street

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	29	57
Average Queue (ft)	3	29
95th Queue (ft)	20	49
Link Distance (ft)	333	283
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

Zone wide Queuing Penalty: 0

HCM 6th TWSC
1: S Adams Road & Haynes Street/Shopping Center

2025 Future Conditions
AM Peak Hour

Intersection												
Int Delay, s/veh	4.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	22	15	40	2	4	12	42	537	4	5	591	41
Future Vol, veh/h	22	15	40	2	4	12	42	537	4	5	591	41
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	64	64	64	78	78	78	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	2	2	2	2	2	2
Mvmt Flow	31	21	56	3	6	19	54	688	5	5	622	43

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1465	1455	644	1491	1474	691	665	0	0	693	0	0
Stage 1	654	654	-	799	799	-	-	-	-	-	-	-
Stage 2	811	801	-	692	675	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	107	131	476	103	128	448	924	-	-	902	-	-
Stage 1	459	466	-	382	401	-	-	-	-	-	-	-
Stage 2	376	400	-	437	456	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	94	123	476	75	120	448	924	-	-	902	-	-
Mov Cap-2 Maneuver	94	123	-	75	120	-	-	-	-	-	-	-
Stage 1	432	463	-	360	378	-	-	-	-	-	-	-
Stage 2	334	377	-	367	453	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	53.5		25.1		0.7		0.1	
HCM LOS	F		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	924	-	-	175	207	902	-
HCM Lane V/C Ratio	0.058	-	-	0.611	0.136	0.006	-
HCM Control Delay (s)	9.1	-	-	53.5	25.1	9	-
HCM Lane LOS	A	-	-	F	D	A	-
HCM 95th %tile Q(veh)	0.2	-	-	3.4	0.5	0	-

HCM 6th TWSC
2: S Adams Road & Alley/Holland Street

2025 Future Conditions
AM Peak Hour

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	0	3	6	0	25	6	558	7	15	611	7
Future Vol, veh/h	0	0	3	6	0	25	6	558	7	15	611	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	60	60	60	83	83	83	82	82	82	93	93	93
Heavy Vehicles, %	0	0	0	3	3	3	2	2	2	2	2	2
Mvmt Flow	0	0	5	7	0	30	7	680	9	16	657	8

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1407	1396	661	1395	1396	685	665	0	0	689	0	0
Stage 1	693	693	-	699	699	-	-	-	-	-	-	-
Stage 2	714	703	-	696	697	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.13	6.53	6.23	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.527	4.027	3.327	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	118	142	466	118	140	446	924	-	-	905	-	-
Stage 1	437	448	-	429	440	-	-	-	-	-	-	-
Stage 2	425	443	-	430	441	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	108	138	466	114	136	446	924	-	-	905	-	-
Mov Cap-2 Maneuver	108	138	-	114	136	-	-	-	-	-	-	-
Stage 1	434	440	-	426	436	-	-	-	-	-	-	-
Stage 2	393	439	-	418	433	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.8		19.5		0.1		0.2	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	924	-	-	466	285	905	-
HCM Lane V/C Ratio	0.008	-	-	0.011	0.131	0.018	-
HCM Control Delay (s)	8.9	-	-	12.8	19.5	9.1	-
HCM Lane LOS	A	-	-	B	C	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.4	0.1	-

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	1	8	3	0	10	0	20	1	1	26	0
Future Vol, veh/h	5	1	8	3	0	10	0	20	1	1	26	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	60	60	60	75	75	75	83	83	83	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	10	10	10	0	0	0
Mvmt Flow	8	2	13	4	0	13	0	24	1	1	33	0
Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	66	60	33	68	60	25	33	0	0	25	0	0
Stage 1	35	35	-	25	25	-	-	-	-	-	-	-
Stage 2	31	25	-	43	35	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.2	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.29	-	-	2.2	-	-
Pot Cap-1 Maneuver	932	835	1046	930	835	1057	1529	-	-	1603	-	-
Stage 1	986	870	-	998	878	-	-	-	-	-	-	-
Stage 2	991	878	-	976	870	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	920	834	1046	916	834	1057	1529	-	-	1603	-	-
Mov Cap-2 Maneuver	920	834	-	916	834	-	-	-	-	-	-	-
Stage 1	986	869	-	998	878	-	-	-	-	-	-	-
Stage 2	978	878	-	961	869	-	-	-	-	-	-	-
Approach	EB		WB		NB			SB				
HCM Control Delay, s	8.8		8.6		0			0.3				
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1529	-	-	980 1021	1603	-	-					
HCM Lane V/C Ratio	-	-	-	0.024 0.017	0.001	-	-					
HCM Control Delay (s)	0	-	-	8.8 8.6	7.2	0	-					
HCM Lane LOS	A	-	-	A A	A	A	-					
HCM 95th %tile Q(veh)	0	-	-	0.1 0.1	0	-	-					

HCM 6th TWSC
4: Worth Street & Haynes Street

2025 Future Conditions
AM Peak Hour

Intersection						
Int Delay, s/veh	4.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	56	8	23	64	43	21
Future Vol, veh/h	56	8	23	64	43	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	79	79	83	86	60	60
Heavy Vehicles, %	2	2	0	0	11	11
Mvmt Flow	71	10	28	74	72	35
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	81	0	206	76
Stage 1	-	-	-	-	76	-
Stage 2	-	-	-	-	130	-
Critical Hdwy	-	-	4.1	-	6.51	6.31
Critical Hdwy Stg 1	-	-	-	-	5.51	-
Critical Hdwy Stg 2	-	-	-	-	5.51	-
Follow-up Hdwy	-	-	2.2	-	3.599	3.399
Pot Cap-1 Maneuver	-	-	1529	-	763	961
Stage 1	-	-	-	-	925	-
Stage 2	-	-	-	-	874	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1529	-	749	961
Mov Cap-2 Maneuver	-	-	-	-	749	-
Stage 1	-	-	-	-	925	-
Stage 2	-	-	-	-	857	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2		10.1	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	807	-	-	1529	-	
HCM Lane V/C Ratio	0.132	-	-	0.018	-	
HCM Control Delay (s)	10.1	-	-	7.4	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-	

Intersection						
Int Delay, s/veh	4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	39	25	10	8	23
Future Vol, veh/h	4	39	25	10	8	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	42	27	11	9	25

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	76	33	0	0	38
Stage 1	33	-	-	-	-
Stage 2	43	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	927	1041	-	-	1572
Stage 1	989	-	-	-	-
Stage 2	979	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	921	1041	-	-	1572
Mov Cap-2 Maneuver	921	-	-	-	-
Stage 1	989	-	-	-	-
Stage 2	973	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.7	0	1.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1029	1572
HCM Lane V/C Ratio	-	-	0.045	0.006
HCM Control Delay (s)	-	-	8.7	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection: 1: S Adams Road & Haynes Street/Shopping Center

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	L	L
Maximum Queue (ft)	114	44	55	17
Average Queue (ft)	39	14	18	1
95th Queue (ft)	85	40	45	11
Link Distance (ft)	333	267		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			100	100
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: S Adams Road & Alley/Holland Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	L	L
Maximum Queue (ft)	25	67	18	25
Average Queue (ft)	1	23	1	7
95th Queue (ft)	11	52	9	26
Link Distance (ft)	272	909		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			100	100
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Worth Street & Alley

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (ft)	28	30
Average Queue (ft)	11	8
95th Queue (ft)	34	25
Link Distance (ft)	311	272
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Worth Street & Haynes Street

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	25	80
Average Queue (ft)	1	36
95th Queue (ft)	11	68
Link Distance (ft)	333	179
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Worth Street & Site Driveway

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	53	6	12
Average Queue (ft)	23	0	0
95th Queue (ft)	47	4	6
Link Distance (ft)	201	50	179
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Zone Summary

Zone wide Queuing Penalty: 0

HCM 6th TWSC
1: S Adams Road & Haynes Street/Shopping Center

2025 Future Conditions
PM Peak Hour

Intersection												
Int Delay, s/veh	17.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	64	4	66	3	5	18	43	577	19	7	613	61
Future Vol, veh/h	64	4	66	3	5	18	43	577	19	7	613	61
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	63	63	63	87	87	87	95	95	95
Heavy Vehicles, %	3	3	3	0	0	0	1	1	1	1	1	1
Mvmt Flow	78	5	80	5	8	29	49	663	22	7	645	64

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1482	1474	677	1506	1495	674	709	0	0	685	0	0
Stage 1	691	691	-	772	772	-	-	-	-	-	-	-
Stage 2	791	783	-	734	723	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.1	6.5	6.2	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.5	4	3.3	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	103	126	451	100	124	458	895	-	-	913	-	-
Stage 1	433	444	-	395	412	-	-	-	-	-	-	-
Stage 2	381	403	-	415	434	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	87	118	451	76	116	458	895	-	-	913	-	-
Mov Cap-2 Maneuver	87	118	-	76	116	-	-	-	-	-	-	-
Stage 1	409	440	-	373	389	-	-	-	-	-	-	-
Stage 2	331	381	-	335	431	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	171.1		25.9		0.6		0.1	
HCM LOS	F		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	895	-	-	146	213	913	-
HCM Lane V/C Ratio	0.055	-	-	1.119	0.194	0.008	-
HCM Control Delay (s)	9.3	-	-	171.1	25.9	9	-
HCM Lane LOS	A	-	-	F	D	A	-
HCM 95th %tile Q(veh)	0.2	-	-	9	0.7	0	-

HCM 6th TWSC
2: S Adams Road & Alley/Holland Street

2025 Future Conditions
PM Peak Hour

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	1	2	7	0	22	0	617	8	33	636	13
Future Vol, veh/h	0	1	2	7	0	22	0	617	8	33	636	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	60	60	60	78	78	78	87	87	87	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	1	1	1	1	1	1
Mvmt Flow	0	2	3	9	0	28	0	709	9	36	691	14

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1498	1488	698	1487	1491	714	705	0	0	718	0	0
Stage 1	770	770	-	714	714	-	-	-	-	-	-	-
Stage 2	728	718	-	773	777	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	102	125	444	104	125	435	898	-	-	888	-	-
Stage 1	396	413	-	425	438	-	-	-	-	-	-	-
Stage 2	418	436	-	395	410	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	92	120	444	99	120	435	898	-	-	888	-	-
Mov Cap-2 Maneuver	92	120	-	99	120	-	-	-	-	-	-	-
Stage 1	396	396	-	425	438	-	-	-	-	-	-	-
Stage 2	391	436	-	375	393	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	20.7		22.8		0		0.4	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	898	-	-	234	239	888	-
HCM Lane V/C Ratio	-	-	-	0.021	0.156	0.04	-
HCM Control Delay (s)	0	-	-	20.7	22.8	9.2	-
HCM Lane LOS	A	-	-	C	C	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.5	0.1	-

HCM 6th TWSC
3: Worth Street & Alley

2025 Future Conditions
PM Peak Hour

Intersection												
Int Delay, s/veh	4.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	3	54	3	2	8	0	78	0	0	59	0
Future Vol, veh/h	13	3	54	3	2	8	0	78	0	0	59	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	60	60	60	65	65	65	75	75	75	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	22	5	90	5	3	12	0	104	0	0	66	0
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	178	170	66	218	170	104	66	0	0	104	0	0
Stage 1	66	66	-	104	104	-	-	-	-	-	-	-
Stage 2	112	104	-	114	66	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	789	727	1003	743	727	956	1549	-	-	1500	-	-
Stage 1	950	844	-	907	813	-	-	-	-	-	-	-
Stage 2	898	813	-	896	844	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	776	727	1003	672	727	956	1549	-	-	1500	-	-
Mov Cap-2 Maneuver	776	727	-	672	727	-	-	-	-	-	-	-
Stage 1	950	844	-	907	813	-	-	-	-	-	-	-
Stage 2	883	813	-	811	844	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	9.4		9.4			0			0			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1549	-	-	937 834	1500	-	-					
HCM Lane V/C Ratio	-	-	-	0.125 0.024	-	-	-					
HCM Control Delay (s)	0	-	-	9.4 9.4	0	-	-					
HCM Lane LOS	A	-	-	A A	A	-	-					
HCM 95th %tile Q(veh)	0	-	-	0.4 0.1	0	-	-					

HCM 6th TWSC
4: Worth Street & Haynes Street

2025 Future Conditions
PM Peak Hour

Intersection						
Int Delay, s/veh	4.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	70	35	47	62	47	64
Future Vol, veh/h	70	35	47	62	47	64
Conflicting Peds, #/hr	0	2	2	0	1	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	69	69	77	77	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	101	51	61	81	66	90
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	154	0	333	131
Stage 1	-	-	-	-	129	-
Stage 2	-	-	-	-	204	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1439	-	666	924
Stage 1	-	-	-	-	902	-
Stage 2	-	-	-	-	835	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1436	-	635	920
Mov Cap-2 Maneuver	-	-	-	-	635	-
Stage 1	-	-	-	-	900	-
Stage 2	-	-	-	-	797	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	3.3		10.8		
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	773	-	-	1436	-	
HCM Lane V/C Ratio	0.202	-	-	0.043	-	
HCM Control Delay (s)	10.8	-	-	7.6	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.8	-	-	0.1	-	

Intersection						
Int Delay, s/veh	2.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	34	77	22	26	56
Future Vol, veh/h	3	34	77	22	26	56
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	37	84	24	28	61

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	213	96	0	0	108
Stage 1	96	-	-	-	-
Stage 2	117	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	775	960	-	-	1483
Stage 1	928	-	-	-	-
Stage 2	908	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	760	960	-	-	1483
Mov Cap-2 Maneuver	760	-	-	-	-
Stage 1	928	-	-	-	-
Stage 2	890	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	2.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	940	1483
HCM Lane V/C Ratio	-	-	0.043	0.019
HCM Control Delay (s)	-	-	9	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1

Intersection: 1: S Adams Road & Haynes Street/Shopping Center

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	L	L	TR
Maximum Queue (ft)	202	48	50	29	13
Average Queue (ft)	71	20	17	3	1
95th Queue (ft)	157	46	42	17	6
Link Distance (ft)	333	267			283
Upstream Blk Time (%)	0				
Queuing Penalty (veh)	0				
Storage Bay Dist (ft)			100	100	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 2: S Adams Road & Alley/Holland Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	TR	L
Maximum Queue (ft)	19	64	6	46
Average Queue (ft)	2	23	0	13
95th Queue (ft)	15	53	3	37
Link Distance (ft)	272	909	454	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			100	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Worth Street & Alley

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	50	21	5
Average Queue (ft)	24	8	0
95th Queue (ft)	44	24	4
Link Distance (ft)	310	272	26
Upstream Blk Time (%)			0
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Worth Street & Haynes Street

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	44	64
Average Queue (ft)	8	34
95th Queue (ft)	32	52
Link Distance (ft)	333	199
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Worth Street & Site Driveway

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	51	22	24
Average Queue (ft)	20	1	2
95th Queue (ft)	43	11	12
Link Distance (ft)	215	26	199
Upstream Blk Time (%)		0	
Queuing Penalty (veh)		0	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Zone Summary

Zone wide Queuing Penalty: 0

CRASH ANALYSIS

Crash Data November 15, 2016 - November 15, 2021

ID #	Date	Crash Type	Road Conditions	Light	Injury	Alcohol or Drugs	Ped or Bike	Cause
2016295592	12/3/2016	Other	Dry	Daylight	O	No	No	Attempted to go straight without assured clear distance.
20177916	3/31/2017	Rear-End	Wet	Daylight	C	No	No	Failed to stop for stopped traffic.
201780625	6/29/2017	Rear-End	Dry	Daylight	O	No	No	Failed to stop for stopped traffic.
2017166583	10/5/2017	Rear-End	Dry	Daylight	O	No	No	Failed to stop for stopped traffic.
2017169704	10/12/2017	Rear-End	Wet	Daylight	C	No	No	Failed to stop for stopped traffic.
2017174144	10/16/2017	Rear-End	Dry	Dark - Lighted	O	No	No	Failed to stop for stopped traffic.
201852281	2/14/2018	Unknown	Dry	Daylight	O	No	No	Parked vehicle was struck by unknown vehicle.
2018217529	9/9/2018	Rear-End	Wet	Daylight	O	No	No	Failed to stop for stopped traffic.
2018244282	10/10/2018	Angle	Dry	Daylight	O	No	No	Attempted to turn left without assured clear distance.
2018254126	10/19/2018	Angle	Dry	Daylight	O	No	No	Attempted to turn right without assured clear distance.
2018258958	10/24/2018	Sideswipe	Dry	Daylight	O	No	No	Attempted to turn left without assured clear distance.
2018317315	12/24/2018	Rear-End	Dry	Dark - Lighted	O	No	No	Failed to stop for stopped traffic.
201938461	1/31/2019	Rear-End	Dry	Daylight	O	No	No	Failed to stop for stopped traffic.
201946621	2/9/2019	Rear-End	Dry	Daylight	O	No	No	Failed to stop for stopped traffic.
201978201	3/19/2019	Rear-End	Dry	Daylight	C	No	No	Failed to stop for stopped traffic.
201986017	3/29/2019	Rear-End	Dry	Daylight	C	No	No	Failed to stop for stopped traffic.
201987754	4/1/2019	Backing	Dry	Daylight	O	No	No	Backed into vehicle in roadway
2019132832	5/29/2019	Rear-End	Dry	Daylight	O	No	No	Failed to stop for stopped traffic.
202018001	1/13/2020	Angle	Wet	Daylight	O	No	No	Attempted to turn left without assured clear distance.
2020144691	8/12/2020	Rear-End	Dry	Daylight	B	No	No	Failed to stop for stopped traffic.
2020193122	10/11/2020	Sideswipe	Dry	Daylight	O	No	No	Vehicle struck parked vehicle.
2020231272	11/25/2020	Rear-End	Wet	Daylight	O	No	No	Failed to stop for stopped traffic.
210001293	1/27/2021	Angle	Wet	Daylight	O	No	No	Attempted to turn right without assured clear distance.

TRANSIT SCHEDULE



450/460 WOODWARD LOCAL Northbound for Weekday

ROUTE	WOODWARD & STATE FAIRGROUN DS	WOODWARD & 9 MILE RD.	ROYAL OAK TRANSIT CENTER	WOODWARD & 11 MILE RD.	WOODWARD & 13 MILE RD.	WOODWARD & DAINES	SOMERSET COLLECTION	WOODWARD & CHARLES LANE	PHOENIX CENTER
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450	5:20AM	5:24AM	-	5:29AM	5:34AM	5:40AM	-	5:51AM	6:00AM
460	5:50AM	5:55AM	6:01AM	6:03AM	6:08AM	6:14AM	6:24AM	-	-
450	6:20AM	6:24AM	-	6:29AM	6:34AM	6:40AM	-	6:51AM	7:00AM
460	6:50AM	6:55AM	7:01AM	7:03AM	7:08AM	7:14AM	7:24AM	-	-
450	7:20AM	7:25AM	-	7:30AM	7:35AM	7:41AM	-	7:53AM	8:02AM
460	7:50AM	7:56AM	8:03AM	8:06AM	8:11AM	8:17AM	8:27AM	-	-
450	8:20AM	8:26AM	-	8:32AM	8:38AM	8:44AM	-	8:56AM	9:05AM
460	8:50AM	8:56AM	9:03AM	9:06AM	9:12AM	9:18AM	9:28AM	-	-
450	9:20AM	9:26AM	-	9:32AM	9:38AM	9:45AM	-	9:58AM	10:07AM
460	9:50AM	9:56AM	10:03AM	10:06AM	10:12AM	10:19AM	10:29AM	-	-
450	10:20AM	10:26AM	-	10:32AM	10:38AM	10:45AM	-	10:58AM	11:07AM
460	10:50AM	10:56AM	11:03AM	11:06AM	11:12AM	11:19AM	11:29AM	-	-
450	11:20AM	11:26AM	-	11:32AM	11:39AM	11:46AM	-	11:59AM	12:10PM
460	11:50AM	11:56AM	12:03PM	12:06PM	12:13PM	12:20PM	12:32PM	-	-
450	12:20PM	12:26PM	-	12:33PM	12:40PM	12:47PM	-	1:00PM	1:11PM
460	12:50PM	12:56PM	1:03PM	1:06PM	1:13PM	1:20PM	1:32PM	-	-
450	1:20PM	1:26PM	-	1:33PM	1:40PM	1:47PM	-	2:00PM	2:11PM
460	1:50PM	1:56PM	2:03PM	2:06PM	2:13PM	2:20PM	2:32PM	-	-
450	2:20PM	2:26PM	-	2:33PM	2:40PM	2:47PM	-	3:00PM	3:11PM
460	2:50PM	2:56PM	3:03PM	3:06PM	3:13PM	3:20PM	3:32PM	-	-
450	3:20PM	3:26PM	-	3:33PM	3:39PM	3:46PM	-	3:59PM	4:09PM
460	3:50PM	3:56PM	4:03PM	4:06PM	4:12PM	4:19PM	4:30PM	-	-
450	4:20PM	4:26PM	-	4:32PM	4:38PM	4:45PM	-	4:58PM	5:08PM
460	4:50PM	4:56PM	5:03PM	5:06PM	5:12PM	5:19PM	5:30PM	-	-
450	5:20PM	5:26PM	-	5:32PM	5:38PM	5:45PM	-	5:58PM	6:08PM
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460	6:50PM	6:56PM	7:03PM	7:06PM	7:12PM	7:19PM	7:30PM	-	-
450	7:20PM	7:25PM	-	7:31PM	7:37PM	7:44PM	-	7:56PM	8:06PM
460	7:50PM	7:55PM	8:02PM	8:05PM	8:10PM	8:17PM	8:27PM	-	-
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460	10:50PM	10:55PM	11:02PM	11:04PM	11:09PM	11:14PM	11:23PM	-	-
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450/460 WOODWARD LOCAL Southbound for Weekday

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450	5:31AM	5:39AM	-	5:50AM	5:55AM	6:00AM	-	6:05AM	6:10AM
460	-	-	6:05AM	6:15AM	6:20AM	6:25AM	6:28AM	6:35AM	6:40AM
450	6:30AM	6:39AM	-	6:50AM	6:55AM	7:00AM	-	7:05AM	7:10AM
460	-	-	7:05AM	7:15AM	7:20AM	7:25AM	7:28AM	7:35AM	7:40AM
450	7:28AM	7:37AM	-	7:48AM	7:53AM	8:00AM	-	8:05AM	8:10AM
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450/460 WOODWARD LOCAL Northbound for Saturday

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450	5:20AM	5:24AM	-	5:29AM	5:34AM	5:40AM	-	5:51AM	6:00AM
460	5:50AM	5:55AM	6:01AM	6:03AM	6:08AM	6:14AM	6:24AM	-	-
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460	10:50PM	10:55PM	11:02PM	11:04PM	11:09PM	11:14PM	11:23PM	-	-
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450/460 WOODWARD LOCAL Southbound for Saturday

ROUTE	PHOENIX CENTER	WOODWARD & CHARLES LANE	SOMERSET COLLECTION	WOODWARD & DAINES	WOODWARD & 13 MILE RD.	WOODWARD & 11 MILE RD.	ROYAL OAK TRANSIT CENTER	WOODWARD & 9 MILE RD.	WOODWARD & STATE FAIRGROUN DS
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460	-	-	9:01PM	9:13PM	9:19PM	9:25PM	9:28PM	9:35PM	9:40PM
450	9:26PM	9:37PM	-	9:50PM	9:56PM	10:02PM	-	10:07PM	10:12PM
460	-	-	10:03PM	10:13PM	10:19PM	10:25PM	10:28PM	10:35PM	10:40PM
450	10:24PM	10:35PM	-	10:48PM	10:54PM	11:00PM	-	11:05PM	11:10PM
460	-	-	11:05PM	11:15PM	11:20PM	11:26PM	11:28PM	11:35PM	11:40PM



450/460 WOODWARD LOCAL Northbound for Sunday

ROUTE	WOODWARD & STATE FAIRGROUN DS	WOODWARD & 9 MILE RD.	ROYAL OAK TRANSIT CENTER	WOODWARD & 11 MILE RD.	WOODWARD & 13 MILE RD.	WOODWARD & DAINES	SOMERSET COLLECTION	WOODWARD & CHARLES LANE	PHOENIX CENTER
460	6:50AM	6:55AM	7:01AM	7:03AM	7:08AM	7:14AM	7:24AM	-	-
450	7:50AM	7:56AM	-	8:02AM	8:07AM	8:13AM	-	8:25AM	8:34AM
460	8:50AM	8:56AM	9:03AM	9:06AM	9:12AM	9:18AM	9:28AM	-	-
450	9:50AM	9:56AM	-	10:02AM	10:08AM	10:15AM	-	10:28AM	10:37AM
460	10:50AM	10:56AM	11:03AM	11:06AM	11:12AM	11:19AM	11:29AM	-	-
450	11:54AM	12:00PM	-	12:07PM	12:14PM	12:21PM	-	12:34PM	12:45PM
460	12:50PM	12:56PM	1:03PM	1:06PM	1:13PM	1:20PM	1:32PM	-	-
450	1:50PM	1:56PM	-	2:03PM	2:10PM	2:17PM	-	2:30PM	2:41PM
460	2:50PM	2:56PM	3:03PM	3:06PM	3:13PM	3:20PM	3:32PM	-	-
450	3:50PM	3:56PM	-	4:02PM	4:08PM	4:15PM	-	4:28PM	4:38PM
460	4:50PM	4:56PM	5:03PM	5:06PM	5:12PM	5:19PM	5:30PM	-	-
450	5:50PM	5:56PM	-	6:02PM	6:08PM	6:15PM	-	6:28PM	6:38PM
460	6:50PM	6:56PM	7:03PM	7:06PM	7:12PM	7:19PM	7:30PM	-	-
450	7:44PM	7:49PM	-	7:55PM	8:01PM	8:08PM	-	8:20PM	8:30PM
460	8:50PM	8:55PM	9:02PM	9:05PM	9:10PM	9:17PM	9:27PM	-	-
450	9:50PM	9:55PM	-	10:01PM	10:07PM	10:14PM	-	10:26PM	10:36PM
460	10:50PM	10:55PM	11:02PM	11:04PM	11:09PM	11:14PM	11:23PM	-	-



450/460 WOODWARD LOCAL Southbound for Sunday

ROUTE	PHOENIX CENTER	WOODWARD & CHARLES LANE	SOMERSET COLLECTION	WOODWARD & DAINES	WOODWARD & 13 MILE RD.	WOODWARD & 11 MILE RD.	ROYAL OAK TRANSIT CENTER	WOODWARD & 9 MILE RD.	WOODWARD & STATE FAIRGROUN DS
460	-	-	5:50AM	5:57AM	6:02AM	6:07AM	6:10AM	6:17AM	6:22AM
450	6:50AM	6:59AM	-	7:10AM	7:15AM	7:20AM	-	7:25AM	7:30AM
460	-	-	7:50AM	8:00AM	8:06AM	8:13AM	8:16AM	8:23AM	8:28AM
450	8:50AM	9:00AM	-	9:11AM	9:17AM	9:24AM	-	9:29AM	9:34AM
460	-	-	9:50AM	10:02AM	10:08AM	10:15AM	10:18AM	10:25AM	10:30AM
450	10:50AM	11:00AM	-	11:11AM	11:17AM	11:24AM	-	11:29AM	11:34AM
460	-	-	11:50AM	12:02PM	12:08PM	12:15PM	12:18PM	12:26PM	12:31PM
450	12:50PM	1:02PM	-	1:15PM	1:21PM	1:28PM	-	1:34PM	1:39PM
460	-	-	1:50PM	2:03PM	2:09PM	2:16PM	2:19PM	2:27PM	2:32PM
450	2:50PM	3:02PM	-	3:15PM	3:21PM	3:28PM	-	3:34PM	3:39PM
460	-	-	3:50PM	4:03PM	4:09PM	4:16PM	4:19PM	4:27PM	4:32PM
450	4:50PM	5:02PM	-	5:15PM	5:21PM	5:28PM	-	5:34PM	5:39PM
460	-	-	5:50PM	6:03PM	6:09PM	6:16PM	6:19PM	6:27PM	6:32PM
450	6:50PM	7:02PM	-	7:15PM	7:21PM	7:28PM	-	7:34PM	7:39PM
460	-	-	7:50PM	8:03PM	8:09PM	8:15PM	8:18PM	8:26PM	8:31PM
450	8:50PM	9:01PM	-	9:14PM	9:20PM	9:26PM	-	9:31PM	9:36PM
460	-	-	9:50PM	10:02PM	10:08PM	10:14PM	10:17PM	10:24PM	10:29PM
450	10:56PM	11:07PM	-	11:20PM	11:26PM	11:32PM	-	11:37PM	11:42PM
460	-	-	11:25PM	11:35PM	11:39PM	11:44PM	11:46PM	11:52PM	11:57PM

4.6 Abbreviated Phase I Environmental Site Assessment



PM
ENVIRONMENTAL

Environmental
& Engineering
Services



PHASE I ENVIRONMENTAL SITE ASSESSMENT

770 South Adams Road | Birmingham, Michigan
PM Project Number 02-6286-0

Prepared for:

Birmingham Group, Inc.
251 Merrill Street, 2nd Floor
Birmingham, Michigan 48009

Prepared by:

PM Environmental, Inc.
4080 West Eleven Mile Road
Berkley, Michigan 48702

Michigan

Alabama

Florida

Tennessee

North Carolina

Mississippi

Illinois

March 22, 2013

Mr. Jeffrey Ishbia
Birmingham Group, Inc.
251 Merrill Street, 2nd Floor
Birmingham, Michigan 48009

**Re: Phase I Environmental Site Assessment of the Office Building
Located at 770 South Adams Road, Birmingham, Michigan
PM Environmental, Inc. Project No. 02-6286-0**

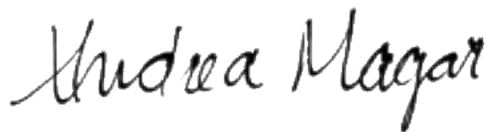
Dear Mr. Ishbia:

PM Environmental, Incorporated (PM) has completed the Phase I Environmental Site Assessment (ESA) of the above referenced property. This Phase I ESA was conducted in accordance with (1) the United States Environmental Protection Agency (USEPA) Standards and Practices for All Appropriate Inquiries {(AAI), 40 CFR Part 312} and (2) guidelines established by the American Society for Testing and Materials (ASTM) in the *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process / Designation E 1527-05* (ASTM Standard Practice E 1527-05).

The Phase I ESA for the above referenced property represents the product of PM's professional expertise and judgment in the environmental consulting industry, and it is reasonable for **BIRMINGHAM GROUP, INC. AND TALMER BANK AND TRUST** to rely on PM's Phase I ESA report.

If you have any questions related to this report please do not hesitate to contact our office at (248) 336-9988.

Sincerely,
PM ENVIRONMENTAL, INC.



Andrea Magar
Staff Consultant



Kevin M. Kruszewski, P.G.
V.P. – Environmental Risk Management

EXECUTIVE SUMMARY

PM Environmental, Inc., (PM) was retained to conduct a Phase I Environmental Site Assessment (ESA) of the Office Building located at 770 South Adams Road, Birmingham, Oakland County, Michigan (hereafter referred to as the "subject property"). This Phase I ESA was conducted in accordance with (1) the United States Environmental Protection Agency (USEPA) Standards and Practices for All Appropriate Inquiries {(AAI), 40 CFR Part 312} and (2) guidelines established by the American Society for Testing and Materials (ASTM) in the *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process / Designation E 1527-05* (ASTM Standard Practice E 1527-05).

THIS REPORT WAS PREPARED FOR THE EXCLUSIVE USE OF BIRMINGHAM GROUP, INC. AND TALMER BANK AND TRUST, EACH OF WHOM MAY RELY ON THE REPORT'S CONTENTS.

Item	Comments
Number of Parcels and Acreage	One parcel containing approximately 0.67 acres
Number of Building(s) and Square Footage	One two story building, with a basement, totaling approximately 29,392 square feet, constructed in 1964
Current Property Use	Office building

Reasonably ascertainable records for the subject property extended back to approximately 1924. Data failure occurred prior to that date. However, PM did not identify any significant data gaps during the completion of this Phase I ESA. Standard and historical sources indicate the subject property was initially developed in 1924 with at least one residential dwelling, and by 1931 two additional dwellings and two garages were constructed. Between 1952 and 1957, an additional garage was constructed in the west central portion of the property. In 1964, all former structures were demolished and the current building was constructed in the eastern portion of the property. The building has been occupied by various professional offices since construction.

Current Recognized Environmental Conditions

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-05 of the Office Building located at 770 South Adams Road, Birmingham, Oakland County, Michigan, the property. Any exceptions to, or deletions from, this practice are described in Section 1.4 of this report. This assessment has revealed no evidence of recognized environmental conditions connected with the property.

Historical Recognized Environmental Conditions

A historical REC, as defined in the ASTM Standard, is an environmental condition that in the past would have been identified as a REC, but has been adequately addressed and therefore no longer represents a REC. PM has not identified any historical RECs in association with the subject property.

De Minimis Conditions

De minimis conditions are conditions that generally do not present a threat to human health or the environment and generally would not be the subject of an enforcement action if brought to the attention of appropriate government agencies. Conditions determined to be de minimis are not recognized environmental conditions. The following de minimis condition was identified during completion of this report:

- ñ PM observed two air compressors located in the utility room. De minimis staining was observed associated with the air compressors, however, the concrete floors appeared to be in good condition with no evidence of cracking or damage. Therefore, PM has not identified the de minimis staining associated with the air compressors as a REC.

Recommendations

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-05 of the Office Building located at 770 South Adams Road, Birmingham, Oakland County, Michigan, the property. Any exceptions to, or deletions from, this practice are described in Section 1.4 of this report. This assessment has revealed no evidence of recognized environmental conditions connected with the property. No further investigation is recommended.

The summary presented above is general in nature and should not be considered apart from the entire text of the report, which contains the qualifications, considerations and subject property details mentioned herein. Details of findings and conclusions are elaborated upon in this report.

This report has been reviewed for its completeness and accuracy. Please feel free to contact our office at (248) 336-9988 to discuss this report.

REPORT PREPARED BY:

PM Environmental, Inc.



Andrea Magar
Staff Consultant

REPORT REVIEWED BY:

PM Environmental, Inc.



Kristin Gable
Regional Due Diligence Manager



Kevin M. Kruszewski, P.G.
V.P. – Environmental Risk Management

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FIGURES

Figure 1: Site Location Map

Figure 2: Generalized Diagram of the Subject Property and Surrounding Area

APPENDICES

Appendix A: Property Photographs from Site Reconnaissance

Appendix B: Correspondence and Supporting Documentation

Appendix C: Previous Site Investigations

Appendix D: Regulatory Database and File Review Correspondence

Appendix E: Professional Resumes

Appendix F: Acronyms and Terminology, Scope of Work, ASTM Reference Document, and User's Continuing Obligations under CERCLA

1.0 INTRODUCTION

This Phase I ESA was conducted in accordance with (1) the United States Environmental Protection Agency (USEPA) Standards and Practices for All Appropriate Inquiries {(AAI), 40 CFR Part 312} and (2) guidelines established by the American Society for Testing and Materials (ASTM) in the *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process / Designation E 1527-05* (ASTM Standard Practice E 1527-05).

THIS REPORT WAS PREPARED FOR THE EXCLUSIVE USE OF BIRMINGHAM GROUP, INC. AND TALMER BANK AND TRUST, EACH OF WHOM MAY RELY ON THE REPORT'S CONTENTS.

PM acknowledges that these parties may rely on the contents and conclusions presented in this report. Unless stated otherwise in writing, PM makes no other warranty, representation, or extension of reliance upon the findings of this report to any other entity or third party.

1.1: Property Overview

Subject Property Location/Address	770 South Adams Road, Birmingham, Oakland County, Michigan
Number of Parcels and Acreage	One parcel containing approximately 0.67 acres
Number of Building(s) and Square Footage	One two story building, with a basement, totaling approximately 29,392 square feet, constructed in 1964
Current Property Use	Office building
Current Zoning	B-2: General Business

The subject property location is depicted on Figure 1, Site Location Map. A diagram of the subject property and adjoining properties is included as Figure 2, Generalized Diagram of the Subject Property and Surrounding Area. Photographs taken during the site reconnaissance are included in Appendix A.

1.2: Purpose and Scope of Services

The purpose of this Phase I ESA was to evaluate the current and historical conditions of the subject property in an effort to identify *recognized environmental conditions* (RECs) and *historical recognized environmental conditions* (HRECs) in connection with the subject property. This Phase I ESA is intended to reduce, but not eliminate, uncertainty regarding the potential for RECs and HRECs in connection with the subject property.

Acronyms and terms used in this report are described in Appendix F. Additionally, PM's scope of services is included in Appendix F.

1.3: Significant Assumptions

Pursuant to ASTM Standard Practice E 1527-05, PM assumes that the information provided by all sources and parties, including the User, is accurate and complete, except where obvious inconsistencies or inaccuracies were identified.

1.4: Limitations, Deviations, and Special Terms and Conditions

There are no deviations from the ASTM Standard. Non-ASTM Scope considerations are included in Section 10.0. Any physical limitations identified during the completion of this report are referenced in Section 7.0.

Due to changing environmental regulatory conditions and potential on-site or adjacent activities occurring after this assessment, the client may not presume the continuing applicability to the subject property of the conclusions in this assessment for more than 180 days after the report's issuance date, per ASTM Standard Practice E 1527-05.

To the best of PM's knowledge, no special terms or conditions apply to the preparation of this Phase I ESA that would deviate the scope of work from the ASTM Standard Practice E 1527-05.

PM was not provided with a copy of the recorded land title records for subject property by the client and was not requested to complete a title search. Therefore, PM cannot comment on any potential relevant information that may have been obtained through review of these records.

2.0 USER PROVIDED INFORMATION

The ASTM Standard defines a User as "the party seeking to use Practice E 1527 to complete an environmental site assessment. A User may include, without limitation, a potential purchaser of property, a potential tenant of property, an owner of property, a lender, or a property manager." The User has specific obligations for completing a successful application of this practice as outlined in Section 6 of the ASTM Standard Practice E 1527-05.

In order to qualify for one of the Landowner Liability Protections (LLPs) offered by the Small Business Liability Relief and Brownfield's Revitalization Act of 2001 (the "Brownfield's Amendments") (if desired), the User must provide certain information (if available) identified in the User Questionnaire to the environmental professional. Failure to provide this information could result in a determination that "all appropriate inquiry" is not complete.

The following responses were provided by the User. A copy of the completed User Questionnaire is included in Appendix B.

Question	Response
Name of Preparer and User Entity	Mr. Jeffrey Ishbia, Birmingham Group Inc.
Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state or local law?	No
Are you aware of any Activity and Use Limitations, such as engineering controls, land use restrictions or institutional controls that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state or local law?	No

Question	Response
As the user of this ESA do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?	Yes, the building has been occupied by offices since 1960
Does the purchase price being paid for this property reasonably reflect the fair market value of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?	Not applicable
Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, as user:	Yes
Do you know the past uses of the property?	Yes, the building has been occupied by offices since 1960
Do you know of specific chemicals that are present or once were present at the property?	None
Do you know of spills or other chemical releases that have taken place at the property?	No
Do you know of any environmental cleanups that have taken place at the property?	No
As the user of this ESA, based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of contamination at the property?	No

2.1: Recorded Land Title Records

PM requested reasonably ascertainable recorded land title records for the subject property from the User. However, PM did not receive any title records from the User within the time constraints of this report. Additionally, PM was not requested to complete a title search by the User.

2.2: Reason for Performing this Phase I ESA

According to the User, this Phase I ESA was conducted as part of environmental due diligence related to refinance of the subject property.

3.0 PHYSICAL SETTING

PHYSICAL SETTING INFORMATION FOR THE SUBJECT PROPERTY AND SURROUNDING AREA		SOURCE
Topography: Refer to Figure 1 for an excerpt of the Topographic Map		
Site Elevation	756 feet above sea level	United States Geological Survey Division (U.S.G.S.) 7.5-Minute Topographic Map of the Birmingham, Michigan Quadrangle, 1968 (photo revised in 1981)
Topographic Gradient	East-Southeast	
Closest Surface Water	Rouge River, located approximately 3,500 feet northwest of the subject property	
General Soil Characteristics: Refer to Appendix B for a copy of the soil survey map and soil type descriptions		
Soil Type	Urban land	United States Department of Agriculture, Soil Survey of Oakland County, Michigan (issued March 1982)
Description	Consists of areas covered by commercial buildings, condominiums, and apartment buildings, parking lots, streets, sidewalks, driveways, railroad yards, industrial complexes and other structures. A typical soil profile is not defined. Permeability and the available water capacity vary.	
Area Specific Geology/Hydrogeology Characteristics:		
Geology	Geology generally consists of sand and fill materials from 2.0 to 4.0 feet bgs (below ground surface), underlain by clay to 15.0 feet bgs, the maximum depth explored.	Previous site investigation for a nearby property
Hydrogeology	Groundwater was not encountered to a depth of 15 feet bgs.	
Oil and Gas Wells:		
Current Oil and Gas Wells on Subject Property	None	MDEQ Geologic Survey Division (GSD) web site
Historical Oil and Gas Wells On Subject property	None	

4.0 RECORDS REVIEW

PM reviewed reasonably ascertainable records to identify obvious uses of the subject property from the present, back to the property's obvious first developed use, or back to 1940, whichever is earlier. Reasonably ascertainable records reviewed as part of this Phase I ESA documented the use of the property back to 1924. Data failure occurred prior to that date. However, PM did not identify any significant data gaps during the completion of this Phase I ESA.

4.1: Aerial Photographs and Sanborn Maps

PM reviewed reasonably ascertainable aerial photographs for the subject property area. The sources and years reviewed are identified in the table below. Relevant aerial photographs are included in Appendix B.

PM reviewed reasonably ascertainable Sanborn Fire Insurance Maps for the subject property area, which were obtained from EDR. The sources and years reviewed are identified in the table below. Relevant Sanborn Maps are included in Appendix B.

The following table summarizes the sources reviewed and the information obtained about the subject property from these sources. Information obtained about the adjoining properties from these sources is summarized in Section 8.0.

Aerial and Sanborn Summary for the Subject Property

Year and Source	Summary of Information
1921 Sanborn Map (EDR)	Sanborn map was available, however did not provide coverage of the subject property.
1926 Sanborn Map (EDR)	Sanborn map was available, however did not provide coverage of the subject property.
1931 Sanborn Map (EDR)	Three dwellings are depicted in the eastern portion of the property. Two garages are visible in the northwestern portion of the property and the southern portion of the property.
1940 Aerial (MSU)	Due to scale and resolution, definitely details could not be determined.
1949 Aerial (WSU)	Similar to the previous Sanborn year.
1949 Sanborn Map (EDR)	Similar to the previous aerial and Sanborn years.
1952 Aerial (WSU)	Similar to the previous aerial and Sanborn years.
1957 Aerial (WSU)	Similar to the previous aerial and Sanborn years, however an additional garage is visible in the west-central portion of the property.
1960 Sanborn Map (EDR)	Similar to the previous aerial and Sanborn years.
1963 Aerial (Oakland County)	Similar to the previous aerial and Sanborn years.
1967 Aerial (WSU)	All former structures have been demolished and the current building has been constructed in the eastern portion of the subject property. Similar to the current layout.
1974 Aerial (Oakland County)	Similar to the previous aerial year.
1980 Aerial (Oakland County)	Similar to the previous aerial year.
1990 Aerial (Oakland County)	Similar to the previous aerial year.
1997 Aerial (Oakland County)	Similar to the previous aerial year.
2000 Aerial (Oakland County)	Similar to the previous aerial year.

Year and Source	Summary of Information
2005 Aerial (Oakland County)	Similar to the previous aerial year.
2012 Aerial (Oakland County)	Similar to the previous aerial year.

4.2: Local Street Directories

Reasonably ascertainable local street directories for Birmingham, Michigan were researched. Directories were available from 1937 to 2012. Directories were researched in at least five-year increments, when available. It should not be construed that the earliest date represented is the initial date of occupancy.

PM also reviewed listings for adjoining commercial properties. Information from the listings reviewed is included in Section 8.0.

Subject Property: 770 South Adams Road

2012	Abington Development Inc. Shore Financial Services Shore Mortgage
2009	Abington Development Inc. Medical Office Liquidation Realty Shore Financial Shore Mortgage Video Management Inc. Westchester Realty Inc.
2006-2005	Abington Development Inc. Anderson-Miller Limited Shore Financial Services Shore Mortgage CPA Office
2002-2001	Medical Office Abington Development Inc. Alert Alarm Anderson-Miller Limited London Strcs. Inc. Shore Financial Services Shore Mortgage
1997-1996	Medical Office The Design Shop Executive Secret Service Group One Leasing Konen Communications Lutomski & Associates Michigan Impulse Rotor Tool Company

	Adams Associates
	Shore Financial Services
	Shore Mortgage
1992-1991	American Home Healthcare
	Farm Bureau Insurance Group
	Medical Office
	Group One Leasing
	International Medical Equipment
	Lutomski & Associates
	Eric Y Lutz Maintenance
	Montgomery & Associates
	New Financial CNCP
	Rotor Tool Company
	J G Shannon Company
	Weyand & Associates
1987-1986	The Atlantic Magazine
	Control System Tech.
	Detroit Free Press
	Dressell & Associates
	R D Eisbrenner & Company
	Health Mark
	Joba Inc.
	CPA Offices
	DE Richey & Company
	SE Homeowners Mortgage
	Specialty Equipment Corporation
	Statre Sales Corporation
	Attorney Offices
1982-1981	Builders Equity Service Inc.
	Busch & Morris
	CPA Office
	Consulting System & Program
	Attorney Offices
	CPA Offices
	Dressell & Associates
	Fellows Corporation
	Glitsch Inc.
	Joseph Lamb Company
	McGilton & Associates
	Oakwood MNR. Associates
	RL Weaver Company
	Attorney Offices
	Realtor Office
1979-1978	Attorney Offices
	Birmingham Construction Company
	Busch & Morris
	Collins, Buri, & Associates
	Consultant System & Program
	CPA Offices
	Detroit Electronics

	Dressell & Associates
	Fellows Corporation
	Glitsch Inc.
	Kerr & Associates
	Joseph Lamb Company
	Oakwood MNR Associates
	JM Prentice Mortgage
	Realtor Office
1976-1975	Attorney Offices
	Birmingham Construction
	Borg-Warner Corporation
	Collins, Buri, & Associates
	Duralyte Inc.
	Fellows Corporation
	1 st Condominium Sales
	Long Manufacturing Company
	McCarthy Development
	KA Metcalf Real Estate
	Ross & Associates Builders
	Transmission Product
	Warner Gear Warner
1971-1970	Farmington Shopping Plaza
	Angell Manufacturing Company
	Borg-Warner Corporation
	Carey Olsen & Associates
	California Restaurant Equipment
	Collins, Buri, & Associates
	Ross & Associates Builders
	Susie Q Restraints
	Birmingham Construction
	Fellows Gear Shaper
	Tad Industries Inc.
	Parline Sales Company
	Warner Gear Warner
	Transmission Product Group
	Hungry Penguin Inc.
1968-1967	Farmington Shopping Plaza
	JL Montgomery Inc.
	CPA Offices
	Birmingham Construction
	Midwest Publishing Company
	Midwest Yearbook
	Birmingham Directory
	General Exposition
	American Institute for Design
	Visual Communications
	Attorney Offices
	Emery Investment Company
	Emery & Associates
	Parsons Investment Company

	Creative Capital Michigan
	Business Research
	Devon Management
	South Haven Rubber
	Oakland Design & Distributing
	Financial Accounting Service
	Angell Manufacturing Company
	Parline Prod. Inc.
	General Electric Company
	Fellows Gear Shaper
	Management & Capital
	Alpine International
	Guardian Mortgage
1965-1937	Not Listed

Historic Subject Property Addresses: 756-788 South Adams Road

756 South Adams Road

2012-1964	Not Listed
1961-1944	Residential
1940	Vacant
1937	Residential

776 South Adams Road

2012-1964	Not Listed
1961-1937	Residential

788 South Adams Road

2012-1964	Not Listed
1961-1937	Residential

4.3: Assessing Department

Reasonably ascertainable assessment information provided by the Oakland County Assessing Department was obtained and reviewed. Assessing records document that the subject property consists of one parcel containing 0.67 acres, and is developed with a 29,392 square foot building constructed in 1964. Copies of available assessment records for the subject property and the current legal description are included in Appendix B.

4.4: Building Department

PM submitted a Freedom of Information Act (FOIA) request to the City of Birmingham Building Department to review available files for the subject property. Building Department records document that the subject property was connected to municipal water and sewer in 1964. Refer to Section 4.7.1 and Section 4.7.2 for additional information. PM's review did not identify potential environmental concerns associated with the subject property.

4.5: Fire Department

PM submitted a FOIA request to the City of Birmingham Fire Department to review available Fire Department files for the subject property. PM's review did not identify potential environmental concerns associated with the subject property.

4.6: Health Department

PM submitted a FOIA request to the Oakland County Health Department to review records for the subject property. PM received a written response from a representative of the department indicating no files were available for the subject property.

4.7: Utilities

4.7.1: Municipal Water/Water Wells

The subject property is currently connected to municipal water. A representative of the City of Birmingham Department of Public Service indicated the subject property was connected to municipal water in 1964, which is consistent with the construction of the current building. Additionally, review of Sanborn maps indicates municipal water has been available to the subject property since at least the 1920s. Based on this information, it is unlikely that a private water well existed at the subject property. However, if a private water well was historically utilized, based on the former residential use, the potential well would not represent a REC.

4.7.2: Sanitary Sewer/Septic System

The subject property is currently connected to municipal sewer. PM reviewed available Birmingham Building Department files for the subject. PM's review indicated the subject property was connected to municipal sewer in 1964, which is consistent with the construction of the current building. Additionally, review of Sanborn maps indicates municipal water has been available to the subject property since at least the 1920s. Municipal sewer has most likely been available since that time. Based on this information, it is unlikely that a private septic field existed at the subject property. However, if private septic field was historically utilized, based on the former residential use the potential former private septic field would not be a REC.

4.7.3: Heat Source

The subject property is connected to natural gas, which is supplied by Consumers Energy. Review of the Consumers Energy SIMS website indicates the subject property was initially connected to natural gas in 1924, which is likely when the former dwellings were constructed. No documentation of fuel oil use was identified during review of reasonably ascertainable records, and no visual evidence of fuel oil use was identified during the site reconnaissance.

4.8: Underground Storage Tank (UST) Systems

Review of reasonably ascertainable standard and other historical sources, and site observations, have not identified the current and historical presence of USTs on the subject property. Specifically, no records of USTs were identified though review of reasonably ascertainable records and PM did not observe any evidence of USTs (i.e. fill ports, vent pipes,

etc.) during the site reconnaissance. Additionally, a representative of the current owner indicated he had no knowledge of USTs associated with the subject property.

4.9: Previous Environmental Reports

PM reviewed a previous Phase I ESA completed for the subject property by Malcom Pirnie dated December 1995. At the time of the report, the subject property was occupied by the current office building. Malcom Pirnie indicated the property was vacant land from 1944 until 1966, however PM's review of historical sources indicates the property was utilized for residential purposes from at least 1924 until 1964, when the current office building was constructed. Malcom Pirnie identified a REC was associated with the former gasoline service station located north of the subject property (720 South Adams Road, The Plant Station). Malcom Pirnie also identified ACM consisting of pipe joints, which were in good condition, as a REC. An Asbestos Materials Survey and Assessment was prepared for the subject property in November 1995, and reviewed as part of Malcom Pirnie's Phase I ESA. Samples were collected from throughout the building of drywall, red 12 inch by 12 inch floor tile, plaster, joint compound, two foot by two foot ceiling tiles, two foot by four foot ceiling tiles, and exterior siding panels. The joint compound was identified as ACM (25% chrysotile), and the remaining materials as non-ACM. In 1996, approximately 36 feet of pipe insulation and elbow joint debris were removed from the building. Refer to Section 11.1 for additional information regarding suspect ACM.

PM also reviewed a Subsurface Investigation Report completed by GEOdynamics Industries, dated January 4, 1996. The 1996 Subsurface Investigation Report documents five soil samples were collected along the northern property boundary and analyzed in the field for benzene, toluene, ethylbenzene, and xylenes (BTEX), using a gas chromatograph. Results were below laboratory method detection limits (MDL's). Samples were submitted to an off site lab for polynuclear aromatic hydrocarbons (PNAs). All samples were below laboratory MDLs. PM did not identify any significant deficiencies through review of the previous Phase I ESA or Subsurface Investigation Report, copies of which are included in Appendix C.

4.10: Environmental Liens, Activity and Use Limitations, and Government Institutional and Engineering Controls

PM has not identified any record of environmental liens, activity and use limitations, or institutional controls or engineering controls associated with the subject property through review of reasonable ascertainable records.

5.0 INTERVIEWS

The objective of completing interviews with knowledgeable site contacts is to obtain information about the uses and physical characteristics of the property. In general, interviewees supported the information reviewed from other historical sources (i.e. aerial photos, city records, etc.).

Represents	Interviewed	Name and Title	Length of Time Associated with Subject Property	Comments
Current Property Owner	Yes	Mr. Larry Lencher, representative of the current owner	Approximately 17 years	Mr. Lencher indicated the building has been occupied by professional offices since the building was purchased by the current owner, approximately 17 years ago. No additional information was provided.
Former Property Owner	No	Not applicable	Not applicable	Contact information for the former owner was not reasonably ascertainable or provided by the User
Key Site Manager	Yes	Refer to the Current Property Owner summary.	Refer to the Current Property Owner summary.	Refer to the Current Property Owner summary.
Current Occupant(s)	No	Not applicable	Not applicable	Current occupants consisted of typical office tenants that had no specific knowledge about the subject property's potential environmental concerns.
Former Occupant(s)	No	Not applicable	Not applicable	Contact information for the former occupants was not reasonably ascertainable or provided by the User
Other(s)	No	Not applicable	Not applicable	No other relevant interviews were conducted as part of this Phase I ESA.

6.0 SUMMARY OF HISTORICAL USE

Standard and historical sources indicate the subject property was initially developed in 1924 with at least one residential dwelling, and by 1931 two additional dwellings and two garages were constructed. Between 1952 and 1957, an additional garage was constructed in the west central portion of the property. In 1964, all former structures were demolished and the current building was constructed in the eastern portion of the property. The building has been occupied by various professional offices since construction.

7.0 SUBJECT PROPERTY RECONNAISSANCE

Reconnaissance Information	
PM Field Personnel:	Ms. Andrea Magar
Site Reconnaissance Date:	March 8, 2013

Weather Conditions:	45 and sunny
Escort:	Mr. Danny Holcomb, Shore Mortgage (a current tenant)
Limitations:	None identified.

7.1: Subject Property Observations

The subject building contains one two story building, with a basement, and totals 29,392 square feet, which is divided into a lobby area, offices, a utility room, and restrooms. The lobby area, offices, and restrooms are finished with ceramic floor tiles, carpeting, drywall walls and ceilings, two foot by two foot ceiling tiles. The utility room is unfinished with a poured concrete floor, ceramic floor tiles, painted cinder block walls, and a drywall ceiling.

The exterior of the property consists of a parking area in the western portion of the property and areas of groomed grass surrounding the building. PM observed a natural gas back up generator located north of the building. No evidence of alternative fuel sources were identified in association with the generator.

The following table summarizes the site observations. Affirmative responses are discussed in more detail following the table.

Category	Feature	Observed
Interior Equipment	Elevators	Yes
	Air Compressors	Yes
	Incinerators	No
	Waste Treatment Systems	No
	Presses/Stamping Equipment	No
	Press Pits	No
	Hydraulic Lifts or In-ground hoists	No
	Paint Booth	No
	Plating Tanks	No
	Lathes, Screw Machines, etc.	No
Aboveground Chemical or Other Waste Storage or Waste Streams	Aboveground Storage Tanks (ASTs)	No
	Drums, Barrels and/or Containers > 5 gallons	No
	Chip Hoppers	No
	Hazardous or Petroleum Waste Streams	No
Underground Chemical or Waste Storage, Drainage or Collection Systems	Underground Storage Tanks	No
	Fuel Dispensers	No
	Sumps or Cisterns	No
	Dry Wells	No
	Oil/Water Separators	No
	Floor Drains, Trench Drains, etc.	Yes
	Pipeline Markers	No
Exterior Observations	Stressed Vegetation	No
	Stained Soil or Pavement	No
	Pad or Pole Mounted Transformers and/or Capacitors	Yes
	Soil Piles of Unknown Origin	No
	Exterior Dumpsters with Staining	No
	Leachate or Other Waste Seeps	No
	Trash, Debris, and/or Other Waste Materials	No
	Uncontrolled Dumping or Disposal Areas	No
	Surface Water Discoloration, Sheen or Free Product	No

Category	Feature	Observed
	Strong, Pungent or Noxious Odors	No
	Storm water retention or detention ponds	No
	Pits, Ponds, Lagoons	No

Elevators: PM observed one hydraulic elevator within the subject building. A representative of the current owner indicated the elevator was installed at construction and was rebuilt in 2012. The representative also indicated that, to the best of his knowledge, no failures have occurred. The elevator equipment was observed to be in good condition with no staining or leaks of hydraulic fluid. Based upon this information, PM has not identified the current elevator as a REC.

Air Compressors: PM observed two air compressors in the utility room. De minimis staining was observed associated with the air compressors, however, the concrete floors appeared to be in good condition with no evidence of cracking or damage. Therefore, PM has not identified the de minimis staining associated with the air compressor as a REC.

Floor Drains, Trench Drains, etc.: PM observed floor drains in the restrooms at the building. The floor drains are connected to the municipal sewer system and no evidence of poor waste management practices was observed. Based on the use of the subject property, PM has not identified the floor drains as a REC.

Pad or Pole Mounted Transformers and/or Capacitors: PM observed one pole mounted transformer located in the northwestern portion of the property. The transformer, which is likely owned by DTE, did not contain labels indicating PCB content. However, the transformer appeared to be in good condition with no evidence of leaking or staining. PM has not identified the transformer as a REC.

7.1.1: Current Operations

Current operations are consistent with typical office activities

8.0 ADJOINING PROPERTIES

The following paragraphs provide information about the adjoining properties obtained during the site reconnaissance and through review of reasonably ascertainable information.

North and West Adjoining Property

The north and west adjoining property, identified as 1000 Haynes, is currently occupied by a Charter One Bank branch. Review of historical records documents that the property was initially developed prior to 1931 with residential dwellings. The dwellings were demolished between 1967 and 1979, when the current building was constructed. The property has been occupied by financial institutions since construction.

East Adjoining Properties, across South Adams

The northeast adjoining, identified as 597-795 South Adams Road, is occupied by a strip mall. Review of historical records document that the property was utilized for residential purposes and contained a fallow orchard from at least 1940 until between 1952 and 1957. The property was

vacant land until a portion of the current building was constructed between 1957 and 1963. The remainder of the building was constructed between 1963 and 1967. The property has been occupied by retail stores, professional offices, restaurants, and a dry cleaner. The regulatory database has identified this property as a RCRA-CESQG and a drycleaners. Refer to Section 9.2 for additional information.

The east adjoining property is currently residential and has been utilized for residential purposes since between 1952 and 1957. Review of historical records indicates the property was initially developed with a stable in at least the 1920s, which was demolished in the 1930s. The property was vacant land until construction of the current dwelling between 1952 and 1957.

South Adjoining Property

The south adjoining property, identified as 800 South Adams Road, is occupied an office building. Review of historical records document that the property was developed with a small warehouse associated with a contractor supply yard in at least 1931. By 1940, the warehouse was demolished and the property was vacant land. The property was vacant until construction of the current office building between 1957 and 1960. The building has been occupied by professional and medical offices since construction.

9.0 REGULATORY RECORDS REVIEW

PM retained EDR to provide current environmental database information compiled by a variety of federal and state regulatory agencies. A copy of the complete database is included in Appendix D. The following information was obtained.

Type	Regulatory Agency Database	Approximate Minimum Search Distance (AMSD)	Number of Sites within AMSD
Federal	National Priority List (NPL) Sites	1 mile	0
Federal	Delisted National Priority List (DNPL) Sites	½ mile	0
Federal	Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Sites	½ mile	0
Federal	CERCLIS No Further Remediation Action Planned (NFRAP) Sites	subject property and adjoining properties	0
Federal	Resource Conservation and Recovery Act (RCRA) Corrective Action Report (CORRACTS) Sites	1 mile	0
Federal	RCRA non-CORRACTS Treatment, Storage or Disposal (TSD) Sites	½ mile	0
Federal	RCRA Large Quantity Generators (LQG) Sites	subject property and adjoining properties	0
Federal	RCRA Small Quantity Generators (SQG) Sites	subject property and adjoining properties	0
Federal	RCRA Conditionally Exempt Small Quantity Generators (CESQG) Sites	subject property and adjoining properties	1
Federal	RCRA Non-Generators (NON-GEN) Sites	subject property and adjoining properties	1
Federal	US Brownfield Sites	½ mile	1
Federal	Institutional Control / Engineering Control Registries	subject property	0
Federal	Environmental Response and Notification System (ERNS)	subject property	0

Type	Regulatory Agency Database	Approximate Minimum Search Distance (AMSD)	Number of Sites within AMSD
State & Tribal	Hazardous Waste Sites (HWS) (equivalents to NPL and CERCLIS)	1 mile	1
State & Tribal	Delisted Hazardous Waste Sites (HWS)	1 mile	0
State & Tribal	Solid Waste Facilities/Landfill Sites (SWLF)	½ mile	0
State & Tribal	Historical Landfill Sites (HIST LF)	½ mile	0
State & Tribal	Leaking Underground Storage Tank (LUST) Sites	½ mile	14
State & Tribal	Registered Underground Storage Tank (UST) Sites	subject property and adjoining properties	0
State & Tribal	Institutional Control / Engineering Control Registries	subject property	0
State & Tribal	Brownfield Sites	½ mile	1
State	Baseline Environmental Assessment (BEA) Sites	½ mile	14
Either	Unmappable Database Listings (a.k.a. Orphan Sites)	database-dependent	24

9.1: Subject Property and Occupant Listings

The subject property or its known occupants are not identified in the referenced databases.

9.2: Adjoining and Nearby Sites

PM's review of the referenced databases also considered the potential or likelihood of contamination from adjoining and nearby sites. To evaluate which of the adjoining and nearby sites identified in the regulatory database report present an environmental risk to the subject property, PM considered the following criteria:

- ñ The type of database on which the site is identified.
- ñ The topographic position of the identified site relative to the subject property.
- ñ The direction and distance of the identified site from the subject property.
- ñ Local soil conditions in the subject property area.
- ñ The known or inferred groundwater flow direction in the subject property area.
- ñ The status of the respective regulatory agency-required investigation(s) of the identified site, if any.
- ñ Surface and subsurface obstructions and diversions (e.g., buildings, roads, sewer systems, utility service lines, rivers, lakes, and ditches) located between the identified site and the subject property.

Only those sites that are judged to present a potential environmental risk to the subject property and/or warrant additional clarification are further evaluated. Using the referenced criteria, and based upon a review of readily available information contained within the environmental database report, PM did not identify adjoining (i.e., bordering) or nearby sites (e.g., properties within a ¼-mile radius) listed in the environmental database report that were judged to present a potential environmental risk to the subject property, with the exception of the following:

Perry Drug Stores, Inc. - This property is identified as 597 South Adams Road, Birmingham, and is one of the tenants of the northeast adjoining strip mall property. Review of the regulatory database indicates this property is a RCRA-CESQG, however no additional information was provided. PM attempted to review MDEQ files for the property, however no files were available. The RCRA status is likely associated with photo processing, and based on the small scale operations, and distance from the subject property (approximately 525 feet and across South Adams Road), PM has not identified this property as a REC.

The Plant Station – This property is identified as 720 Adams Road, Birmingham, and is located approximately 100 feet north of the subject property. Review of the regulatory database indicates this site is a closed LUST site with one release reported in 1997. Review of MDEQ files document the release was granted a Tier 1 Residential closure in 1998. However, site assessment activities completed in 1998 document that soil and groundwater contamination remains above the current Part 213 Drinking Water Protection (DWP) and Groundwater Surface Water Interface Protection (GSIP) Risk Based Screening Levels (RBSLs). The closure report documents the former USTs were removed in 1978, and previous site investigations along the northern property boundary in 1995 document no evidence of migration of contamination. Based on the closed LUST status, lack of evidence of migration of contamination, regional clay geology, and insufficient groundwater to act as a transport mechanism, PM has not identified this property as a REC. Refer to Section 4.9 for additional information.

Goodyear Tire Center 1685 – This property is identified as 835 Haynes Street and is located approximately 500 feet northwest of the subject property. Review of the regulatory database indicates this site is a closed LUST site with one release reported in 1993. Review of MDEQ files documents the release was granted closure in 1994. Site assessment activities document a 550 gallon waste oil tank and 50 cubic yards of soil were removed. Six soil samples were collected and analyzed for BTEX, PNA's, polychlorinated biphenyl (PCB's), lead, cadmium, and chromium. All samples were below laboratory method detection limits (MDL's), or MDEQ RBSLs. However, based on the distance from the subject property (over 500 feet northwest of the subject property, across South Worth Street and Haynes Street) and regional clay geology with insufficient groundwater to act as a transportation mechanism, PM has not identified this site as a REC.

Rosman Cleaners – This site is identified as 651 South Adams Road, and is one of the tenants of the northeast adjoining strip mall property. Review of the regulatory database indicates this property is a RCRA non-generator with no violations reported and a registered dry cleaner. PM attempted to review MDEQ files associated with the generator status, however no files were available for review. Based on the distance from the subject property (over 600 feet from the subject property and across South Adams Road) and regional clay geology with insufficient groundwater to act as a transportation mechanism, PM has not identified this site as a REC.

10.0 NON-ASTM SCOPE CONSIDERATIONS

PM has included a discussion of Non-ASTM Scope Considerations based upon industry standards and lender requirements.

Non-ASTM Item	Observations or Information
Potential Asbestos Containing Building Materials (ACBM)	An Asbestos Materials Survey and Assessment was prepared for the subject property in November 1995, and reviewed as part of Malcom Pirnie's Phase I ESA. Samples were collected from throughout the building of drywall, red 12 inch by 12 inch floor tile, plaster, joint compound, two foot by two foot ceiling tiles, two foot by four foot ceiling tiles, and exterior siding panels. The joint compound was identified as ACM (25% chrysotile), and the remaining materials as non-ACM. In 1996, approximately 36 feet of pipe insulation and elbow joint debris were removed from the building. During PM's site reconnaissance, suspect ACM observed included floor tiles, drywall walls and ceilings, and two foot by two foot ceiling tiles. The materials appeared to be in good condition.
Lead Based Paint	PM did not observe any evidence of chipping, peeling, or damaged paint.
Visual Mold or Significant Moisture Damage	PM did not observe any evidence of mold growth or moisture damage.

11.0 FINDINGS, OPINIONS AND CONCLUSIONS

11.1: Significant Data Gaps

PM did not identify or encounter any instances of significant data gaps during the course of this ESA.

11.2: Recognized Environmental Conditions (RECs)

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-05 of the Office Building located at 770 South Adams Road, Birmingham, Oakland County, Michigan, the property. Any exceptions to, or deletions from, this practice are described in Section 1.4 of this report. This assessment has revealed no evidence of recognized environmental conditions connected with the property.

11.3: Historical Recognized Environmental Conditions (HRECs)

A historical REC, as defined in the ASTM Standard, is an environmental condition that in the past would have been identified as a REC, but has been adequately addressed and therefore no longer represents a REC. PM has not identified any historical RECs in association with the subject property.

11.4: De Minimis Conditions

The following de minimis condition was identified during completion of this report:

- ñ PM observed two air compressors located in the utility room. De minimis staining was observed associated with the air compressors, however, the concrete floors appeared to be in good condition with no evidence of cracking or damage. Therefore, PM has not identified the de minimis staining associated with the air compressors as a REC.

11.5: Recommendations

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-05 of the Office Building located at 770 South Adams Road, Birmingham, Oakland County, Michigan, the property. Any exceptions to, or deletions from, this practice are described in Section 1.4 of this report. This assessment has revealed no evidence of recognized environmental conditions connected with the property. Therefore, no further investigation is recommended at this time.

12.0 SIGNATURE OF ENVIRONMENTAL PROFESSIONAL

I declare that, to the best of my professional knowledge and belief, I meet the definition of *Environmental professional* as defined in §312.10 of 40 CFR 312 and I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquires in conformance with the standards and practices set forth in 40 CFR Part 312.

A handwritten signature in black ink, appearing to read "Kevin M. Kruszewski". The signature is fluid and cursive, with the first name "Kevin" and last name "Kruszewski" clearly legible.

Kevin M. Kruszewski, P.G.
V.P. – Environmental Risk Management

13.0 REFERENCES

The following published sources were utilized during completion of this Phase I ESA:

- ñ *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, ASTM, ASTM Designation E 1527-05, Published November 2005.
- ñ R.L. Polk's Directories, obtained from the State of Michigan Library in Lansing, Michigan. City: Birmingham. Years: 1937-1951.
- ñ Bresser's Cross-Index City Directories, Bresser's in Detroit, Michigan. City: Birmingham. Years: 1955-2012.
- ñ United States Geological Survey Division (U.S.G.S.) 7.5 Minute Topographic Map Birmingham, Michigan Quadrangle, 1968 (photo-revised 1981).
- ñ *Soil Survey of Oakland County, Michigan*, U.S. Department of Agriculture, March 1982.

Figures



6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

T:2 N., R:10 E., Sec. 36

OAKLAND COUNTY

SCALE 1:24,000
0

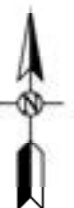


MICHIGAN QUADRANGLE LOCATION

FIGURE 1

PROPERTY VICINITY MAP
USGS, 7.5 MINUTE SERIES

BIRMINGHAM, MI QUADRANGLE, 1968. PHOTO REVISED 1973 & 1980.



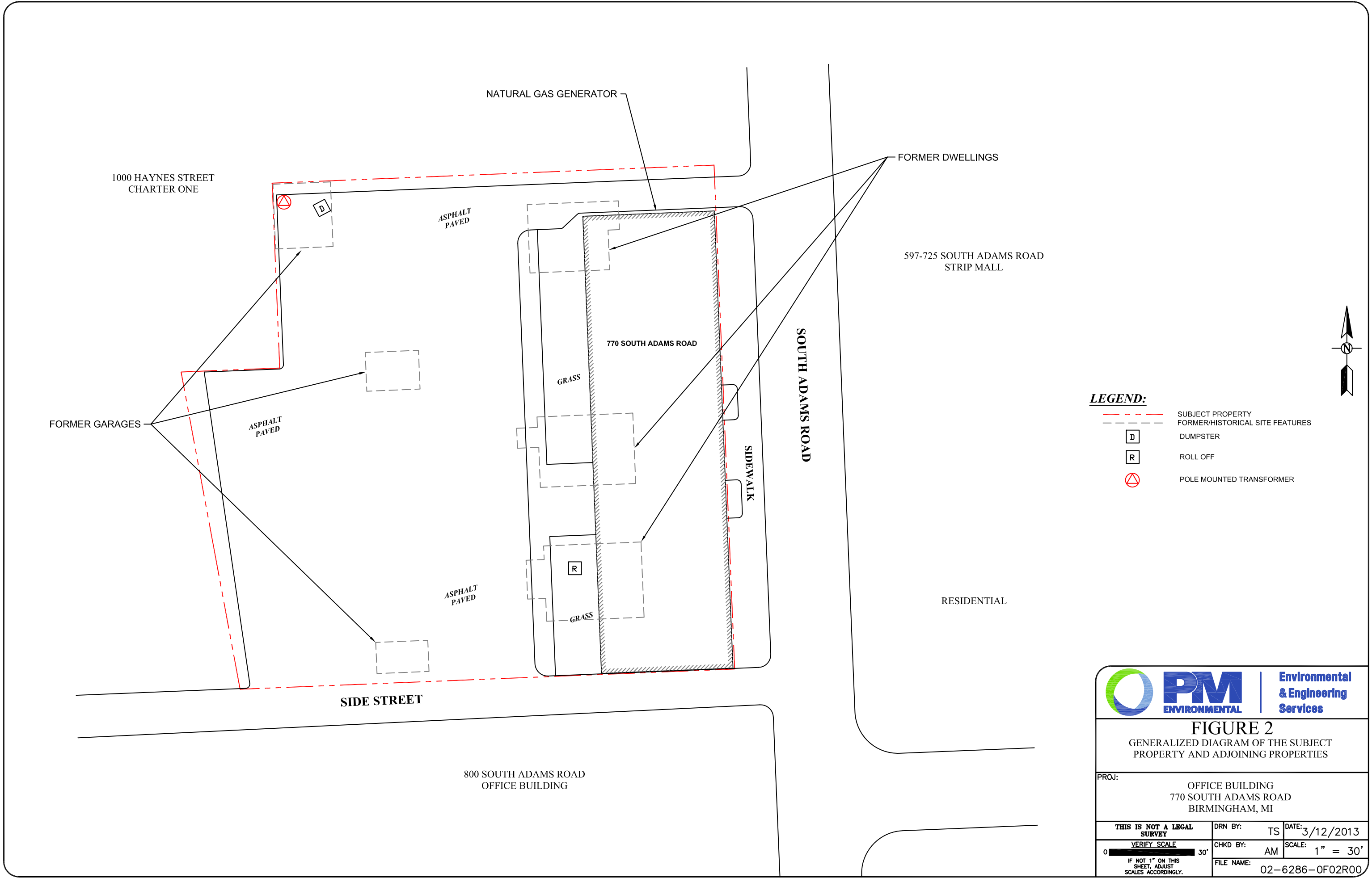
Environmental
& Engineering
Services

FROM:
OFFICE BUILDING
770 SOUTH ADAMS ROAD
BIRMINGHAM, MI

THIS IS NOT A LEGAL
SURVEY

GRAPHIC SCALE
0 1 2,000'
IF NOT 1" ON THIS
SHEET, ADJUST
SCALES ACCORDINGLY

DRAWN BY: TS DATE: 3/12/2013
CHECKED BY: AM SCALE: 1" = 2,000'
FILE NAME: 02-6286-0F01R00



LEGEND:

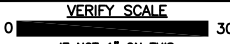
- SUBJECT PROPERTY
- FORMER/HISTORICAL SITE FEATURES
- D DUMPSTER
- R ROLL OFF
- ⊠ POLE MOUNTED TRANSFORMER



Environmental
& Engineering
Services

FIGURE 2
GENERALIZED DIAGRAM OF THE SUBJECT
PROPERTY AND ADJOINING PROPERTIES

PROJ: OFFICE BUILDING
770 SOUTH ADAMS ROAD
BIRMINGHAM, MI

THIS IS NOT A LEGAL SURVEY VERIFY SCALE 0  30' IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	DRN BY: TS	DATE: 3/12/2013
	CHKD BY: AM	SCALE: 1" = 30'
FILE NAME: 02-6286-0F02R00		

Appendix A



SITE PHOTOGRAPHS



Photographs From Site Reconnaissance
PM Project No. 02-6286-0
Location: 770 South Adams Road, Birmingham, Michigan

Photograph 1



View of the subject property from South Adams Road

Photograph 2



The north facing wall of the subject property



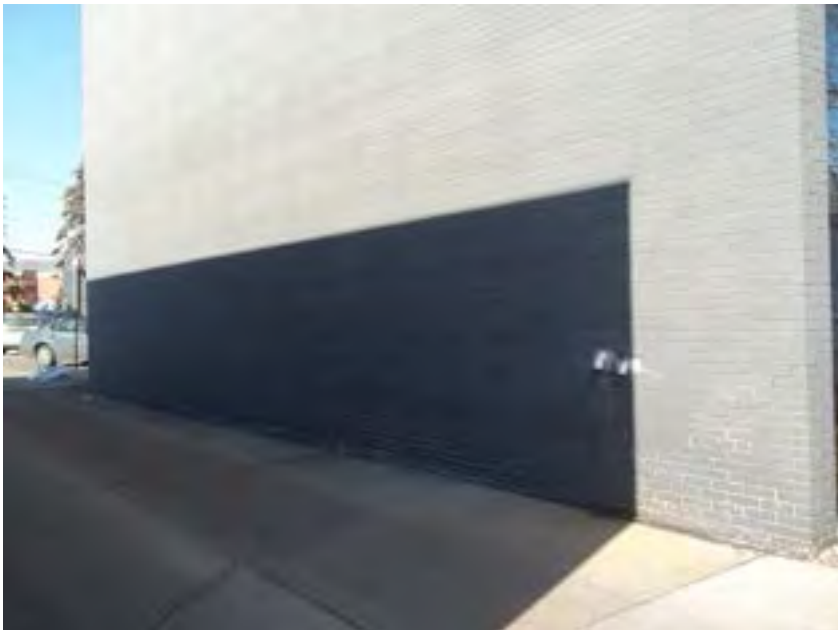
Photographs From Site Reconnaissance
PM Project No. 02-06286-0
Location: 770 South Adams Road, Birmingham, Michigan

Photograph 3



The east facing wall of the subject property

Photograph 4



The south facing wall of the subject property



Photographs From Site Reconnaissance
PM Project No. 02-06286-0
Location: 770 South Adams Road, Birmingham, Michigan

Photograph 5



The west facing wall of the subject property

Photograph 6



View of the parking area in the western portion
of the subject property



Photographs From Site Reconnaissance
PM Project No. 02-06286-0
Location: 770 South Adams Road, Birmingham, Michigan

Photograph 7



General interior view of the lobby

Photograph 8



Typical interior of an office



Photographs From Site Reconnaissance
PM Project No. 02-06286-0
Location: 770 South Adams Road, Birmingham, Michigan

Photograph 9



General interior of the utility room

Photograph 10



View of the elevator maintenance room



Photographs From Site Reconnaissance
PM Project No. 02-06286-0
Location: 770 South Adams Road, Birmingham, Michigan

Photograph 11



Natural gas generator located north of the
subject building

Photograph 12



Air compressor located in the utility room



Photographs From Site Reconnaissance
PM Project No. 02-06286-0
Location: 770 South Adams Road, Birmingham, Michigan

Photograph 13



Floor drain located in the restroom

Photograph 14



Pole mounted transformer located in the
northwestern portion of the subject property



Photographs From Site Reconnaissance
PM Project No. 02-06286-0
Location: 770 South Adams Road, Birmingham, Michigan

Photograph 15



The north and west adjoining property,
occupied by a Charter One Bank branch

Photograph 16



The northeast adjoining property, occupied by a
retail strip mall



Photographs From Site Reconnaissance
PM Project No. 02-06286-0
Location: 770 South Adams Road, Birmingham, Michigan

Photograph 17



The east adjoining property, occupied by residential dwellings

Photograph 18



The south adjoining property, occupied by an office building

Appendix B



SOIL SURVEY INFORMATION

United States Department of Agriculture
Soil Conservation Service
in cooperation with
Michigan Agricultural Experiment Station

soil survey of Oakland County Michigan



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Issued March 1982



nearly level, somewhat poorly drained Blount soils on low knolls; and nearly level, poorly drained Lenawee soils on smooth lowland flats and in shallow depressions and drainageways. Low areas are subject to frequent ponding. Areas of this complex are 5 to 500 or more acres and contain 40 to 70 percent Urban land, 20 to 25 percent Blount soils, and 15 to 20 percent Lenawee soils. The areas of these soils and Urban land are so intermingled or so small that mapping them separately is not practical at the scale used.

The Urban land is covered by streets, sidewalks, driveways, parking lots, houses, and other structures that so obscure or alter the soils that identification of the soils is not feasible.

Typically, the surface layer of the Blount soils is very dark grayish brown loam about 8 inches thick. The subsoil is mottled and is about 28 inches thick. In the upper part it is brown, firm silty clay loam; and in the lower part it is grayish brown, very firm clay. The substratum to a depth of about 60 inches is grayish brown, mottled, calcareous silty clay loam. In some places the soil has been radically altered. Some of the low areas have been filled or levelled during construction; and other areas have been cut, built up, or smoothed. In some places the subsoil has more clay.

Typically, the surface layer of the Lenawee soils is very dark brown silty clay loam about 9 inches thick. The subsoil is mottled and is about 36 inches thick. In the upper part it is dark gray, firm silty clay loam; in the middle part it is gray, very firm silty clay; and in the lower part it is gray, very firm silty clay loam. The substratum to a depth of about 60 inches is light yellowish brown, mottled, calcareous silty clay loam. In some places the soil has been radically altered. Some of the low areas have been filled or levelled during construction; and other small areas have been cut, built up, or smoothed.

Included in mapping are small areas of the moderately well drained Glynwood soils on slightly higher, convex areas. Also included are small areas of Aquents that are on landscape positions similar to those of the Lenawee soils. The included soils make up 2 to 10 percent of the complex.

In winter and spring the high water table is at a depth of 1 to 2 feet in the Blount soils and is near or at the surface in the Lenawee soils. Permeability is slow or moderately slow in the Blount soils and moderately slow in the Lenawee soils. The available water capacity is high. Surface runoff is slow to ponded.

Most areas of this complex are used for residential, commercial, and light industrial development. Some areas are used for schools. The Blount and Lenawee soils, which make up the open parts of the complex, are used mainly for lawns, gardens, windbreaks, ornamental or wildlife planting, and open space and to a lesser extent for parks and woodland. The Blount soils are fairly suited to use as sites for lawns, vegetable and flower gardens, and trees and shrubs. The Lenawee soils, unless drained, are poorly suited to these uses. These soils are poorly suited to recreation uses.

If grasses, flowers, vegetables, trees, and shrubs are grown, the main management concerns are removing excess water and maintaining the organic matter content and tilth of the soil. Surface and subsurface drainage can be used successfully on this soil; however, onsite evaluation is needed to determine the best method of drainage for a particular area. The content of organic matter in the soil can be maintained by adding compost material or by plowing under grasses or legumes, such as clover, each year. Soil tilth can be maintained by not working the soil while it is wet and by adding suitable materials to increase the aeration of the soil and make it easier for the roots to penetrate the clay. Working the soil when it is wet causes the soil to become cloddy and compact. Perennial plants that are selected for planting should have a fairly high tolerance for wetness. In areas where the subsoil has been exposed during construction or landforming, suitable topsoil should be added.

The Blount and Lenawee soils are poorly suited to building site development because of wetness. They should not be used as sites for buildings with basements. If these soils are used as sites for buildings without basements, the use of surface and subsurface drains to lower the water table and the use of well compacted fill to raise the site help to overcome the wetness limitation. These soils generally are not suited to use as septic tank absorption fields because of wetness and slow or moderately slow permeability. Sanitary facilities should be connected to public sewers and sewage treatment facilities.

This complex is not assigned to interpretive groupings.

59—Urban land. This miscellaneous area consists of nearly level and sloping land that is covered by commercial buildings, condominiums and apartment buildings, parking lots, streets, sidewalks, driveways, railroad yards, industrial complexes, and other structures. These structures cover about 85 percent or more of the mapped area.

Included with the Urban land in mapping are some small areas of sandy to clayey soils.

Urban land is not assigned to interpretive groupings.

60B—Urban land-Marlette complex, 0 to 8 percent slopes. This complex consists of Urban land and nearly level to gently rolling, moderately well drained Marlette soils on knolls, ridges, and side slopes. Areas of this complex are 10 to 500 or more acres and contain 40 to 75 percent Urban land and 20 to 30 percent Marlette soils. The areas of Urban land and Marlette soils are so intermingled or so small that mapping them separately is not practical at the scale used.

The Urban land is covered by streets, sidewalks, driveways, parking lots, houses, and other structures that so obscure or alter the soils that identification of the soils is not feasible.

Typically, the Marlette soils have a surface layer of dark grayish brown sandy loam about 7 inches thick. The

Ap—0 to 8 inches; dark grayish brown (10YR 4/2) gravelly sandy loam; brown (10YR 5/3) dry; weak medium granular structure; friable; common fine roots; 25 percent pebbles and cobbles; slightly acid; abrupt smooth boundary.

A2—8 to 15 inches; pale brown (10YR 6/3) gravelly sandy loam; weak medium subangular blocky structure; friable; few fine roots; 25 percent pebbles and cobbles; slightly acid; clear wavy boundary.

B21t—15 to 26 inches; yellowish brown (10YR 5/6) gravelly sandy clay loam; weak medium subangular blocky structure; friable; few fine roots; few thin clay films on faces of peds; 45 percent pebbles and cobbles; slightly acid; gradual wavy boundary.

B22t—26 to 33 inches; dark brown (7.5YR 4/4) very gravelly sandy clay loam; weak medium subangular blocky structure; friable; common thin clay films on faces of peds and on pebbles and cobbles; 55 percent pebbles and cobbles; neutral; gradual wavy boundary.

B3—33 to 46 inches; light yellowish brown (10YR 6/4) gravelly sandy loam; weak medium subangular blocky structure; friable; 50 percent pebbles and cobbles; mildly alkaline; abrupt irregular boundary.

IIc—46 to 60 inches; pale brown (10YR 6/3) gravelly sand; single grain; loose; 30 percent pebbles and cobbles; strong effervescence; moderately alkaline.

The solum is 32 to 66 inches thick. It is medium acid to neutral in the upper part and slightly acid to mildly alkaline in the lower part. The content of pebbles and cobbles averages 35 to 65 percent in the solum. The amount of cobbles generally increases with depth.

The Ap or A1 horizon has value of 3 or 4 and chroma of 2 or 3. The A2 horizon has value of 5 or 6 and chroma of 3 or 4. The A horizon is dominantly gravelly sandy loam, but the range includes cobbly sandy loam and gravelly or cobbly loamy sand.

The B2t horizon has hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 4 or 6. It consists of gravelly or cobbly phases of sandy clay loam, loam, or sandy loam.

The IIc horizon has value of 5 or 6 and chroma of 3 to 6.

Marlette series

The Marlette series consists of well drained or moderately well drained, moderately slowly permeable soils on till plains and moraines. These soils formed in calcareous loamy glacial till. The slope range is 1 to 35 percent.

The Marlette soils commonly are adjacent to the Capac, Fox, and Owosso soils on the landscape. The Capac soils are somewhat poorly drained and are on lower positions on the landscape than the Marlette soils. The Fox soils are more permeable and are on landscape positions similar to those of the Marlette soils. The

Owosso soils are coarser textured in the A horizon and upper part of the B horizon and are on the top of knolls or ridges.

Typical pedon of Marlette sandy loam, 1 to 6 percent slopes, 670 feet east and 80 feet south of the NW corner of sec. 11, T. 5 N., R. 7 E.

Ap—0 to 8 inches; dark grayish brown (10YR 4/2) sandy loam, light brownish gray (10YR 6/2) dry; moderate medium granular structure; friable; many fine roots; 3 percent pebbles; medium acid; abrupt smooth boundary.

B&A—8 to 22 inches; dark yellowish brown (10YR 4/4) clay loam (B part) and brown (10YR 5/3) sandy loam, light gray (10YR 7/2) dry (A part) as coatings more than 2 millimeters thick on faces of peds and along worm and root channels; moderate medium subangular blocky structure; firm; common fine roots to a depth of 14 inches, then few fine roots; dark grayish brown (10YR 4/2) wormcasts; 4 percent pebbles; slightly acid; clear wavy boundary.

B2t—22 to 31 inches; yellowish brown (10YR 5/4) clay loam; few fine faint yellowish brown (10YR 5/6) and dark yellowish brown (10YR 4/4) mottles; weak medium subangular blocky structure; firm; few fine roots; thick clay films around pebbles and faces of peds; 5 percent pebbles; slightly acid; abrupt wavy boundary.

C1—31 to 48 inches; yellowish brown (10YR 5/4) loam, common medium faint yellowish brown (10YR 5/6) mottles; massive; firm; 5 percent pebbles; slight effervescence; moderately alkaline; clear wavy boundary.

C2—48 to 60 inches; pale brown (10YR 6/3) loam; common medium distinct grayish brown (10YR 5/2) and yellowish brown (10YR 5/6) mottles; massive; firm; 5 percent pebbles; slight effervescence; moderately alkaline.

The solum is 25 to 40 inches thick. Commonly it is medium acid to neutral. In some pedons the lower part of the B2 horizon is slightly acid to mildly alkaline. Throughout the pedon, the content of pebbles and cobbles ranges from 2 to 10 percent.

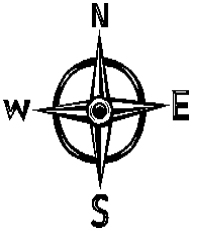
The Ap horizon has value of 3 or 4 and chroma of 2 or 3. The value dry is 6. Wooded areas have a thin A1 horizon having value of 2 or 3 and chroma of 1 or 2. The A2 horizon, if present, has hue of 10YR, value of 5 or 6, and chroma of 2 or 3. The A horizon is dominantly sandy loam or loam, but the range includes silt loam.

The Bt horizon has value of 4 or 5 and chroma of 3 to 6. It is loam, sandy clay loam, or clay loam.

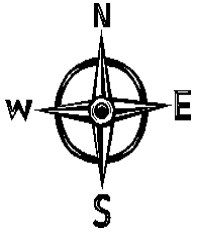
The C horizon has value of 4 to 6 and chroma of 2 or 3. It is loam or clay loam.

AERIAL PHOTOGRAPHS



	Location: 770 South Adams Road, Birmingham, Michigan	
	PM Project No. 02-6286-0	
	Aerial Year: 1940	
	Source: Michigan State University Aerial Archive	

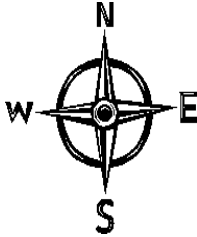


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	Aerial Year: 1949	
	Source: Wayne State University Aerial Archive	

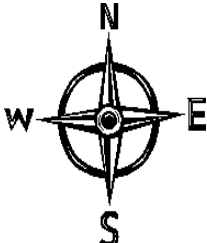


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	PM Project No. 02-6286-0	
	Aerial Year: 1957	
	Source: Wayne State University Aerial Archive	

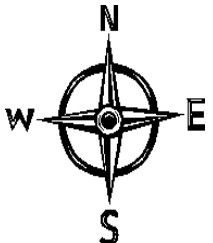


	Location: 770 South Adams Road, Birmingham, Michigan	
	PM Project No. 02-6286-0	
	Aerial Year: 1967	
	Source: Wayne State University Aerial Archive	



	Location: 770 South Adams Road, Birmingham, Michigan	
	PM Project No. 02-6286-0	
	Aerial Year: 1990	
	Source: Oakland County Planning and Economic Development Services	



	Location: 770 South Adams Road, Birmingham, Michigan	
	PM Project No. 02-6286-0	
	Aerial Year: 2012	
	Source: Oakland County Planning and Economic Development Services	

SANBORN FIRE INSURANCE MAPS

770 South Adams Road

770 South Adams Road
Birmingham, MI 48009

Inquiry Number: 3530350.3
February 27, 2013

Certified Sanborn® Map Report

Certified Sanborn® Map Report

2/27/13

Site Name:

770 South Adams Road
770 South Adams Road
Birmingham, MI 48009

Client Name:

PM Environmental, Inc.
3340 Ranger Road
Lansing, MI 48906

EDR Inquiry # 3530350.3

Contact: Candice Wilkins



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Site Name: 770 South Adams Road
Address: 770 South Adams Road
City, State, Zip: Birmingham, MI 48009
Cross Street:
P.O. # 02-6286-0
Project: 02-6286-0
Certification # 10D0-429D-A108



Sanborn® Library search results
Certification # 10D0-429D-A108

Maps Provided:

1960
1949
1931
1926
1921

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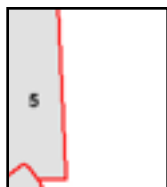
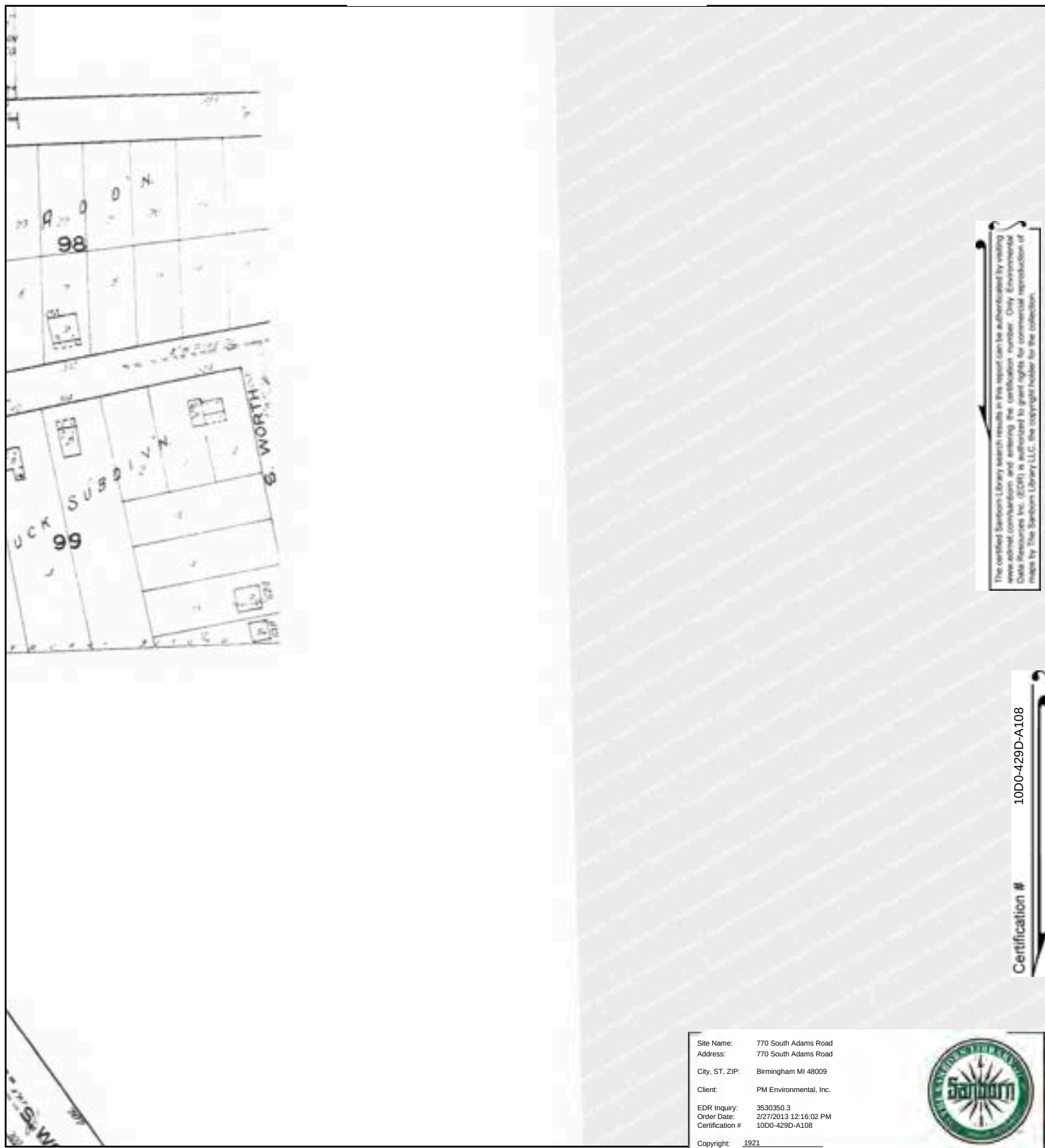
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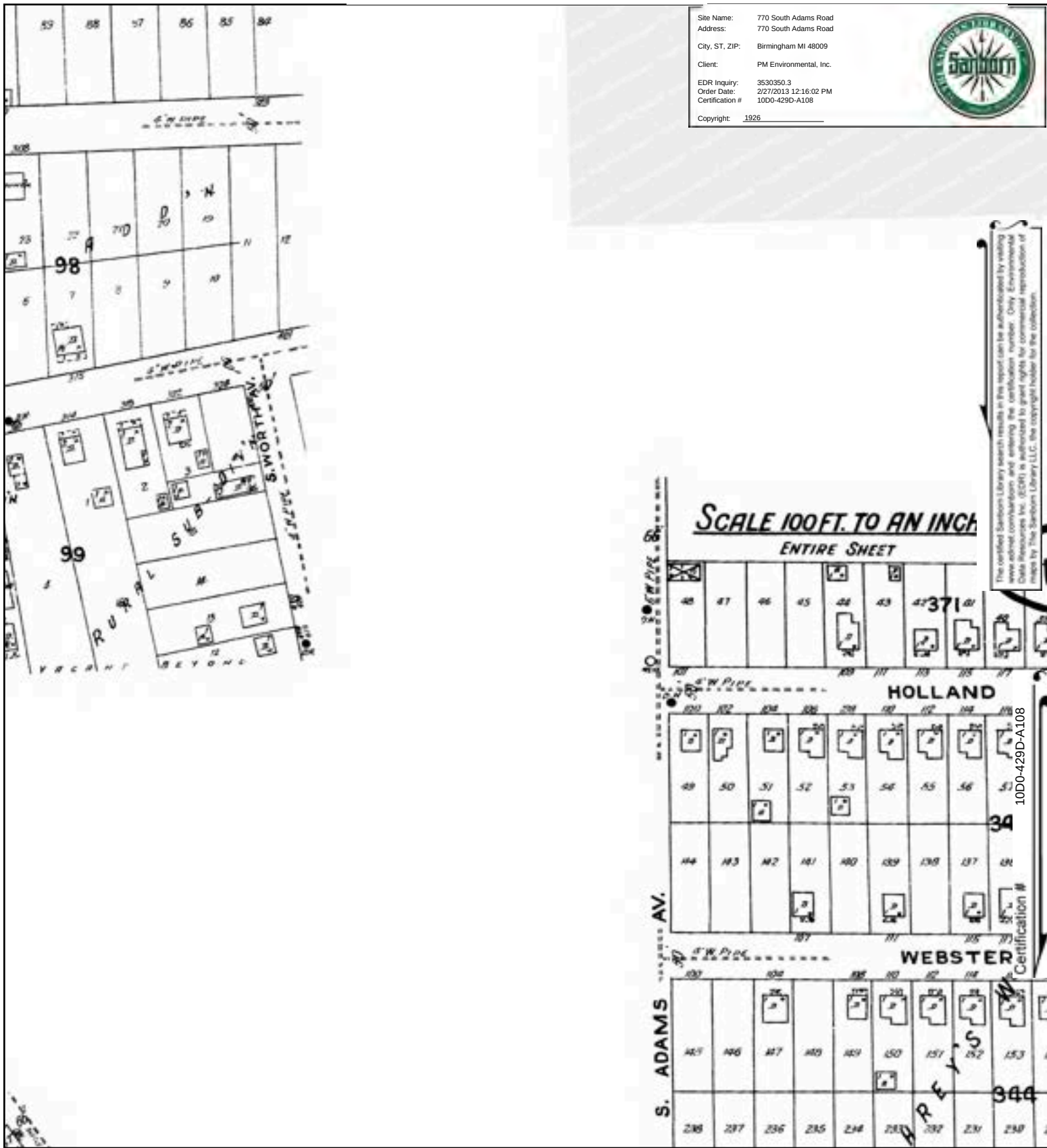
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1921 Certified Sanborn Map

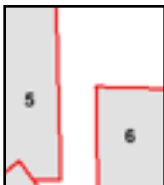
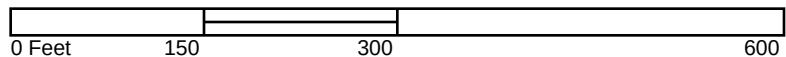


Volume 1, Sheet 5

1926 Certified Sanborn Map



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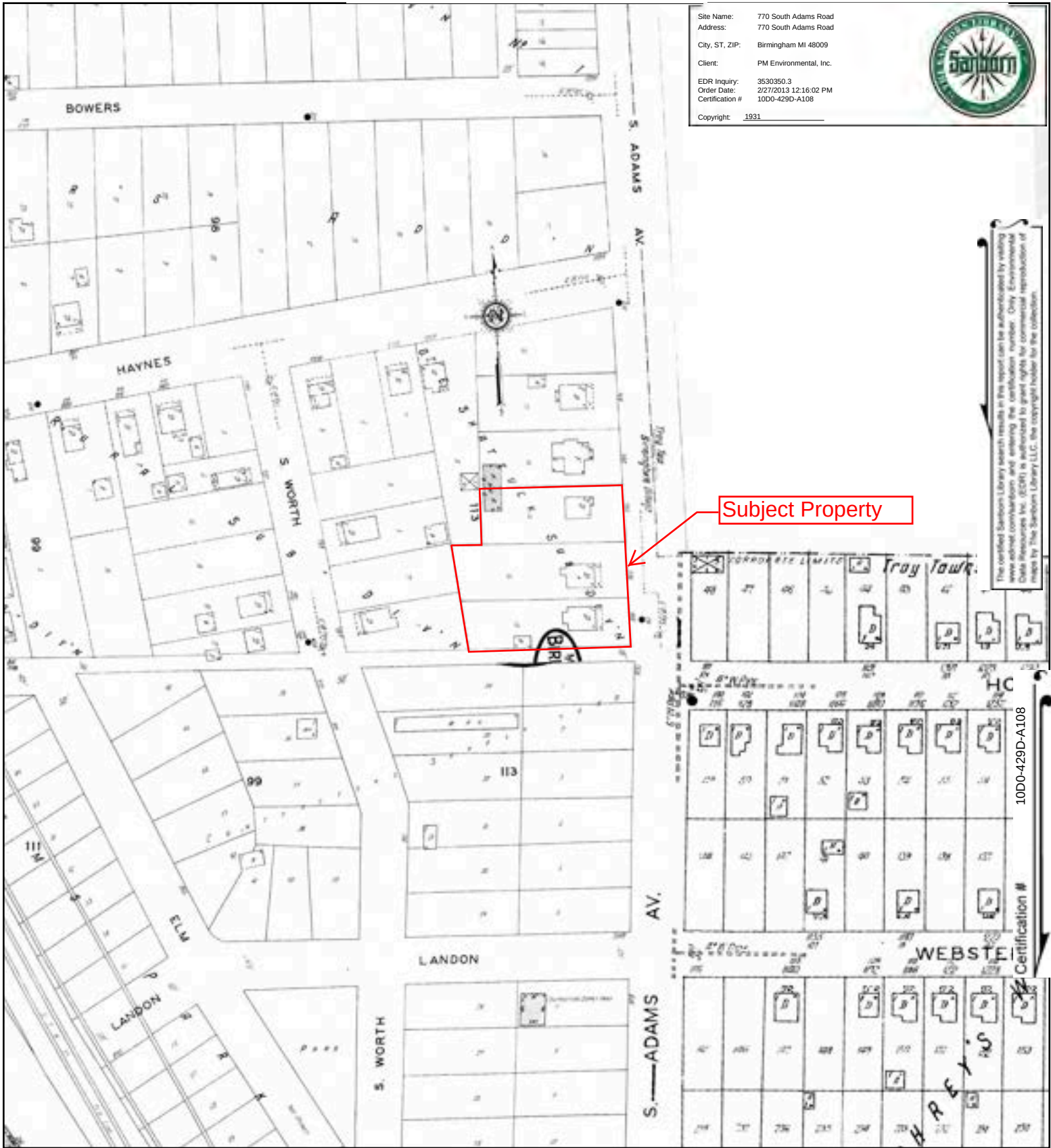


Volume 1, Sheet 5
Volume 1, Sheet 6



1931 Certified Sanborn Map

Site Name: 770 South Adams Road
 Address: 770 South Adams Road
 City, ST, ZIP: Birmingham MI 48009
 Client: PM Environmental, Inc.
 EDR Inquiry: 3530350.3
 Order Date: 2/27/2013 12:16:02 PM
 Certification #: 1000-429D-A108
 Copyright: 1931

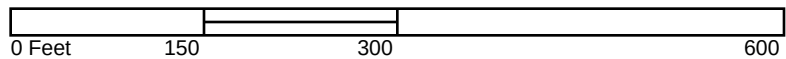


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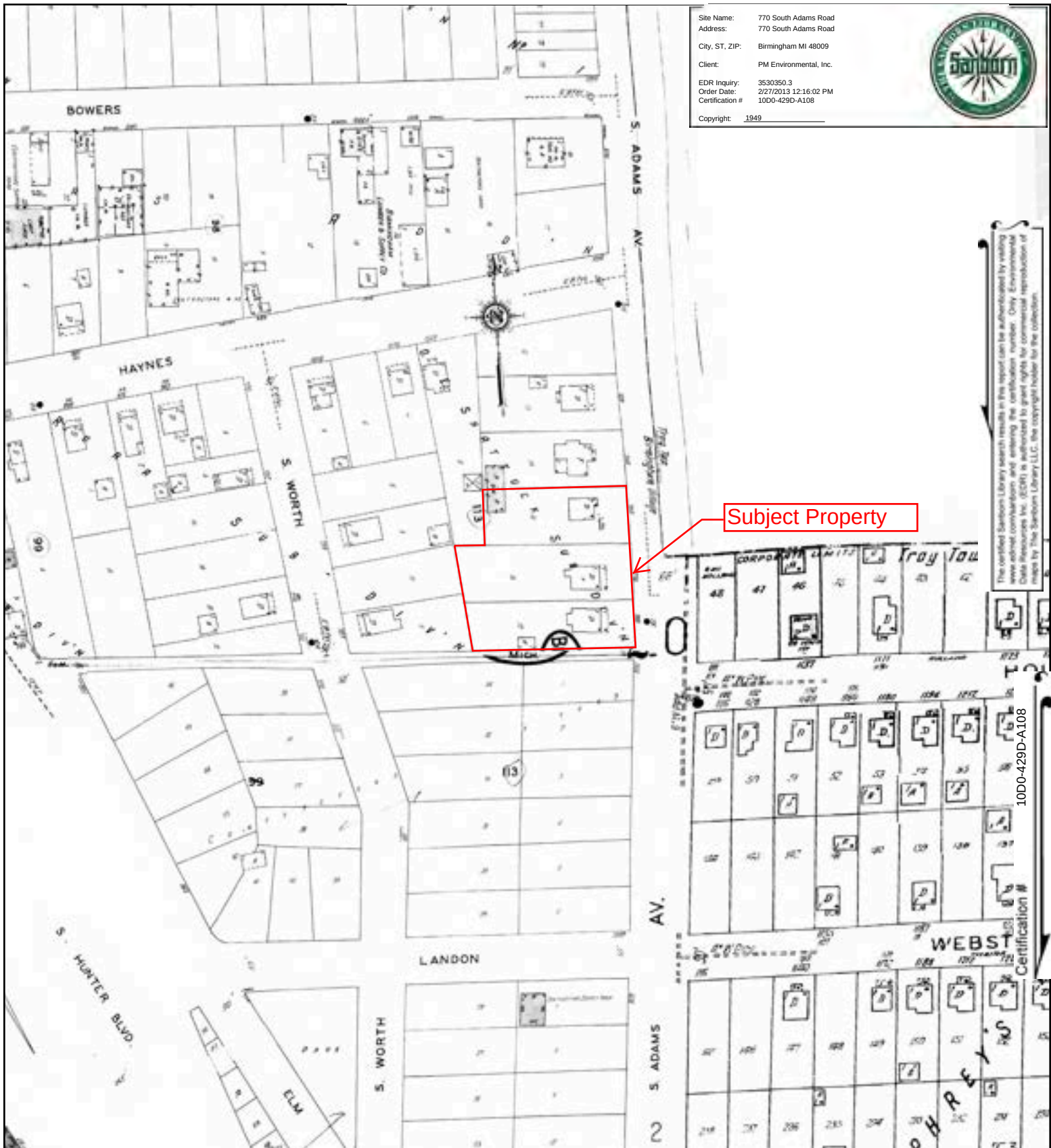
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Volume 1, Sheet 20
 Volume 1, Sheet 21
 Volume 1, Sheet 23



1949 Certified Sanborn Map

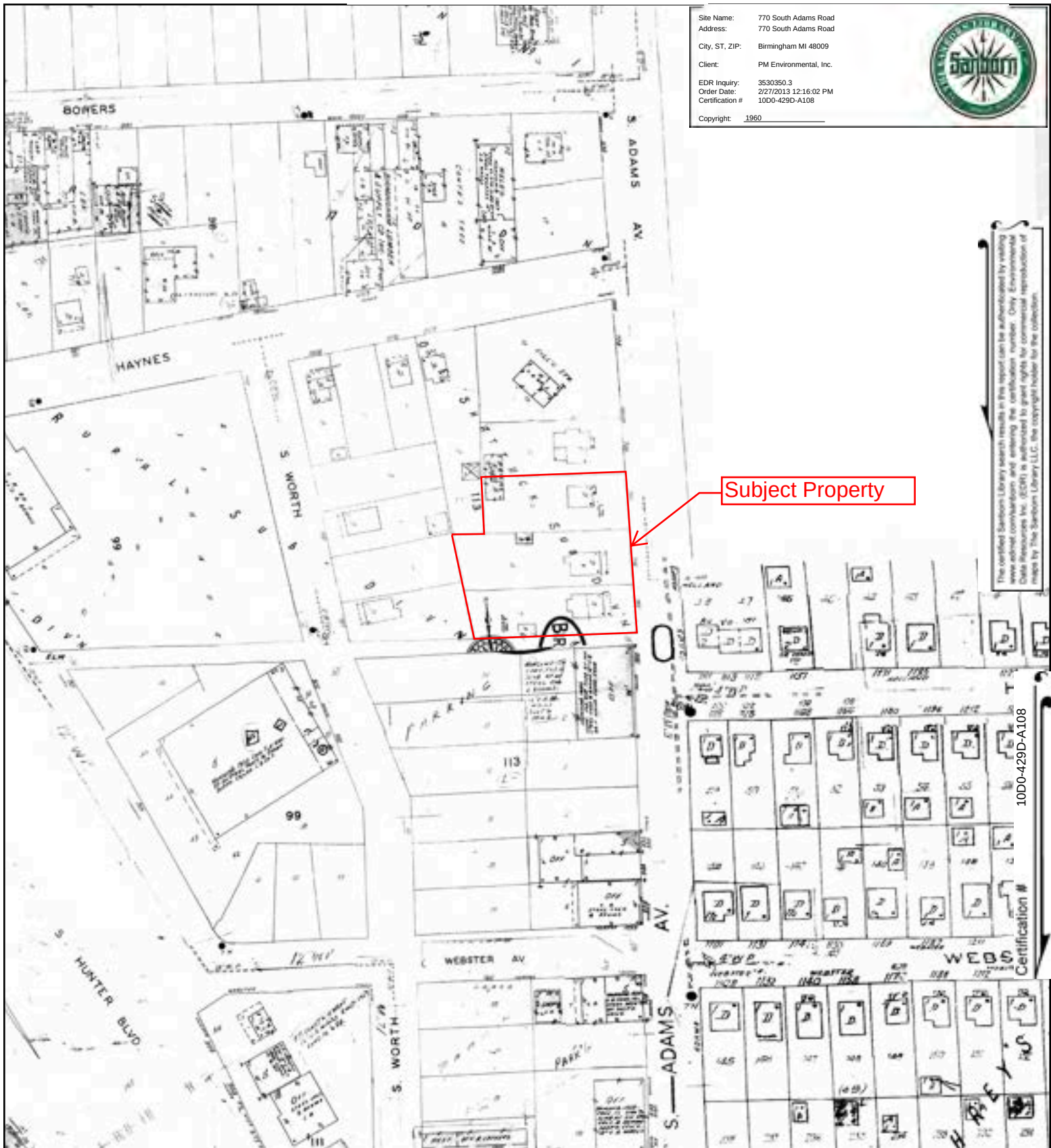


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Volume 1, Sheet 20
 Volume 1, Sheet 21
 Volume 1, Sheet 23

1960 Certified Sanborn Map



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 EDR Inquiry: 3530350.3
 Order Date: 2/27/2013 12:16:02 PM
 Certification #: 1000-429D-A108
 Copyright: 1960

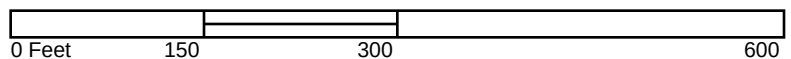


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Certification #

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Volume 1, Sheet 20
 Volume 1, Sheet 21
 Volume 1, Sheet 23



ASSESSING DEPARTMENT RECORDS

Grantor	Grantee	Sale Price	Sale Date	Inst Type	Terms of Sale	Liber & Page	Verified by	Prct Trans																														
Property Address 770 S ADAMS RD		Class: 201 Bus Imp	Zoning: BI	Building Permit(s)		Date	Number	Status																														
Owner's Name/Address BIRMINGHAM GROUP SHORE FINANCIAL SERVICES 251 MERRILL 2ND FLOOR BIRMINGHAM MI 48009-0000		School: 030 Birmingham City Sch		Alteration/Remodel		07/31/2008	0808B0907	Closed																														
		P.R.E. 0%		SelectCategory		01/01/0000	0803284100554	Closed																														
		ITOnly: POST																																				
		2012 Est TCV 2,457,343 TCV/TFA: 178.07																																				
Description T2N, R10E, SEC 36 O E SHATTUCK SUB LOTS 15, 16 & 17		X Improved	Vacant	Land Value Estimates for Land Table COM.COMM IND LAND RATES 2011																																		
Comments/Influences 10/16/09 - Permit to repair stairwell - complete. Rev'd bldg stories, quality. Closed permit. #28		Public Improvements		* Factors * <table border="1"> <thead> <tr> <th>Description</th> <th>Frontage</th> <th>Depth</th> <th>Front</th> <th>Depth</th> <th>Rate</th> <th>%Adj.</th> <th>Reason</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>COM/IND RA ww/nse</td> <td>.51-1+ac</td> <td>29392</td> <td>SqFt</td> <td>41.40</td> <td>100</td> <td></td> <td></td> <td>1,216,829</td> </tr> <tr> <td colspan="8">1 Actual Front Feet, 0.67 Total Acres</td> <td>Total Est. Land Value = 1,216,829</td> </tr> </tbody> </table>					Description	Frontage	Depth	Front	Depth	Rate	%Adj.	Reason	Value	COM/IND RA ww/nse	.51-1+ac	29392	SqFt	41.40	100			1,216,829	1 Actual Front Feet, 0.67 Total Acres								Total Est. Land Value = 1,216,829			
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1 Actual Front Feet, 0.67 Total Acres								Total Est. Land Value = 1,216,829																														
		< Land Improvement Cost Estimates > <table border="1"> <thead> <tr> <th>Description</th> <th>Rate</th> <th>CountyMult.</th> <th>Size</th> <th>%Good</th> <th>Cash Value</th> </tr> </thead> <tbody> <tr> <td>Commercial/Industrial Local Cost Land Improvements</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Description</td> <td>Rate</td> <td>CountyMult.</td> <td>Size</td> <td>%Good</td> <td>%Arch.Mult</td> <td>Cash Value</td> </tr> <tr> <td>PA1-AsphaltPaving</td> <td>1.53</td> <td>1.00</td> <td>18156.0</td> <td>60</td> <td>100</td> <td>16,667</td> </tr> <tr> <td colspan="6">Total Estimated Land Improvements True Cash Value = 16,667</td> </tr> </tbody> </table>		Description	Rate	CountyMult.	Size	%Good	Cash Value	Commercial/Industrial Local Cost Land Improvements						Description	Rate	CountyMult.	Size	%Good	%Arch.Mult	Cash Value	PA1-AsphaltPaving	1.53	1.00	18156.0	60	100	16,667	Total Estimated Land Improvements True Cash Value = 16,667								
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PA1-AsphaltPaving	1.53	1.00	18156.0	60	100	16,667																																
Total Estimated Land Improvements True Cash Value = 16,667																																						
		Topography of Site																																				
		X Level	Rolling																																			
			Low																																			
			High																																			
			Landscaped																																			
			Swamp																																			
			Wooded																																			
			Pond																																			
			Waterfront																																			
			Ravine																																			
			Wetland																																			
			Flood Plain																																			
The Equalizer. Copyright (c) 1999 - 2000. Licensed to: Oakland County Equalization.		Who	When	What	Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/ Other	Taxable Value																											
		028	10/16/2009	Building	2012	608,410	620,260	1,228,670			718,090C																											
		043	04/11/2002	Other	2011	676,020	690,660	1,366,680			699,220C																											
		010	10/20/1997	Other	2010	793,580	750,350	1,543,930			687,540C																											
					2009	881,760	1,146,590	2,028,350			689,610C																											

Commercial/Industrial Building/Section 1 of 1

Parcel Number: 63-08-19-36-283-016

Printed on 03/08/2013

Desc. of Bldg/Section: Building 1, Section 1 Calculator Occupancy: Office Building										Printed on 05/05/2015 <<<<<< Calculator Cost Computations >>>>>> Class: C Quality: Average Percent Adj: +0									
Class: C Floor Area: 13,800 Stories Above Grd: 2 Average Sty Hght : 12 Bsmnt Wall Hght : 12					Construction Cost <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">High</td> <td style="width:15%;">Above Ave.</td> <td style="width:15%;">Ave.</td> <td style="width:15%; text-align: center;">X</td> <td style="width:15%;">Low</td> </tr> </table>					High	Above Ave.	Ave.	X	Low	Base Rate for Upper Floors = 76.50 Basement Units Basement, Base Rate for Basement = 54.45 (10) Heating system: Hot Water, Baseboard/Radiators Cost/SqFt: 3.35 100% (10) Heating system: Refrigerated A.C. only Cost/SqFt: 7.15 100% Combined Heating System adjustment: 10.50 200% Bsmnt Heating system: Hot Water, Baseboard/Radiators Cost/SqFt: 3.35 Adjusted Square Foot Cost for Upper Floors = 87.00 Adjusted Square Foot Cost for Basement = 57.80				
					High	Above Ave.	Ave.	X	Low										
** ** Calculator Cost Data ** ** Quality: Average Adj: +0 \$/SqFt:0.00 Heat#1: Hot Water, Baseboard/Radiators 100% Heat#2: Refrigerated A.C. only 100% Ave. SqFt/Story: 6900 Ave. Perimeter: 392 Has Elevators: X																			
Depr. Table : 2% Effective Age : 33 Physical %Good: 51 Func. %Good : 100 Economic %Good: 100					*** Basement Info *** Area: 6900 Perimeter: 392 Type: Basement Units Heat: Hot Water, Baseboard/Radiators					2 Stories Number of Stories Multiplier: 1.000 Average Height per Story: 12 Height per Story Multiplier: 1.000 Ave. Floor Area: 6,900 Perimeter: 392 Perim. Multiplier: 0.996 Basement Area: 6,900 Perimeter: 392 Basement Perim. Multiplier: 0.996 Basement Height: 12 Basement Height Multiplier: 1.000 Refined Square Foot Cost for Upper Floors: 86.65 Refined Square Foot Cost for Basement: 57.57 County Multiplier: 1.46, Final Square Foot Cost for Upper Floors = 126.512 for Basement = 84.050									
1964 Year Built Remodeled																			
24 Overall Bldg Height					* Mezzanine Info * Area #1: Type #1: Area #2: Type #2:					Total Floor Area: 13,800 Base Cost New of Upper Floors = 1,745,864 1,449 Sq.Ft. of Sprinklers @ 3.87, County Mult.:1.46 Cost New = 8,187 Computations Too Long. Print on separate sheet. >>>>> ECF (E.C.F. Table COF) 0.830 => TCV of Bldg: 1 = 1,223,847 Replacement Cost/Floor Area= 169.13 Est. TCV/Floor Area= 88.68									
Comments:																			
* Sprinkler Info * Area: 1449 Type: Average																			

(1) Excavation/Site Prep:				(7) Interior:				(11) Electric and Lighting:				(39) Miscellaneous:			
(2) Foundation:				(8) Plumbing:				Outlets:				Fixtures:			
X Poured Conc.		Brick/Stone		Block		Many Above Ave.		Average Typical		Few None		Few Average		Few Average	
(3) Frame:				Total Fixtures		Urinals		Many Average		Many Average		(40) Exterior Wall:			
				3-Piece Baths		Wash Bowls		Many Unfinished		Many Unfinished					
(4) Floor Structure:				2-Piece Baths		Water Heaters		Typical		Typical		Thickness Bsmnt Insul.			
				Shower Stalls		Wash Fountains		Flex Conduit		Incandescent					
(5) Floor Cover:				Toilets		Water Softeners		Armored Cable		Mercury		(13) Roof Structure: Slope=0			
								Non-Metallic		Sodium Vapor					
(6) Ceiling:				(9) Sprinklers:				(14) Roof Cover:							
				(10) Heating and Cooling:											
				Gas Oil		Coal Stoker		Hand Fired Boiler							

BUILDING DEPARTMENT RECORDS



151 Martin Street, Birmingham, MI 48009
Telephone: (248) 530-1800; Fax: (248) 530-1080

DATE
FILED: _____

5-DAY DUE
DATE: _____

10-DAY DUE
DATE: _____

**REQUEST FOR PUBLIC RECORD
FREEDOM OF INFORMATION
Authority: MCL 15.231, et seq**

A person desiring to inspect or receive a copy of a public record must give **WRITTEN REQUEST** for the public record to the Freedom of Information Act (FOIA) coordinator. A written request may be made by facsimile, electronic mail, or other electronic transmission, but it is not considered to have been received by the FOIA coordinator until one business day after the electronic transmission is made.

STATEMENT OF APPLICANT: I am requesting copies under FOIA. Based on the City of Birmingham's approved FOIA policy, I am submitting 50% of the estimated total costs, (if the estimate fee exceeds \$50) and confirm the balance of the fees incurred will be paid before the public record(s) are released to me. I understand the city must respond to my request within five (5) business days after it is received. The city must grant or deny all, or a portion of my request, or issue a notice extending for ten (10) business days, the period in which the city must respond to my request.

PRINT NAME Andrea Magar

ADDRESS 4080 W. Eleven Mile Rd., Berkley, MI 48072

PHONE 248-336-9988

I hereby certify that the above information is correct and agree to reimburse the City of Birmingham for any costs incurred in processing this request that are allowable under the Michigan Freedom of Information Act. **I further acknowledge that my identity is subject to disclosure.**

SIGNATURE Andrea Magar

DESCRIPTION OF PUBLIC RECORD(S) REQUESTED: Describe in detail the information being requested. PLEASE BE SPECIFIC. If the request is unclear, it could prevent the city from providing the information.

770 South Adams Road, Birmingham

Building permits and applications, surveys and elevation plans, inspection records and

notices of violations. We would like to review the files.

OFFICE USE ONLY:

DEPARTMENT(S): _____
ESTIMATED COST: _____
DEPOSIT PAID: _____
DISPOSITION DATE: _____
COMPLETED BY: _____
FINAL COST: _____

BASIC INTENT: The Freedom of Information Act regulates and sets requirements for the disclosure of public records by all "public bodies" in the state.

KEY DEFINITIONS:

"Public Body" means:

- A state officer, employee, agency, department, division, bureau, board, commission, council, authority, or other body in the executive branch of the state government, but does not include the governor or employees thereof;
- An agency, board, commission or council in the legislative branch of the state government;
- A county, city, township, village, inter-county, intercity, or regional governing body, council, school district, special district, or municipal corporation, or a board, department, commission, council or agency thereof;
- Any other body which is created by state or local authority or which is primarily funded by or through state or local authority.

"Public records" means a writing prepared, owned, used, in the possession or, retained by a public body in the performance of an official function, from the time it is created. The term does not include computer software.

PUBLIC RECORDS OPEN TO DISCLOSURE:

In general, all records except those specifically cited as the Freedom of Information Act covers exceptions. The records include working papers and research material, minutes of open and closed meetings, officials' voting records, staff manuals, final orders or decisions in contested cases and the records on which they are made, and promulgated rules. Other written statements, which implement or interpret laws, rules or policy, including, but not limited to, guidelines, manuals and forms with instructions, adopted or used by the agency in the discharge of its functions, are also included. It does not matter what form the record is in. *The city is not required to create a report or document that does not already exist.* The act applies to any handwriting, typewriting, printing, photo stating, photographing, photocopying and every other means of recording. It includes letters, words, pictures, sound or symbols, or combinations thereof, as well as papers, maps, magnetic or punched cards, discs, drums, or other means of the recording or retaining meaningful content, but not computer software.

FIRE DEPARTMENT RECORDS



ISO 9001 REGISTERED

Lansing
3340 Ranger Road
Lansing, MI 48906
f: 877-884-6775
t: 517-321-3331

Detroit
4080 W. 11 Mile Rd
Berkley, MI 48072
f: 877-884-6775
t: 248-336-9988

Grand Rapids
77 Monroe Center, NW
Suite 602
Grand Rapids, MI 49503
f: 877-884-6775
t: 616-285-8857

VIA FACSIMILE (248) 646-5129

February 26, 2013

Attn: FOIA Coordinator
Birmingham Fire Department
Birmingham, MI

Records Coordinator:

Please accept this request to review available file information regarding the following address:

- 770 South Adams Road, Birmingham

I would like to review available information; please call me at (248) 336-9988 to set up a time to review the file.

We are particularly interested in any current or historical records of fires, spills, chemical storage or other violations that may indicate the site is contaminated or has some sort of environmental concern associated with it.

We would also be interested in historical sketches / layouts of the building and property or any indication of underground or above ground storage tanks as well as records or information on fire inspections, fire drills, emergence evacuation plans, fire extinguishing/sprinkler system diagrams and maintenance inspections.

Please call me at 248-336-9988 to set up a time to review and possibly copy the files. I sincerely appreciate your assistance in this matter and look forward to a timely response that you may be able to offer within your current work load. If you have any questions or concerns, please feel free to contact me at the number above. Thank you.

Sincerely,
PM Environmental, Inc.

A handwritten signature in black ink that reads "Andrea Magar".

Andrea Magar
Staff Consultant
4080 W 11 Mile Rd
Berkley MI 48072
PME Number: 02-6286-0

HEALTH DEPARTMENT RECORDS

VIA FACSIMILE (248) 452-9758

February 27, 2013

FOIA Coordinator
Environmental Health Services
Oakland County Health Division
County Complex
1200 North Telegraph Road
Pontiac, MI 48341

Dear FOIA Coordinator:

Please accept this request for copies of information in your files relative to the following site:

770 South Adams Road, Birmingham (PID C-19-36-283-016)

Information we are interested in obtaining includes:

- Results of water quality testing, conducted on any Type II water wells located on the property
- Well log and septic information
- Individual files that are available for the site which may include records of health department inspections, and violations
- Any records of dry cleaning operations at the site
- Any indications of USTs or ASTs located on the site.

Please contact us regarding the availability of information and potential fees associated with reproduction, *prior to reproducing any material*. We anticipate that a sanitarian will answer these questions only to their best of his/her knowledge without the need for extraneous research. We would appreciate any assistance in receiving information as soon as possible due to our scheduled deadlines. We do not need any food related records.

Please call if you have any questions or concerns regarding this request at 813-731-1177 or email me at wilkins@pmenv.com. Please fax your response to my attention at 877-884-6775 or if it is too large mail to the address below. Thank you.

Sincerely,
PM Environmental, Inc.,



Candice Wilkins
Staff Researcher
4897 W. Waters Ave. STE C
Tampa, FL 33634
PME Project No. 02-6286-0

CANDICE WILKINS
PM ENVIRONMENTAL INC
4897 W WATERS AVE STE C
TAMPA FL 33634

**RE: FOIA REQUEST 770 SOUTH ADAMS ROAD BIRMINGHAM, OAKLAND COUNTY, MI
PARCEL #: C-19-36-283-016 PROJECT #: 02-6286-0**

Dear Ms. Wilkins:

Your request is approved in part and denied in part. Per your request and a review of our records, the Oakland County Health Division (OCHD) has no information regarding on-site sewage disposal permits, water sample results, Type II files, well logs, or water well permits for the captioned property.

At this time OCHD is not conducting ongoing monitoring of any groundwater pollutants for the captioned property, nor are there files for historical monitoring on this site. This Division does not maintain files for LUSTs, ASTs or USTs for this site. OCHD does not maintain files for dry cleaning operations on this site.

Your request for information regarding "...health department inspections, and violations..." is denied for the reason that it fails to meet conditions of MCL 15.233(1) of the Freedom of Information Act, Act 442 of 1976 (FOIA), in that it does not describe a public record sufficiently to enable the public body to find the public record.

If you wish to modify your request by providing a complete list of specific concerns and properties, with date ranges for the information you desire, OCHD will provide available information in compliance with the FOIA.

It is recommended that you contact the Michigan Department of Environmental Quality as that agency has regulatory authority over certain environmental pollutants and monitoring activities. Similarly, it is advised that you contact the local water supply and sewer agencies as they may have authority over certain aspects of the captioned property. If you have any questions, please contact this Division at (248) 858-1312.

YOUR FURTHER LEGAL RIGHTS

To the extent that this response, in your opinion, constitutes a denial of your FOIA rights under the Michigan Freedom of Information Act, your statutory remedies under MCL 15.240, as required to be provided to you by the statute, are as follows:

MCL 15.240

- (1) If a public body makes a final determination to deny all or a portion of a request, the requesting person may do 1 of the following at his or her option:

a:\ehs\770 S Adams.doc foia

- (a) Submit to L. Brooks Patterson, Oakland County Executive, a written appeal that specifically states the word "appeal" and identifies the reason or reasons for reversal of the denial.
 - (b) Commence an action in the circuit court to compel the public body's disclosure of the public records within 180 days after a public body's final determination to deny the request.
- (2) Within 10 days after receiving a written appeal pursuant to subsection (1)(a), the head of the public body shall do one of the following:
 - (a) Reverse the disclosure denial.
 - (b) Issue a written notice to the requesting person upholding the disclosure denial.
 - (c) Reverse the disclosure denial in part and issue a written notice to the requesting person upholding the disclosure denial in part.
 - (d) Under unusual circumstances, issue a notice extending for not more than 10 business days the period during which the head of the public body shall respond to the written appeal. The head of the public body shall not issue more than one notice of extension for a particular written appeal.
- (3) A board or commission that is the head of a public body is not considered to have received a written appeal under subsection (2) until the first regularly scheduled meeting of that board or commission following submission of the written appeal under subsection (1)(a). If the head of the public body fails to respond to a written appeal pursuant to subsection (2), or if the head of the public body upholds all or a portion of the disclosure denial that is the subject of the written appeal, the requesting person may seek judicial review of the nondisclosure by commencing an action in the circuit court under subsection (1)(b).
- (4) In an action commenced under subsection (1)(b), a court that determines a public record is not exempt from disclosure shall order the public body to cease withholding or to produce all or a portion of a public record wrongfully withheld, regardless of the location of the public record. The circuit court of the county in which the complainant resides or has his or her principal place of business, or the circuit court for the county in which the public record or an office of the public body is located has venue over the action. The court shall determine the matter de novo and the burden is on the public body to sustain its denial. The court, on its own motion, may view the public record in controversy in private before reaching a decision. Failure to comply with an order of the court may be punished as contempt of court.
- (5) An action commenced under this section and appeal from an action commenced under this section shall be assigned for hearing and trial or for argument at the earliest practicable date and expedited in every way.
- (6) If a person asserting the right to inspect, copy, or to receive a copy of all or a portion of a public record prevails in an action commenced under to this section, the court shall award reasonable attorneys' fees, costs, and disbursements. If the person or the public body prevails in part, the court may, in its discretion, award all or an appropriate portion of reasonable attorneys' fees, costs, and disbursements. The award shall be assessed against the public body liable for damages under subsection.
- (7) If the circuit court determines in an action commenced under this section that the public body has arbitrarily and capriciously violated this act by refusal or delay in disclosing or

providing copies of a public record, the court shall award, in addition to any actual or compensatory damages, punitive damages in the amount of \$500.00 to the person seeking the right to inspect or receive a copy of a public record. The damages shall not be assessed against an individual, but shall be assessed against the next succeeding public body, that is not an individual and that kept or maintained the public record as a part of its public function.

Sincerely,

**OAKLAND COUNTY HEALTH DIVISION
Department of Health and Human Services**

Richard C. Peresky, R.E.H.S., M.S.

Richard C. Peresky, R.E.H.S., M.S.
Senior Public Health Sanitarian
Environmental Health Services

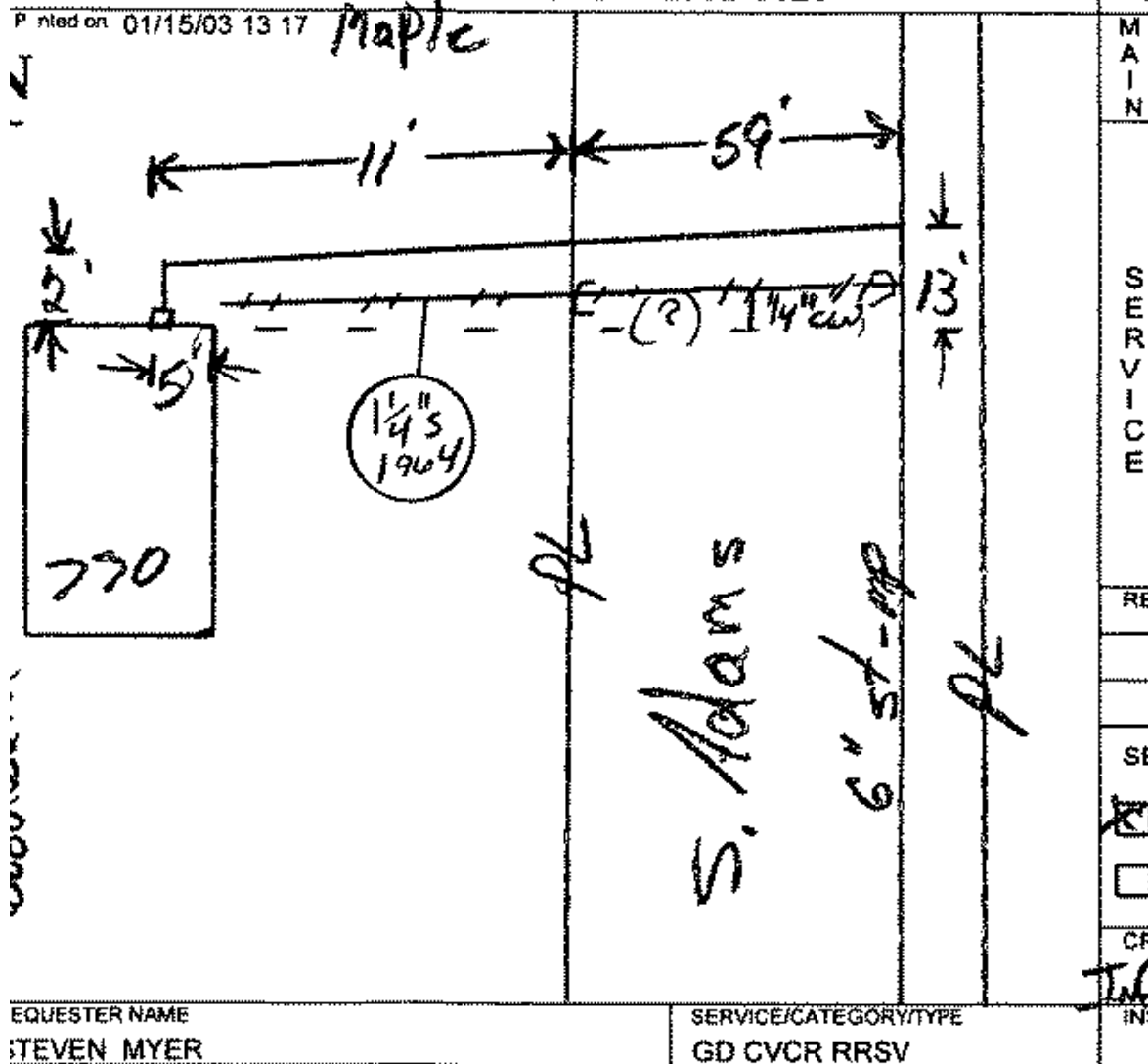
cc: Anthony Drautz, R.S., M.S.A., Administrator, Environmental Health Services

NATURAL GAS CONNECTION RECORDS

Address: **770 S ADAMS RD, BIRMINGHAM**Gas Service Extension: **1 1/8" P** , Inserted: **N** , Year Installed: **2003****ADAMS CORRIDOR RELIEF PROJECT 2002 0128**

Printed on: 01/15/03 13:17

Previous



WARNING: ALL LOCATIONS ARE APPROXIMATE. FACILITIES MAY HAVE BEEN ADDED AND/OR ALTERED AFTER MAP REVISED DATE. IF YOU ARE DIGGING, LOCATIONS MUST BE VERIFIED BY FIELD STAKING UPON REQUEST AT NO CHARGE, BY CALLING MISS DIG 3 WORKING DAYS IN ADVANCE AT 1-800-482-7171. USE OF THIS WEB SITE DOES NOT RELIEVE THE USER OF ANY LEGAL DUTY TO COMPLY WITH PUBLIC ACT 53 OF 1973 OR ANY OTHER APPLICABLE LAW, REGULATION, RULE, STANDARD, OR ORDINANCE.



72 HOURS
(3 WORKING DAYS)
**BEFORE YOU DIG
CALL MISS DIG**
800-482-7171
(TOLL FREE)

FOR QUESTIONS CONCERNING THIS MAP
PLEASE CALL 1-877-240-9602

CONSUMERS ENERGY
UNDERGROUND PLANT

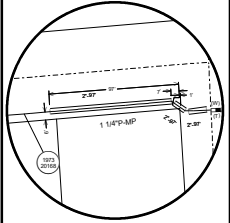
ALL LOCATIONS ARE APPROXIMATE.
SERVICES ARE NOT SHOWN. LOCATIONS
WILL BE VERIFIED BY STAKING UPON REQUEST.

ISSUED BY Gas Information Management
ON 08-09-12. FACILITIES MAY HAVE BEEN ADDED
AFTER MAP PRINTED DATE. THEREFORE,
CONSUMERS ENERGY SHALL BE CONSULTED
BEFORE ANY ACTION IS TAKEN ON THE BASIS
OF THIS MAP. THIS MAP TO BE DESTROYED
WHEN NO LONGER NEEDED.

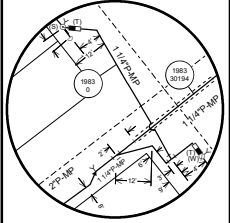
DETAILS

ELEVATIONAL DETAILS ARE NOT TO BE SHOWN
IN THIS SPACE. THEY WILL BE SHOWN ON
THE MAP, NEAR THE AREA BEING DETAILED.

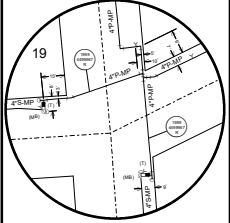
DETAIL "A"



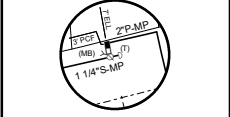
DETAIL "B"



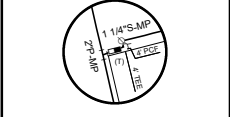
DETAIL "C"



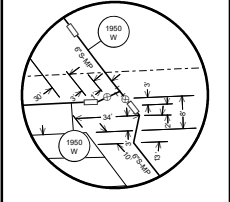
DETAIL "D"



DETAIL "E"



DETAIL "F"



02-60-36-2

ALL MEASUREMENTS ARE TAKEN FROM ACTUAL PROPERTY LINES UNLESS OTHERWISE NOTED.
CENTER LINE MEASUREMENTS ARE TAKEN FROM CENTER LINE OF EXISTING ROADWAY, UNLESS
OTHERWISE NOTED, AND MAY NOT BE CENTER LINE OF R.O.W.

02-60-25-4

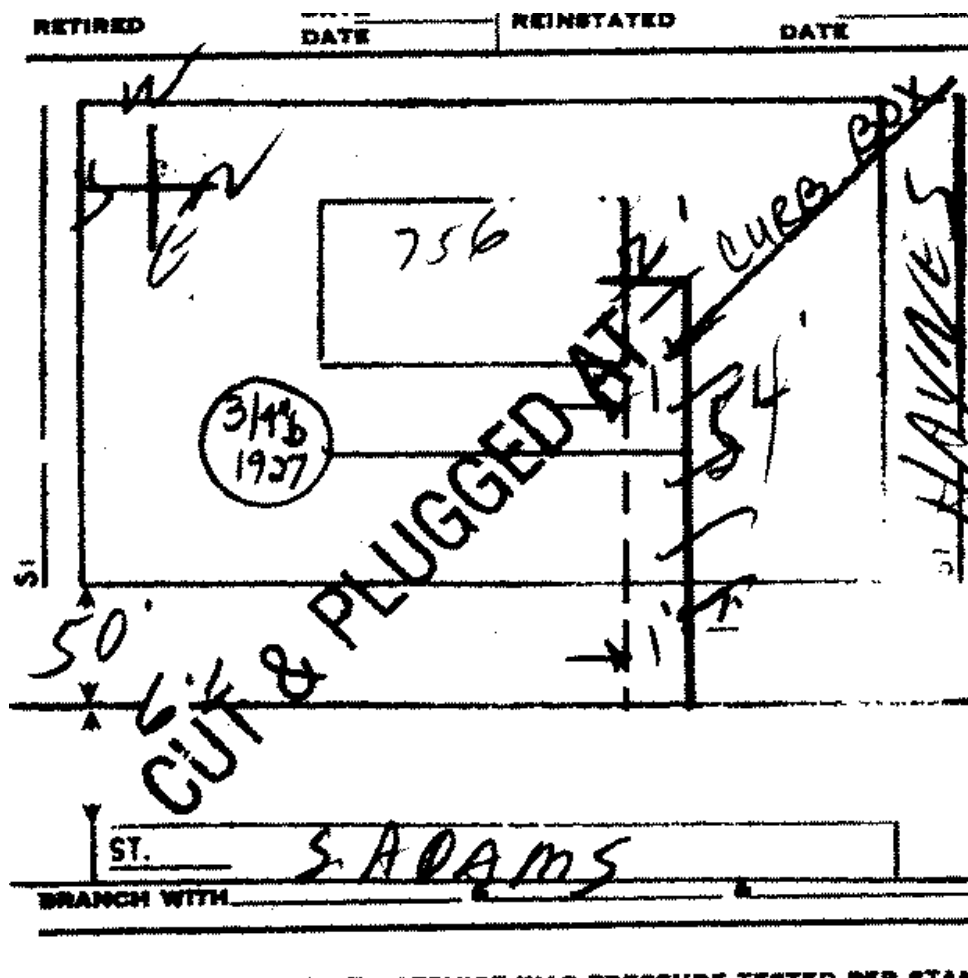


02-60-36-4

02-61-31-2

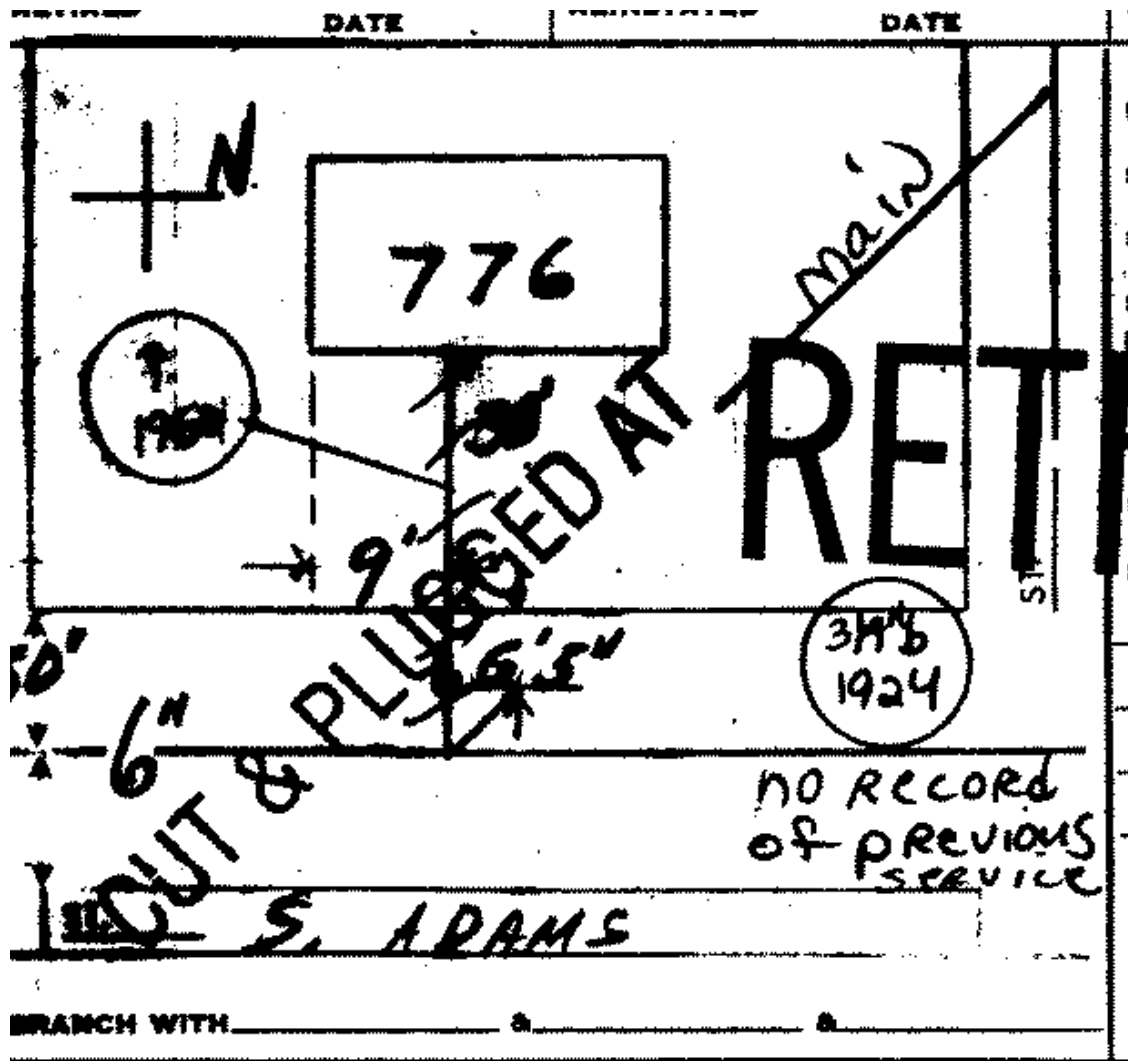
WINE PATTERNS/SECTIONS 8 5 4 3 2 1 7 2 9 10 1 12 18 17 16 15 14 13 19 20 21 22 23 24 30 3 28 27 4 25 31 32 33 34 35 36	Consumers Energy Gas Information Management	SCALE: Varies EXCEPT FOR DETAILS	QUARTER SECTION MAP TOWN RANGE SECTION 1-4 02-60-36-1 REQUEST DATE 08-09-12 REQUESTED BY PMK

This map has been plotted and approved by the GIM Conversion Team: by

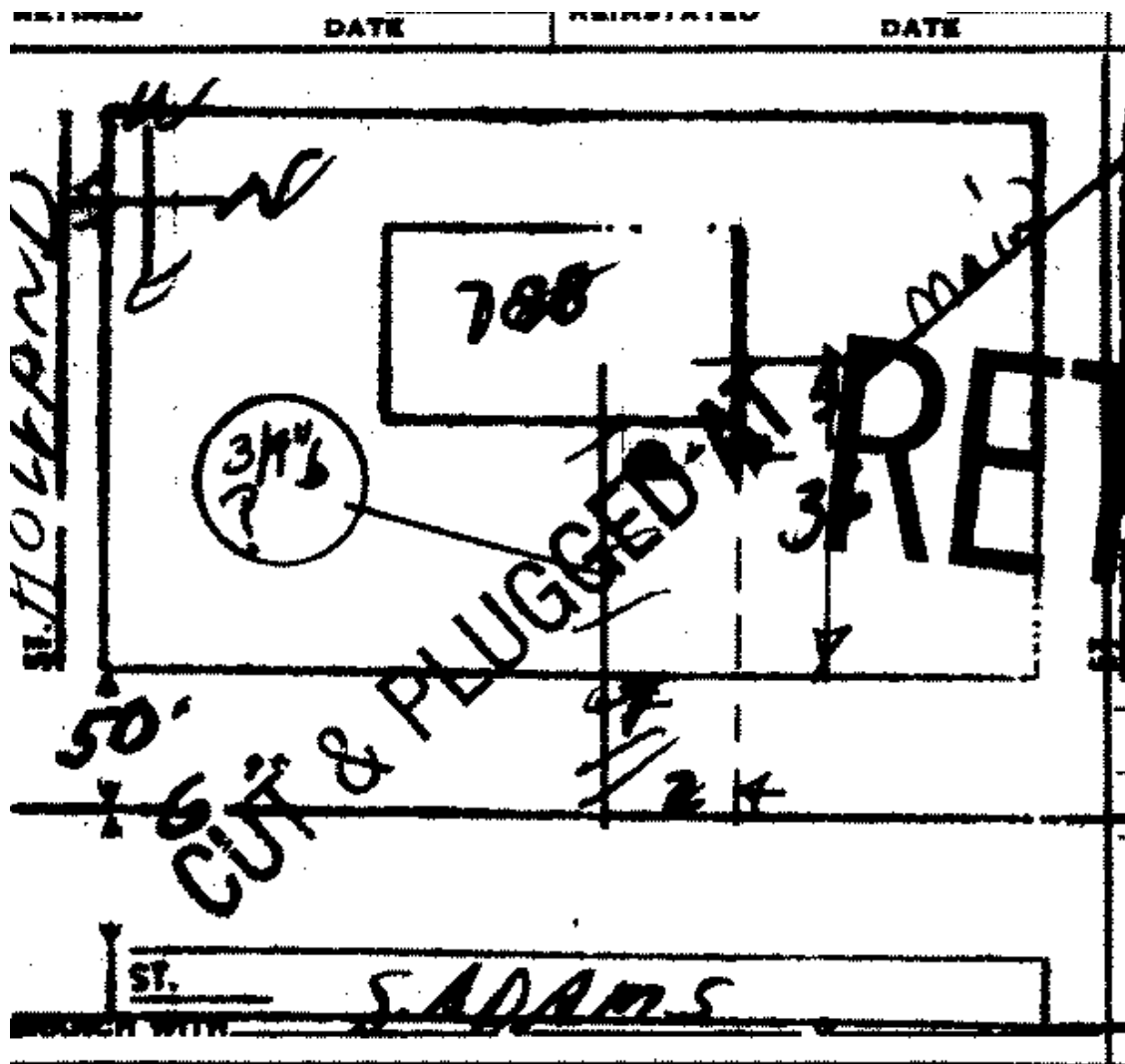
**SIMS Web****On-Line**[Distribution Map](#)[Address Search](#)[Help](#)[E-mail](#)[Logout](#)Address: **756 S ADAMS ST, BIRMINGHAM**Gas Service Extension: **None** , Inserted: **None** , Year Installed:[Printer Friendly](#)[Distribution Map](#)[Previous](#)

WARNING: ALL LOCATIONS ARE APPROXIMATE. FACILITIES MAY HAVE BEEN ADDED AND/OR ALTERED AFTER MAP REVISED DATE. IF YOU ARE DIGGING, LOCATIONS MUST BE VERIFIED BY FIELD STAKING UPON REQUEST AT NO CHARGE, BY CALLING MISS DIG 3 WORKING DAYS IN ADVANCE AT 1-800-482-7171. USE OF THIS WEB SITE DOES NOT RELIEVE THE USER OF ANY LEGAL DUTY TO COMPLY WITH PUBLIC ACT 53 OF 1973 OR ANY OTHER APPLICABLE LAW, REGULATION, RULE, STANDARD, OR ORDINANCE.

[Terms of Use](#) Copyright © 2005 **Consumers Energy** [Public Acts & Rules](#)

Address: **776 S ADAMS RD, BIRMINGHAM**Gas Service Extension: **None** , Inserted: **None** , Year Installed:[Previous](#)**CERTIFICATION OF TEST: SERVICE WAS PRESSURE TESTED PER STANDARDS**

WARNING: ALL LOCATIONS ARE APPROXIMATE. FACILITIES MAY HAVE BEEN ADDED AND/OR ALTERED AFTER MAP REVISED DATE. IF YOU ARE DIGGING, LOCATIONS MUST BE VERIFIED BY FIELD STAKING UPON REQUEST AT NO CHARGE, BY CALLING MISS DIG 3 WORKING DAYS IN ADVANCE AT 1-800-482-7171. USE OF THIS WEB SITE DOES NOT RELIEVE THE USER OF ANY LEGAL DUTY TO COMPLY WITH PUBLIC ACT 53 OF 1973 OR ANY OTHER APPLICABLE LAW, REGULATION, RULE, STANDARD, OR ORDINANCE.

Address: **788 S ADAMS RD, BIRMINGHAM**Gas Service Extension: **None** , Inserted: **None** , Year Installed:[Previous](#)**CERTIFICATION OF TEST: SERVICE WAS PRESSURE TESTED PER STANDARDS**

WARNING: ALL LOCATIONS ARE APPROXIMATE. FACILITIES MAY HAVE BEEN ADDED AND/OR ALTERED AFTER MAP REVISED DATE. IF YOU ARE DIGGING, LOCATIONS MUST BE VERIFIED BY FIELD STAKING UPON REQUEST AT NO CHARGE, BY CALLING MISS DIG 3 WORKING DAYS IN ADVANCE AT 1-800-482-7171. USE OF THIS WEB SITE DOES NOT RELIEVE THE USER OF ANY LEGAL DUTY TO COMPLY WITH PUBLIC ACT 53 OF 1973 OR ANY OTHER APPLICABLE LAW, REGULATION, RULE, STANDARD, OR ORDINANCE.

Appendix C



PREVIOUS SITE INVESTIGATION

ENVIRONMENTAL DOCUMENTS

1. Phase I Environmental Site Assessment completed November 22, 1995 by Malcolm Pirnie (Job No. 2686-005)
2. Midwest Analytical Services, Inc. letter of December 13, 1995 concerning asbestos floor and ceiling tile
3. Sub-surface Investigation Report dated January 4, 1996 prepared by GEodynamic Industries, Incorporated together with attached analytical data
4. Air Monitoring and Abatement Activities Report dated January 31, 1996 prepared by Environmental Testing and Consulting, Inc.
5. Non-Hazardous Special Waste and Asbestos Manifest from BFI dated January 30, 1996
6. GEodynamic Industries Incorporated letter of February 14, 1996 to NBRO confirming results of soil sampling and asbestos removal activities

**MALCOLM
PIRNIE**

Report

**PHASE I ENVIRONMENTAL
SITE ASSESSMENT**

FOR

**BIRMINGHAM OFFICE PLAZA
770 SOUTH ADAMS
BIRMINGHAM, MI**

December 95
2686-005

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(continued)

LIST OF ATTACHMENTS

Attachment	Description
A	Database Report
B	Historical Aerial Photographs
C	Sanborn Maps
D	Asbestos Results
E	Qualifications of Environmental Professionals

1.0 SUMMARY

Shannon Properties, Inc. (Shannon) requested an environmental assessment of the Birmingham Office Plaza located at 770 South Adams in Birmingham, Michigan 48302 (Figure 1-1). Grant Gartrell visited the site on November 22, 1995 as part of the site assessment process. The property was examined for indications of significant potential environmental liabilities. An environmental database search and records review were performed for the site. This assessment revealed no evidence of significant environmental conditions in connection with the property except for the following:

- a gasoline service station was located adjacent to and north of the site from about 1959 to the early 1980s. Releases, if any, from underground storage tanks at this service station may have affected soil and shallow groundwater quality at the Birmingham Office Plaza.
- approximately 35 to 40 pipe joints have friable asbestos containing insulation. These materials were observed to be in good condition at the time of the inspection, and are not considered a likely environmental hazard in their present condition. No ACM abatement or response activities are recommended at this time if the materials are left in place and undisturbed. Any future renovations or repairs that may disturb ACM would require ACM by qualified personnel.

2.0 INTRODUCTION

Shannon Properties, Inc. (Shannon) requested an environmental assessment of the Birmingham Office Plaza located at 770 South Adams in Birmingham, Michigan 48302 (Figure 1-1). Grant Gartrell performed a site reconnaissance at the site on November 22, 1995. Shannon is considering selling this office complex and needs to be informed of significant environmental liabilities, if any, associated with the property. The scope of services for this assessment included:

- Site reconnaissance.
- Asbestos containing materials survey
- Records review - including a city directory review, regulatory database search, Sanborn fire insurance map review, and aerial photographic review.
- Report submittal.

Environmental Data Resources, Inc. (EDR) provided the regulatory database search. The database report is attached.

This Phase I Site Assessment report includes:

- Physical site reconnaissance observations.
- Regulatory agency file review.
- City Directory review.
- Asbestos containing materials survey results.
- Summary of findings.

The Addendum Phase I Site Assessment report will include:

- Photographic log.

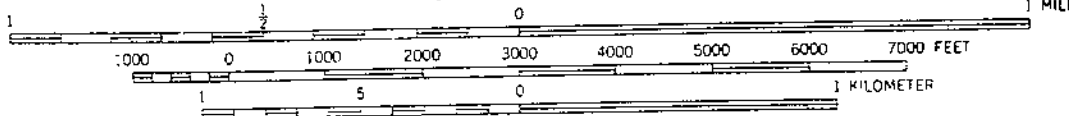
This report and the addendum report will fulfill the agreement set forth in the proposal dated November 17, 1995 and follows the guidelines provided by ASTM Practice E 1527-94. Those items listed as optional considerations in section 12.1.4 of this Practice are not part of this scope of work.



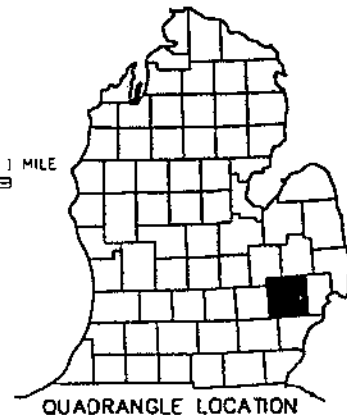
BIRMINGHAM QUADRANGLE
MICHIGAN-OAKLAND CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

1968
 PHOTOREVISED 1981
 DMA 4369 II SW-SERIES V862

SCALE 1:24000



CONTOUR INTERVAL 10 FEET
 NATIONAL GEODETIC VERTICAL DATUM OF 1929



QUADRANGLE LOCATION

COPYRIGHT © 1995

**MALCOLM
 PIRNIE**

SHANNON PROPERTIES, INC.
 BIRMINGHAM, MICHIGAN
 SITE LOCATION MAP

MALCOLM PIRNIE ENGINEERS

FIGURE 1-1

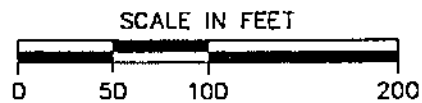
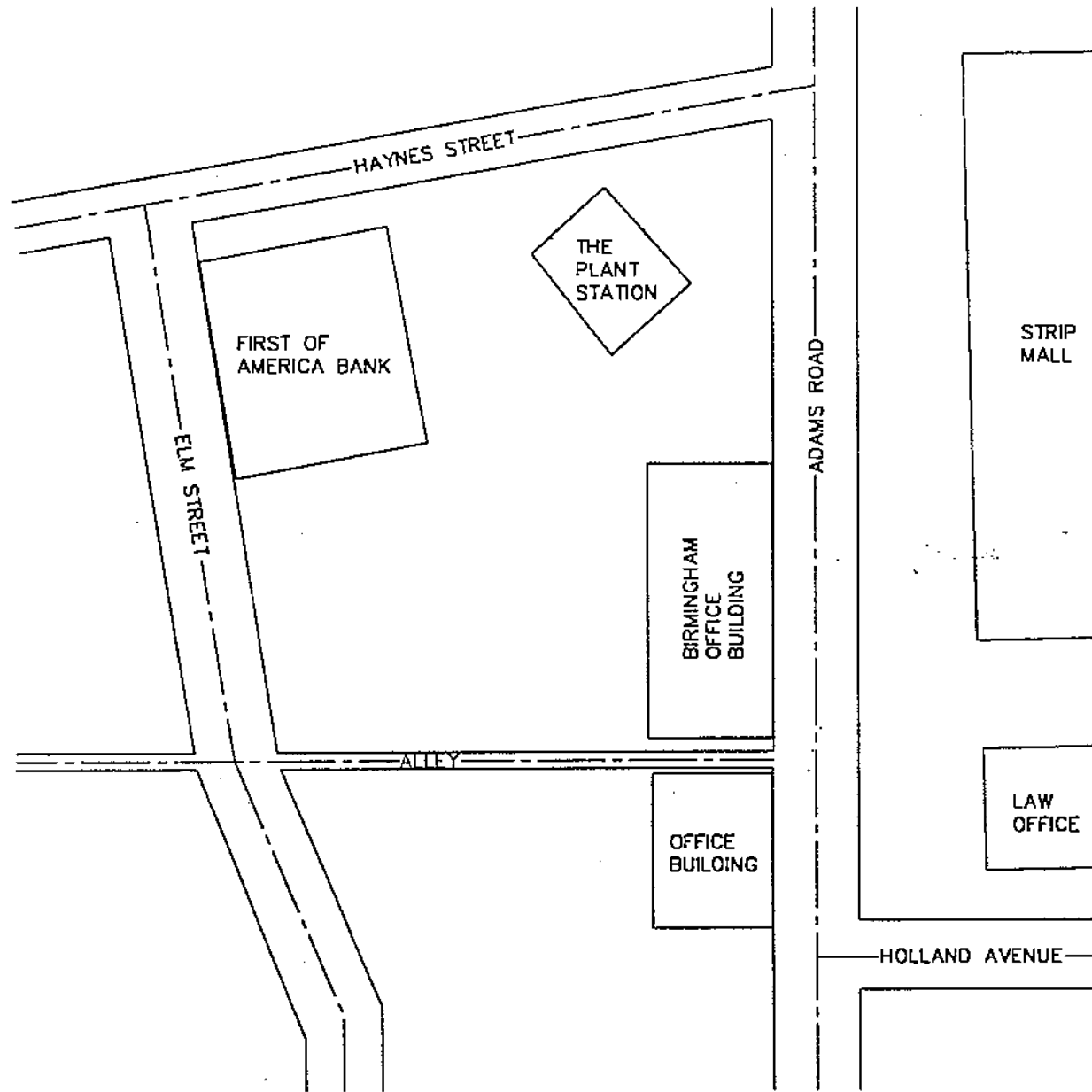
3.0 SITE DESCRIPTION AND SITE VISIT INFORMATION

Grant Gartrell of Malcolm Pirnie and Raymond Signs of FiberTech Environmental Services (FiberTech) visited the Birmingham Office Complex on November 22, 1995. Mr. Gartrell examined the property for indications of significant potential environmental liabilities, while Raymond conducted an asbestos containing materials (ACM) survey. The site location is shown on Figure 1-1. The legal property description is contained in Appendix A. The office building consists of three floors of office space with a total square footage of 18,000 SF. Current building occupants include: The Impulse, Konen Communications, Inc., Executive Secret Service, Carolyn Alaimophd, Dr. Priscilla Greenberg, The Rotor Tool Company, and Shore Financial Service. The building was built in 1968 and was renovated in 1991. Renovation involved cosmetic changes such as interior and exterior painting, carpeting, and general modernization.

David Haboian - Senior Vice President and J. Kotcher, RPA - Property Manager of Kojanian Management Corporation (Kojanian) accompanied Grant Gartrell and Raymond Signs during the site visit. Kojanian manages the office complex on behalf of Shannon Properties, Inc. The office building was inspected for signs of hazardous or regulated materials use, on-site disposal of waste, and asbestos containing materials. Grounds were inspected to locate significant potential environmental liabilities, including visible indications of any underground fuel, chemical storage, and septic tanks. Actual property boundaries were not determined, but assumed based on streets and site and surrounding property uses. A site plan for the facility is provided on Figure 1-2. Photographs taken during the site visit will be provided in the addendum report.

The site is located in a mixed commercial - residential strip on South Adams road. The Plant Station borders the property to the north, First National Bank to the west, another office building to the south, and a law office, strip mall, and residences to the east. No large manufacturing or other industrial facilities were observed in the immediate vicinity of the subject property.

The surface topography is relatively flat in the area around the Birmingham Office



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**MALCOLM
PIRNIE**

SHANNON PROPERTIES, INC.
BIRMINGHAM, MICHIGAN
SITE MAP

MALCOLM PIRNIE ENGINEERS

FIGURE 1-2

Building. The Birmingham USGS 7.5 minute quadrangle map indicates the probable direction of shallow groundwater flow toward the southeast. The Birmingham Office Building is bordered mainly by asphalt parking lots, alleys, and roads. A few, small vegetated areas are present on and off site allowing some groundwater recharge in the area. There was no indication of stressed or stained vegetation observed during the site visit.

Paper and miscellaneous office waste generated by the facility are stored in a trash dumpster located in the facility's parking lot. The dumpster is emptied on a regular basis by City Environmental. The office building, grounds, and neighboring areas were clean and free of refuse during the site visit. A pole-mounted transformer is located on the building's property, while a pad-mounted transformer is located on the First of America Bank's property immediately south of the subject property. Ms. Yakima of Detroit Edison was contacted on November 21, 1995 regarding polychlorinated bi-phenyl (PCB) containing transformers in the city of Birmingham. According to Detroit Edison, which services the subject property, all transformers located in their service area have been replaced with non-PCB containing transformers. Detroit Edison was not able to provide information regarding whether or not there were past PCB-containing transformers located on or near the Birmingham Office Building. No evidence of leaks from the transformers was identified during the site inspection.

Public utilities supply electricity, natural gas, potable water, sanitary and storm sewer service to the site. They did not know of any septic system, current or past being present at the site.

Chemicals are stored at a few locations in the Birmingham Office Building. The elevator room contains a 5-gallon can of Rando Oil A and a 1-gallon can of OTIS lubricants. Janitor closets located in men's bathrooms have a typical inventory of a few gallons of hand lotion, 1-gallon sink cleaner, ½-gallon fragrance, 23-oz. carpet cleaner, 5 oz. gum remover, polish, and 1-gallon paint thinner. These storage areas were secure from unauthorized use, and were clean with no signs of chemical spillage, leaks, or adverse effects on the environment. Due to the nature of the above listed chemicals, no material safety data sheets are kept at the site. The elevator room is the only place on site which uses hydraulic

equipment. Examinations of this room revealed no hydraulic oil leak or stains. The elevator and its equipment are maintained by Trust Elevator Company on a scheduled basis in accordance with the State of Michigan Permit No. 010153 issued to Kojanian Management Corporation. Elevator inspections are conducted annually on the elevators and hydraulic equipment. A mechanical room houses the building's heating, ventilation, and air-conditioning (HVAC) system, hot water heater, electrical controls, sump, and building generator in case of power outages. The HVAC and hot water heating systems are maintained by American Mechanical on a regular basis, and appeared in a well-maintained condition. The building generator and sump are located in a separate room in the mechanical room, and also appeared to be in good condition. No leaks, spills, or stains were noticed in any of the areas in the mechanical room. Inspection of the sump and its contents revealed no odors or visual signs of contamination. The generator room contained a particle adsorbent on the floor during the site visit. The representatives of Kojanian said the adsorbent was used to soak up moisture which condenses on the overhead HVAC supply ducts and drops to the floor. Some of the adsorbent was moved to observe the floor's condition beneath. There were no visible signs of contamination beneath the adsorbent.

No indications of underground storage tanks (USTs), aboveground storage tanks, domestic water wells, or monitoring wells, were noted on or immediately off site during the site visit. Kojanian representatives present during the site visit were not aware of any such structures located on site.

Grant Gartrell walked the Plant Station property immediately to the north. Historical records indicate that the Plant Station property is a former gasoline service station. No UST area, fill ports, vent pipes, or groundwater monitoring wells were noted on site.

Raymond Signs of FiberTech performed an asbestos containing materials (ACM) survey and asbestos sampling on various media at the Birmingham Office Building during the November 22, 1995 site visit. A radon test was not conducted during this site assessment and Kojanian does not have any record of previous radon testing.

4.0 RECORDS REVIEW

4.1 ENVIRONMENTAL REGULATORY AGENCIES

4.1.1 Environmental Regulatory Database Review

EDR performed a database search for sites near the Birmingham Office Building. The search met the specific requirements of ASTM Standard Practice for Environmental Assessments, E 1527-94. EDR provided a report of the facility and surrounding sites identified on various regulatory databases. Refer to Appendix A for a complete copy of the EDR database search. The databases researched include:

Federal ASTM Records

- Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS). The CERCLIS database is maintained by the USEPA and records facilities where the agency has identified actual or suspected uncontrolled releases of hazardous substances. Abandoned hazardous waste sites are also listed in the CERCLIS database.
- Emergency Response Notification System (ERNS). The ERNS database is maintained by the USEPA and the National Response Center of the US Coast Guard. This system records information on reported releases of oil and hazardous substances.
- National Priority List (NPL). The NPL is a database of uncontrolled and abandoned hazardous waste sites maintained by the USEPA. This database identifies sites for priority action under the Superfund Program. A site is included on the NPL by meeting one of the following three criteria:
 1. Surpassing a predetermined hazard ranking systems score.
 2. Being chosen as a state's top priority site.
 3. Meeting all three of the following:
 - an advisory being issued by the US Department of Health and Human Services recommending that people be removed from the site to avoid exposure.
 - a determination by the USEPA that the site represents a significant threat.
 - a determination by the USEPA that remedial action is more cost effective than removal action.

- Resource Conservation and Recovery Information System (RCRIS). The RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA).

Federal Non-ASTM Records

- Superfund (CERCLA) Consent Decrees (CONSENT). Major legal settlements that establish responsibility and standards for cleanup at NPL sites. Released periodically by United States District Courts after settlement by parties to litigation matters.
- Corrective Action Report (CORRACTS). CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.
- Facility Index System (FINDS). FINDS contains both facility information and "pointers" to other sources that contain more detail. These include: RCRIS, PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]) CERCLIS, DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal underground Injection Control), FRDS (Federal Reporting Data System), SIA (Surface Impoundments), CICIS (TSCA Chemicals in Commerce Information System), PADS, RCRA-J (medical waste transporter/disposers), TRIS and TSCA.
- Hazardous Materials Information Reporting System (HMIRS). HMIRS contains hazardous material spill incidents reported to DOT.
- Material Licensing Tracking System (MLTS). MLTS contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements.
- Federal Superfund Lines (NPL LIENS) A USEPA compiled listing of filed notices of Superfund Liens.
- PCB Activity Database System (PADS). PADS identifies generators, transporters, commercial storers and/or brokers and disposers of PCBs who are required to notify the EPA.
- RCRA Administrative Action Tracking System (RAATS). RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA.

- Records of Decision (ROD). ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.
- Toxic Chemical Release Inventory System (TRIS). TRIS identifies facilities which release toxic chemicals to the air, water, and land in reportable quantities under SARA Title III Section 313.
- Toxic Substances Control Act (TSCA). TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site. USEPA has no current plan to update and/or re-issue this database.
- NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly, or the contamination was not serious enough to require Federal Superfund action or NPL consideration.

State of Michigan ASTM Records

- Leaking Underground Storage Tanks (LUST). LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.
- State Hazardous Waste Sites (SHWS). State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.
- Solid Waste Facilities/Landfill Sites (SWF/LS). SWF/LS type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Section 2004 criteria for solid waste landfills or disposal sites.
- Registered Underground Storage Tanks (UST). USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

State of Michigan Non-ASTM Records

- Aboveground Storage Tanks (AST)
- Area Radon Information: The National Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986-1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.
- Oil/Gas Pipelines/Electrical Transmission Lines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines and electrical transmission lines.
- Sensitive Receptors: There are individuals who, due to their fragile immune systems, are deemed to be especially sensitive to environmental discharges. These typically include the elderly, the sick, and children. While the exact location of these sensitive receptors cannot be determined, EDR indicates those facilities, such as schools, hospitals, day care centers, and nursing homes, where sensitive receptors are likely to be located.
- USGS Water Wells: In November 1971, the United States Geological Survey (USGS) implemented a national water resource information tracking system. This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on more than 900,000 wells, springs, and other sources of groundwater.
- Flood Zone Data: This data, available in select counties across the county, was obtained by EDR in 1994 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.
- Epicenters: World earthquake epicenters, Richter 5 or greater.
- Michigan Public and Private Water Wells: Locations of verified municipal and private water well sites compiled from Michigan Department of Public Health, Water Well and Pump Records. Available in the following MI counties: Calhoun, Eaton, Genesee, Ingham, Jackson, Kalamazoo, Kent, Midland, Muskegon, Oakland, Ottawaw, Saginaw, St. Clair, Washtenaw.

- Michigan Oil and Gas Wells: Locations of oil and gas wells are compiled from permit records on file at the Geological Survey Division (GSD), Michigan Department of Natural Resources.

Radii requested vary by database and are provided in the report, which is contained in Appendix A. These radii are in agreement with those provided in ASTM Practice E 1527-94. The report does not list the Birmingham Office Plaza on any database. Eight sites were listed in the report within the requested radii, four LUST sites, two UST sites, and two RCRIS Small Quantity Generator (SQG) sites:

- Weisman Cleaners II, 875 Worth St., RCRIS-SQG
- Goodyear Tire Center 1685, 835 Haynes St., UST
- Goodyear Tire & Rubber Co. 835, 835 Haynes St., LUST
- Halbeisen Tom, Inc., 835 Haynes, RCRIS-SQG, FINDS
- Americar, 860 S. Woodward, UST
- Total #2528, 347 S. Hunter Blvd., LUST
- Mobil #03-K9Q, 1065 E. Maple Rd., LUST
- Budget Rent A Car, 1000 E. Maple, LUST

The EDR report lists three sites for which the provided address is insufficient to determine its location. These include: Mobil Oil Corp SS KXN (RCRIS-SQG, FINDS), Amoco #5791 (LUST), and Shell Service Station (UST, LUST). According to the coordinates of these sites obtained from the corresponding databases, their likely locations are within one mile of the Birmingham Office Plaza.

According to the report, only one LUST site is located less than a 1/4 mile from the site. It is not possible to determine the status of the LUST facility clean-up, if required, from the EDR database search. As for the UST, RCRIS-SQG, and FINDS sites, they do not represent contaminated sites, and are therefore not expected to pose significant environmental concerns to the subject property. In addition, none of the sites listed in the regulatory database search are directly adjacent to the subject site which minimizes the potential for significant environmental concern to the Birmingham Office Plaza property.

4.1.2 Local Regulatory Agency

Malcolm Pirnie attempted to contact David Edington, the City of Birmingham Fire Marshall, at (810) 646-1127 but was unsuccessful.

4.2 HISTORICAL USE INFORMATION

Historical use information was acquired through interviews during the site visit and through a records review. The purpose of a records review is to obtain and review records that will help identify recognized environmental conditions, as defined in ASTM Practice E 1527-94, in connection with the property. For this site, historical records reviewed included city directories, aerial photographs, and Sanborn fire insurance maps.

4.2.1 City Directories

Polk's City Directories for the City of Birmingham were reviewed to determine possible land uses beginning in 1944 up until 1992. From 1944 until 1966, the subject property was vacant with surrounding properties belonging to residences. In 1959, a gasoline service station named Russell's Gulf Service Station is located at 720 South Adams until 1962 when it is named the Birmingham Gulf Service Station. The last listing of a gasoline service station at 720 South Adams was in 1986 when it was a Marathon Service Station. The 1987 city directory for Birmingham was not available, but the 1988 directory lists the Plant Station as the occupant at 720 South Adams, Birmingham, MI. The city directories indicate that the building located at 770 South Adams was built in approximately 1966 and designated as an office building. It wasn't until 1969 that 770 South Adams claimed the name of the Birmingham Office Plaza. The city directories reviewed from 1966 through 1992 indicate the same types of occupants at the 770 South Adams address. Typical businesses included law firms, mortgage companies, leasing companies, financial & investment consultants, and construction companies. These business types are nearly identical to today's occupants at the office plaza. The Plant Station is the site's current occupant as noted from the site visit. Review of the city directories does not indicate any significant environmental concerns at the

Birmingham Office Plaza due to past or present use of the office plaza and it's surrounding properties.

4.2.2 Aerial Photographs

The 1957, 1973, 1980, and 1990 aerial photographs were reviewed at the Oakland County Department of Planning and Development on November 22, 1995 immediately prior to the site visit in order to identify any areas of environmental concern. The 1957 photograph reinforced the information retrieved from the city directories of that time that the land at 770 South Adams was vacant, and that surrounding properties were residential. Also at this time, the gasoline service station at 720 South Adams (currently the Plant Station) was also vacant. Population density and land usage increased greatly between 1957 and 1973 around the subject property as indicated by the aerial photographs. The 1990 aerial photograph was copied and is contained in Appendix B. Review of this photo reveals many paved areas, parking lots, roads, commercial buildings, and homes. There are no vacant lots or large vegetative areas to speak note. The aerial photographic review does not indicate the presence of any significant environmental concerns.

4.2.3 Sanborn Fire Insurance Maps

The 1960 Sanborn fire insurance map for the subject property is contained in Appendix C. As illustrated on the map, the gasoline service station is located on the southwest corner of Haynes and South Adams (720 South Adams), and is noted as filling station. Directly south of the service station are residences as indicated in the city directories where the Birmingham Office Plaza property now exists.

5.0 RESULTS OF ASBESTOS SAMPLING

An asbestos containing materials (ACM) survey was conducted at the Birmingham Office Plaza on November 22, 1995 by Raymond Signs of FiberTech, Inc. The purpose of the survey was to identify suspect ACM, collect bulk material samples for asbestos content analysis, assess potential environmental hazards posed by ACM identified, and recommend appropriate response actions. Details of the ACM survey are contained in the Asbestos Materials and Assessment Survey Report from FiberTech, Inc. as Appendix D.

5.1 SURVEY METHODOLOGY

David M. Haboian - Senior Vice President and J. Kotcher, RPA - Property Manager both of the Kojaian Management Corporation, guided Ray through the office building prior to his physical inspection of the premises. Materials which were viewed during this asbestos survey included:

- Drywall finishing board; located throughout the building.
- 12" X 12" red, brick pattern floor tile; boiler and adjacent mechanical rooms.
- Grey ceiling masonry plaster; located throughout the building.
- White pipe joint insulation compound associated with fiberglass pipe insulation; boiler and adjacent mechanical rooms (approximately 35 pipe joints).
- 2' X 2' white stucco patterned ceiling tile; various locations.

The 2' X 4' white etched ceiling tile in the office located across from suite 107, as well as the exterior siding panels were not sampled since the material integrity would be jeopardized. However, based on the physical character of this materials, there is a low probability that these materials contain asbestos. The roof of the building was not observed.

5.2 OBSERVATIONS

The heating, ventilation, and air-conditioning (HVAC) system were all observed to contain piping insulations which were non-suspect fibrous glass. Domestic water pipelines were either uninsulated or insulated with non-suspect fibrous glass. Also, there were several areas observed which contained non-suspect glass in the wall and ceiling insulations.

5.3 SAMPLE RESULTS

The pipe joint insulation samples from the mechanical room on the first floor were the only samples shown as asbestos containing. It is estimated that approximately 35 to 40 pipe joints have asbestos containing insulation.

5.4 ASSESSMENT AND RECOMMENDATIONS

Environmental hazards posed by asbestos containing materials lies in the ACM's fibrogenic potential. The pipe joint insulation is friable ACM. However, these materials were observed to be in good condition at the time of the inspection, and therefore are not considered a likely environmental hazard in their present condition.

No ACM abatement or response activities to the existing ACM are recommended at this time if the materials are left in place and undisturbed. However, any future renovations or repairs that may disturb ACM at the facility would require ACM by qualified personnel.

6.0 FINDINGS AND CONCLUSIONS

The site visit, environmental database search, historical records review, and the asbestos contaminant survey produced two items of significant environmental concern at the Birmingham Office Plaza located at 770 South Adams, Birmingham, Michigan (Figure 1-1). Chemicals observed during the site visit are not of significant environmental concern in the quantities used at the facility. The grounds surrounding the office plaza are covered with asphalt, concrete, and a little grass. Public utilities supply potable water and sanitary sewer services to the facility. The Birmingham Office Plaza does not store or use large quantities of any regulated compounds, and the chemical storage areas at the facility are clean and show no sign of environmental release. The only waste generated at the site includes normal paper and miscellaneous refuse which are disposed of on a regular basis at a registered landfill.

According to the database report only one LUST site was reported less than a 1/4 mile from the subject property. Considering the fact that this site is not directly adjacent to the subject property, it does not pose a significant environmental threat to the Birmingham Office Plaza.

However, historical records including the city directories, aerial photographs, and Sanborn maps all indicate the presence of a former gasoline service station located directly adjacent to the subject property at 720 South Adams, currently the Plant Station. This station was not identified in the regulatory database search as a UST site although it must have contained USTs during the gasoline station's operation. Prior to 1986 USTs were not required to be registered with the state, which explains the absence of any data regarding USTs in the search. Although the site walk conducted on the Plant Station's property did not reveal the presence of former USTs, it does not preclude the possibility of soil and shallow groundwater contamination resulting from former leaking underground storage tanks, if any. Therefore, the potential for soil and/or groundwater contamination exists at the former gasoline service station and nearby properties, including the Birmingham Office Plaza.

The pipe joint insulation samples from the mechanical room on the first floor were the only samples shown as asbestos containing. It is estimated that approximately 35 to 40 pipe joints have asbestos containing insulation. However, these materials were observed to be in good condition at

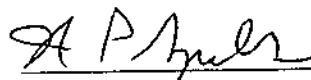
the time of the inspection, and therefore are not considered a likely environmental hazard in their present condition. No ACM abatement or response activities to the existing ACM are recommended at this time if the materials are left in place and undisturbed. However, any future renovations or repairs that may disturb ACM at the facility would require ACM by qualified personnel.

7.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-93 of the Birmingham Office Plaza, 770 South Adams, Birmingham, Michigan. Any exceptions to, or deletions from, this practice are described in Section 2.0 of this report. This assessment revealed no evidence of significant environmental conditions in connection with the property at the above referenced location except for the following:

- a gasoline service station was located adjacent to and north of the site from about 1959 to the early 1980s. Releases, if any, from underground storage tanks at this service station may have affected soil and shallow groundwater quality at the Birmingham Office Plaza.
- approximately 35 to 40 pipe joints have friable asbestos containing insulation. These materials were observed to be in good condition at the time of the inspection, and are not considered a likely environmental hazard in their present condition. No ACM abatement or response activities are recommended at this time if the materials are left in place and undisturbed. Any future renovations or repairs that may disturb ACM would require ACM by qualified personnel.


For Grant A. Gartrell
Project Engineer


John Sparks, P.E.
Associate

8.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

Qualifications of environmental professionals involved in preparation of this report are attached in Appendix E.

Fibertec
Environmental
Services

DATE: 11/27/95

FEB 1 1996

MALCOLM PIRNIE, INC.
LANSING, MI

Malcolm Pirnie Engineers
411C W. Lake Lansing Rd.
East Lansing, MI 488223

ATTN: Grant Gartrell

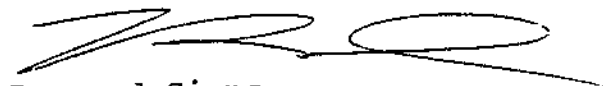
**RE: ASBESTOS MANAGEMENT SERVICES
ASBESTOS MATERIALS SURVEY AND ASSESSMENT
OFFICE FACILITY
BIRMINGHAM, MICHIGAN**

Dear Mr. Gartrell:

Enclosed please find Fibertec, Inc.'s report of our Asbestos Survey conducted at 770 S. Adams, Birmingham, Michigan.

Thank you for the opportunity to have been of service to you on this project. Should you have any questions, please contact my office.

Respectfully
Fibertec



Raymond Signs
Director of Operations
Asbestos and Environmental Hygiene

**REPORT OF ASBESTOS MATERIALS AND ASSESSMENT SURVEY
770 S. ADAMS
BIRMINGHAM, MICHIGAN**

DATE OF REPORT: 11/28/95

PREPARED FOR:

**Malcolm Pirnie Engineers
411C W. Lake Lansing Rd.
East Lansing, MI 48823**

INTRODUCTION

Fibertec, Inc. was retained by Malcolm Pirnie Engineers to conduct an asbestos materials survey at 770 S. Adams Rd., Birmingham, Michigan.

The goal of the asbestos survey was the identification of asbestos-containing materials (ACM's) and suspect asbestos - containing materials at the building surveyed. Further goals of the survey were the assessment of the existing and/or potential environmental hazards posed by the ACM identified and recommendation of appropriate response actions.

The scope of the survey did not include encroachment through interior architectural enclosures or dismantlement of mechanical equipment.

Physical inspection of the subject building, and the associated collection of bulk material samples for asbestos content analysis, were performed by Mr. Raymond Signs of Fibertec on November 23rd, 1995. Mr. Signs is an United States Environmental Protection Agency (USEPA) accredited AHERA Building Inspector (Accreditation No. 380827921).

The findings presented in this report are based on observations made at the time Fibertec personnel were on site, and cannot address changes in the condition of the asbestos-containing materials relative to their status as an environmental hazard subsequent to our investigation.

SAMPLING

Bulk sampling of suspected ACM was accomplished by removing a representative piece of the material in question and transferring it into an airtight plastic sample container. Consideration of a material as suspect, was in general accordance with the USEPA's "Asbestos-Containing Materials in Schools Rule" (40 CFR 763, Subpart E). These regulations were recently adopted and enforced for commercial buildings by OSHA 29 CFR 1926.1011.

Laboratory analysis for asbestos content was performed in accordance with the USEPA approved petrographic method utilizing polarized light microscopy (PLM) with dispersion staining (EPA Interim Method for the Determination of Asbestos in Bulk Samples 600/M4-82-020). Asphaltic and polymeric samples were dissolved by heating the material in dispersion fluid to aid in separating particulate components from their matrices.

Samples were analyzed in the laboratory of Fibertec Inc. Fibertec's Bulk Asbestos Fiber Analysis Laboratory is a participating member of the National Institute of Standards and technology, National Voluntary Laboratory Accreditation Program (NIST/NVLAP), laboratory #101510.

INSPECTION

The following suspect materials were observed to exist as part of the subject building's interior architectural finishes, structural, and/or mechanical systems :

MATERIAL	LOCATION
1. Drywall finishing board;	throughout building.
2. 12"x12" red, brick pattern floor tile;	boiler and adjacent mechanical rooms.
3. Grey masonry ceiling plaster;	throughout building.
4. White pipe joint insulation compound associated with fiberglass pipe insulation;	boiler and adjacent mechanical rooms; apprx. 35 pipe joints.
5. 2'x2' white, stucco patterned ceiling tile;	various locations.
6. 2' x2' white, deep etched ceiling tile;	various locations.
7. 2'x4' white, etched ceiling tile;	office across from suite 107.
8. Exterior siding panels;	exterior of building.

Samples of materials numbered 1 - 6 above, were gathered for asbestos content analysis.

Due to conduct and/or scope of work limitations of the survey, samples were not gathered from the remaining above listed materials. (Please note: Based on the character and type of these materials, the probability these materials contain asbestos is low.)

The roof of the building was not observed and therefore any asphaltic roofing materials that may exist are considered suspect.

OBSERVATIONS

The building was observed to be serviced by a forced air heating and ventilation system (HVAC), and a hot water/baseboard heating system. Boiler and straight line piping insulations was observed to be non-suspect fibrous glass.

The HVAC ductwork was observed either uninsulated, or insulated with non-suspect fibrous glass.

Domestic water pipelines were observed either uninsulated or insulated with non-suspect fibrous glass.

Non-suspect fibrous glass wall and ceiling insulations were observed in several areas.

Non-suspect carpet and masonry/ceramic flooring were observed throughout the office spaces of the building. Inspection of the substrate beneath the carpeted areas was limited, however in areas where observed, suspect asbestos-containing vinyl flooring was not observed beneath the carpet.

Metal infrastructural components of the building, such as beams and decking, were observed not to be insulated with fireproofing.

SAMPLE RESULTS

The criterion used for determining the status of a suspect material as ACM is the USEPA criterion of being "asbestos-containing", which is that the material is determined to contain greater than 1% by weight of actinolite, amosite, anthophyllite, chrysotile, crocidolite, tremolite asbestiform fibers (40 CFR 61, Subpart M).

Analysis of the pipe joint insulation sample indicates that this material is asbestos-containing.

Analysis of the other samples gathered indicated no detectable asbestos content in the materials represented.

ASSESSMENT

Assessment of the environmental hazard posed by the potential presence of ACM in a building lies in the ACM's fibrogenic potential i.e., the likelihood that it will release fibers that may become airborne and subsequently inhaled. Assessment of this fibrogenic potential lies in the consideration of these factors:

1. The type and condition of the ACM [i.e., type of material(s), their asbestos content(s) and their friability];
2. The location and status of the ACM relative to the present building use [i.e., its accessibility, exposed surface area, presence of physical damage, location relative to air streams, etc]; and
3. The potential for change in the status of the ACM, such as that which might occur during renovation activities.

The asbestos containing pipe joint compound is a friable material. This material would be expected to act as a source of fiber release if damaged. This material was observed to be in good condition at the time of the inspection, and is not likely an environmental hazard in its present condition.

The suspect 2'x4' ceiling tile (not sampled) would be considered a friable material. The material was observed to be in good condition and not an environmental hazard in its present condition.

770 S. Adams
11/28/95
page 4

The remaining suspect materials (the exterior siding and possible asphaltic roofing) are durable non-friable materials and are not likely sources of fiber release.

RECOMMENDATIONS

With respect to the current condition of the identified ACM at the facility, no recommendations are necessary if the material is not disturbed.

With regard to possible future repair and renovation events:

Prior to undertaking renovation or repair activities that may disturb ACM at the facility, the ACM should be removed by qualified personnel.

Actions taken in regards to the ACM should be in compliance with any applicable federal, state, and local regulations or codes that may apply to handling, disposal, and contracting. Presently, removal, demolition, and disposal operations are under the jurisdiction of the USEPA NESHAP (National Emission Standard for Hazardous Air Pollutants, 40 CFR 61, Subpart M) regulation, OSHA (Occupational Safety and Health Administration) asbestos regulations (29 CFR 1910.1001, adopted by the State of Michigan through multiple P.A. Acts), and the Michigan Department of Transportation.

REPORT PREPARED BY:



Raymond Signs
Director of Operations
Asbestos and Environmental Hygiene

APPENDIX A
SAMPLE ANALYSES

FibertecEnvironmental
Services

NVLAP Accreditation 101510

Report Number 11038-1

Date Issued 11/29/95

Client P.O.# N/A

Bulk Sample Analytical Report

Attention: Grant Gartrell
MALCOM PIRNIE
411-C W. Lake Lansing Rd
East Lansing MI 48823

Project:

770 ADAMS, BIRMINGHAM, MI, 7 BULK SAMPLE ANALYSIS.

Bulk samples are analyzed utilizing the USEPA "Interim Method for the Determination of Asbestos in Bulk Insulation Samples". The constituent percent reported represents an estimate of the area percent of the component. The test report relates only to items tested. This report is not intended to be used as a product endorsement by NVLAP or any agency of the U.S. Government.

*No asbestos present indicates less than 1% asbestos mineral present.

Description-Location	*Asbestos Present <Y/N>	Asbestos Type	Percent Asbestos	Non-Asbestos Containing Portion
WHITE, FIBROUS MATRIX, LOWER ELBOW, NEAR AIR UNIT, MAIN ROOM. Sample Number----> 01	Y	CHRYSTOTILE	25	55% NON-FIBROUS MATTER 15% MINERAL WOOL 5% CELLULOSE FIBERS Analyst Name--> RAY SIGNS
GRAY, CEMENTITIOUS MATERIAL, PLASTER, ON RISER DECK, CEILING, MECHANICAL ROOM. Sample Number----> 02	N	-----	-----	100% NON-FIBROUS MATTER Analyst Name--> RAY SIGNS
RED TILE, 12" X 12" FAKE BRICK. Sample Number----> 03	N	-----	-----	90% NON-FIBROUS MATTER 10% CELLULOSE FIBERS Analyst Name--> RAY SIGNS
GRAY MATRIX WITH WHITE FINISH, 2' X 2' ETCHED CEILING TILE, 2ND FLOOR. Sample Number----> 04	N	-----	-----	70% MINERAL WOOL 30% NON-FIBROUS MATTER Analyst Name--> RAY SIGNS

FibertecEnvironmental
Services

NVLAP Accreditation 101510

Report Number 11038-1

Date Issued 11/29/95

Client P.O.# N/A

Bulk Sample Analytical Report

Attention: Grant Gartrell
MALCOM PIRNIE
411-C W. Lake Lansing Rd
East Lansing MI 48823

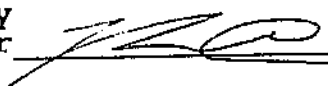
Project:

770 ADAMS, BIRMINGHAM, MI, 7 BULK SAMPLE ANALYSIS.

Bulk samples are analyzed utilizing the USEPA "Interim Method for the Determination of Asbestos in Bulk Insulation Samples". The constituent percent reported represents an estimate of the area percent of the component. The test report relates only to items tested. This report is not intended to be used as a product endorsement by NVLAP or any agency of the U.S. Government.

*No asbestos present indicates less than 1% asbestos mineral present.

Description-Location	*Asbestos Present <Y/N>	Asbestos Type	Percent Asbestos	Non-Asbestos Containing Portion
TAN MATRIX WITH WHITE FINISH, 2' X 2' STUCKO TEXTURED CEILING TILE, 2ND FLOOR. Sample Number----> 05.	N	-----	-----	55% NON-FIBROUS MATTER 30% CELLULOSE FIBERS 15% MINERAL WOOL Analyst Name--> RAY SIGNS
WHITE MATRIX, SHEET ROCK, SUITE 107. Sample Number----> 06	N	-----	-----	92% NON-FIBROUS MATTER 8% CELLULOSE FIBERS Analyst Name--> RAY SIGNS
GRAY MATRIX WITH WHITE FINISH, 2' X 2' ETCHED CEILING TILE, 3RD FLOOR, OUTSIDE SUITE 300. Sample Number----> 07	N	-----	-----	45% NON-FIBROUS MATTER 35% CELLULOSE FIBERS 20% MINERAL WOOL Analyst Name--> RAY SIGNS

Laboratory
Supervisor 

TELEPHONE RECORD

DATE: 11/29/95

TIME: 4:45pm

TO/FROM: Raymond Sigus

TELEPHONE #: 517 699 0345

AFFILIATION: Fibertek

PROJECT NAME/NUMBER: Shannon Properties

SUBJECT: ACM Survey

BRIEF DISCUSSION: _____

Ray said that the results of the ACM survey concluded that samples of the plumbing joints w/ insulation in the downstairs mechanical room had ACM in the insulation.

The # of joints = 30-45 (estimate)

Joints being tees, elbows, couplings

SIGNATURE: _____

Frank Hartwell

PAGE 1 OF 1

APPENDIX

IDENTIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

EDUCATION

BS (Civil Engineering) 1981; Rose-Hulman Institute of Technology
MS (Environmental Engineering) 1984; Rice University
MBA (Business Administration) 1992; University of Houston
40 Hour Health and Safety Training Program

REGISTRATION

Professional Engineer
Certified LPST Corrective Action Project Manager

SOCIETIES

Society of American Military Engineers

SUMMARY OF EXPERIENCE

Mr. Sparks has over 11 years of experience in environmental site assessments, underground storage tank (UST) site remediation, natural gas pipeline facility investigations and remedial action, hazardous waste site investigation/feasibility study/remedial action engineering, environmental permitting, construction administration, project scheduling and cost control, and construction management.

His fields of specialization include: estimation of remedial action liabilities in property transfers, (UST) site remediation, regulatory/environmental assessment of hazardous/solid waste sites, selection and implementation of soil treatment technologies, evaluation of hazardous waste treatment and containment technologies, preparation of design plans and specifications, process design of wastewater treatment facilities.

DETAILED EXPERIENCE

1986 to Date

Malcolm Pirnie, Inc.

As Associate:

- Directed preparation of Corrective Measures Implementation work plans, bid documents, and construction administration for thermal desorption treatment of contaminated soils at five solid waste management units (SWMUs) and one other site at Fort Bliss near El Paso TX. These RCRA units were closed under the Texas Natural Resource Conservation Commission (TNRCC) Risk Reduction Rules. The closures included asbestos and lead-based paint abatement as well as characterization and disposal of abandoned drums with unknown contents.
- Directed closure of the Chromic Acid Pit at Fort Bliss near El Paso TX, under the TNRCC Risk Reduction Rules. Obtained Part B permit modification, directed soil sampling, and evaluated options for closure.
- Directed soil remediation by landform treatment at a chemical processing facility in Texas City TX. Directed site characterization, evaluation of alternative technologies, landfarm facility design, and preparation of a closure plan. Oversaw classification and disposal of industrial wastewater at the same facility.

DETAILED EXPERIENCE (Continued)

1986 to Date

Malcolm Pirnie, Inc. (continued)

- Determined remedial action liabilities at a natural gas processing facility in Louisiana as part of a property transfer. Directed ground water and soil sampling efforts, defined regulatory requirements, and developed remedial action conceptual design and cost estimates.
- Developed alternative remedial action plans and coordinated preparation of bidding documents for groundwater and soil treatment at the Long Prairie Superfund Site in Todd County MN and Cass Street Groundwater Contamination Site in Edwardsburg MI. Volatile organic compounds were removed by soil vapor extraction technology.
- Performed bench-scale and pilot-scale treatability studies for evaluation of activated carbon and air stripping treatment technologies for ground water remediation at the Rocky Mountain Arsenal. Designed pilot scale facilities.

As Project Engineer:

- Evaluated remedial alternatives for the Kummer and Oak Grove Sanitary landfill CERCLA sites. Developed alternative cover designs consistent with RCRA hazardous waste and Minnesota Rules mixed municipal waste facility closure regulations. Estimated costs for removal alternatives.
- Implemented the remedial investigation of the Interlake Tar CERCLA site in Duluth MN. Identified hazardous substances present at an abandoned steel mill and roofing materials manufacturing facility, and assessed the environmental impact of the site on adjacent surface waters and embayment sediments. Developed remedial action alternative for tar materials.
- Assessed potential environmental and public health affects due to an abandoned tire manufacturing waste dump site in Natchez MS. Investigation activities included electromagnetics/resistivity survey, drummed waste inventory and characterization, and ground water monitoring and sampling.

1984-1986

Roy F. Weston, Inc.

As Associate Engineer:

- Assessed the environmental impact of an abandoned wood preserving facility at the United Creosoting Superfund site in Conroe TX.
- Developed innovative remedial technology for the removal of volatile organic compounds from shallow subsurface soils at the Triangle Chemical Company Superfund site in Bridge City TX. Demonstrated the technology in a pilot study at the site.

DETAILED EXPERIENCE (Continued)

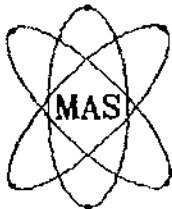
1986 to Date

Malcolm Pirnie, Inc. (Continued)

- Directed Phase I and Phase II assessments for 47 oil field services manufacturing and maintenance facilities as part of two acquisitions. Estimated remedial action liabilities at sites in Texas, Louisiana, Oklahoma, Mississippi, Michigan, and New Mexico.
- Managed emergency response removal of crushed drums from the CASCO Landfill in Houston TX. Managed drummed liquids removal and a limited site investigation at the City of Houston Ley Road site.
- Directed design and construction administration for remediation of 60,000 cubic yards of soils contaminated with lead and petroleum hydrocarbons at the City of Houston La Villa (former Milby Bus Barn) site. Soils were stabilized on-site prior to off-site landfill disposal.
- Directed design and construction administration of shallow groundwater recovery system at the City of Houston La Villa de las Flores site. Obtained Texas Natural Resource Conservation Commission (TNRCC) approval for reimbursement from the Petroleum Storage Tank Remediation Fund.
- Managed Phase I and Phase II assessments for the City of Houston North York Park site. The 19-acre site on the Houston Ship Channel/Buffalo Bayou had a history of industrial use dating back over 100 years.
- Managed several assignments for Whirlpool Corporation manufacturing facilities including soil remediation using thermal desorption treatment, soil and shallow groundwater investigations, and UST upgrade.
- Directed Phase I and Phase II assessments for 22 properties as part of an estate settlement. Estimated remedial action liabilities at oil and gas production sites, UST facilities, and an unpermitted solid waste disposal site.
- Evaluated alternative remedial action technologies for soil and groundwater treatment resulting from an UST release at the Thomas O. Price Service Center in Tucson AZ.

As Senior Project Engineer:

- Managed multi-year, multi-site assignment for the TNRCC to provide UST remedial investigations, corrective action plans, remedial design, and construction administration at over 80 facilities in South Texas.
- Directed design of technologies including thermal desorption, soil vapor extraction, and bioremediation at UST sites for the TNRCC.
- Managed site investigations for disposal pits, debris deposition areas, and drilling mud disposal ponds at natural gas pipeline compressor stations in Mississippi for Transcontinental Gas Pipe Line Corporation.
- Directed remediation of former pit facilities using excavation and bioremediation technology at a natural gas pipeline facility in Mississippi for Transcontinental Gas Pipe Line Corporation.

**Midwest Analytical Services, Inc.***"Where industry comes for answers"*Metropolitan Center for High Technology
2727 Second Avenue
Detroit, Michigan 48201Phone: 1-800-801-4MAS (MI only)
: (313) 964-3680
Fax No: (313) 964-2339

Date : 13-Dec-95

Client : TOM VALLONE
GEODYNAMIC INDUSTRIES, INC.

Mas# : 51212023-024

PROJECT: : ADAMS OFFICE COMPLEX 770

Sample LD. : CEILING TILE LOWER SUTTE, FLOOR TILE BOILER ROOM

The above mentioned project has been completed in accordance with the quality control and quality assurance criteria specified by the American Association of Laboratory Accreditation/SW 846/MDNR/WDNR and EPA references from 40 CFR part 136 guidelines.

For your convenience the following legend applies to all the following data sheets.

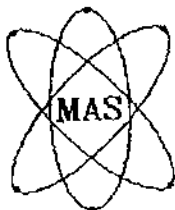
- 1. Reports shall not be reproduced, except in full, without written approval of Midwest Analytical Services, Inc.*
- 2. N/D=Not detected above Estimated Quantitative Limit, N/A=Not applicable*
- 3. Results relate only to the items tested.*
- 4. mg/l, mg/kg, mg/kg(dry weight) equal ppm(parts per million)
μg/l, μg/kg, μg/kg(dry weight) equal ppb(parts per billion)*

If you have any questions regarding this project please feel free to contact me at 1-800-801-4MAS or 1-313-964-3680.

Thanking You,

Sincerely,

Krystyna Czyzo
Lab. Quality Manager

**Midwest Analytical Services, Inc.**

"Where industry comes for answers"
Metropolitan Center for High Technology
2727 Second Avenue
Detroit, Michigan 48201

Phone: 1-800-801-4MAS (MI only)
:(313) 964-3680
Fax No: (313) 964-2339

IN: NWB

TEST REPORT**MAS #: 51212024**

TOM VALLONE
GEODYNAMIC INDUSTRIES, INC.
251 MERRILL ST.
BIRMINGHAM, MI 48009

DATE COMPLETED: 13-Dec-95
P.O. #: 05666

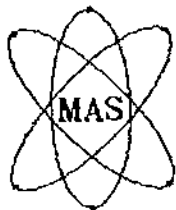
PROJECT: ADAMS OFFICE COMPLEX 770
SAMPLE IDENTIFICATION: FLOOR TILE BOILER ROOM 12/12/95 11:15AM
PHYSICAL DESCRIPTION: SOLID

DATE ANALYZED: 12/13/95
METHOD #: EPA-600/R-93/116

LAB TECHNICIAN: KRW

POLARIZED LIGHT MICROSCOPY BULK SAMPLE ANALYSIS	
MATRIX:	FLOOR TILE
STEREO MORPHOLOGY:	LAYER 1 - WHITE CEMENTITIOUS SOLID LAYER 2 - RED, FIBROUS SOLID
FRIABILITY:	LOW
ASBESTOS (% / TYPE):	< 1%
FIBROUS MATERIAL (% / TYPE):	5% / CELLULOSE
NONFIBROUS MATERIAL (% / TYPE):	50% / CALCIUM CARBONATE 45% / OTHER

Krystyna Czyzo
Lab. Quality Manager

**Midwest Analytical Services, Inc.***"Where industry comes for answers"*Metropolitan Center for High Technology
2727 Second Avenue
Detroit, Michigan 48201Phone: 1-800-801-4MAS (MI only)
: (313) 964-3680
Fax No: (313) 964-2339

IN: NWB

TEST REPORT**MAS #: 51212023**TOM VALLONE
GEODYNAMIC INDUSTRIES, INC.
251 MERRILL ST.
BIRMINGHAM, MI 48009DATE COMPLETED: 13-Dec-95
P.O. #: 05666PROJECT: ADAMS OFFICE COMPLEX 770
SAMPLE IDENTIFICATION: CEILING TILE LOWER SUITE 12/12/95 11:00AM
PHYSICAL DESCRIPTION: SOLIDDATE ANALYZED: 12/13/95
METHOD #: EPA-600/R-93/116

LAB TECHNICIAN: KRW

POLARIZED LIGHT MICROSCOPY BULK SAMPLE ANALYSIS	
MATRIX:	CEILING TILE
STEREO MORPHOLOGY:	BEIGE, FIBROUS MATERIAL WITH WHITE TOP LAYER
FRIABILITY:	HIGH
ASBESTOS (% / TYPE):	< 1%
FIBROUS MATERIAL (% / TYPE):	30% / CELLULOSE 10% / MINERAL WOOL
NONFIBROUS MATERIAL (% / TYPE):	55% / PERLITE 5% / CALCIUM CARBONATE (TOP LAYER)

Krystyna Czyzo
Lab. Quality Manager

GEOdynamic Industries Incorporated

 an earth services company

January 4, 1996

Mr. Jeffrey Ishbia
Ishbia & Gagleard, P.C.
Attorneys and Counselors
251 Merrill
Birmingham, Mi 48009

Re: Sub-surface investigation at 770 S. Adams

Dear Mr. Ishbia,

On December 29, 1995, GEOdynamic Industries Incorporated (GEO) mobilized to 770 S. Adams, in Birmingham, Michigan for the purposes of conducting a limited sub-surface investigation. A Phase I Environmental Assessment, completed by Malcolm Pirnie & Associates, identified a former gasoline service station to the immediate north of the subject property. The fate of the Underground Storage Tank (UST) System at that site is undetermined. Because of the undetermined status of the USTs, a sub-surface investigation was recommended, to determine if a past or current release has migrated to the subject property.

The investigation consisted of collecting soil cores with a discrete sampling device along the northern boundary of the study site. Five sample locations were selected. These sample locations ran on an east - west line along the northern boundary of the property, at an interval ranging from 24' 9" to 27' 6". A map of the sample locations and the drilling logs. Each sample location was drilled to a depth of not less than four feet into the confining layer of clay. The compounds of concern are less mobile through the clay associated with the regional geology and that found at the study site. Each sample was field screened at four foot intervals with a photoionization detector (PID). The PID is a non-compound specific instrument that can detect petroleum related hydrocarbons to a detection level of 1 part per million. Based on the PID screening, a sample was then selected from the soil core. This sample was then analyzed using a portable gas chromatograph (GC) for Benzene, Toluene, Ethylbenzene, and Xylene (BTEX). The portable GC has a detection level of 10 parts per billion. This is the same detection level that can be attained in a laboratory. The sample was then sent to a laboratory to be analyzed for Polynuclear Aromatic Compounds (PNA). The above referenced compounds are constituents of gasoline (BTEX) and diesel fuel (PNA).

In each of the sample locations, field screening with the photoionization detector indicated the soil was unimpacted by petroleum contaminants. As a result, a sample was selected from the boundary between the confining layer and the overlying layer



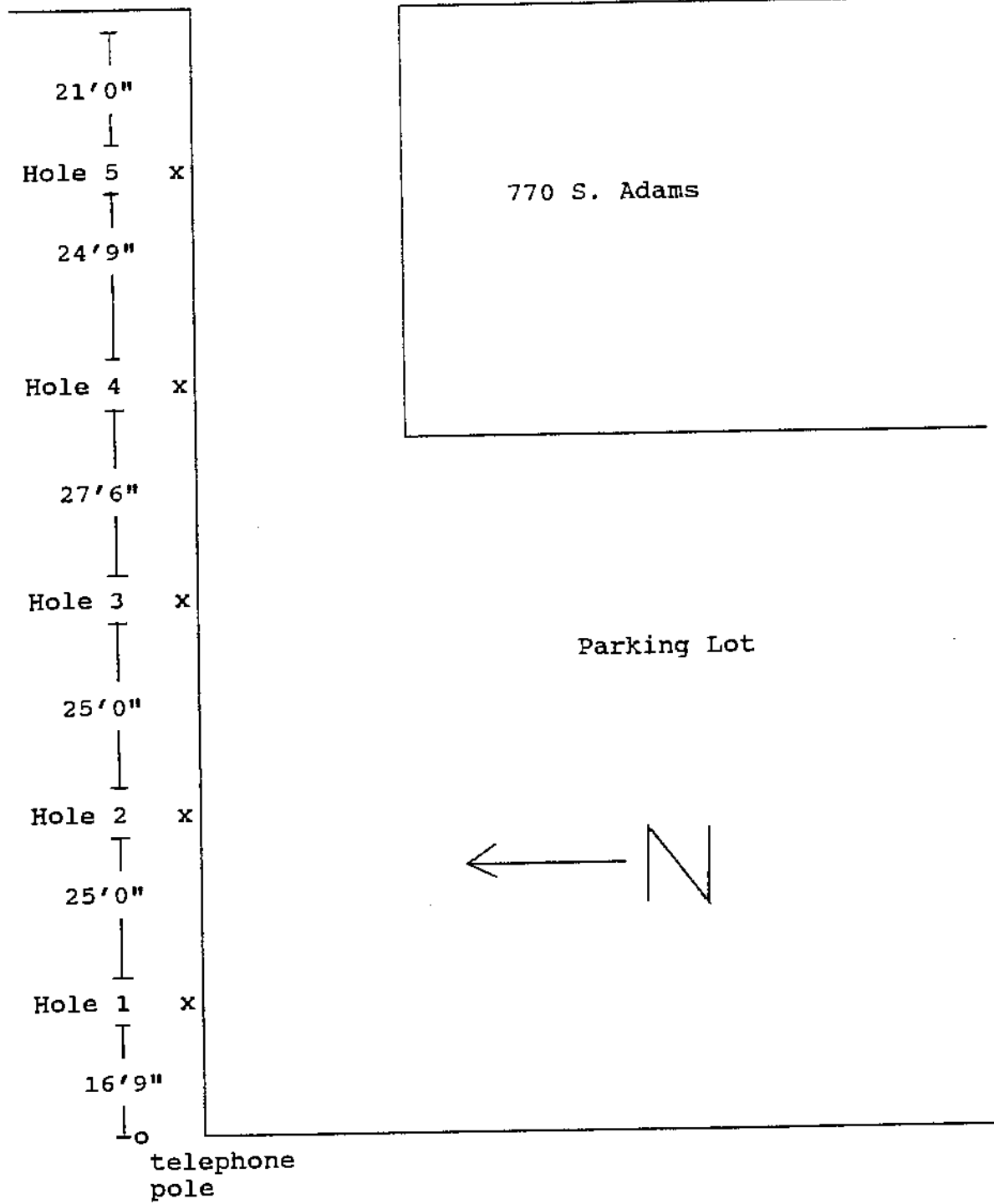
of soil. It is in this area that contaminants, if present, are most likely to have migrated. The analytical results reported for the samples submitted for GC screening and laboratory analysis indicated "non-detect" for BTEX and PNA. The data for each of the samples is also attached.

Sincerely,
GEOdynamic Industries Incorporated

A handwritten signature in cursive script, appearing to read "Tom Vallone".

Tom Vallone
Environmental Compliance Coordinator

Adams Rd.



Job No. 5-6220

LOG OF TEST BORING NO. 1

Sheet 1 of 5

Project 770 S. Adams

Location Birmingham

Date Completed 12/29/95

Crew Chief _____

Drill Rig _____

Boring Method _____

Hole Plugged With _____

GROUNDWATER:

Encountered @ _____ ft.

After completion _____ ft.

After _____ hrs. _____ ft.

Seepage _____ ft.

Boring Caved at _____ ft.

MONITOR WELL DATA:

Pipe/Type _____

Length _____

Above Ground _____

Cap _____

Screen/Type _____

Size _____

Slot _____

Set @ _____

Backfilled _____

Bentonite Seal _____

Grout/Type _____

Depth _____

Protective Casing _____

Materials Cleaned _____

Development _____

REMARKS: _____

LEGEND:

Blow Count/Blows per 6"
w/140# hammer x 30" drop

SS - 2" Split Spoon Sampler

LS - Brass Liner Sample

ST - Shelby Tube Sample

SNR - Sample not recovered

Type	REC	Count	In Feet	SOIL DESCRIPTION	WT
			10'	Topsoil	
				Topsoil, gravel	
			2		
				Sample at 2 1/2'	
			5	Clay	
			10		
			15		
			20		
			25		
			30		

Job No. 5-6220

LOG OF TEST BORING NO. 2

Sheet 2 of 5

Project 770 S. Adams

Location Birmingham

Date Completed 12/29/95

Crew Chief _____

Drill Rig _____

Boring Method _____

Hole Plugged With _____

GROUNDWATER:

Encountered @ _____ ft.

After completion _____ ft.

After _____ hrs. _____ ft.

Seepage _____ ft.

Boring Caved at _____ ft.

MONITOR WELL DATA:

Pipe/Type _____

Length _____

Above Ground _____

Cap _____

Screen/Type _____

Size _____

Slot _____

Set @ _____

Backfilled _____

Bentonite Seal _____

Grout/Type _____

Depth _____

Protective Casing _____

Materials Cleaned _____

Development _____

REMARKS: _____

LEGEND:

Blow Count/Blows per 6"
w/140# hammer x 30" drop

SS - 2" Split Spoon Sampler

LS - Brass Liner Sample

ST - Shelby Tube Sample

SNR - Sample not recovered

Type	REC	Count	in Feet	SOIL DESCRIPTION	Wt
			6"	Topsoil	
			2'	Small gravel over topsoil	
				Sampled at 2'	
			5'	Clay	
			10'		
			15'		
			20'		
			25'		
			30'		

Job No. 5-6220

LOG OF TEST BORING NO. 3

Sheet 3 of 5

Project 770 S. Adams

Location Birmingham

Date Completed 12/29/95

Crew Chief _____

Drill Rig _____

Boring Method _____

Hole Plugged With _____

GROUNDWATER:

Encountered @ _____ ft.

After completion _____ ft.

After _____ hrs. _____ ft.

Seepage _____ ft.

Boring Caved at _____ ft.

MONITOR WELL DATA:

Pipe/Type _____

Length _____

Above Ground _____

Cap _____

Screen/Type _____

Size _____

Slot _____

Set @ _____

Backfilled _____

Bentonite Seal _____

Grout/Type _____

Depth _____

Protective Casing _____

Materials Cleaned _____

Development _____

REMARKS: _____

LEGEND:

Blow Count/Blows per 6"

w/140# hammer x 30" drop

SS - 2" Split Spoon Sampler

LS - Brass Liner Sample

ST - Shelby Tube Sample

SNR - Sample not recovered

Sample Type	REC	Blow Count	In Feet	SOIL DESCRIPTION	Wt
			6"	Topsoil	
			1'	Topsoil + Gravel	
				Clay	
			5	Sampled at 2'	
			10		
			15		
			20		
			25		
			30		

Job No. 5-620

LOG OF TEST BORING NO. 4

Sheet 4 of 5

Project 770 S. Adams

Location Birmingham

Date Completed 12/29/95

Crew Chief _____

Drill Rig _____

Boring Method _____

Hole Plugged With _____

GROUNDWATER:

Encountered @ _____ ft.

After completion _____ ft.

After _____ hrs. _____ ft.

Seepage _____ ft.

Boring Caved at _____ ft.

MONITOR WELL DATA:

Pipe/Type _____

Length _____

Above Ground _____

Cap _____

Screen/Type _____

Size _____

Slot _____

Set @ _____

Backfilled _____

Bentonite Seal _____

Grout/Type _____

Depth _____

Protective Casing _____

Materials Cleaned _____

Development _____

REMARKS: _____

LEGEND:

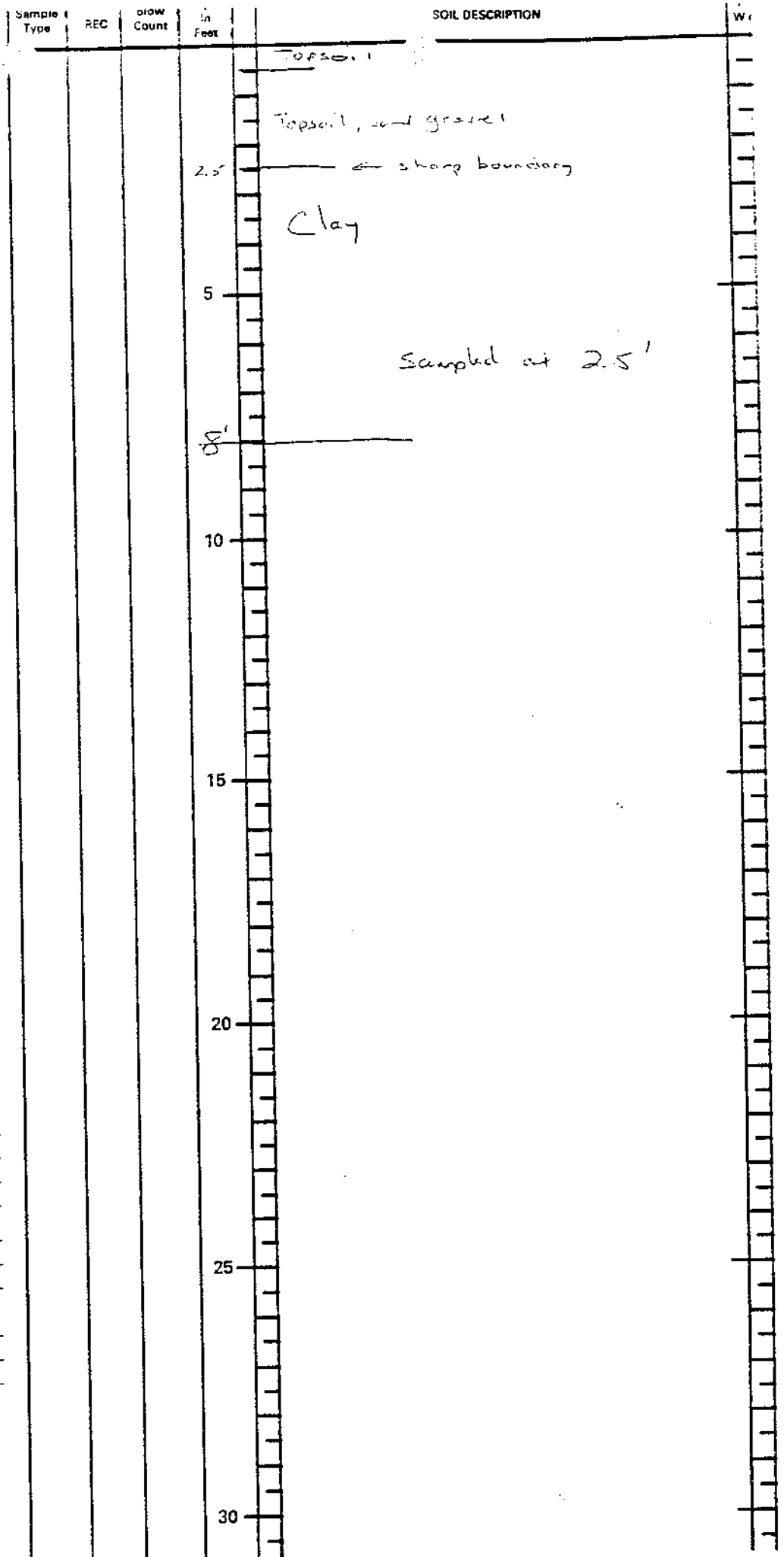
Blow Count/Blows per 6"
w/140# hammer x 30" drop

SS - 2" Split Spoon Sampler

LS - Brass Liner Sample

ST - Shelby Tube Sample

SNR - Sample not recovered



Job No. 5-6220

LOG OF TEST BORING NO. 5

Sheet 5 of 5

Project 770 S Adams

Location Birmingham

Date Completed 12/29/95

Crew Chief _____

Drill Rig _____

Boring Method _____

Hole Plugged With _____

GROUNDWATER:

Encountered @ _____ ft.

After completion _____ ft.

After _____ hrs. _____ ft.

Seepage _____ ft.

Boring Caved at _____ ft.

MONITOR WELL DATA:

Pipe/Type _____

Length _____

Above Ground _____

Cap _____

Screen/Type _____

Size _____

Slot _____

Set @ _____

Backfilled _____

Bentonite Seal _____

Grout/Type _____

Depth _____

Protective Casing _____

Materials Cleaned _____

Development _____

REMARKS: _____

LEGEND:

BlowCount/Blows per 6"
w/140# hammer x 30" drop

SS - 2" Split Spoon Sampler

LS - Brass Liner Sample

ST - Shelby Tube Sample

SNR - Sample not recovered

Sample Type	REC	Blow Count	In Feet	SOIL DESCRIPTION	W
			6"	Topsoil	
				Topsoil and gravel	
			2 1/4	Clayey topsoil + gravel	
			5	Clay Sampled at 2.5'	
			8'		
			10		
			15		
			20		
			25		
			30		

ANALYTICAL RESULTS

Fibertec
Environmental
Services

DATE ANALYZED: 122995
METHODS: USEPA 5030, 8020
FIBERTEC PROJECT #: 101508-2

CLIENT: Geodynamics

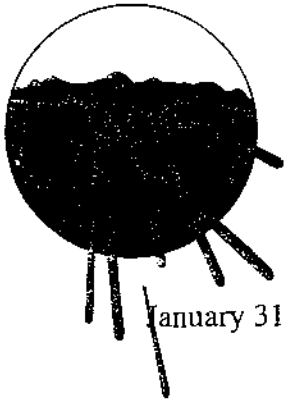
SITE/LOCATION: Office Plaza

SAMPLE IDENTIFICATION	DESCRIPTION (MATRIX) (DEPTH)	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	MIBK	SURROGATE PERCENT RECOVERY
HOLE 1	SOIL 2.5'	<10	<10	<10	<30	<10	93
HOLE 2	SOIL 2'	<10	<10	<10	<30	<10	100
HOLE 3	SOIL 2'	<10	<10	<10	<30	<10	83
HOLE 4	SOIL 2.5'	<10	<10	<10	<30	<10	97
HOLE 5	SOIL 2.5'	<10	<10	<10	<30	<10	93
QUALITY CONTROL		BENZENE	TOLUENE	ETHYL BENZENE	P,M-XYLENE	O-XYLENE	SURROGATE PERCENT RECOVERY
INITIAL CHECK STANDARD %R							
METHOD BLANK							
MATRIX SPIKE (SOIL) %R							
MATRIX SPIKE DUPLICATE (SOIL) %R							
CONTROL LIMITS		74-150	70-160	74-150	73-150	79-150	50-150%
RELATIVE PERCENT DIFFERENCE		=DIV/0!	=DIV/0!	=DIV/0!	=DIV/0!	=DIV/0!	

FIELD CHEMIST

QA/QC REVIEWER

UNITS ARE UG/L (WATER) AND UG/KG (SOIL)
DETECTION LIMITS: SOIL 100PPB - MIBK, 10PPB - BTEX
WATER 50PPB - MIBK, 1PPB - BTEX
unless otherwise stated



Environmental Testing & Consulting, Inc.

Professional Management of Environmental Issues

January 31, 1996

William Smith
Specialty Systems of MI
28650 Northline Road
Romulus MI 48174

RE: *Air Monitoring and Abatement Activities at Birmingham Office Plaza. ETC Job
#: 81356-96, Client Job #:/P.O.#: 96D0018000/41921.*

Dear Mr. Smith:

Enclosed please find an executive summary regarding the air monitoring and abatement activities at Birmingham Office Plaza (Mechanical Room) located at 770 South Adams Road in Birmingham, Michigan on January 24, 1996. Also enclosed are the sampling results, copies of the hand written data sheets, daily field notes, map of sample locations, daily checklists and contractor employee lists.

Thank you for selecting ETC, it has been a pleasure working for you. Further environmental consultation and management services are available upon request. If you have any questions regarding this report, please refer to the daily field notes or contact me at (313) 326-9127.

Sincerely,
Environmental Testing & Consulting, Inc.

Sherry Gacloch

Sherry Gacloch
Office Manager

SG/am

Enclosures

Executive Summary

Specialty Systems of Michigan was contracted to perform an abatement project encompassing asbestos materials at Birmingham Office Plaza located at 770 South Adams Road in Birmingham, Michigan on January 24, 1996. Specialty Systems of Michigan in turn retained Environmental Testing and Consulting, Inc. to provide consultation, air sampling and laboratory analysis during the course of the project.

This project involved clean up of elbow joint debris and removal of approximately 36 linear feet of pipe insulation from the Mechanical Room. This removal work was accomplished utilizing glove bagging techniques.

John Weldon of Specialty Systems of Michigan was the company's on-site competent person. The Specialty Systems of Michigan crew wore proper protection as required by OSHA during all work. This protection included disposable coveralls, appropriate respirators and other safety equipment as required by this project. Additionally, during all work practices, warning signs and barriers were used to keep building occupants away from the work areas.

ETC reviewed the contractors work practices and assured that the work was being performed in accordance with all applicable regulations, standards, and when applicable the specifications for this project.

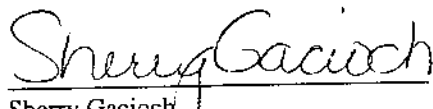
Throughout the removal process, ETC conducted air sampling in the work areas and in surrounding areas to determine if any contamination was occurring that could affect either the contractors or building owners employees. The results of this sampling have been summarized on the sample result sheets that follow. The PCM clearance level in this case was 0.050 fibers per cubic centimeter (f/cc) of air as required by the Michigan Occupational Health and Safety Administration Clean Air Standard (MIOSHA). *Please note that for each area where work occurred, sampling was performed which demonstrated that airborne fiber levels in the area were below the acceptable clearance level for this project before building occupants were allowed to reoccupy the area.*

The following are regulated levels that pertain to asbestos abatement activities:

- 0.010 f/cc - Environmental Protection Agency (EPA) - Clearance Level Mandated for Schools only
- 0.050 f/cc - Michigan Occupational Safety and Health Administration (MIOSHA) - Clearance Level for all non-school buildings
- 0.10 f/cc - Occupational Safety and Health Administration (OSHA) - Action Level
- 0.10 f/cc - Occupational Safety and Health Administration (OSHA) - Permissible Exposure Level

ETC is a member of the Proficiency Analytical Testing (PAT) program conducted by the American Industrial Association (AIHA). Further, individual analysts are registered with the AIHA Asbestos Analysts Registry (AAR) program.

Reviewed and signed by:


Sherry Gacioch
Office Manager

PCM AIR RESULTS

Page: 1

CLIENT: Specialty Systems of MI
28650 Northline Road
Romulus, MI 48174

PROJECT DATE: 1/24/96
ETC PROJECT #: 81356-96
CLIENT P.O. #: 41921
CLIENT JOB #: 96D0018000

PROJECT LOCATION: Birmingham Office Plaza, 770 South Adams Road, Birmingham, MI.

Sample Code	Sampling Period		Sampled Air Volume (Liters)	Fibers per cubic centimeter (f/cc)	Description and Location
	Start	Stop			
FB1				0 Fibers	Field Blank
FB2				3 Fibers	Field Blank
BL1	1746	1931	1260	0.0086	Directly at the bottom of the platform stairs, 8' west of mechanical auditioning room
EX1	1943	2013	75	<0.065	John Weldon III, 377-50-6198
PS1	2013	2307	435	0.017	John Weldon III, 377-50-6198
				0.010	8hr twa for John Weldon III, 377-50-6198
WP1	1950	2334	2688	0.0032	Directly at the bottom of the platform stairs, 8' west of mechanical auditioning room
WP2	1950	2334	2688	0.0044	South east corner of fan/furnace, 4' north of platform
WP3	1950	2334	2688	0.0018	10' north of platform stairs, 6' east of fan/furnace
End of Report					

AA - Ambient Air Sample
BE - Background Sample (Exterior)
BI - Background Sample (Interior)
BL - Baseline Sample
CS - Contiguous Sample
EA - Exhaust Air
EX - Excursion Sample

PA - Post Abatement Sample
PP - Personal Post Abatement
PS - Personal Sample
WA - Work Area Sample
WP - Work Area Post Abatement
* - Mobile Sample
BDL - Below the Detection Limit

DAILY PROJECT LOG

1730 - I, Jon Burtran, arrived at Birmingham office Plaza 770 S. Adams. I met with John Weldon who took myself to the Mechanical Rm. Immediately we noticed fallen pieces of elbow joints that had been on the floor.

John Weldon III sprayed water on the floor and cleaned up the debris. John Weldon III then continued to hang glovebags as I placed a BL Sample in order to detect the air quality. I pulled the BL sample at 1931 + analyzed it. SSI then prepared for abatement the BL sample = .0086. So I cautioned John Weldon III to be extra careful and to use plenty of water.

1945 - Abatement began with the abatement of 36 elbow joints.

2330 - Abatement + encapsulation was complete.

I then analyzed the SWP, PS, and packed my equipment and left at 2430.

Contractor: SSI

Project Hours from 5:30 am through 12:30 am

Page of

Client: SSI

Facility: Birmingham office Plaza Building Bham office Plaza Area: Mechanical Rm

Hygienist(s) Signature (1) Jon Burtran

(2)

Date: 1-24-96

ETC Project #: 81356

SITE SCHEMATICS

LEGEND

PS - Personnel Sample
EX - Excursion Sample
WA - Work Area Sample
EA - HEPA Exhaust Air

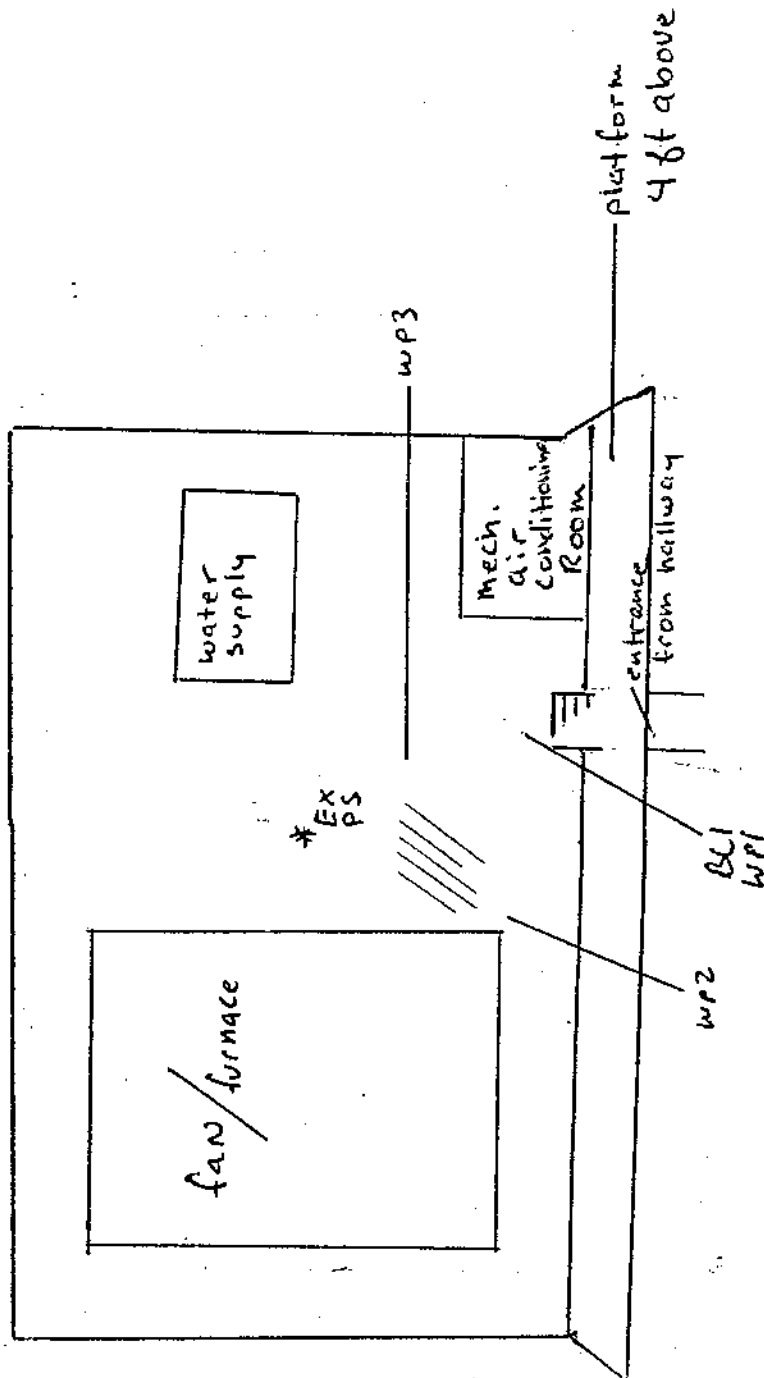
CS - Contiguous Sample
BL - Baseline Sample
AA - Ambient Air Sample
PA - PCM Post Abatement
TM - TEM Ambient Air

PI - TEM Post (Interior)
PE - TEM Post (Exterior)
WP - Work Area / Post Abatement
PP - Personnel / Post Abatement
DD - Double Flapped Entrance

Poly Wall or Barrier
Air Filtration Device
(one per <)
Work Area

Decontamination Unit
Clean Room
Shower
Dining Room

Waste Bag Out



Client: SSI

Facility: Birmingham office plaza Building B'ham office plaza Area: mechanical Rm

Hygienist Signature (1) Jan Burton

Date: 1-24-96

ETC Project #: 81356

Final Clearance Monitoring (Phase Contrast Microscopy)

Work Area (s) Description Mechanical Room (Page of)

- This is the ☒ 1st ☐ 2nd ☐ 3rd ☐ 4th post abatement sampling for this area
- What was removed during abatement
☒ Pipe ☐ Boiler ☐ Floor Tile ☐ Spray on ☐ Trowelled on ☐ Gasket
☐ Ceiling Panels ☐ Ceiling Tiles ☐ Transit Board ☐ Tank ☐ Other
- Were any materials removed friable ☒ Yes ☐ No
- Approximate amount of material that was removed
 # of sq. ft. # of lin ft. 36 # of cubic yds
- Are Specs Available for this project ☒ Yes ☐ No
- The clearance level for this project is:
☐ f/cc as stated in the Specifications (Section Number)
☐ 0.005 f/cc as required by the Federal Veterans Administration (V.A.)
☒ 0.010 f/cc EPA clearance guideline (Mandatory for AHERA facilities)
☐ 0.050 f/cc Michigan clearance criteria
☐ f/cc Average background concentration before removal operations.
☐ f/cc Other: (Explain)
- Total number of pumps being used for post abatement 3
 Total number of pumps being run inside the work area 3
 Total number of pumps being run outside the work area

8. Number of hours since encapsulation

9. Is this post abatement aggressive ☐ Yes ☒ No

Has the entire area been disturbed with a leaf blower ☐ Yes ☒ No

10. Sample Results

Enclosures / Critical Barriers

Sample #'s	PA <u> </u>	PA <u> </u>	PA <u> </u>	PA <u> </u>	PA <u> </u>
Results (f/cc)					

* If any individual concentration listed above is above the clearance criteria, the post fails and must be re-run. If not, continue calculations.

Average Concentration of Samples Above

95 % UCL of Average Concentration

95 % UCL = Avg. Conc. + (Clearance Standard x 1.645 x Coefficient of Variation)
 If 95 % UCL is below clearance criteria, the post abatement passes

Glove Bagging

Sample #'s	WP <u>1</u>	WP <u>2</u>	WP <u>3</u>	WP <u> </u>	WP <u> </u>
Results (f/cc)	<u>.0032</u>	<u>.0044</u>	<u>.0018</u>		
95 % UCL (f/cc)	<u>.0065</u>	<u>.0077</u>	<u>.0051</u>		

☒ Passed Clearance Standards

☐ Failed Clearance Standards

ETC's on file representative certifies that all clearance samples were taken and analyzed in accordance with appropriate NIOSH 7400 techniques.

ETC Representative: Jon Burtraw

Printed

Jon Burtraw

Signed

1-24-96

Dated

Contractor Representative: JOHN WELDON

Printed

John Weldon

Signed

1-24-96

Dated

Client: SSI

Facility: Birmingham office Plaza

Building B'ham office Plaza ETC Project #: 81856

Page ____ of ____

ENVIRONMENTAL TESTING AND CONSULTING, INC.

GEOdynamic Industries Incorporated

 an earth services company

February 16, 1996

Mr Mark Cherry
Ishbia & Gagleard, P.C.
251 Merrill Street
Birmingham, MI 48009

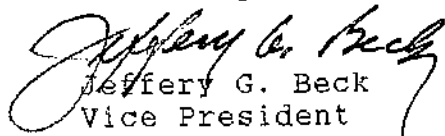
RE: Birmingham Group Incorporated
770 South Adams Road, Birmingham, Michigan
Asbestos Abatement Project

Dear Mr Cherry:

For your review and files we have enclosed a copy of the Air
Monitoring and Abatement Activities Report for the above
referenced project.

If you have any questions please contact our office at 810-642-
3436.

Sincerely,


Jeffery G. Beck
Vice President





NON-HAZARDOUS SPECIAL WASTE & ASBESTOS MANIFEST

If waste is asbestos waste, complete Sections I, II, III and IV.
If waste is NOT asbestos waste, complete only Sections I, II and III.

No. 505586

Section I.

GENERATOR (Generator completes all of Section I)

a. Generator Name: BIRMINGHAM GROUP, INC. b. Generating Location: BIRMINGHAM OFFICE PLAZA
c. Address: 251 MERRILL d. Address: 770 S. ADAMS
BIRMINGHAM, MI. 48009 BIRMINGHAM, MI. 48009
e. Phone No.: (810) 647-8590 f. Phone No.: _____
If owner of the generating facility differs from the generator, provide:
g. Owner's Name: BIRMINGHAM GROUP, INC. h. Owner's Phone No.: (810) 647-8590

i. BFI WASTE CODE

 Containers

 TYPE
DM - METAL DRUM
DP - PLASTIC DRUM
B - BAG
BA - 6 MIL. PLASTIC BAG or WRAP
T - TRUCK
O - OTHER
j. Description of Waste: RD WASTE ASBESTOS k. Quantity 0.5 Units 15 FIBER DRUMS
CLASS 9, NA2212, PG III

 NO. TYPE

GENERATOR'S CERTIFICATION: I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations; AND, if the waste is a treatment residue of a previously restricted hazardous waste subject to the Land Disposal Restrictions, I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR Part 268 and is no longer a hazardous waste as defined by 40 CFR Part 261.

Mark W. Cherry
Generator Authorized Agent Name

Mark W. Cherry 012496
Signature Shipment Date

Section II

TRANSPORTER (Generator complete a-d; Transporter I complete e-g; Transporter II complete h-n)

TRANSPORTER I

a. Name: SPECIALTY SYSTEMS OF MICH. INC.
b. Address: 28650 NORTHLINE RD.
ROMULUS, MI. 48174
c. Driver Name/Title: JOHN WELDON / SUPERVISOR
d. Phone No.: (313) 941-5600 e. Truck No.: 8029
f. Vehicle License No./State: MI.
Acknowledgement of Receipt of Materials.

g. John Weldon 012496
Driver Signature Shipment Date

TRANSPORTER II

h. Name: BFI WASTE SYSTEMS
i. Address: 5400 COGSWELL RD.
WAYNE, MI.
j. Driver Name/Title: JOE P. JOY
k. Phone No.: 727 8200 l. Truck No.: 1571
m. Vehicle License No./State: MI 221402
Acknowledgement of Receipt of Materials.

n. [Signature] 013096
Driver Signature Shipment Date

Section III

DESTINATION (Generator completes a-d, destination site completes e-f.)

a. Name: BFI APPROX HILLS (BANKEN)

GEodynamic Industries Incorporated

 an earth services company

February 14, 1996

Mr. Steven Rusin
National Bank of Royal Oak
215 S. Center St.
Royal Oak, Mi 48067

Re: Activities at 770 S. Adams, Birmingham,
Michigan

Dear Mr. Rusin:

This letter serves to confirm the following activities at the above referenced site.

1. Soil samples were collected along the northern property boundary and analyzed for contaminants that would be associated with petroleum impact. The results for those sample locations did not reveal any contamination.
2. The asbestos insulation formerly located in the mechanical room has been removed and properly disposed. The pipe fittings have been re-insulated with high temperature fiberglass and covered with PVC fitting covers. These are "environmentally friendly" materials.

If you have any further questions concerning this site, do not hesitate to contact our office.

Sincerely,
GEodynamic Industries Incorporated



Tom Vallone
Environmental Compliance Coordinator



Appendix D

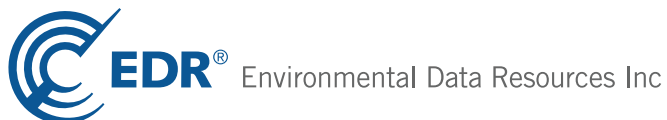
ENVIRONMENTAL DATABASE SEARCH

770 South Adams Road

770 South Adams Road
Birmingham, MI 48009

Inquiry Number: 03530350.2r
February 27, 2013

The EDR Radius Map™ Report with GeoCheck®



440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

770 SOUTH ADAMS ROAD
BIRMINGHAM, MI 48009

COORDINATES

Latitude (North):	42.5418000 - 42° 32' 30.48"
Longitude (West):	83.2060000 - 83° 12' 21.60"
Universal Transverse Mercator:	Zone 17
UTM X (Meters):	318853.3
UTM Y (Meters):	4712078.5
Elevation:	756 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	42083-E2 BIRMINGHAM, MI
Most Recent Revision:	1981

AERIAL PHOTOGRAPHY IN THIS REPORT

Photo Year:	2010
Source:	USDA

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL..... National Priority List

EXECUTIVE SUMMARY

Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

CERCLIS..... Comprehensive Environmental Response, Compensation, and Liability Information System
FEDERAL FACILITY..... Federal Facility Site Information listing

Federal CERCLIS NFRAP site List

CERC-NFRAP..... CERCLIS No Further Remedial Action Planned

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG..... RCRA - Large Quantity Generators
RCRA-SQG..... RCRA - Small Quantity Generators

Federal institutional controls / engineering controls registries

US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROL..... Sites with Institutional Controls
LUCIS..... Land Use Control Information System

Federal ERNS list

ERNS..... Emergency Response Notification System

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Solid Waste Facilities Database
WDS..... Waste Data System

State and tribal leaking storage tank lists

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

AST..... Aboveground Tanks
INDIAN UST..... Underground Storage Tanks on Indian Land
FEMA UST..... Underground Storage Tank Listing

State and tribal voluntary cleanup sites

INDIAN VCP..... Voluntary Cleanup Priority Listing

EXECUTIVE SUMMARY

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations
ODI..... Open Dump Inventory
HIST LF..... Inactive Solid Waste Facilities
INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands

Local Lists of Hazardous waste / Contaminated Sites

US CDL..... Clandestine Drug Labs
DEL SHWS..... Delisted List of Contaminated Sites
CDL..... Clandestine Drug Lab Listing
US HIST CDL..... National Clandestine Laboratory Register

Local Land Records

LIENS 2..... CERCLA Lien Information
LIENS..... Lien List

Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System
SPILLS..... Pollution Emergency Alerting System

Other Ascertainable Records

DOT OPS..... Incident and Accident Data
DOD..... Department of Defense Sites
FUDS..... Formerly Used Defense Sites
CONSENT..... Superfund (CERCLA) Consent Decrees
ROD..... Records Of Decision
UMTRA..... Uranium Mill Tailings Sites
US MINES..... Mines Master Index File
TRIS..... Toxic Chemical Release Inventory System
TSCA..... Toxic Substances Control Act
FTTS..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing
SSTS..... Section 7 Tracking Systems
ICIS..... Integrated Compliance Information System
PADS..... PCB Activity Database System
MLTS..... Material Licensing Tracking System
RADINFO..... Radiation Information Database
FINDS..... Facility Index System/Facility Registry System
RAATS..... RCRA Administrative Action Tracking System
RMP..... Risk Management Plans
UIC..... Underground Injection Wells Database
NPDES..... List of Active NPDES Permits
AIRS..... Permit and Emissions Inventory Data
INDIAN RESERV..... Indian Reservations
SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing

EXECUTIVE SUMMARY

US AIRS.....	Aerometric Information Retrieval System Facility Subsystem
PRP.....	Potentially Responsible Parties
Financial Assurance.....	Financial Assurance Information Listing
EPA WATCH LIST.....	EPA WATCH LIST
US FIN ASSUR.....	Financial Assurance Information
PCB TRANSFORMER.....	PCB Transformer Registration Database
2020 COR ACTION.....	2020 Corrective Action Program List
COAL ASH.....	Coal Ash Disposal Sites
COAL ASH DOE.....	Steam-Electric Plant Operation Data
COAL ASH EPA.....	Coal Combustion Residues Surface Impoundments List

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP.....	EDR Proprietary Manufactured Gas Plants

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA generators list

RCRA-CESQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

A review of the RCRA-CESQG list, as provided by EDR, and dated 12/11/2012 has revealed that there are 3 RCRA-CESQG sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
PERRY DRUG STORES INC	597 S ADAMS RD	NNE 0 - 1/8 (0.080 mi.)	B8	13
<i>HALBEISEN TOM INC</i>	<i>835 HAYNES ST</i>	<i>WNW 0 - 1/8 (0.107 mi.)</i>	<i>C10</i>	<i>14</i>
<i>FRED LAVERY CO</i>	<i>34602 WOODWARD AVE</i>	<i>NW 1/8 - 1/4 (0.223 mi.)</i>	<i>29</i>	<i>33</i>

EXECUTIVE SUMMARY

State- and tribal - equivalent CERCLIS

SHWS: The State Hazardous Waste Sites records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The data come from the Department of Environmental Quality's Contaminated Sites List on Diskette With Address.

A review of the SHWS list, as provided by EDR, and dated 10/31/2012 has revealed that there is 1 SHWS site within approximately 1 mile of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
EAST LINCOLN ROAD PROPERTY Facility Status: Interim Response conducted - No further activities anticipated	2400 EAST LINCOLN ROAD	ESE 1/2 - 1 (0.782 mi.)	50	72

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Environmental Quality's Leaking Underground Storage Tank (LUST) Database.

A review of the LUST list, as provided by EDR, and dated 11/05/2012 has revealed that there are 14 LUST sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
THE PLANT STATION Facility Status: Closed	720 ADAMS	NE 0 - 1/8 (0.010 mi.)	A1	7
GOODYEAR TIRE CENTER 1685 Facility Status: Closed	835 HAYNES ST	WNW 0 - 1/8 (0.107 mi.)	C11	16
AMERICAR Facility Status: Closed	860 S WOODWARD	WSW 1/8 - 1/4 (0.131 mi.)	D13	18
TIFFANY FLORIST Facility Status: Open	772-784 S OLD WOODWARD	W 1/8 - 1/4 (0.155 mi.)	F19	23
ESTATE MOTORS Facility Status: Closed	464 S WOODWARD AVE	WNW 1/4 - 1/2 (0.267 mi.)	I33	37
SPEEDWAY SUPERAMERICA LLC Facility Status: Closed	34750 WOODWARD AVE	NW 1/4 - 1/2 (0.300 mi.)	J35	43
BIRMINGHAM STANDARD Facility Status: Closed	1088 E MAPLE RD	N 1/4 - 1/2 (0.334 mi.)	K36	48
BUDGET RENT-A-CAR Facility Status: Open	1000 E MAPLE	N 1/4 - 1/2 (0.336 mi.)	L37	51
JAX KAR WASH #048 Facility Status: Open	34745 WOODWARD	NW 1/4 - 1/2 (0.337 mi.)	J38	53
DIETZ CORPORATION (PARKING LOT) Facility Status: Open	985 E. MAPLE ROAD	N 1/4 - 1/2 (0.339 mi.)	L41	56
SHELL - HUNTER Facility Status: Open Facility Status: Closed	34977 WOODWARD AVE	NW 1/4 - 1/2 (0.410 mi.)	M45	63
SUNOCO #0008-4178 Facility Status: Closed	35001 WOODWARD AVE	NW 1/4 - 1/2 (0.442 mi.)	48	69

EXECUTIVE SUMMARY

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
WOODLINC/MICH LTD PARTNERSHIP Facility Status: Open	1050 S OLD WOODWARD AVE	SSW 1/8 - 1/4 (0.161 mi.)	E20	25
BIRMINGHAM CLEANERS INC Facility Status: Closed	33866 WOODWARD AVE	S 1/4 - 1/2 (0.269 mi.)	34	38

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Environmental Quality's Michigan UST database.

A review of the UST list, as provided by EDR, and dated 11/05/2012 has revealed that there are 5 UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
THE PLANT STATION	720 ADAMS	NE 0 - 1/8 (0.010 mi.)	A1	7
GOODYEAR TIRE CENTER 1685	835 HAYNES ST	WNW 0 - 1/8 (0.107 mi.)	C11	16
AMERICAR	860 S WOODWARD	WSW 1/8 - 1/4 (0.131 mi.)	D13	18
TIFFANY FLORIST	772-784 S OLD WOODWARD	W 1/8 - 1/4 (0.155 mi.)	F19	23
VILLAGE JEEP EAGLE	666 S WOODWARD	W 1/8 - 1/4 (0.181 mi.)	G23	26

State and tribal institutional control / engineering control registries

AUL: A listing of sites with institutional and/or engineering controls in place.

A review of the AUL list, as provided by EDR, and dated 03/28/2012 has revealed that there is 1 AUL site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CATALYST DEVELOPMENT CO 8 LLC	34977 WOODWARD AVE	NW 1/4 - 1/2 (0.410 mi.)	M46	66

State and tribal Brownfields sites

BROWNFIELDS: Brownfields and USTfield Site Database.

A review of the BROWNFIELDS list, as provided by EDR, and dated 07/27/2012 has revealed that there is 1 BROWNFIELDS site within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
BIRMINGHAM CLEANERS INC	33866 WOODWARD AVE	S 1/4 - 1/2 (0.269 mi.)	34	38

EXECUTIVE SUMMARY

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: The EPA's listing of Brownfields properties from the Cleanups in My Community program, which provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

A review of the US BROWNFIELDS list, as provided by EDR, and dated 12/10/2012 has revealed that there is 1 US BROWNFIELDS site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
WEISS SAMONA	34901 WOODWARD AVENUE	NW 1/4 - 1/2 (0.375 mi.)	M44	59

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: A listing of recycling center locations.

A review of the SWRCY list, as provided by EDR, and dated 11/24/2009 has revealed that there is 1 SWRCY site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CORE INDUSTRIES GROUP, LLC	330 EAST MAPLE RD., STE	NW 1/4 - 1/2 (0.464 mi.)	49	71

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 12/11/2012 has revealed that there are 6 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
ROSMAN CLEANERS	651 S ADAMS RD	NNE 0 - 1/8 (0.067 mi.)	B7	12
VIRGINIA C CLOHSET TRUST	784 S OLD WOODWARD AVE	W 1/8 - 1/4 (0.153 mi.)	F17	22
VILLAGE AMC/JEEP INC	666 S OLD WOODWARD AVE	W 1/8 - 1/4 (0.183 mi.)	G24	28
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
WEISMAN CLEANERS II	875 S WORTH ST	SSW 0 - 1/8 (0.050 mi.)	3	9
US POSTAL SERVICE	1221 BOWERS ST	NE 1/8 - 1/4 (0.149 mi.)	16	20
MARTINIZING DRY CLEANING OF BI	33989 WOODWARD AVE	S 1/8 - 1/4 (0.185 mi.)	H25	30

EXECUTIVE SUMMARY

DRYCLEANERS: A listing of drycleaning facilities in Michigan.

A review of the DRYCLEANERS list, as provided by EDR, and dated 10/22/2012 has revealed that there is 1 DRYCLEANERS site within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
ROSMAN CLEANERS INC*	651 SOUTH ADAMS	NNE 0 - 1/8 (0.067 mi.)	B6	12

BEA: Baseline Environmental Assessment.

A review of the BEA list, as provided by EDR, and dated 11/26/2012 has revealed that there are 14 BEA sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
WOODWARD AND GEORGE, LLC	772-784 SOUTH OLD WOODW	W 1/8 - 1/4 (0.155 mi.)	F18	23
JIMMIES RUSTICS	690 SOUTH OLD WOODWARD	W 1/8 - 1/4 (0.169 mi.)	F21	26
GOLLING MOTORS, INC.	34500 WOODWARD AVENUE	WNW 1/8 - 1/4 (0.174 mi.)	22	26
JAX KAR WASH #048	34745 WOODWARD	NW 1/4 - 1/2 (0.337 mi.)	J38	53
MOBIL OIL CORPORATION	1065 EAST MAPLE ROAD	N 1/4 - 1/2 (0.337 mi.)	K39	55
ELMWOOD PROPERTIES I, LLC	920-970 EAST MAPLE ROAD	N 1/4 - 1/2 (0.338 mi.)	L40	56
DIETZ CORPORATION (PARKING LOT	985 E. MAPLE ROAD	N 1/4 - 1/2 (0.339 mi.)	L41	56
HAMILTON FUNERAL HOME PROPERTY	820 EAST MAPLE ROAD	NNW 1/4 - 1/2 (0.356 mi.)	42	57
CATALYST DEVELOPMENT CO 8 LLC	34977 WOODWARD AVE	NW 1/4 - 1/2 (0.410 mi.)	M46	66
BROWN STREET OFFICE BUILDING	200 EAST BROWN	WNW 1/4 - 1/2 (0.435 mi.)	47	68
SUNOCO #0008-4178	35001 WOODWARD AVE	NW 1/4 - 1/2 (0.442 mi.)	48	69
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
OFFICE BUILDING & PARLING LOT	1000 SOUTH OLD WOODWARD	SSW 1/8 - 1/4 (0.146 mi.)	E15	20
BIRMINGHAM CLEANERS INC	33866 WOODWARD AVE	S 1/4 - 1/2 (0.269 mi.)	34	38
33633 WOODWARD LLC	33633 WOODWARD AVE	SSE 1/4 - 1/2 (0.372 mi.)	43	58

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR US Hist Auto Stat: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR US Hist Auto Stat list, as provided by EDR, has revealed that there are 5 EDR US Hist Auto Stat sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
Not reported	725 S ADAMS RD	NNE 0 - 1/8 (0.054 mi.)	B4	10
Not reported	835 HAYNES ST	WNW 0 - 1/8 (0.107 mi.)	C9	14

EXECUTIVE SUMMARY

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
Not reported	880 BOWERS ST	NW 0 - 1/8 (0.111 mi.)	12	17
Not reported	555 S OLD WOODWARD AVE	WNW 1/8 - 1/4 (0.244 mi.)	I31	36
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
Not reported	1393 E LINCOLN ST	SE 1/8 - 1/4 (0.230 mi.)	30	36

EDR US Hist Cleaners: EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR US Hist Cleaners list, as provided by EDR, has revealed that there are 7 EDR US Hist Cleaners sites within approximately 0.25 miles of the target property.

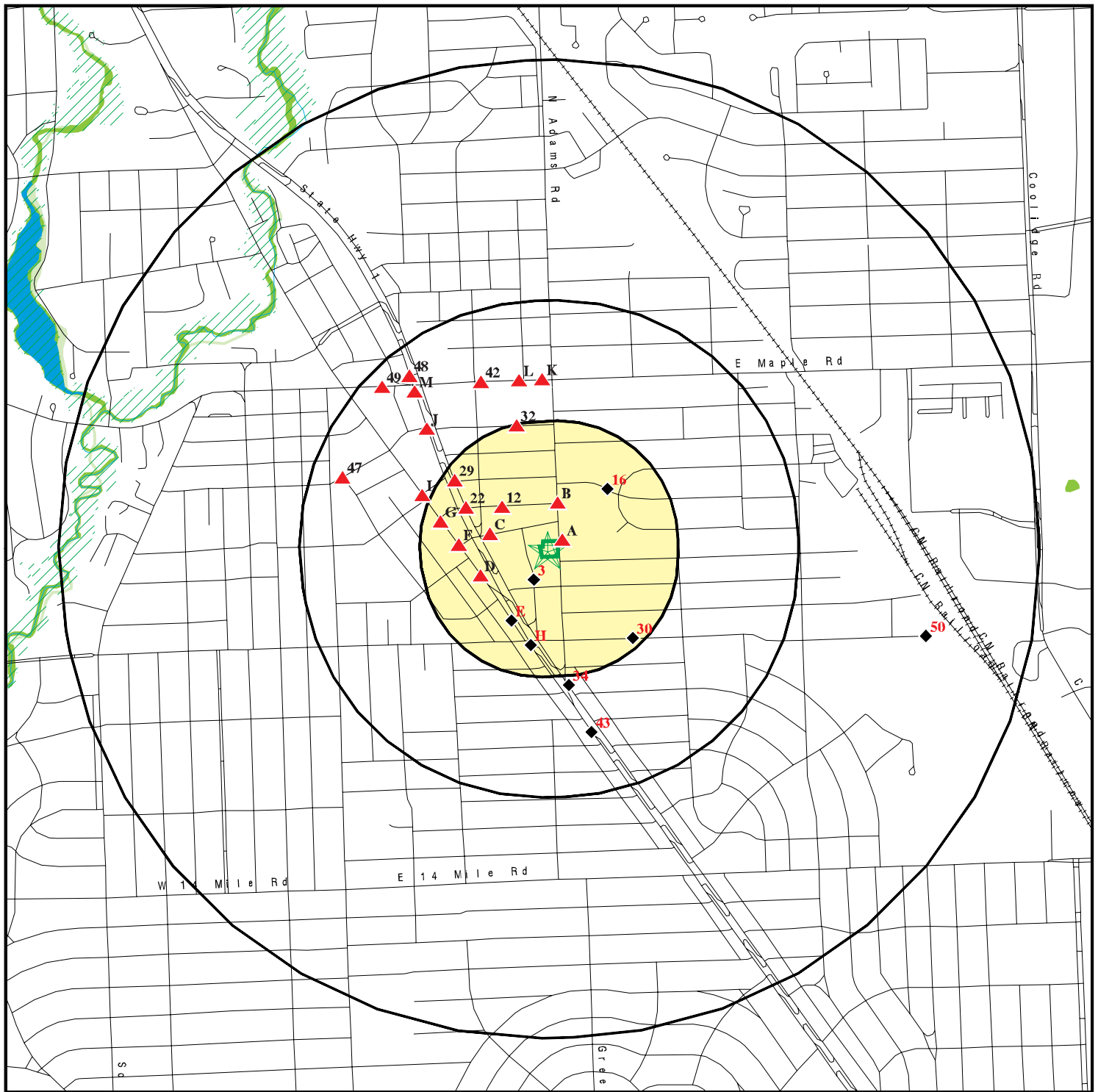
<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
Not reported	651 S ADAMS RD	NNE 0 - 1/8 (0.067 mi.)	B5	11
Not reported	850 S OLD WOODWARD AVE	WSW 1/8 - 1/4 (0.133 mi.)	D14	20
Not reported	608 S OLD WOODWARD AVE	WNW 1/8 - 1/4 (0.211 mi.)	G27	32
Not reported	606 S OLD WOODWARD AVE	WNW 1/8 - 1/4 (0.213 mi.)	G28	33
Not reported	955 FOREST AVE	NNW 1/8 - 1/4 (0.247 mi.)	32	37
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
Not reported	801 S ADAMS RD	SE 0 - 1/8 (0.013 mi.)	A2	9
Not reported	33989 WOODWARD AVE	S 1/8 - 1/4 (0.185 mi.)	H26	32

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 24 records.

Site Name	Database(s)
OHM OF BIRMINGHAM *	DRYCLEANERS
MOBIL SS #03-KPV	LUST, UST
JOYCE A MACK	LUST, UST
BP	LUST, UST
FIRESTONE STORE	LUST, UST
FIRE STATION #4	LUST, UST
KMART #3379	LUST, UST
KMART #4145	LUST, UST
BIRMINGHAM SCHOOLS MAINTENANCE	UST
ESTATE MOTORS	UST
JOES SERVICE STATION	UST
FORMER GAS STATION	UST
CONSUMERS ENERGY CO	AST
PENSKE AUTO CENTER	RCRA NonGen / NLR, FINDS
DTE ENERGY/DETROIT EDISON	RCRA-CESQG
2400 E. LINCOLN	US BROWNFIELDS
GRAND TRUNK WESTERN RAILROAD YARD	BEA
ETON ROAD PROPERTY	BEA
WOODWARD BROWN ASSOCIATES, LLC	BEA
CVS PHARMACY #1150	BEA
SOUTH FLINT GRAVEL, INC.	US MINES
SOUTH HILL SAND & GRAVEL, INC.	US MINES
SOUTH FLINT GRAVEL, INC.	US MINES
ADAMS GREENHOUSE	AIRS

OVERVIEW MAP - 03530350.2r



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

Oil & Gas pipelines from USGS

100-year flood zone

500-year flood zone

National Wetland Inventory

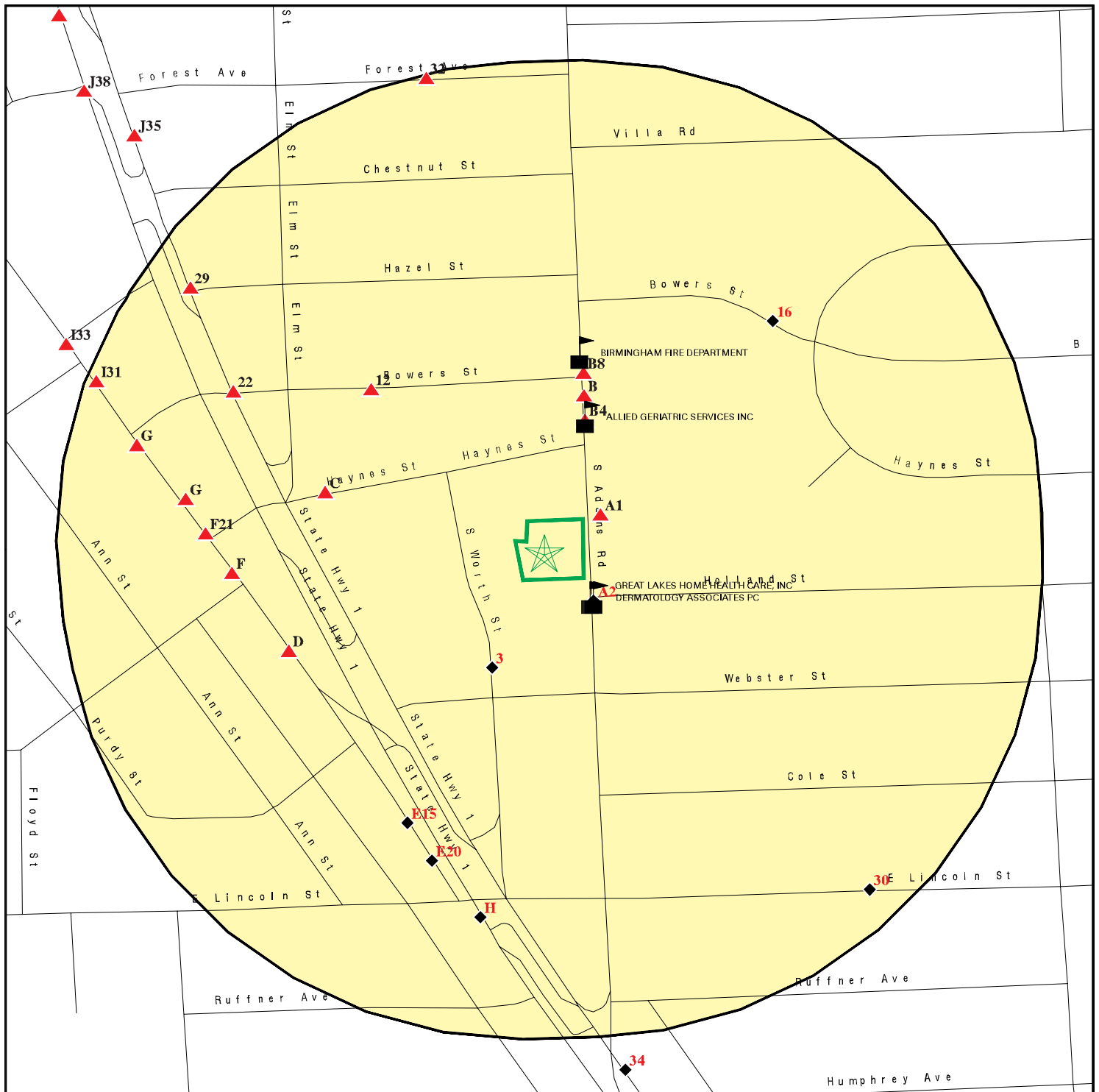
State Wetlands

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: 770 South Adams Road
ADDRESS: 770 South Adams Road
Birmingham MI 48009
LAT/LONG: 42.5418 / 83.206

CLIENT: PM Environmental, Inc.
CONTACT: Candice Wilkins
INQUIRY #: 03530350.2r
DATE: February 27, 2013 10:41 am

DETAIL MAP - 03530350.2r



-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  Sensitive Receptors
-  National Priority List Sites
-  Dept. Defense Sites
-  Indian Reservations BIA
-  Oil & Gas pipelines from USGS
-  100-year flood zone
-  500-year flood zone

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: 770 South Adams Road
 ADDRESS: 770 South Adams Road
 Birmingham MI 48009
 LAT/LONG: 42.5418 / 83.206

CLIENT: PM Environmental, Inc.
 CONTACT: Candice Wilkins
 INQUIRY #: 03530350.2r
 DATE: February 27, 2013 10:46 am

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
<i>Federal NPL site list</i>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL	1.000		0	0	0	0	NR	0
<i>Federal CERCLIS list</i>								
CERCLIS	0.500		0	0	0	NR	NR	0
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
<i>Federal CERCLIS NFRAP site List</i>								
CERC-NFRAP	0.500		0	0	0	NR	NR	0
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS	1.000		0	0	0	0	NR	0
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<i>Federal RCRA generators list</i>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		2	1	NR	NR	NR	3
<i>Federal institutional controls / engineering controls registries</i>								
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
LUCIS	0.500		0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS	TP		NR	NR	NR	NR	NR	0
<i>State- and tribal - equivalent CERCLIS</i>								
SHWS	1.000		0	0	0	1	NR	1
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
SWF/LF	0.500		0	0	0	NR	NR	0
WDS	TP		NR	NR	NR	NR	NR	0
<i>State and tribal leaking storage tank lists</i>								
LUST	0.500		2	3	9	NR	NR	14
INDIAN LUST	0.500		0	0	0	NR	NR	0
<i>State and tribal registered storage tank lists</i>								
UST	0.250		2	3	NR	NR	NR	5

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
FEMA UST	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
AUL	0.500		0	0	1	NR	NR	1
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	1	NR	NR	1
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	1	NR	NR	1
Local Lists of Landfill / Solid Waste Disposal Sites								
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	1	NR	NR	1
HIST LF	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL	TP		NR	NR	NR	NR	NR	0
DEL SHWS	1.000		0	0	0	0	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
US HIST CDL	TP		NR	NR	NR	NR	NR	0
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
LIENS	TP		NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
SPILLS	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		2	4	NR	NR	NR	6
DOT OPS	TP		NR	NR	NR	NR	NR	0
DOD	1.000		0	0	0	0	NR	0
FUDS	1.000		0	0	0	0	NR	0
CONSENT	1.000		0	0	0	0	NR	0
ROD	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
US MINES	0.250		0	0	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
DRYCLEANERS	0.250		1	0	NR	NR	NR	1
NPDES	TP		NR	NR	NR	NR	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0
BEA	0.500		0	4	10	NR	NR	14
INDIAN RESERV	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
COAL ASH	0.500		0	0	0	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	1.000		0	0	0	0	NR	0
EDR US Hist Auto Stat	0.250		3	2	NR	NR	NR	5
EDR US Hist Cleaners	0.250		2	5	NR	NR	NR	7

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A1
NE
< 1/8
0.010 mi.
52 ft.

THE PLANT STATION
720 ADAMS
BIRMINGHAM, MI 48011

Site 1 of 2 in cluster A

LUST
UST

U003324173
N/A

Relative:
Higher

LUST:

Facility ID: 00018613
Source: STATE OF MICHIGAN
Owner Name: Lynn E. Arft
Owner Address: 720 ADAMS
Owner City,St,Zip: BIRMINGHAM, MI 48011
Owner Contact: Not reported
Owner Phone: (313) 642-8900
Country: USA
District: SE Michigan District Office
Site Name: The Plant Station
Latitude: 42.54215
Longitude: -83.20557
Date of Collection: 10/05/2004
Method of Collection: Address Matching-House Number
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Data: NAD83
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)

Leak Number: C-0922-97
Release Date: 10/13/1997
Substance Released: Gasoline,Unknown
Release Status: Closed
Release Closed Date: 11/24/1998

UST:

Facility ID: 00018613
Facility Type: CLOSED
Latitude: 42.54215
Longitude: -83.20557
Owner Name: LYNN E. ARFT
Owner Address: 720 ADAMS
Owner City,St,Zip: BIRMINGHAM, MI 48011
Owner Country: USA
Owner Contact: Not reported
Owner Phone: (313) 642-8900
Contact: LYNN E. ARFT
Contact Phone: (313) 642-8900
Date of Collection: 10/05/2004
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)
Method of Collection: Address Matching-House Number

Tank ID: 1
Tank Status: **Removed from Ground**
Capacity: 4000
Install Date: 04/11/1985
Product: Gasoline

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

THE PLANT STATION (Continued)

U003324173

Remove Date: 07/01/1987
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel,Cathodically Protected Steel
Impressed Device: No

Tank ID: 2
Tank Status: Removed from Ground
Capacity: 6000
Install Date: 04/11/1958
Product: Gasoline
Remove Date: 07/01/1987
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 3
Tank Status: Removed from Ground
Capacity: 6000
Install Date: 04/11/1958
Product: Gasoline
Remove Date: 07/01/1987
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 4
Tank Status: Removed from Ground
Capacity: 6000
Install Date: 04/11/1969
Product: Gasoline
Remove Date: 07/01/1987
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A2
SE
< 1/8
0.013 mi.
71 ft.

801 S ADAMS RD
BIRMINGHAM, MI 48009

Site 2 of 2 in cluster A

EDR US Hist Cleaners

1015097026
N/A

Relative:
Lower

EDR Historical Cleaners:

Name: MAIKAI CLEANERS
Year: 2007
Address: 801 S ADAMS RD

Actual:
755 ft.

3
SSW
< 1/8
0.050 mi.
266 ft.

WEISMAN CLEANERS II
875 S WORTH ST
BIRMINGHAM, MI 48009

RCRA NonGen / NLR
FINDS

1000383382
MID016755902

Relative:
Lower

RCRA NonGen / NLR:

Date form received by agency: 10/26/2006
Facility name: WEISMAN CLEANERS II
Facility address: 875 S WORTH ST
BIRMINGHAM, MI 48009
EPA ID: MID016755902
Contact: JEFFERY CARTER
Contact address: 875 S WORTH ST
BIRMINGHAM, MI 48009
Contact country: US
Contact telephone: (313) 644-0222
Contact email: Not reported
EPA Region: Not reported
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Actual:
755 ft.

Owner/Operator Summary:

Owner/operator name: NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/02/1990
Owner/Op end date: Not reported

Owner/operator name: NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/02/1990
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WEISMAN CLEANERS II (Continued)

1000383382

Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
Used oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 09/17/1998
Facility name: WEISMAN CLEANERS II
Classification: Not a generator, verified

Date form received by agency: 10/06/1986
Facility name: WEISMAN CLEANERS II
Classification: Small Quantity Generator

Hazardous Waste Summary:

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKEY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Violation Status: No violations found

FINDS:

Registry ID: 110003586478

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

B4
NNE
< 1/8
0.054 mi.
285 ft.

725 S ADAMS RD
BIRMINGHAM, MI 48009

Site 1 of 5 in cluster B

Relative:
Higher

EDR Historical Auto Stations:
Name: SMW AUTOMOTIVE CORP
Year: 2001
Address: 725 S ADAMS RD

Actual:
757 ft.

EDR US Hist Auto Stat **1015617341**
N/A

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

1015617341

Name: AUTOMOTIVE CMNCTN GROUP INC
Year: 2003
Address: 725 S ADAMS RD

B5
NNE
< 1/8
0.067 mi.
356 ft.

651 S ADAMS RD
BIRMINGHAM, MI 48009

Site 2 of 5 in cluster B

EDR US Hist Cleaners 1015084920
N/A

Relative:
Higher

EDR Historical Cleaners:

Name: ROSMAN CLEANERS
Year: 2001
Address: 651 S ADAMS RD

Actual:
757 ft.

Name: ROSMAN CLEANERS
Year: 2002
Address: 651 S ADAMS RD

Name: ROSEMONT CLEANERS
Year: 2004
Address: 651 S ADAMS RD

Name: ROSMAN CLEANERS
Year: 2004
Address: 651 S ADAMS RD

Name: ROSMAN CLEANERS
Year: 2005
Address: 651 S ADAMS RD

Name: ROSMAN CLEANERS
Year: 2006
Address: 651 S ADAMS RD

Name: ROSMAN CLEANERS
Year: 2007
Address: 651 S ADAMS RD

Name: ROSMAN CLEANERS
Year: 2008
Address: 651 S ADAMS RD

Name: ROSMAN CLEANERS
Year: 2010
Address: 651 S ADAMS RD

Name: ROSMAN CLEANERS
Year: 2011
Address: 651 S ADAMS RD

Name: ROSMAN CLEANERS
Year: 2012
Address: 651 S ADAMS RD

Map ID
Direction
Distance
Elevation

MAP FINDINGS

EDR ID Number
EPA ID Number

B6
NNE
< 1/8
0.067 mi.
356 ft.
ROSAN CLEANERS INC*
651 SOUTH ADAMS
BIRMINGHAM, MI 48009
Site 3 of 5 in cluster B

DRYCLEANERS
S106440149
N/A

Relative:
Higher
Actual:
757 ft.
DRYCLEANERS:
Establishment#: 6300141
DCM #: 1
DCM Type: Perc
Total lb: 55

B7
NNE
< 1/8
0.067 mi.
356 ft.
ROSAN CLEANERS
651 S ADAMS RD
BIRMINGHAM, MI 48009
Site 4 of 5 in cluster B

RCRA NonGen / NLR
FINDS
1000865575
MI0000079103

Relative:
Higher
Actual:
757 ft.
RCRA NonGen / NLR:
Date form received by agency: 09/17/1998
Facility name: ROSAN CLEANERS
Facility address: 651 S ADAMS RD
BIRMINGHAM, MI 48009
EPA ID: MI0000079103
Contact: POM YI
Contact address: 651 S ADAMS RD
BIRMINGHAM, MI 48009
Contact country: US
Contact telephone: (248) 646-9549
Contact email: Not reported
EPA Region: Not reported
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: POM YI
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 03/04/1998
Owner/Op end date: Not reported

Owner/operator name: POM YI
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 03/04/1998
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ROSMAN CLEANERS (Continued)

1000865575

Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 12/14/1993
Facility name: ROSMAN CLEANERS
Classification: Small Quantity Generator

Hazardous Waste Summary:

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKEY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Violation Status: No violations found

FINDS:

Registry ID: 110003561155

Environmental Interest/Information System

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B8
NNE
< 1/8
0.080 mi.
421 ft.

PERRY DRUG STORES INC
597 S ADAMS RD
BIRMINGHAM, MI 48009

Site 5 of 5 in cluster B

RCRA-CESQG 1015753909
MIK196218299

Relative:
Higher

RCRA-CESQG:

Actual:
757 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

C9
WNW
< 1/8
0.107 mi.
564 ft.

835 HAYNES ST
BIRMINGHAM, MI 48009

Site 1 of 3 in cluster C

EDR US Hist Auto Stat

1015651826
N/A

Relative:
Higher

EDR Historical Auto Stations:

Name: GOODYEAR TIRE CENTERS
Year: 2001
Address: 835 HAYNES ST

Actual:
759 ft.

C10
WNW
< 1/8
0.107 mi.
564 ft.

HALBEISEN TOM INC
835 HAYNES ST
BIRMINGHAM, MI 48009

Site 2 of 3 in cluster C

RCRA-CESQG
FINDS

1000691549
MID985643790

Relative:
Higher

RCRA-CESQG:

Date form received by agency: 04/19/2004
Facility name: HALBEISEN TOM INC
Facility address: 835 HAYNES ST
BIRMINGHAM, MI 48009
EPA ID: MID985643790
Contact: THOMAS HALBEISEN
Contact address: 835 HAYNES ST
BIRMINGHAM, MI 48009
Contact country: US
Contact telephone: (248) 647-3370
Contact email: Not reported
EPA Region: Not reported
Classification: Conditionally Exempt Small Quantity Generator
Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name: HALBEISEN TOM INC
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 06/05/1992
Owner/Op end date: Not reported

Owner/operator name: HALBEISEN TOM INC
Owner/operator address: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HALBEISEN TOM INC (Continued)

1000691549

Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 06/05/1992
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 07/22/2003
Facility name: HALBEISEN TOM INC
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 06/23/2003
Facility name: HALBEISEN TOM INC
Classification: Small Quantity Generator

Date form received by agency: 11/16/1998
Facility name: HALBEISEN TOM INC
Classification: Not a generator, verified

Date form received by agency: 06/05/1992
Facility name: HALBEISEN TOM INC
Classification: Small Quantity Generator

Hazardous Waste Summary:

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKEY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Violation Status: No violations found

FINDS:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HALBEISEN TOM INC (Continued)

1000691549

Registry ID: 110003671893

Environmental Interest/Information System

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C11
WNW
< 1/8
0.107 mi.
564 ft.

GOODYEAR TIRE CENTER 1685
835 HAYNES ST
BIRMINGHAM, MI 48009

Site 3 of 3 in cluster C

LUST **U000263055**
UST **N/A**
WDS

Relative:
Higher

LUST:

Facility ID: 00021777
Source: STATE OF MICHIGAN
Owner Name: Goodyear Tire Center
Owner Address: Po Box 5099
Owner City,St,Zip: Southfield, MI 48086-5099
Owner Contact: Not reported
Owner Phone: (734) 647-3370
Country: USA
District: SE Michigan District Office
Site Name: Goodyear Tire & Rubber Co
Latitude: 42.54196
Longitude: -83.20949
Date of Collection: 01/11/2001
Method of Collection: Address Matching-House Number
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Data: NAD83
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)

Leak Number: C-0700-93
Release Date: 06/04/1993
Substance Released: Used Oil
Release Status: Closed
Release Closed Date: 09/30/1994

UST:

Facility ID: 00021777
Facility Type: CLOSED
Latitude: 42.54196
Longitude: -83.20949
Owner Name: GOODYEAR TIRE CENTER
Owner Address: PO BOX 5099
Owner City,St,Zip: SOUTHFIELD, MI 48086-5099
Owner Country: USA
Owner Contact: Not reported
Owner Phone: (734) 647-3370
Contact: ERIC SCHULTZ
Contact Phone: (734) 647-3370
Date of Collection: 01/11/2001

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GOODYEAR TIRE CENTER 1685 (Continued)

U000263055

Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)
Method of Collection: Address Matching-House Number

Tank ID: 1
Tank Status: Removed from Ground
Capacity: 500
Install Date: 04/16/1975
Product: Used Oil
Remove Date: 06/04/1993
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: Bare Steel
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

WDS:
Site Id: MID985643790
WMD Id: 407279
Site Specific Name: HALBEISEN TOM INC
Mailing Address: 835 HAYNES ST
Mailing City/State/Zip: 48009
Mailing County: OAKLAND

12
NW
< 1/8
0.111 mi.
588 ft.

**880 BOWERS ST
BIRMINGHAM, MI 48009**

**EDR US Hist Auto Stat 1015661800
N/A**

**Relative:
Higher**

EDR Historical Auto Stations:

Name: PARMLEYS PAINT & BODY WORKS
Year: 2001
Address: 880 BOWERS ST

Name: PARMLEYS PAINT & BODY WORKS
Year: 2002
Address: 880 BOWERS ST

Name: PARMLEYS PAINT & BODY WORKS
Year: 2003
Address: 880 BOWERS ST

Name: PRMLYS PAINT & BODY WORKS INC
Year: 2004
Address: 880 BOWERS ST

Name: PARMLEYS PAINT & BODY WORKS INC
Year: 2007
Address: 880 BOWERS ST

Name: PARMLEYS PAINT & BODY WORKS INC

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

1015661800

Year: 2008
Address: 880 BOWERS ST

Name: PARMLEYS PAINT & BODY WORKS INC
Year: 2009
Address: 880 BOWERS ST

Name: PARMLEYS PAINT & BODY WORKS
Year: 2010
Address: 880 BOWERS ST

Name: PARMLEYS PAINT & BODY WORKS INC
Year: 2011
Address: 880 BOWERS ST

Name: PARMLEYS PAINT & BODY WORKS INC
Year: 2012
Address: 880 BOWERS ST

D13
WSW
1/8-1/4
0.131 mi.
690 ft.

AMERICAR
860 S WOODWARD
BIRMINGHAM, MI 48304

Site 1 of 2 in cluster D

LUST **U000263070**
UST **N/A**
WDS

Relative:
Higher

LUST:

Actual:
758 ft.

Facility ID: 00034958
Source: STATE OF MICHIGAN
Owner Name: Beier Dean G % Robert R. Shuman
Owner Address: 200 E LONG LAKE RD SUITE110
Owner City,St,Zip: BLOOMFIELD HILLS, MI 48304
Owner Contact: Not reported
Owner Phone: (313) 645-9400
Country: USA
District: SE Michigan District Office
Site Name: Americar Rental
Latitude: 42.54084
Longitude: -83.20877
Date of Collection: 01/11/2001
Method of Collection: Address Matching-House Number
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Data: NAD83
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)

Leak Number: C-0468-89
Release Date: 08/29/1989
Substance Released: Not reported
Release Status: Closed
Release Closed Date: 08/16/1990

UST:

Facility ID: 00034958
Facility Type: CLOSED
Latitude: 42.54084
Longitude: -83.20877
Owner Name: BEIER DEAN G % ROBERT R. SHUMAN

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AMERICAR (Continued)

U000263070

Owner Address: 200 E LONG LAKE RD SUITE110
Owner City,St,Zip: BLOOMFIELD HILLS, MI 48304
Owner Country: USA
Owner Contact: Not reported
Owner Phone: (313) 645-9400
Contact: Not reported
Contact Phone: () -
Date of Collection: 01/11/2001
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)
Method of Collection: Address Matching-House Number

Tank ID: 1
Tank Status: Removed from Ground
Capacity: 1000
Install Date: 01/01/1948
Product: Heating Oil
Remove Date: 02/15/1991
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Unknown
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel,Unknown
Impressed Device: No

Tank ID: 2
Tank Status: Removed from Ground
Capacity: 1000
Install Date: 01/01/1948
Product: Used Oil
Remove Date: 02/15/1991
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Unknown
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel,Unknown
Impressed Device: No

WDS:
Site Id: MIG000012614
WMD Id: 456124
Site Specific Name: AMERICAR RENTAL SYSTEM
Mailing Address: 860 S OLD WOODWARD AVE
Mailing City/State/Zip: 48009
Mailing County: OAKLAND

Map ID
Direction
Distance
Elevation

MAP FINDINGS

EDR ID Number
EPA ID Number

	Site	Database(s)	
D14 WSW 1/8-1/4 0.133 mi. 703 ft.	850 S OLD WOODWARD AVE BIRMINGHAM, MI 48009 Site 2 of 2 in cluster D	EDR US Hist Cleaners	1015101198 N/A
Relative: Higher	EDR Historical Cleaners: Name: HAGOPIAN CLEANING SERVICES Year: 2007 Address: 850 S OLD WOODWARD AVE		
Actual: 758 ft.			
E15 SSW 1/8-1/4 0.146 mi. 773 ft.	OFFICE BUILDING & PARLING LOT 1000 SOUTH OLD WOODWARD AVENUE BIRMINGHAM, MI Site 1 of 2 in cluster E	BEA	S110624681 N/A
Relative: Lower	BEA: Secondary Address: Not reported BEA Number: 4565 District: Southeast MI Date Received: 08/18/2010 Submitter Name: Perimeter Properties, LLC Petition Determination: No Request Petition Disclosure: 0 Category: No Hazardous Substance(s) Determination 20107A: No Request Reviewer: mitchelf Division Assigned: Storage Tank Division		
Actual: 755 ft.			
16 NE 1/8-1/4 0.149 mi. 789 ft.	US POSTAL SERVICE 1221 BOWERS ST BIRMINGHAM, MI 48012	RCRA NonGen / NLR FINDS	1001124113 MIR000020446
Relative: Lower	RCRA NonGen / NLR: Date form received by agency: 12/09/1996 Facility name: US POSTAL SERVICE Facility address: 1221 BOWERS ST BIRMINGHAM, MI 48012 EPA ID: MIR000020446 Contact: ARNOLD OSGEN Contact address: 1221 BOWERS ST BIRMINGHAM, MI 48012 Contact country: US Contact telephone: (248) 646-4431 Contact email: Not reported EPA Region: Not reported Classification: Non-Generator Description: Handler: Non-Generators do not presently generate hazardous waste		
Actual: 755 ft.			
	Owner/Operator Summary: Owner/operator name: US POSTAL SERVICE Owner/operator address: Not reported Not reported Owner/operator country: Not reported Owner/operator telephone: Not reported		

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

US POSTAL SERVICE (Continued)

1001124113

Legal status: Federal
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1970
Owner/Op end date: Not reported

Owner/operator name: US POSTAL SERVICE
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Federal
Owner/Operator Type: Operator
Owner/Op start date: 01/01/1970
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
Used oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Hazardous Waste Summary:

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKEY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Violation Status: No violations found

FINDS:

Registry ID: 110003699016

Environmental Interest/Information System

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Map ID
Direction
Distance
Elevation

MAP FINDINGS

EDR ID Number
EPA ID Number

F17
West
1/8-1/4
0.153 mi.
810 ft.

VIRGINIA C CLOHSET TRUST
784 S OLD WOODWARD AVE
BIRMINGHAM, MI 48009

RCRA NonGen / NLR

1011489214
MIK322432543

Site 1 of 4 in cluster F

Relative:
Higher

RCRA NonGen / NLR:

Date form received by agency: 06/27/2008

Facility name: VIRGINIA C CLOHSET TRUST

Facility address: 784 S OLD WOODWARD AVE
BIRMINGHAM, MI 48009

EPA ID: MIK322432543

Mailing address: 1595 NORTHLAWN BLVD
BIRMINGHAM, MI 48009

Contact: PHIL CLOHSET

Contact address: 784 S OLD WOODWARD AVE
BIRMINGHAM, MI 48009

Contact country: US

Contact telephone: (248) 646-6534

Contact email: Not reported

EPA Region: Not reported

Classification: Non-Generator

Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: VIRGINIA C CLOHSET TRUST

Owner/operator address: Not reported
Not reported

Owner/operator country: Not reported

Owner/operator telephone: Not reported

Legal status: Private

Owner/Operator Type: Owner

Owner/Op start date: 01/02/2005

Owner/Op end date: Not reported

Owner/operator name: VIRGINIA C CLOHSET TRUST

Owner/operator address: Not reported
Not reported

Owner/operator country: Not reported

Owner/operator telephone: Not reported

Legal status: Private

Owner/Operator Type: Operator

Owner/Op start date: 01/02/2005

Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No

Mixed waste (haz. and radioactive): No

Recycler of hazardous waste: No

Transporter of hazardous waste: No

Treater, storer or disposer of HW: No

Underground injection activity: No

On-site burner exemption: No

Furnace exemption: No

Used oil fuel burner: No

Used oil processor: No

User oil refiner: No

Used oil fuel marketer to burner: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VIRGINIA C CLOHSET TRUST (Continued)

1011489214

Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Hazardous Waste Summary:

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKEY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Violation Status: No violations found

F18
West
1/8-1/4
0.155 mi.
819 ft.

WOODWARD AND GEORGE, LLC
772-784 SOUTH OLD WOODWARD
BIRMINGHAM, MI 48009

BEA S109345280
N/A

Site 2 of 4 in cluster F

Relative:
Higher

BEA:
Secondary Address: Not reported
BEA Number: 4025
District: Southeast MI
Date Received: 10/17/2008
Submitter Name: Woodward and George, LLC
Petition Determination: No Request
Petition Disclosure: 0
Category: No Hazardous Substance(s)
Determination 20107A: No Request
Reviewer: mitchelf
Division Assigned: RRD

Actual:
759 ft.

F19
West
1/8-1/4
0.155 mi.
819 ft.

TIFFANY FLORIST
772-784 S OLD WOODWARD
BIRMINGHAM, MI 48009

LUST U004123610
UST N/A

Site 3 of 4 in cluster F

Relative:
Higher

LUST:
Facility ID: 00042132
Source: Not reported
Owner Name: Virginia C Clohset Trust
Owner Address: c/o Phil Clohset1595 Northlawn
Owner City,St,Zip: Birmingham, MI 48009
Owner Contact: Not reported
Owner Phone: (248) 646-6534
Country: USA
District: SE Michigan District Office
Site Name: Tiffany Florist
Latitude: Not reported
Longitude: Not reported
Date of Collection: Not reported
Method of Collection: Not reported
Accuracy: Not reported

Actual:
759 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TIFFANY FLORIST (Continued)

U004123610

Accuracy Value Unit: Not reported
Horizontal Data: Not reported
Point Line Area: Not reported
Desc Category: Not reported

Leak Number: C-0157-08
Release Date: 07/21/2008
Substance Released: Gasoline,Gasoline
Release Status: Open
Release Closed Date: Not reported

UST:

Facility ID: 00042132
Facility Type: CLOSED
Latitude: Not reported
Longitude: Not reported
Owner Name: VIRGINIA C CLOHSET TRUST
Owner Address: C/O PHIL CLOHSET1595 NORTHLAWN
Owner City,St,Zip: BIRMINGHAM, MI 48009
Owner Country: USA
Owner Contact: Not reported
Owner Phone: (248) 646-6534
Contact: Phil Clohset
Contact Phone: (248) 646-6534
Date of Collection: Not reported
Accuracy: Not reported
Accuracy Value Unit: Not reported
Horizontal Datum: Not reported
Source: Not reported
Point Line Area: Not reported
Desc Category: Not reported
Method of Collection: Not reported

Tank ID: 1
Tank Status: **Closed in Ground**
Capacity: 1000
Install Date: 01/01/1947
Product: Gasoline
Remove Date: 07/07/2008
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Unknown
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 2
Tank Status: **Removed from Ground**
Capacity: 500
Install Date: 01/01/1947
Product: Gasoline
Remove Date: 07/10/2008
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Not reported
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TIFFANY FLORIST (Continued)

U004123610

Impressed Device: No

Tank ID: 3
Tank Status: Removed from Ground
Capacity: 500
Install Date: 01/01/1947
Product: Gasoline
Remove Date: 07/10/2008
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: Not reported
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

E20
SSW
1/8-1/4
0.161 mi.
848 ft.

WOODLINC/MICH LTD PARTNERSHIP
1050 S OLD WOODWARD AVE
BIRMINGHAM, MI 48009
Site 2 of 2 in cluster E

LUST U003834711
N/A

Relative:
Lower

LUST:
Facility ID: 00039226
Source: STATE OF MICHIGAN
Owner Name: Woodlinc/Mich Ltd Partnership
Owner Address: 1000 S Old Woodward Ave Ste 201
Owner City,St,Zip: Birmingham, MI 48009-6796
Owner Contact: Not reported
Owner Phone: (248) 647-3250
Country: USA
District: SE Michigan District Office
Site Name: Woodlinc/mich Ltd Partnership
Latitude: 42.54057
Longitude: -83.20848
Date of Collection: 01/11/2001
Method of Collection: Address Matching-House Number
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Data: NAD83
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)

Actual:
755 ft.

Leak Number: C-1071-96
Release Date: 12/20/1996
Substance Released: Gasoline
Release Status: Open
Release Closed Date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

F21
West
1/8-1/4
0.169 mi.
890 ft.
JIMMIES RUSTICS
690 SOUTH OLD WOODWARD
BIRMINGHAM, MI
Site 4 of 4 in cluster F

BEA **S107596787**
N/A

Relative:
Higher

BEA:
Secondary Address: Not reported
BEA Number: 3058
District: Southeast MI
Date Received: 02/08/2006
Submitter Name: Perimeter Properties
Petition Determination: No Request
Petition Disclosure: 0
Category: No Hazardous Substance(s)
Determination 20107A: No Request
Reviewer: william
Division Assigned: Environmental Response Division

Actual:
759 ft.

22
WNW
1/8-1/4
0.174 mi.
917 ft.
GOLLING MOTORS, INC.
34500 WOODWARD AVENUE
BIRMINGHAM, MI 48009

BEA **S111333595**
N/A

Relative:
Higher

BEA:
Secondary Address: Not reported
BEA Number: 4941
District: Southeast MI
Date Received: 10/05/2011
Submitter Name: Golling Motors, Inc.
Petition Determination: No Request
Petition Disclosure: 0
Category: Not reported
Determination 20107A: No Request
Reviewer: berakr
Division Assigned: RD

Actual:
762 ft.

G23
West
1/8-1/4
0.181 mi.
955 ft.
VILLAGE JEEP EAGLE
666 S WOODWARD
BIRMINGHAM, MI 48098
Site 1 of 4 in cluster G

UST **U003320620**
N/A

Relative:
Higher

UST:
Facility ID: 00005612
Facility Type: ACTIVE
Latitude: 42.54253
Longitude: -83.20964
Owner Name: CHRYSLER REALTY CORP
Owner Address: 1450 W LONG LAKE RD STE 280
Owner City,St,Zip: TROY, MI 48098
Owner Country: USA
Owner Contact: Not reported
Owner Phone: (313) 737-0299
Contact: F.G. NEUMAN
Contact Phone: (313) 229-8639
Date of Collection: Not reported

Actual:
760 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VILLAGE JEEP EAGLE (Continued)

U003320620

Accuracy: 15
Accuracy Value Unit: METERS
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Not reported
Method of Collection: Interpolation-Map

Tank ID: 1
Tank Status: Removed from Ground
Capacity: 250
Install Date: 05/07/1966
Product: Not reported
Remove Date: 08/30/1990
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: Unknown
Piping Type: Not reported
Construction Material: Unknown
Impressed Device: No

Tank ID: 2
Tank Status: Currently In Use
Capacity: 50
Install Date: 05/07/1966
Product: HYD. FLUID
Remove Date: Not reported
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: Unknown
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 3
Tank Status: Currently In Use
Capacity: 50
Install Date: 05/07/1966
Product: HYD. FLUID
Remove Date: Not reported
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: Unknown
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 4
Tank Status: Currently In Use
Capacity: 50
Install Date: 05/07/1966
Product: HYD. FLUID
Remove Date: Not reported
Tank Release Detection: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VILLAGE JEEP EAGLE (Continued)

U003320620

Pipe Release Detection: Not reported
Piping Material: Unknown
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 5
Tank Status: Currently In Use
Capacity: 50
Install Date: 05/07/1966
Product: HYD FLUID
Remove Date: Not reported
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: Unknown
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 6
Tank Status: Currently In Use
Capacity: 50
Install Date: 05/07/1966
Product: HYD. FLUID
Remove Date: Not reported
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: Unknown
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

G24
West
1/8-1/4
0.183 mi.
965 ft.

VILLAGE AMC/JEEP INC
666 S OLD WOODWARD AVE
BIRMINGHAM, MI 48009

RCRA NonGen / NLR 1000276202
FINDS MID058819707

Site 2 of 4 in cluster G

Relative:
Higher

RCRA NonGen / NLR:

Actual:
760 ft.

Date form received by agency: 09/17/1998
Facility name: VILLAGE AMC/JEEP INC
Facility address: 666 S OLD WOODWARD AVE
BIRMINGHAM, MI 48009
EPA ID: MID058819707
Contact: ROBERT CANN
Contact address: 666 S OLD WOODWARD AVE
BIRMINGHAM, MI 48009
Contact country: US
Contact telephone: (313) 646-3900
Contact email: Not reported
EPA Region: Not reported
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VILLAGE AMC/JEEP INC (Continued)

1000276202

Owner/operator name: VILLAGE AMC/JEEP INC
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/01/1970
Owner/Op end date: Not reported

Owner/operator name: VILLAGE AMC/JEEP INC
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1970
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 09/09/1985
Facility name: VILLAGE AMC/JEEP INC
Classification: Small Quantity Generator

Hazardous Waste Summary:

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSLEY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Violation Status: No violations found

FINDS:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

VILLAGE AMC/JEEP INC (Continued)

1000276202

Registry ID: 110003599428

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

H25
South
1/8-1/4
0.185 mi.
977 ft.

MARTINIZING DRY CLEANING OF BIRMINGHAM
33989 WOODWARD AVE
BIRMINGHAM, MI 48009

RCRA NonGen / NLR
FINDS

1000117706
MID981803182

Site 1 of 2 in cluster H

Relative:
Lower

RCRA NonGen / NLR:

Date form received by agency: 03/22/2010

Facility name: MARTINIZING DRY CLEANING OF BIRMINGHAM

Facility address: 33989 WOODWARD AVE
BIRMINGHAM, MI 48009

EPA ID: MID981803182

Mailing address: 26473 GRATIOT AVE
ROSEVILLE, MI 48066

Contact: TODD WATKINS

Contact address: 33989 WOODWARD AVE
BIRMINGHAM, MI 48009

Contact country: US

Contact telephone: (586) 776-0041

Contact email: Not reported

EPA Region: Not reported

Classification: Non-Generator

Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: ONE HOUR MARTINIZING OF BIRMINGHAM LLC

Owner/operator address: Not reported

Not reported

Owner/operator country: Not reported

Owner/operator telephone: Not reported

Legal status: Private

Owner/Operator Type: Owner

Owner/Op start date: 02/11/1994

Owner/Op end date: Not reported

Owner/operator name: ONE HOUR MARTINIZING OF BIRMINGHAM LLC

Owner/operator address: Not reported

Not reported

Owner/operator country: Not reported

Owner/operator telephone: Not reported

Legal status: Private

Owner/Operator Type: Operator

Owner/Op start date: 02/11/1994

Owner/Op end date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MARTINIZING DRY CLEANING OF BIRMINGHAM (Continued)

1000117706

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 01/30/2003
Facility name: MARTINIZING DRY CLEANING OF BIRMINGHAM
Classification: Not a generator, verified

Date form received by agency: 12/31/2002
Facility name: MARTINIZING DRY CLEANING OF BIRMINGHAM
Classification: Not a generator, verified

Date form received by agency: 10/19/1998
Facility name: MARTINIZING DRY CLEANING OF BIRMINGHAM
Classification: Small Quantity Generator

Date form received by agency: 03/02/1987
Facility name: MARTINIZING DRY CLEANING OF BIRMINGHAM
Classification: Small Quantity Generator

Hazardous Waste Summary:

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKEY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Violation Status: No violations found

FINDS:

Registry ID: 110003624908

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MARTINIZING DRY CLEANING OF BIRMINGHAM (Continued)

1000117706

corrective action activities required under RCRA.

H26
South
1/8-1/4
0.185 mi.
977 ft.

33989 WOODWARD AVE
BIRMINGHAM, MI 48009

Site 2 of 2 in cluster H

EDR US Hist Cleaners 1015045985
N/A

Relative:
Lower

EDR Historical Cleaners:

Name: ONE HOUR MARTINIZING
Year: 2004
Address: 33989 WOODWARD AVE

Actual:
754 ft.

Name: MARTINIZING DRY CLEANING
Year: 2006
Address: 33989 WOODWARD AVE

Name: MARTINIZING DRY CLEANING
Year: 2007
Address: 33989 WOODWARD AVE

Name: MARTINIZING DRY CLEANING
Year: 2008
Address: 33989 WOODWARD AVE

Name: ONE HOUR MARTINIZING
Year: 2008
Address: 33989 WOODWARD AVE

Name: ONE HOUR MARTINIZING
Year: 2009
Address: 33989 WOODWARD AVE

Name: MARTINIZING DRY CLEANING
Year: 2009
Address: 33989 WOODWARD AVE

Name: MARTINIZING DRY CLEANING
Year: 2010
Address: 33989 WOODWARD AVE

Name: MARTINIZING DRY CLEANING BIRMINGHA
Year: 2012
Address: 33989 WOODWARD AVE

G27
WNW
1/8-1/4
0.211 mi.
1116 ft.

608 S OLD WOODWARD AVE
BIRMINGHAM, MI 48009

Site 3 of 4 in cluster G

EDR US Hist Cleaners 1015080306
N/A

Relative:
Higher

EDR Historical Cleaners:

Name: SOMERSET CLEANERS & SHIRT LAUNDRY
Year: 1999
Address: 608 S OLD WOODWARD AVE

Actual:
762 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

1015080306

Name: ESQUIRE CLEANERS
Year: 2011
Address: 608 S OLD WOODWARD AVE

Name: ESQUIRE CLEANERS
Year: 2012
Address: 608 S OLD WOODWARD AVE

G28
WNW
1/8-1/4
0.213 mi.
1122 ft.

606 S OLD WOODWARD AVE
BIRMINGHAM, MI 48009

EDR US Hist Cleaners

1015080108
N/A

Site 4 of 4 in cluster G

Relative:
Higher

EDR Historical Cleaners:

Name: SOMERSET CLNR & SHIRT LNDRY
Year: 2002
Address: 606 S OLD WOODWARD AVE

Actual:
762 ft.

Name: SOMERSET CLNR & SHIRT LNDRY
Year: 2003
Address: 606 S OLD WOODWARD AVE

29
NW
1/8-1/4
0.223 mi.
1179 ft.

FRED LAVERY CO
34602 WOODWARD AVE
BIRMINGHAM, MI 48009

RCRA-CESQG
FINDS

1000528909
MID985613389

Relative:
Higher

RCRA-CESQG:

Date form received by agency: 03/23/2010

Facility name: FRED LAVERY CO
Facility address: 34602 WOODWARD AVE
BIRMINGHAM, MI 48009

EPA ID: MID985613389
Mailing address: PO BOX 3017
BIRMINGHAM, MI 48012

Contact: ALI HAJI-SHETKH
Contact address: 34602 WOODWARD AVE
BIRMINGHAM, MI 48009

Contact country: US
Contact telephone: (248) 645-5930
Contact email: Not reported

EPA Region: Not reported

Land type: Private

Classification: Conditionally Exempt Small Quantity Generator

Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FRED LAVERY CO (Continued)

1000528909

time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name: LAVERY FRED
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 05/17/1991
Owner/Op end date: Not reported

Owner/operator name: LAVERY FRED
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 05/17/1991
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 10/19/2009
Facility name: FRED LAVERY CO
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 03/16/2009
Facility name: FRED LAVERY CO
Classification: Small Quantity Generator

Date form received by agency: 07/28/2008
Facility name: FRED LAVERY CO
Classification: Small Quantity Generator

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FRED LAVERY CO (Continued)

1000528909

Date form received by agency: 08/13/2002
Facility name: FRED LAVERY CO
Classification: Small Quantity Generator

Date form received by agency: 10/14/1998
Facility name: FRED LAVERY CO
Classification: Small Quantity Generator

Date form received by agency: 05/17/1991
Facility name: FRED LAVERY CO
Classification: Small Quantity Generator

Hazardous Waste Summary:

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKEY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Facility Has Received Notices of Violations:

Regulation violated: Not reported
Area of violation: State Statute or Regulation
Date violation determined: 10/19/2009
Date achieved compliance: 11/09/2009
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/20/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: LDR - General
Date violation determined: 10/19/2009
Date achieved compliance: 11/09/2009
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/20/2009
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:

Evaluation date: 10/19/2009
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: State Statute or Regulation
Date achieved compliance: 11/09/2009

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FRED LAVERY CO (Continued)

1000528909

Evaluation lead agency: State

Evaluation date: 10/19/2009
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: LDR - General
Date achieved compliance: 11/09/2009
Evaluation lead agency: State

FINDS:

Registry ID: 110003657757

Environmental Interest/Information System

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30
SE
1/8-1/4
0.230 mi.
1216 ft.

1393 E LINCOLN ST
BIRMINGHAM, MI 48009

EDR US Hist Auto Stat 1015217857
N/A

Relative:
Lower

EDR Historical Auto Stations:

Name: AUTO GENIUS
Year: 2007
Address: 1393 E LINCOLN ST

Actual:
749 ft.

Name: AUTO GENIUS
Year: 2009
Address: 1393 E LINCOLN ST

I31
WNW
1/8-1/4
0.244 mi.
1289 ft.

555 S OLD WOODWARD AVE
BIRMINGHAM, MI 48009

EDR US Hist Auto Stat 1015552167
N/A

Site 1 of 2 in cluster I

Relative:
Higher

EDR Historical Auto Stations:

Name: PETES BODY SHOP
Year: 2012
Address: 555 S OLD WOODWARD AVE

Actual:
763 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

32
NNW
1/8-1/4
0.247 mi.
1306 ft.

955 FOREST AVE
BIRMINGHAM, MI 48009

EDR US Hist Cleaners

1015108464
N/A

Relative:
Higher

EDR Historical Cleaners:

Name: TRI CITY CLEANERS INC
Year: 2001
Address: 955 FOREST AVE

Actual:
763 ft.

Name: TRI CITY CLEANERS INC
Year: 2002
Address: 955 FOREST AVE

I33
WNW
1/4-1/2
0.267 mi.
1409 ft.

ESTATE MOTORS
464 S WOODWARD AVE
BIRMINGHAM, MI 99999

LUST
WDS

U003330063
N/A

Site 2 of 2 in cluster I

Relative:
Higher

LUST:

Facility ID: 00015180
Source: STATE OF MICHIGAN
Owner Name: OWNER ADDRESS UNKNOWN
Owner Address: Not Recorded
Owner City,St,Zip: Not Recorded, XX 99999
Owner Contact: Not reported
Owner Phone: Not reported
Country: USA
District: SE Michigan District Office
Site Name: Estate Motors
Latitude: 42.54384
Longitude: -83.21181
Date of Collection: 01/11/2001
Method of Collection: Address Matching-House Number
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Data: NAD83
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)

Actual:
765 ft.

Leak Number: C-1669-91
Release Date: 08/09/1991
Substance Released: Unknown
Release Status: Closed
Release Closed Date: 01/06/1993

Leak Number: C-2071-92
Release Date: 11/20/1992
Substance Released: Gasoline
Release Status: Closed
Release Closed Date: 06/30/1994

WDS:

Site Id: MID040571135
WMD Id: 395465
Site Specific Name: ESTATE MOTORS LTD
Mailing Address: 464 S OLD WOODWARD AVE
Mailing City/State/Zip: 48009

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ESTATE MOTORS (Continued)

U003330063

Mailing County: OAKLAND

34
South
1/4-1/2
0.269 mi.
1418 ft.

BIRMINGHAM CLEANERS INC
33866 WOODWARD AVE
BIRMINGHAM, MI 48009

RCRA NonGen / NLR
FINDS
LUST
UST
BROWNFIELDS
AIRS
BEA

1000299936
MID016754004

Relative:
Lower

Actual:
751 ft.

RCRA NonGen / NLR:

Date form received by agency: 12/31/2001
Facility name: BIRMINGHAM CLEANERS INC
Facility address: 33866 WOODWARD AVE
BIRMINGHAM, MI 48009
EPA ID: MID016754004
Contact: S KALBFLEISCH
Contact address: 33866 WOODWARD AVE
BIRMINGHAM, MI 48009
Contact country: US
Contact telephone: (313) 644-4620
Contact email: Not reported
EPA Region: Not reported
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/2002
Owner/Op end date: Not reported

Owner/operator name: NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/01/2002
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BIRMINGHAM CLEANERS INC (Continued)

1000299936

Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 10/14/1998
Facility name: BIRMINGHAM CLEANERS INC
Classification: Small Quantity Generator

Date form received by agency: 09/25/1986
Facility name: BIRMINGHAM CLEANERS INC
Classification: Small Quantity Generator

Hazardous Waste Summary:

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKEY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Violation Status: No violations found

FINDS:

Registry ID: 110003586432

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

LUST:

Facility ID: 00018874
Source: STATE OF MICHIGAN
Owner Name: Birmingham Cleaners
Owner Address: 1253 S Woodward
Owner City,St,Zip: Birmingham, MI 48011
Owner Contact: Not reported
Owner Phone: (248) 644-4620
Country: USA
District: SE Michigan District Office
Site Name: Birmingham Cleaners 1253
Latitude: 42.54023
Longitude: -83.20768
Date of Collection: 01/11/2001
Method of Collection: Address Matching-House Number

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BIRMINGHAM CLEANERS INC (Continued)

1000299936

Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Data: NAD83
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)

Leak Number: C-1373-93
Release Date: 11/03/1993
Substance Released: Other,Unknown
Release Status: Closed
Release Closed Date: 05/17/1994

UST:

Facility ID: 00018874
Facility Type: CLOSED
Latitude: 42.54023
Longitude: -83.20768
Owner Name: BIRMINGHAM CLEANERS
Owner Address: 1253 S WOODWARD
Owner City,St,Zip: BIRMINGHAM, MI 48011
Owner Country: USA
Owner Contact: Not reported
Owner Phone: (248) 644-4620
Contact: STEVE KALBFLEISCH
Contact Phone: (313) 644-4620
Date of Collection: 01/11/2001
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)
Method of Collection: Address Matching-House Number

Tank ID: 1
Tank Status: **Removed from Ground**
Capacity: 600
Install Date: 04/10/1960
Product: Hazardous Substance
Remove Date: 11/23/1993
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Suction: No Valve At Tank
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 2
Tank Status: **Removed from Ground**
Capacity: 1000
Install Date: 04/11/1979
Product: Hazardous Substance
Remove Date: 11/23/1993
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Suction: No Valve At Tank

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BIRMINGHAM CLEANERS INC (Continued)

1000299936

Construction Material: Fiberglass Reinforced plastic,Lined Interior
Impressed Device: No

Tank ID: 3
Tank Status: Removed from Ground
Capacity: 500
Install Date: 04/10/1950
Product: FUEL OIL #2
Remove Date: 01/01/1960
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Unknown
Piping Type: Not reported
Construction Material: Unknown
Impressed Device: No

Tank ID: 4
Tank Status: Removed from Ground
Capacity: 500
Install Date: 04/10/1950
Product: #2 FUEL OIL
Remove Date: 01/01/1960
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Unknown
Piping Type: Not reported
Construction Material: Unknown
Impressed Device: No

BROWNFIELD:

Facility ID: 00018874
Region: 1
Status: Not reported
Properry Use: Not reported
Use at Time of Listing: Not reported
BEA: Not reported
Ernie Id Number: Not reported

AIRS:

El Year: 1994
State Registration Number: N5217
Naics Code: Not reported
Contact Name: Not reported
Contact Phone: Not reported
Contact Address: Not reported
Contact City,St,Zip: Not reported
Permit Number: Not reported
Date Received: Not reported
State Registration Number: N5217
Country: Not reported
Application Reason: Not reported
Record Type: Not reported
State County FIPS: Not reported
Facility Category: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BIRMINGHAM CLEANERS INC (Continued)

1000299936

SIC Primary: 7216
Tribal Code: Not reported
Supplemental Location Text: Not reported
Dun & Brad Street Number: Not reported
Business Name: BIRMINGHAM CLEANERS INC
Principal Product: Not reported
Principal Product Description: DRY CLEANING - STODDARD
UTM Zone (Geo Coordinates Universal Transverse Mercator System): 17
UTM Horizontal Coord: Not reported
UTM Vertical Coord: Not reported
Mailing Name: BIRMINGHAM CLEANERS INC
Mailing Contact Person: OWNER
Mailing Street: 1253 S WOODWARD
Mailing City: BIRMINGHAM
Mailing State: MI
Mailing Zip: 48009
Mailing Zip 4 Extension: Not reported
Compliance Person: ?????
Compliance Area Code: 313
Compliance Phone Number: 1000000
Emission Inventory Contact Person: ?????
EI Contact Area Code: 313
EI Contact Phone Number: 1000000
Permit Contact Person: ?????
Permit Contact Person Area Code: 313
Permit Contact Person Phone Number: 1000000
Federal Employer Id Number: Not reported
Of Employees: 0
Reporting Year: 1995
Date Record Was Created: 1994-06-01 00:00:00

BEA:

Secondary Address: Not reported
BEA Number: 363
District: Southeast MI
Date Received: 06/17/1997
Submitter Name: MR. NORMAN SILK
Petition Determination: No Request
Petition Disclosure: 1
Category: No Hazardous Substance(s)
Determination 20107A: No Request
Reviewer: mitchelf
Division Assigned: Storage Tank Division

Secondary Address: Not reported
BEA Number: 381
District: Southeast MI
Date Received: 07/03/1997
Submitter Name: SILK & MORGAN, INC.
Petition Determination: No Request
Petition Disclosure: 0
Category: No Hazardous Substance(s)
Determination 20107A: No Request
Reviewer: temppm
Division Assigned: Storage Tank Division

Map ID
Direction
Distance
Elevation

MAP FINDINGS

EDR ID Number
EPA ID Number

J35
NW
1/4-1/2
0.300 mi.
1583 ft.

SPEEDWAY SUPERAMERICA LLC
34750 WOODWARD AVE
BIRMINGHAM, MI 48009

Site 1 of 2 in cluster J

RCRA-CESQG
FINDS
LUST
UST

1000844604
MID985666387

Relative:
Higher

RCRA-CESQG:

Date form received by agency: 08/20/2012

Facility name: SPEEDWAY LLC

Facility address: 34750 WOODWARD AVE
BIRMINGHAM, MI 48009

EPA ID: MID985666387

Mailing address: PO BOX 1500
SPRINGFIELD, OH 45501

Contact: CHARLES A BESSE

Contact address: Not reported

Contact country: Not reported

Contact telephone: (937) 863-6272

Contact email: CABESSE@SPEEDWAY.COM

EPA Region: Not reported

Classification: Conditionally Exempt Small Quantity Generator

Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:

Owner/operator name: SPEEDWAY LLC

Owner/operator address: Not reported
Not reported

Owner/operator country: Not reported

Owner/operator telephone: Not reported

Legal status: Private

Owner/Operator Type: Operator

Owner/Op start date: 06/10/1999

Owner/Op end date: Not reported

Owner/operator name: SPEEDWAY LLC

Owner/operator address: Not reported
Not reported

Owner/operator country: Not reported

Owner/operator telephone: Not reported

Legal status: Private

Owner/Operator Type: Owner

Owner/Op start date: 06/10/1999

Owner/Op end date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SPEEDWAY SUPERAMERICA LLC (Continued)

1000844604

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 06/03/2005
Facility name: SPEEDWAY LLC
Site name: SPEEDWAY SUPERAMERICA LLC
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 09/17/1998
Facility name: SPEEDWAY LLC
Site name: SPEEDWAY SUPERAMERICA LLC
Classification: Not a generator, verified

Date form received by agency: 09/02/1993
Facility name: SPEEDWAY LLC
Site name: SPEEDWAY SUPERAMERICA LLC
Classification: Conditionally Exempt Small Quantity Generator

Hazardous Waste Summary:

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKEY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Violation Status: No violations found

FINDS:

Registry ID: 110003685968

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SPEEDWAY SUPERAMERICA LLC (Continued)

1000844604

LUST:

Facility ID: 00016370
Source: STATE OF MICHIGAN
Owner Name: Speedway LLC
Owner Address: PO Box 1500
Owner City,St,Zip: Springfield, OH 45501
Owner Contact: Not reported
Owner Phone: (937) 864-3000
Country: USA
District: SE Michigan District Office
Site Name: Total #2528
Latitude: 42.54488
Longitude: -83.20977
Date of Collection: 04/06/2007
Method of Collection: GPS Code Meas. Standard Positioning Service SA Off
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Data: NAD83
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)

Leak Number: C-1633-91
Release Date: 08/27/1991
Substance Released: Unknown
Release Status: Closed
Release Closed Date: 02/09/1996

UST:

Facility ID: 00016370
Facility Type: ACTIVE
Latitude: 42.54488
Longitude: -83.20977
Owner Name: SPEEDWAY LLC
Owner Address: PO BOX 1500
Owner City,St,Zip: SPRINGFIELD, OH 45501
Owner Country: USA
Owner Contact: Not reported
Owner Phone: (937) 864-3000
Contact: Toby Rickabaugh
Contact Phone: (937) 864-3000
Date of Collection: 04/06/2007
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)
Method of Collection: GPS Code Meas. Standard Positioning Service SA Off

Tank ID: 1
Tank Status: **Removed from Ground**
Capacity: 6000
Install Date: 04/21/1972
Product: Gasoline
Remove Date: 03/02/1992
Tank Release Detection: Not reported
Pipe Release Detection: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SPEEDWAY SUPERAMERICA LLC (Continued)

1000844604

Piping Material: Galvanized Steel
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 2
Tank Status: Removed from Ground
Capacity: 12000
Install Date: 04/21/1974
Product: Gasoline
Remove Date: 03/01/1992
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 3
Tank Status: Removed from Ground
Capacity: 12000
Install Date: 04/21/1974
Product: Diesel
Remove Date: 03/01/1992
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 4
Tank Status: Removed from Ground
Capacity: 1000
Install Date: 04/22/1959
Product: FUEL OIL
Remove Date: 03/01/1992
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: COPPER, Galvanized Steel
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 5
Tank Status: Removed from Ground
Capacity: 550
Install Date: 04/22/1959
Product: Used Oil
Remove Date: 03/01/1992
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: Galvanized Steel

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SPEEDWAY SUPERAMERICA LLC (Continued)

1000844604

Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 6
Tank Status: Currently In Use
Capacity: 12000
Install Date: 05/01/1992
Product: Gasoline
Remove Date: Not reported
Tank Release Detection: Automatic Tank Gauging
Pipe Release Detection: Automatic Line Leak Detectors, Line Tightness Testing
Piping Material: Fiberglass reinforced plastic
Piping Type: Pressure
Construction Material: Cathodically Protected Steel
Impressed Device: No

Tank ID: 7
Tank Status: Currently In Use
Capacity: 10000
Install Date: 05/01/1992
Product: Gasoline
Remove Date: Not reported
Tank Release Detection: Automatic Tank Gauging
Pipe Release Detection: Automatic Line Leak Detectors, Line Tightness Testing
Piping Material: Fiberglass reinforced plastic
Piping Type: Pressure
Construction Material: Cathodically Protected Steel
Impressed Device: No

Tank ID: 8
Tank Status: Currently In Use
Capacity: 10000
Install Date: 05/01/1992
Product: Gasoline
Remove Date: Not reported
Tank Release Detection: Automatic Tank Gauging
Pipe Release Detection: Automatic Line Leak Detectors, Line Tightness Testing
Piping Material: Fiberglass reinforced plastic
Piping Type: Pressure
Construction Material: Cathodically Protected Steel
Impressed Device: No

Tank ID: 9
Tank Status: Currently In Use
Capacity: 8000
Install Date: 05/01/1992
Product: Diesel
Remove Date: Not reported
Tank Release Detection: Automatic Tank Gauging
Pipe Release Detection: Automatic Line Leak Detectors, Line Tightness Testing
Piping Material: Fiberglass reinforced plastic
Piping Type: Pressure

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SPEEDWAY SUPERAMERICA LLC (Continued)

1000844604

Construction Material: Cathodically Protected Steel
Impressed Device: No

K36
North
1/4-1/2
0.334 mi.
1766 ft.

BIRMINGHAM STANDARD
1088 E MAPLE RD
BIRMINGHAM, MI 48009

Site 1 of 2 in cluster K

LUST **U000261690**
UST **N/A**
WDS

Relative:
Higher

LUST:

Actual:
764 ft.

Facility ID: 00001897
Source: STATE OF MICHIGAN
Owner Name: Birmingham Standard
Owner Address: 4215 Yorba Linda Blvd
Owner City,St,Zip: Royal Oak, MI 48073-6463
Owner Contact: Not reported
Owner Phone: (313) 642-4888
Country: USA
District: SE Michigan District Office
Site Name: Amoco #5349
Latitude: 42.54671
Longitude: -83.20611
Date of Collection: 01/11/2001
Method of Collection: Address Matching-House Number
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Data: NAD83
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)

Leak Number: C-0863-85
Release Date: 01/01/1900
Substance Released: Not reported
Release Status: Closed
Release Closed Date: 05/21/1996

UST:

Facility ID: 00001897
Facility Type: CLOSED
Latitude: 42.54671
Longitude: -83.20611
Owner Name: BIRMINGHAM STANDARD
Owner Address: 4215 YORBA LINDA BLVD
Owner City,St,Zip: ROYAL OAK, MI 48073-6463
Owner Country: USA
Owner Contact: Not reported
Owner Phone: (313) 642-4888
Contact: J E WESTON
Contact Phone: (734) 953-7013
Date of Collection: 01/11/2001
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)
Method of Collection: Address Matching-House Number

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BIRMINGHAM STANDARD (Continued)

U000261690

Tank ID: 1
Tank Status: **Removed from Ground**
Capacity: 4000
Install Date: 04/11/1952
Product: Gasoline
Remove Date: 11/22/1994
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Unknown
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 2
Tank Status: **Removed from Ground**
Capacity: 4000
Install Date: 04/11/1952
Product: Gasoline
Remove Date: 11/22/1994
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Unknown
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 3
Tank Status: **Removed from Ground**
Capacity: 5500
Install Date: 04/11/1952
Product: Gasoline
Remove Date: 11/22/1994
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Unknown
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 4
Tank Status: **Removed from Ground**
Capacity: 5500
Install Date: 04/11/1952
Product: Gasoline
Remove Date: 11/22/1994
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Unknown
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 5

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BIRMINGHAM STANDARD (Continued)

U000261690

Tank Status: Removed from Ground
Capacity: 6000
Install Date: 04/11/1952
Product: Gasoline
Remove Date: 11/22/1994
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Unknown
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 6
Tank Status: Removed from Ground
Capacity: 560
Install Date: 04/11/1952
Product: Diesel
Remove Date: 01/31/1994
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Unknown
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 7
Tank Status: Removed from Ground
Capacity: 560
Install Date: 04/11/1986
Product: Used Oil
Remove Date: 11/22/1994
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Unknown
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel,Cathodically Protected Steel
Impressed Device: No

WDS:
Site Id: MID985618065
WMD Id: 405686
Site Specific Name: AMOCO OIL CO 5349 BIRMINGHAM
Mailing Address: 30230 ORCHARD LAKE RD
Mailing City/State/Zip: 48334
Mailing County: OAKLAND

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

L37
North
1/4-1/2
0.336 mi.
1773 ft.

BUDGET RENT-A-CAR
1000 E MAPLE
BIRMINGHAM, MI 48174

Site 1 of 3 in cluster L

LUST
UST
WDS

U000261651
N/A

Relative:
Higher

LUST:

Facility ID: 00007720
Source: STATE OF MICHIGAN
Owner Name: Conine Rentals, Inc
Owner Address: 8715 Wickham Rd
Owner City,St,Zip: Romulus, MI 48174-1915
Owner Contact: Not reported
Owner Phone: (734) 326-6880
Country: USA
District: SE Michigan District Office
Site Name: Budget Rent A Car
Latitude: 42.54670
Longitude: -83.20653
Date of Collection: 01/11/2001
Method of Collection: Address Matching-House Number
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Data: NAD83
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)

Leak Number: C-0844-90
Release Date: 05/11/1990
Substance Released: Not reported
Release Status: Open
Release Closed Date: Not reported

Leak Number: C-0990-90
Release Date: 06/01/1990
Substance Released: Not reported
Release Status: Open
Release Closed Date: Not reported

UST:

Facility ID: 00007720
Facility Type: CLOSED
Latitude: 42.54670
Longitude: -83.20653
Owner Name: CONINE RENTALS, INC
Owner Address: 8715 WICKHAM RD
Owner City,St,Zip: ROMULUS, MI 48174-1915
Owner Country: USA
Owner Contact: Not reported
Owner Phone: (734) 326-6880
Contact: MARY BOYD
Contact Phone: (313) 540-3211
Date of Collection: 01/11/2001
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)
Method of Collection: Address Matching-House Number

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BUDGET RENT-A-CAR (Continued)

U000261651

Tank ID: 1
Tank Status: **Removed from Ground**
Capacity: 10000
Install Date: Not reported
Product: Gasoline
Remove Date: 06/17/1991
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: Unknown
Piping Type: Not reported
Construction Material: Unknown
Impressed Device: No

Tank ID: 2
Tank Status: **Removed from Ground**
Capacity: 10000
Install Date: Not reported
Product: Gasoline
Remove Date: 06/17/1991
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: Unknown
Piping Type: Not reported
Construction Material: Unknown
Impressed Device: No

Tank ID: 3
Tank Status: **Removed from Ground**
Capacity: 1000
Install Date: Not reported
Product: Kerosene
Remove Date: 06/17/1991
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: Unknown
Piping Type: Not reported
Construction Material: Unknown
Impressed Device: No

Tank ID: 4
Tank Status: **Removed from Ground**
Capacity: 550
Install Date: Not reported
Product: Used Oil
Remove Date: 06/17/1991
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: Unknown
Piping Type: Not reported
Construction Material: Unknown
Impressed Device: No

WDS:

Site Id: MIG000018867

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BUDGET RENT-A-CAR (Continued)

U000261651

WMD Id: 453923
Site Specific Name: BUDGET RENT A CAR
Mailing Address: 1000 E MAPLE RD
Mailing City/State/Zip: 48009
Mailing County: OAKLAND

**J38
NW
1/4-1/2
0.337 mi.
1777 ft.**

**JAX KAR WASH #048
34745 WOODWARD
BIRMINGHAM, MI 48011**

Site 2 of 2 in cluster J

**LUST
UST
BEA
WDS**

**U003319644
N/A**

**Relative:
Higher**

LUST:

Facility ID: 00001952
Source: STATE OF MICHIGAN
Owner Name: Jax Kar Wash #048
Owner Address: 34745 Woodward
Owner City,St,Zip: Birmingham, MI 48011
Owner Contact: Not reported
Owner Phone: Not reported
Country: USA
District: SE Michigan District Office
Site Name: Jax Kar Wash #048
Latitude: 42.53949
Longitude: -83.20706
Date of Collection: 01/11/2001
Method of Collection: Address Matching-House Number
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Data: NAD83
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)

**Actual:
771 ft.**

Leak Number: C-0859-00
Release Date: 10/27/2000
Substance Released: Unknown
Release Status: Open
Release Closed Date: Not reported

UST:

Facility ID: 00001952
Facility Type: CLOSED
Latitude: 42.53949
Longitude: -83.20706
Owner Name: JAX KAR WASH #048
Owner Address: 34745 WOODWARD
Owner City,St,Zip: BIRMINGHAM, MI 48011
Owner Country: USA
Owner Contact: Not reported
Owner Phone: Not reported
Contact: Abdeem Shakoor
Contact Phone: (781) 231-9300
Date of Collection: 01/11/2001
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JAX KAR WASH #048 (Continued)

U003319644

Desc Category: Plant Entrance (Freight)
Method of Collection: Address Matching-House Number

Tank ID: 1
Tank Status: Removed from Ground
Capacity: 10000
Install Date: 01/01/1966
Product: Gasoline
Remove Date: 10/27/2000
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 2
Tank Status: Removed from Ground
Capacity: 10000
Install Date: 01/01/1966
Product: Gasoline
Remove Date: 10/27/2000
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

BEA:

Secondary Address: Not reported
BEA Number: 1459
District: Southeast MI
Date Received: 08/08/2001
Submitter Name: BMW CAR WASH, L.L.C.
Petition Determination: No Request
Petition Disclosure: 0
Category: Same Hazardous Substance(s)
Determination 20107A: No Request
Reviewer: cokt
Division Assigned: Storage Tank Division

WDS:

Site Id: MIG000026887
WMD Id: 429618
Site Specific Name: WASH DEPOT
Mailing Address: 34745 WOODWARD AVE
Mailing City/State/Zip: 48009
Mailing County: OAKLAND

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

K39
North
1/4-1/2
0.337 mi.
1777 ft.
MOBIL OIL CORPORATION
1065 EAST MAPLE ROAD
BIRMINGHAM, MI 48012
Site 2 of 2 in cluster K

AIRS **S107702185**
BEA **N/A**

Relative:
Higher

AIRS:

Actual:
765 ft.

El Year: 2012
State Registration Number: N3990
Naics Code: Not reported
Contact Name: MIGUEL FIGUEROA
Contact Phone: 313948-5026
Contact Address: MOBIL OIL CORPORATION
Contact Address 2: 30 OAK HOLLOW, SUITE 245
Contact City,St,Zip: SOUTHFIELD, MI 48034
Permit Number: 592-93
Date Received: 1993-07-26 00:00:00
State Registration Number: N3990
Country: Not reported
Application Reason: SOIL VAPOR EXTRACT.
Record Type: Not reported
State County FIPS: Not reported
Facility Category: Not reported
SIC Primary: Not reported
Tribal Code: Not reported
Supplemental Location Text: Not reported
Dun & Brad Street Number: Not reported
Business Name: Not reported
Principal Product: Not reported
Principal Product Description: Not reported
UTM Zone (Geo Coordinates Universal Transverse Mercator System): Not reported
UTM Horizontal Coord: Not reported
UTM Vertical Coord: Not reported
Mailing Name: Not reported
Mailing Contact Person: Not reported
Mailing Street: Not reported
Mailing City: Not reported
Mailing State: Not reported
Mailing Zip: Not reported
Mailing Zip 4 Extension: Not reported
Compliance Person: Not reported
Compliance Area Code: Not reported
Compliance Phone Number: Not reported
Emission Inventory Contact Person: Not reported
El Contact Area Code: Not reported
El Contact Phone Number: Not reported
Permit Contact Person: Not reported
Permit Contact Person Area Code: Not reported
Permit Contact Person Phone Number: Not reported
Federal Employer Id Number: Not reported
Of Employees: Not reported
Reporting Year: Not reported
Date Record Was Created: Not reported

BEA:

Secondary Address: Not reported
BEA Number: 2493
District: Southeast MI
Date Received: 08/16/2004

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MOBIL OIL CORPORATION (Continued)

S107702185

Submitter Name: Hannawa Adams, LLC
Petition Determination: No Request
Petition Disclosure: 0
Category: Same Hazardous Substance(s)
Determination 20107A: No Request
Reviewer: schlaufj
Division Assigned: Storage Tank Division

L40
North
1/4-1/2
0.338 mi.
1783 ft.

ELMWOOD PROPERTIES I, LLC
920-970 EAST MAPLE ROAD
BIRMINGHAM, MI

BEA S104912490
N/A

Site 2 of 3 in cluster L

Relative:
Higher

BEA:

Secondary Address: Not reported
BEA Number: 1133
District: Southeast MI
Date Received: 05/02/2000
Submitter Name: ELMWOOD PROPERTIES I, LLC
Petition Determination: Affirmed
Petition Disclosure: 1
Category: No Hazardous Substance(s)
Determination 20107A: No Request
Reviewer: temppm
Division Assigned: Environmental Response Division

Actual:
767 ft.

L41
North
1/4-1/2
0.339 mi.
1789 ft.

DIETZ CORPORATION (PARKING LOT)
985 E. MAPLE ROAD
BIRMINGHAM, MI

LUST S102851965
BEA N/A

Site 3 of 3 in cluster L

Relative:
Higher

LUST:

Facility ID: 50002129
Source: STATE OF MICHIGAN
Owner Name: Nrt Owner
Owner Address: Unknown
Owner City,St,Zip: Unknown, MI 99999
Owner Contact: Not reported
Owner Phone: Not reported
Country: USA
District: SE Michigan District Office
Site Name: Parking Lot (dietz Corp)
Latitude: 42.54696
Longitude: -83.20728
Date of Collection: 01/11/2001
Method of Collection: Address Matching-House Number
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Data: NAD83
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)

Leak Number: C-0999-97
Release Date: 10/14/1997

Actual:
767 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DIETZ CORPORATION (PARKING LOT) (Continued)

S102851965

Substance Released: Unknown
Release Status: Open
Release Closed Date: Not reported

BEA:

Secondary Address: Not reported
BEA Number: 430
District: Southeast MI
Date Received: 09/12/1997
Submitter Name: PAUL DIETZ
Petition Determination: Affirmed
Petition Disclosure: 1
Category: No Hazardous Substance(s)
Determination 20107A: Affirmed
Reviewer: temppm
Division Assigned: Storage Tank Division

Secondary Address: Not reported
BEA Number: 566
District: Southeast MI
Date Received: 03/23/1998
Submitter Name: BSP REALTY
Petition Determination: Affirmed
Petition Disclosure: 1
Category: No Hazardous Substance(s)
Determination 20107A: Affirmed
Reviewer: temppm
Division Assigned: Storage Tank Division

42
NNW
1/4-1/2
0.356 mi.
1879 ft.

HAMILTON FUNERAL HOME PROPERTY
820 EAST MAPLE ROAD
BIRMINGHAM, MI 48009

BEA S111832674
N/A

Relative:
Higher

BEA:

Secondary Address: Not reported
BEA Number: 5134
District: Southeast MI
Date Received: 03/27/2012
Submitter Name: Maple Elm Development Company, LLC
Petition Determination: No Request
Petition Disclosure: 0
Category: Not reported
Determination 20107A: No Request
Reviewer: berakr
Division Assigned: RD

Actual:
770 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

43
SSE
1/4-1/2
0.372 mi.
1962 ft.

33633 WOODWARD LLC
33633 WOODWARD AVE
BIRMINGHAM, MI 48009

DRYCLEANERS
BEA
WDS

S104912664
N/A

Relative:
Lower

DRYCLEANERS:
Establishment#: 6300151
DCM #: 1
DCM Type: Petro
Total lb: 70

Actual:
750 ft.

BEA:
Secondary Address: Not reported
BEA Number: 1360
District: Southeast MI
Date Received: 04/05/2001
Submitter Name: CIH REAL ESTATE HOLDINGS, L.L.C.
Petition Determination: Affirmed
Petition Disclosure: 1
Category: Same Hazardous Substance(s)
Determination 20107A: Affirmed
Reviewer: barrowsg
Division Assigned: Environmental Response Division

Secondary Address: Not reported
BEA Number: 4118
District: Southeast MI
Date Received: 02/11/2009
Submitter Name: 33633 Woodward, LLC
Petition Determination: No Request
Petition Disclosure: 0
Category: Different Hazardous Substance(s)
Determination 20107A: No Request
Reviewer: barrowsg
Division Assigned: RRD

Secondary Address: Not reported
BEA Number: 4119
District: Southeast MI
Date Received: 02/11/2009
Submitter Name: Certified Restoration Drycleaning
Petition Determination: No Request
Petition Disclosure: 0
Category: Different Hazardous Substance(s)
Determination 20107A: No Request
Reviewer: barrowsg
Division Assigned: RRD

Secondary Address: Not reported
BEA Number: 4120
District: Southeast MI
Date Received: 02/11/2009
Submitter Name: Huntington Cleaners & Shirt Laundry
Petition Determination: No Request
Petition Disclosure: 0
Category: Different Hazardous Substance(s)
Determination 20107A: No Request
Reviewer: barrowsg

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

33633 WOODWARD LLC (Continued)

S104912664

Division Assigned: RRD

WDS:

Site Id: MID028318731
WMD Id: 395309
Site Specific Name: WESCH CLEANERS INC
Mailing Address: 33633 WOODWARD AVE
Mailing City/State/Zip: 48009
Mailing County: OAKLAND

**M44
NW
1/4-1/2
0.375 mi.
1982 ft.**

**WEISS SAMONA
34901 WOODWARD AVENUE
BIRMINGHAM, MI 48009**

**US BROWNFIELDS
FINDS**

**1014732928
N/A**

Site 1 of 3 in cluster M

**Relative:
Higher**

US BROWNFIELDS:

Recipient name: Oakland County
Grant type: Assessment
Property name: WEISS SAMONA
Property #: Not reported
Parcel size: 0.52
Property Description: The Property was developed as a feed mill in 1915. From at least 1921 to at least 1931 the Property was used as a lumber and coal yard, with up to nine buildings and several areas labeled as lumber piles. By 1944 the northern portion of the Property was developed with a bowling alley and by 1949 the southwest corner of the Property was developed with a hand laundry building. The southern portion of the Property was occupied by a used car lot by 1960. The bowling alley reportedly operated until at least 1973 when it was occupied for retail uses. A commercial strip mall building was constructed by 1974 and occupied the southern portion of the Property until 2005. Since the demolition of the buildings in 2005, the Property has been used as a parking lot.

**Actual:
775 ft.**

Latitude: Not reported
Longitude: Not reported
HCM label: Not reported
Map scale: Not reported
Point of reference: Not reported
Datum: Not reported
ACRES property ID: 115761
Start date: Not reported
Completed date: Not reported
Acres cleaned up: Not reported
Cleanup funding: Not reported
Cleanup funding source: Not reported
Assessment funding: 5400
Assessment funding source: US EPA - Brownfields Assessment Cooperative Agreement
Redevelopment funding: Not reported
Redev. funding source: Not reported
Redev. funding entity name: Not reported
Redevelopment start date: Not reported
Assessment funding entity: EPA
Cleanup funding entity: Not reported
Grant type: H
Accomplishment type: Phase II Environmental Assessment
Accomplishment count: 0

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WEISS SAMONA (Continued)

1014732928

Cooperative agreement #: 00E92301
Ownership entity: Private
Current owner: Not reported
Did owner change: Not reported
Cleanup required: Unknown
Video available: Not reported
Photo available: Yes
Institutional controls required: U
IC Category proprietary controls: Not reported
IC cat. info. devices: Not reported
IC cat. gov. controls: Not reported
IC cat. enforcement permit tools: Not reported
IC in place date: Not reported
IC in place: Not reported
State/tribal program date: Not reported
State/tribal program ID: Not reported
State/tribal NFA date: Not reported
Air contaminated: Not reported
Air cleaned: Not reported
Asbestos found: Not reported
Asbestos cleaned: Not reported
Controlled substance found: Not reported
Controlled substance cleaned: Not reported
Drinking water affected: Not reported
Drinking water cleaned: Not reported
Groundwater affected: Y
Groundwater cleaned: Not reported
Lead contaminant found: Y
Lead cleaned up: Not reported
No media affected: Not reported
Unknown media affected: Not reported
Other cleaned up: Not reported
Other metals found: Y
Other metals cleaned: Not reported
Other contaminants found: Not reported
Other contams found description: Not reported
PAHs found: Not reported
PAHs cleaned up: Not reported
PCBs found: Not reported
PCBs cleaned up: Not reported
Petro products found: Not reported
Petro products cleaned: Not reported
Sediments found: Not reported
Sediments cleaned: Not reported
Soil affected: Y
Soil cleaned up: Not reported
Surface water cleaned: Not reported
Unknown found: Not reported
VOCs found: Y
VOCs cleaned: Not reported
Cleanup other description: Not reported
Num. of cleanup and re-dev. jobs: Not reported
Past use greenspace acreage: Not reported
Past use residential acreage: Not reported
Past use commercial acreage: 0.52
Past use industrial acreage: Not reported
Future use greenspace acreage: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WEISS SAMONA (Continued)

1014732928

Future use residential acreage: Not reported
Future use commercial acreage: Not reported
Future use industrial acreage: Not reported
Greenspace acreage and type: Not reported
Superfund Fed. landowner flag: Not reported

Recipient name: Oakland County
Grant type: Assessment
Property name: WEISS SAMONA
Property #: Not reported
Parcel size: 0.52
Property Description: The Property was developed as a feed mill in 1915. From at least 1921 to at least 1931 the Property was used as a lumber and coal yard, with up to nine buildings and several areas labeled as lumber piles. By 1944 the northern portion of the Property was developed with a bowling alley and by 1949 the southwest corner of the Property was developed with a hand laundry building. The southern portion of the Property was occupied by a used car lot by 1960. The bowling alley reportedly operated until at least 1973 when it was occupied for retail uses. A commercial strip mall building was constructed by 1974 and occupied the southern portion of the Property until 2005. Since the demolition of the buildings in 2005, the Property has been used as a parking lot.

Latitude: Not reported
Longitude: Not reported
HCM label: Not reported
Map scale: Not reported
Point of reference: Not reported
Datum: Not reported
ACRES property ID: 115761
Start date: Not reported
Completed date: Not reported
Acres cleaned up: Not reported
Cleanup funding: Not reported
Cleanup funding source: Not reported
Assessment funding: 2800
Assessment funding source: US EPA - Brownfields Assessment Cooperative Agreement
Redevelopment funding: Not reported
Redev. funding source: Not reported
Redev. funding entity name: Not reported
Redevelopment start date: Not reported
Assessment funding entity: EPA
Cleanup funding entity: Not reported
Grant type: H
Accomplishment type: Phase I Environmental Assessment
Accomplishment count: 0
Cooperative agreement #: 00E92301
Ownership entity: Private
Current owner: Not reported
Did owner change: Not reported
Cleanup required: Unknown
Video available: Not reported
Photo available: Yes
Institutional controls required: U
IC Category proprietary controls: Not reported
IC cat. info. devices: Not reported
IC cat. gov. controls: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WEISS SAMONA (Continued)

1014732928

IC cat. enforcement permit tools: Not reported
IC in place date: Not reported
IC in place: Not reported
State/tribal program date: Not reported
State/tribal program ID: Not reported
State/tribal NFA date: Not reported
Air contaminated: Not reported
Air cleaned: Not reported
Asbestos found: Not reported
Asbestos cleaned: Not reported
Controlled substance found: Not reported
Controlled substance cleaned: Not reported
Drinking water affected: Not reported
Drinking water cleaned: Not reported
Groundwater affected: Y
Groundwater cleaned: Not reported
Lead contaminant found: Y
Lead cleaned up: Not reported
No media affected: Not reported
Unknown media affected: Not reported
Other cleaned up: Not reported
Other metals found: Y
Other metals cleaned: Not reported
Other contaminants found: Not reported
Other contaminants found description: Not reported
PAHs found: Not reported
PAHs cleaned up: Not reported
PCBs found: Not reported
PCBs cleaned up: Not reported
Petro products found: Not reported
Petro products cleaned: Not reported
Sediments found: Not reported
Sediments cleaned: Not reported
Soil affected: Y
Soil cleaned up: Not reported
Surface water cleaned: Not reported
Unknown found: Not reported
VOCs found: Y
VOCs cleaned: Not reported
Cleanup other description: Not reported
Num. of cleanup and re-dev. jobs: Not reported
Past use greenspace acreage: Not reported
Past use residential acreage: Not reported
Past use commercial acreage: 0.52
Past use industrial acreage: Not reported
Future use greenspace acreage: Not reported
Future use residential acreage: Not reported
Future use commercial acreage: Not reported
Future use industrial acreage: Not reported
Greenspace acreage and type: Not reported
Superfund Fed. landowner flag: Not reported

FINDS:

Registry ID: 110043085050

Environmental Interest/Information System

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

WEISS SAMONA (Continued)

1014732928

US EPA Assessment, Cleanup and Redevelopment Exchange System (ACRES)
is an federal online database for Brownfields Grantees to
electronically submit data directly to EPA.

**M45
NW
1/4-1/2
0.410 mi.
2167 ft.**

**SHELL - HUNTER
34977 WOODWARD AVE
BIRMINGHAM, MI 49007**

Site 2 of 3 in cluster M

**LUST U003319719
UST N/A**

**Relative:
Higher**

LUST:

**Actual:
778 ft.**

Facility ID: 00002267
Source: STATE OF MICHIGAN
Owner Name: Catalyst Development Co LLC
Owner Address: 100 W Michigan Ave Ste 300
Owner City,St,Zip: Kalamazoo, MI 49007
Owner Contact: Not reported
Owner Phone: (269) 492-6811
Country: USA
District: SE Michigan District Office
Site Name: Shell - Hunter
Latitude: 42.53925
Longitude: -83.20683
Date of Collection: 01/11/2001
Method of Collection: Address Matching-House Number
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Data: NAD83
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)

Leak Number: C-0274-08
Release Date: 12/10/2008
Substance Released: Used Oil
Release Status: Open
Release Closed Date: Not reported

Leak Number: C-0480-89
Release Date: 12/08/1989
Substance Released: Not reported
Release Status: Closed
Release Closed Date: 05/23/2000

Leak Number: C-1061-89
Release Date: 12/08/1989
Substance Released: Gasoline
Release Status: Closed
Release Closed Date: 05/23/2000

Leak Number: C-1336-98
Release Date: 12/30/1998
Substance Released: Unknown,Unknown
Release Status: Closed
Release Closed Date: 08/04/1999

UST:

Facility ID: 00002267

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHELL - HUNTER (Continued)

U003319719

Facility Type: CLOSED
Latitude: 42.53925
Longitude: -83.20683
Owner Name: CATALYST DEVELOPMENT CO LLC
Owner Address: 100 W MICHIGAN AVE STE 300
Owner City,St,Zip: KALAMAZOO, MI 49007
Owner Country: USA
Owner Contact: Not reported
Owner Phone: (269) 492-6811
Contact: Ms Patti Ownes
Contact Phone: (269) 492-6811
Date of Collection: 01/11/2001
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)
Method of Collection: Address Matching-House Number

Tank ID: 1
Tank Status: Removed from Ground
Capacity: 8000
Install Date: 09/01/1971
Product: Gasoline
Remove Date: 12/07/1999
Tank Release Detection: Automatic Tank Gauging,Inventory Control
Pipe Realease Detection: Line Tightness Testing
Piping Material: Fiberglass reinforced plastic
Piping Type: Pressure
Construction Material: Fiberglass Reinforced plastic
Impressed Device: No

Tank ID: 2
Tank Status: Removed from Ground
Capacity: 10000
Install Date: 12/01/1982
Product: Gasoline
Remove Date: 12/07/1999
Tank Release Detection: Automatic Tank Gauging,Inventory Control
Pipe Realease Detection: Line Tightness Testing
Piping Material: Fiberglass reinforced plastic
Piping Type: Pressure
Construction Material: Fiberglass Reinforced plastic
Impressed Device: No

Tank ID: 3
Tank Status: Removed from Ground
Capacity: 10000
Install Date: 12/01/1982
Product: Gasoline
Remove Date: 12/07/1999
Tank Release Detection: Automatic Tank Gauging,Inventory Control
Pipe Realease Detection: Line Tightness Testing
Piping Material: Fiberglass reinforced plastic

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHELL - HUNTER (Continued)

U003319719

Piping Type: Pressure
Construction Material: Fiberglass Reinforced plastic
Impressed Device: No

Tank ID: 4
Tank Status: **Removed from Ground**
Capacity: 550
Install Date: 04/15/1949
Product: Used Oil
Remove Date: 10/13/1989
Tank Release Detection: Not reported
Pipe Release Detection: Not reported
Piping Material: Galvanized Steel
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 5
Tank Status: **Removed from Ground**
Capacity: 15000
Install Date: 12/01/1999
Product: Gasoline
Remove Date: 10/29/2003
Tank Release Detection: Automatic Tank Gauging
Pipe Release Detection: Automatic Line Leak Detectors, Interstitial Monitoring Double Walled
Piping
Piping Material: Double Walled, ENVIRON GEOFLEX
Piping Type: Pressure
Construction Material: Fiberglass Reinforced plastic
Impressed Device: No

Tank ID: 6
Tank Status: **Removed from Ground**
Capacity: 12000
Install Date: 12/01/1999
Product: Gasoline, Diesel
Remove Date: 10/29/2003
Tank Release Detection: Automatic Tank Gauging
Pipe Release Detection: Automatic Line Leak Detectors, Interstitial Monitoring Double Walled
Piping
Piping Material: Double Walled, ENVIRON GEOFLEX
Piping Type: Pressure
Construction Material: Fiberglass Reinforced plastic
Impressed Device: No

Tank ID: 9
Tank Status: **Removed from Ground**
Capacity: 1000
Install Date: 12/01/1989
Product: Used Oil
Remove Date: 12/07/1999
Tank Release Detection: Inter Monitoring Double Walled Tank
Pipe Release Detection: ,GroundWater Monitoring, Interstitial Monitoring/Second

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHELL - HUNTER (Continued)

U003319719

Containment,Line Tightness Testing
Piping Material: Fiberglass reinforced plastic
Piping Type: Gravity Fed?,Pressure
Construction Material: Double Walled,Fiberglass Reinforced plastic
Impressed Device: No

Tank ID: 10
Tank Status: Removed from Ground
Capacity: Not reported
Install Date: Not reported
Product: Kerosene
Remove Date: 12/01/1998
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel
Piping Type: Suction: Valve at Tank
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

Tank ID: 11
Tank Status: Removed from Ground
Capacity: 500
Install Date: Not reported
Product: Used Oil
Remove Date: 02/09/2009
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Unknown
Piping Type: Not reported
Construction Material: Asphalt Coated or Bare Steel
Impressed Device: No

M46
NW
1/4-1/2
0.410 mi.
2167 ft.
CATALYST DEVELOPMENT CO 8 LLC
34977 WOODWARD AVE
BIRMINGHAM, MI 48104
Site 3 of 3 in cluster M

SPILLS
AUL
BEA
WDS
S104912434
N/A

Relative:
Higher
Actual:
778 ft.
PEAS:
Incident Date: 12/23/2000
Office Status: Not reported
Initials of Incoming Operator: Not reported
Time Received by DNRE Staff: Not reported
Date Of PEAS Call: 12/23/2000
Complainant / Company: Sgt. Henry w/Michigan State Police
Complainant Address: Unknown
Company Involved: Foster's Oil, Inc.
DEQ Division Involved: SWQD/ State Police
Incident Description: into a storm drain. The Birmingham Fire Department is on the scene.A gas tanker delivering gasoline accidentally pumped 103 gallons of gasoline
Description: Not reported

AUL:
Status: Pending

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CATALYST DEVELOPMENT CO 8 LLC (Continued)

S104912434

Site Name: Not reported
Property: On-site location
Land Use Restriction Type: RC
Program Type: Part 213
Program Support Assigned User: Not reported
Program Support Assigned Date: Not reported
Legal Description Of Property: Not reported
Based On The Deq Ref #: 11121309003
MDEQ Reference Number: RC-RRD-213-09-003
Property Or Description Restricted Area: Not reported
Lead Division: RRD
File Name Of Hyperlinked Legal Doc: Not reported
Mapped Polygons Area In Acres: 0.29999999999999999
Mapped Polygons Area In Square Miles: Not reported
Date Data Entry Started: Not reported
Date Data Entry Finished: Not reported
Individual Or Staff Assoc With The Mapping: Not reported
Program Used To Map Restricted Features: Not reported
Map Comments: Not reported
Comment: Gas Station, Birmingham Services Inc
Date Legal Paperwork Stamped/Filed/Register Of Deeds: 1/12/2009 00:00:00
Commercial I Land Use Restriction: 0
Commercial Ii Land Use Restriction: 0
Commercial Iii Land Use Restriction: 0
Commercial Iv Land Use Restriction: 0
Industrial Land Use Restriction: 0
Residential Land Use Restriction: 1
Recreational Land Use Restriction: 0
Multiple Land-Use Restrictions: 0
Site Specific Restrictions: 0
Groundwater Consumption Restrictions: 0
Groundwater Contact Restrictions: 0
Special Well Construction Requirements: 0
Special Building Restrictions: 0
Excavation And Soil Movement Restrictions: 0
Soil Movement Requirements: 0
There Is A Restriction On All Construction: 0
Monitoring Well Protected, No Tampering Or Removal: 0
There Is An Exposure Barrier In Place: 0
There Is A Health And Safety Plan: 0
There Is A Permanent Marker On The Site: 0

BEA:

Secondary Address: (FORMERLY 120 S. HUNTER STREET)
BEA Number: 1071
District: Southeast MI
Date Received: 02/07/2000
Submitter Name: ANDREW BOJI
Petition Determination: No Request
Petition Disclosure: 0
Category: Same Hazardous Substance(s)
Determination 20107A: No Request
Reviewer: temppm
Division Assigned: Storage Tank Division

Secondary Address: Not reported
BEA Number: 4000

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CATALYST DEVELOPMENT CO 8 LLC (Continued)

S104912434

District: Southeast MI
Date Received: 09/12/2008
Submitter Name: Catalyst Development Co. 8, LLC
Petition Determination: No Request
Petition Disclosure: 0
Category: Same Hazardous Substance(s)
Determination 20107A: No Request
Reviewer: tiernang
Division Assigned: Storage Tank Division

Secondary Address: (Formerly 120 Hunter)
BEA Number: 2187
District: Southeast MI
Date Received: 11/05/2003
Submitter Name: Fuller Central Park Properties IV, LLC
Petition Determination: Affirmed
Petition Disclosure: 1
Category: No Hazardous Substance(s)
Determination 20107A: Affirmed
Reviewer: mitchelf
Division Assigned: Storage Tank Division

WDS:

Site Id: MIR000044230
WMD Id: 413573
Site Specific Name: CATALYST DEVELOPMENT CO 8 LLC
Mailing Address: 34977 WOODWARD AVE
Mailing City/State/Zip: 48104
Mailing County: OAKLAND

47
WNW
1/4-1/2
0.435 mi.
2295 ft.

BROWN STREET OFFICE BUILDING
200 EAST BROWN
BIRMINGHAM, MI

BEA S109094147
N/A

Relative:
Higher

BEA:
Secondary Address: Not reported
BEA Number: 3891
District: Southeast MI
Date Received: 05/02/2008
Submitter Name: SMS & Associates, LLC
Petition Determination: Affirmed
Petition Disclosure: 1
Category: No Hazardous Substance(s)
Determination 20107A: No Request
Reviewer: tiernang
Division Assigned: RRD

Actual:
770 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

48
NW
1/4-1/2
0.442 mi.
2336 ft.

SUNOCO #0008-4178
35001 WOODWARD AVE
BIRMINGHAM, MI 48009

LUST
UST
BEA
WDS

U003320721
N/A

Relative:
Higher

LUST:

Facility ID: 00005935
Source: STATE OF MICHIGAN
Owner Name: Sunoco Inc (R&M)
Owner Address: 1735 Market St 12nd Floor
Owner City,St,Zip: Philadelphia, PA 19103
Owner Contact: Environmental Compliance Officer
Owner Phone: (215) 246-8513
Country: USA
District: SE Michigan District Office
Site Name: Sunoco #0008-4178
Latitude: 42.54698
Longitude: -83.21428
Date of Collection: 01/11/2001
Method of Collection: Address Matching-House Number
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Data: NAD83
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)

Leak Number: C-0924-96
Release Date: 11/07/1996
Substance Released: Unknown
Release Status: Closed
Release Closed Date: 06/08/2010

UST:

Facility ID: 00005935
Facility Type: CLOSED
Latitude: 42.54698
Longitude: -83.21428
Owner Name: SUNOCO INC (R&M)
Owner Address: 1735 MARKET ST 12ND FLOOR
Owner City,St,Zip: PHILADELPHIA, PA 19103
Owner Country: USA
Owner Contact: Environmental Compliance Officer
Owner Phone: (215) 246-8513
Contact: Kathleen McCaney
Contact Phone: (215) 246-8513
Date of Collection: 01/11/2001
Accuracy: 100
Accuracy Value Unit: FEET
Horizontal Datum: NAD83
Source: STATE OF MICHIGAN
Point Line Area: POINT
Desc Category: Plant Entrance (Freight)
Method of Collection: Address Matching-House Number

Tank ID: 1
Tank Status: Removed from Ground
Capacity: 6000
Install Date: 05/05/1982
Product: Diesel,6

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SUNOCO #0008-4178 (Continued)

U003320721

Remove Date: 04/01/1988
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Fiberglass reinforced plastic
Piping Type: Pressure
Construction Material: Composite(Steel w/Fiberglass),Fiberglass Reinforced plastic
Impressed Device: No

Tank ID: 2
Tank Status: Removed from Ground
Capacity: 1000
Install Date: 05/05/1970
Product: Used Oil
Remove Date: 04/01/1988
Tank Release Detection: Not reported
Pipe Realease Detection: Not reported
Piping Material: Bare Steel,Fiberglass reinforced plastic
Piping Type: Gravity Fed?
Construction Material: Asphalt Coated or Bare Steel,Composite(Steel w/Fiberglass)
Impressed Device: No

Tank ID: 3
Tank Status: Removed from Ground
Capacity: 6000
Install Date: 05/05/1981
Product: Gasoline
Remove Date: 10/01/2003
Tank Release Detection: Automatic Tank Gauging,Inventory Control,Tank Tightness Testing
Pipe Realease Detection: Automatic Line Leak Detectors,Line Tightness Testing
Piping Material: Fiberglass reinforced plastic
Piping Type: Pressure
Construction Material: Composite(Steel w/Fiberglass)
Impressed Device: No

Tank ID: 4
Tank Status: Removed from Ground
Capacity: 8000
Install Date: 05/05/1982
Product: Gasoline
Remove Date: 10/01/2003
Tank Release Detection: Automatic Tank Gauging,Inventory Control,Tank Tightness Testing
Pipe Realease Detection: Automatic Line Leak Detectors,Line Tightness Testing
Piping Material: Fiberglass reinforced plastic
Piping Type: Pressure
Construction Material: Composite(Steel w/Fiberglass),Fiberglass Reinforced plastic
Impressed Device: No

Tank ID: 5
Tank Status: Removed from Ground
Capacity: 8000
Install Date: 05/05/1982
Product: Gasoline
Remove Date: 10/01/2003

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SUNOCO #0008-4178 (Continued)

U003320721

Tank Release Detection: Automatic Tank Gauging,Inventory Control,Tank Tightness Testing
Pipe Realease Detection: Automatic Line Leak Detectors,Line Tightness Testing
Piping Material: Fiberglass reinforced plastic
Piping Type: Pressure
Construction Material: Fiberglass Reinforced plastic
Impressed Device: No

Tank ID: 6
Tank Status: Removed from Ground
Capacity: 1000
Install Date: 04/01/1988
Product: Used Oil
Remove Date: 10/14/1998
Tank Release Detection: Tank Tightness Testing
Pipe Realease Detection: Line Tightness Testing
Piping Material: Fiberglass reinforced plastic
Piping Type: Gravity Fed?
Construction Material: Composite(Steel w/Fiberglass)
Impressed Device: No

BEA:
Secondary Address: Not reported
BEA Number: 2477
District: Southeast MI
Date Received: 07/30/2004
Submitter Name: Birmingham Property, LLC
Petition Determination: No Request
Petition Disclosure: 0
Category: No Hazardous Substance(s)
Determination 20107A: No Request
Reviewer: mitchelf
Division Assigned: Environmental Response Division

WDS:
Site Id: MID087750204
WMD Id: 397695
Site Specific Name: HORTONS BIRMINGHAM SUNOCO NUMBER 84178
Mailing Address: 1801 MARKET STREET
Mailing City/State/Zip: 19103
Mailing County: Not reported

49
NW
1/4-1/2
0.464 mi.
2450 ft.

CORE INDUSTRIES GROUP, LLC
330 EAST MAPLE RD., STE. 162
BIRMINGHAM, MI 48009

SWRCY S110533436
N/A

Relative:
Higher

SWRCY:
Contact Name: JOE COTANT, PARTNER
Contact Phone1: (248) 225-1419 ext.
Contact Phone2: Not reported
Fax Number: Not reported
EMail: Not reported
Website: www.coreindustriesgroup.com
Company Type: COLLECTOR, PROCESSOR, EXPORTER
Sections: METALS, PALLETS, PAPER, PLASTICS MISC.

Actual:
780 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

50
ESE
1/2-1
0.782 mi.
4130 ft.

EAST LINCOLN ROAD PROPERTY
2400 EAST LINCOLN ROAD
BIRMINGHAM, MI

SHWS **S105541976**
BEA **N/A**

Relative:
Lower

SHWS:

Facility ID: 63005209
Facility Status: Interim Response conducted - No further activities anticipated
Source: Metal Doors Sash & Trim
SAM Score: 33
SAM Score Date: 01/21/2010
Township: 02N
Range: 11E
Section: 31
Quarter: SE
Quarter/Quarter: NE
Pollutants: Not reported

Actual:
735 ft.

BEA:

Secondary Address: Not reported
BEA Number: 1810
District: Southeast MI
Date Received: 09/10/2002
Submitter Name: 2400 LINCOLN L.L.C.
Petition Determination: Affirmed
Petition Disclosure: 1
Category: No Hazardous Substance(s)
Determination 20107A: Affirmed
Reviewer: barrowsg
Division Assigned: Environmental Response Division

Secondary Address: Not reported
BEA Number: 4923
District: Southeast MI
Date Received: 09/28/2011
Submitter Name: Pristine Properties Birmingham, LLC
Petition Determination: No Request
Petition Disclosure: 0
Category: Not reported
Determination 20107A: No Request
Reviewer: berakr
Division Assigned: RD

Count: 24 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
BIRMINGHAM	S111123619	ADAMS GREENHOUSE	32555 BINGHAM RD		AIRS
BIRMINGHAM	U003319446	BIRMINGHAM SCHOOLS MAINTENANCE	2305 COLE ST	48009	UST
BIRMINGHAM	1014948413	2400 E. LINCOLN	2400 E LINCOLN		US BROWNFIELDS
BIRMINGHAM	S105095044	GRAND TRUNK WESTERN RAILROAD YARD	N OF LINCOLN ST OF MAPLE RD S	48009	BEA
BIRMINGHAM	S111120973	ETON ROAD PROPERTY	563 THRU 635 SOUTH ETON ST		BEA
BIRMINGHAM	1014393048	DTE ENERGY/DETROIT EDISON	1455 WOODWARD AVE N	48009	RCRA-CESQG
BIRMINGHAM	U004181541	ESTATE MOTORS	464 S WOODWARD AVE	48009	UST
BIRMINGHAM	U004181317	JOES SERVICE STATION	1494 N WOODWARD		UST
BIRMINGHAM	S110624752	OHM OF BIRMINGHAM *	33989 S WOODWARD	48009	DRYCLEANERS
BIRMINGHAM	S110624723	WOODWARD BROWN ASSOCIATES, LLC	34901 WOODWARD AVE	48073	BEA
BIRMINGHAM	U003330104	MOBIL SS #03-KPV	1991 S WOODWARD AVE	48009	LUST, UST
BURTON	U003699333	JOYCE A MACK	4033 DORT HWY	48073	LUST, UST
HIGHLAND PARK	U003320644	BP	12551ST WOODWARD & GLENDALE	48073	LUST, UST
OAKLAND COUNTY	M300004234	SOUTH FLINT GRAVEL, INC.	OAKLAND COUNTY PITS		US MINES
OAKLAND COUNTY	M300004229	SOUTH HILL SAND & GRAVEL, INC.	PIONEER		US MINES
OAKLAND COUNTY	M300004236	SOUTH FLINT GRAVEL, INC.	SAND & GRAVEL OPERATION		US MINES
ROYAL OAK	S108414482	CVS PHARMACY #1150	30908 AND 30964 WOODWARD AVE	48073	BEA
ROYAL OAK	A100207431	CONSUMERS ENERGY CO	4000 N WOODWARD AVE	48073	AST
ROYAL OAK	U004181994	FORMER GAS STATION	32701 WOODWARD AVENUE 4501 WOO	48073	UST
ROYAL OAK	U003866275	FIRESTONE STORE	3305 N WOODWARD AVE	48073	LUST, UST
ROYAL OAK	U000262541	FIRE STATION #4	3400 N WOODWARD AVE	48073	LUST, UST
STUART	1001085960	PENSKE AUTO CENTER	30205 E FEDERAL HWY	48084	RCRA NonGen / NLR, FINDS
TROY	U003319368	KMART #3379	5100 DIXIE HWY	48084	LUST, UST
TROY	U003319358	KMART #4145	50 N GR0ESBECK HWY	48084	LUST, UST

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 10/01/2012	Source: EPA
Date Data Arrived at EDR: 10/11/2012	Telephone: N/A
Date Made Active in Reports: 12/20/2012	Last EDR Contact: 01/04/2013
Number of Days to Update: 70	Next Scheduled EDR Contact: 04/22/2013
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 10/01/2012	Source: EPA
Date Data Arrived at EDR: 10/11/2012	Telephone: N/A
Date Made Active in Reports: 12/20/2012	Last EDR Contact: 01/04/2013
Number of Days to Update: 70	Next Scheduled EDR Contact: 04/22/2013
	Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991	Source: EPA
Date Data Arrived at EDR: 02/02/1994	Telephone: 202-564-4267
Date Made Active in Reports: 03/30/1994	Last EDR Contact: 08/15/2011
Number of Days to Update: 56	Next Scheduled EDR Contact: 11/28/2011
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 10/01/2012	Source: EPA
Date Data Arrived at EDR: 10/11/2012	Telephone: N/A
Date Made Active in Reports: 12/20/2012	Last EDR Contact: 01/04/2013
Number of Days to Update: 70	Next Scheduled EDR Contact: 04/22/2013
	Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 11/02/2012	Source: EPA
Date Data Arrived at EDR: 11/28/2012	Telephone: 703-412-9810
Date Made Active in Reports: 01/07/2013	Last EDR Contact: 01/04/2013
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/11/2013
	Data Release Frequency: Quarterly

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 07/31/2012	Source: Environmental Protection Agency
Date Data Arrived at EDR: 10/09/2012	Telephone: 703-603-8704
Date Made Active in Reports: 12/20/2012	Last EDR Contact: 01/11/2013
Number of Days to Update: 72	Next Scheduled EDR Contact: 04/22/2013
	Data Release Frequency: Varies

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 11/02/2012	Source: EPA
Date Data Arrived at EDR: 11/28/2012	Telephone: 703-412-9810
Date Made Active in Reports: 01/07/2013	Last EDR Contact: 01/04/2013
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/11/2013
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/19/2011
Date Data Arrived at EDR: 08/31/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 132

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 02/08/2013
Next Scheduled EDR Contact: 05/27/2013
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 12/11/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/15/2013
Number of Days to Update: 43

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 02/15/2013
Next Scheduled EDR Contact: 04/15/2013
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/11/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/15/2013
Number of Days to Update: 43

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 02/15/2013
Next Scheduled EDR Contact: 04/15/2013
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 12/11/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/15/2013
Number of Days to Update: 43

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 02/15/2013
Next Scheduled EDR Contact: 04/15/2013
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/11/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/15/2013
Number of Days to Update: 43

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 02/15/2013
Next Scheduled EDR Contact: 04/15/2013
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 07/18/2012	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/24/2012	Telephone: 703-603-0695
Date Made Active in Reports: 11/05/2012	Last EDR Contact: 12/10/2012
Number of Days to Update: 104	Next Scheduled EDR Contact: 03/25/2013
	Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 07/18/2012	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/24/2012	Telephone: 703-603-0695
Date Made Active in Reports: 11/05/2012	Last EDR Contact: 12/10/2012
Number of Days to Update: 104	Next Scheduled EDR Contact: 03/25/2013
	Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005	Source: Department of the Navy
Date Data Arrived at EDR: 12/11/2006	Telephone: 843-820-7326
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 02/18/2013
Number of Days to Update: 31	Next Scheduled EDR Contact: 06/03/2013
	Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2012	Source: National Response Center, United States Coast Guard
Date Data Arrived at EDR: 01/17/2013	Telephone: 202-267-2180
Date Made Active in Reports: 02/15/2013	Last EDR Contact: 01/17/2013
Number of Days to Update: 29	Next Scheduled EDR Contact: 04/15/2013
	Data Release Frequency: Annually

State- and tribal - equivalent CERCLIS

SHWS: Contaminated Sites

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 10/31/2012	Source: Department of Natural Resources & Environment
Date Data Arrived at EDR: 11/01/2012	Telephone: 517-373-9541
Date Made Active in Reports: 11/28/2012	Last EDR Contact: 01/30/2013
Number of Days to Update: 27	Next Scheduled EDR Contact: 05/13/2013
	Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Solid Waste Facilities Database

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 01/03/2013
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 01/14/2013
Number of Days to Update: 11

Source: Department of Natural Resources & Environment
Telephone: 517-335-4035
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: 04/15/2013
Data Release Frequency: Semi-Annually

WDS: Waste Data System

The Waste Data System (WDS) tracks activities at facilities regulated by the Solid Waste, Scrap Tire, Hazardous Waste, and Liquid Industrial Waste programs.

Date of Government Version: 06/20/2012
Date Data Arrived at EDR: 06/20/2012
Date Made Active in Reports: 08/06/2012
Number of Days to Update: 47

Source: Department of Natural Resources & Environment
Telephone: 517-373-9875
Last EDR Contact: 02/15/2013
Next Scheduled EDR Contact: 06/10/2013
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank Sites

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 11/05/2012
Date Data Arrived at EDR: 11/19/2012
Date Made Active in Reports: 01/14/2013
Number of Days to Update: 56

Source: Department of Natural Resources & Environment
Telephone: 517-373-9837
Last EDR Contact: 02/19/2013
Next Scheduled EDR Contact: 06/03/2013
Data Release Frequency: Annually

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 08/01/2012
Date Data Arrived at EDR: 08/02/2012
Date Made Active in Reports: 10/16/2012
Number of Days to Update: 75

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/30/2012
Next Scheduled EDR Contact: 05/13/2013
Data Release Frequency: Quarterly

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 08/27/2012
Date Data Arrived at EDR: 08/28/2012
Date Made Active in Reports: 10/16/2012
Number of Days to Update: 49

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 01/28/2013
Next Scheduled EDR Contact: 05/13/2013
Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 08/17/2012
Date Data Arrived at EDR: 08/28/2012
Date Made Active in Reports: 10/16/2012
Number of Days to Update: 49

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/28/2013
Next Scheduled EDR Contact: 05/13/2013
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 09/06/2012	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/07/2012	Telephone: 415-972-3372
Date Made Active in Reports: 10/16/2012	Last EDR Contact: 01/28/2013
Number of Days to Update: 39	Next Scheduled EDR Contact: 05/13/2013
	Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/12/2012	Source: EPA Region 1
Date Data Arrived at EDR: 05/09/2012	Telephone: 617-918-1313
Date Made Active in Reports: 07/10/2012	Last EDR Contact: 02/01/2013
Number of Days to Update: 62	Next Scheduled EDR Contact: 05/13/2013
	Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 12/14/2011	Source: EPA Region 4
Date Data Arrived at EDR: 12/15/2011	Telephone: 404-562-8677
Date Made Active in Reports: 01/10/2012	Last EDR Contact: 01/28/2013
Number of Days to Update: 26	Next Scheduled EDR Contact: 05/13/2013
	Data Release Frequency: Semi-Annually

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 09/12/2011	Source: EPA Region 6
Date Data Arrived at EDR: 09/13/2011	Telephone: 214-665-6597
Date Made Active in Reports: 11/11/2011	Last EDR Contact: 01/28/2013
Number of Days to Update: 59	Next Scheduled EDR Contact: 05/13/2013
	Data Release Frequency: Varies

State and tribal registered storage tank lists

UST: Underground Storage Tank Facility List

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 11/05/2012	Source: Department of Natural Resources & Environment
Date Data Arrived at EDR: 11/19/2012	Telephone: 517-335-4035
Date Made Active in Reports: 01/14/2013	Last EDR Contact: 02/19/2013
Number of Days to Update: 56	Next Scheduled EDR Contact: 06/03/2013
	Data Release Frequency: Annually

UST 2: Underground Storage Tank Listing

A listing of underground storage tank site locations that have unknown owner information.

Date of Government Version: 11/19/2012	Source: Department of Environmental Quality
Date Data Arrived at EDR: 11/26/2012	Telephone: 517-335-7211
Date Made Active in Reports: 01/14/2013	Last EDR Contact: 11/16/2012
Number of Days to Update: 49	Next Scheduled EDR Contact: 02/04/2013
	Data Release Frequency: Annually

AST: Aboveground Tanks

Registered Aboveground Storage Tanks.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/09/2012
Date Data Arrived at EDR: 03/21/2012
Date Made Active in Reports: 04/27/2012
Number of Days to Update: 37

Source: Department of Natural Resources & Environment
Telephone: 517-373-8168
Last EDR Contact: 02/18/2013
Next Scheduled EDR Contact: 06/03/2013
Data Release Frequency: No Update Planned

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/12/2012
Date Data Arrived at EDR: 05/02/2012
Date Made Active in Reports: 07/16/2012
Number of Days to Update: 75

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 02/01/2013
Next Scheduled EDR Contact: 05/13/2013
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations).

Date of Government Version: 12/14/2011
Date Data Arrived at EDR: 12/15/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 26

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 01/28/2013
Next Scheduled EDR Contact: 05/13/2013
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 08/02/2012
Date Data Arrived at EDR: 08/03/2012
Date Made Active in Reports: 11/05/2012
Number of Days to Update: 94

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 01/28/2013
Next Scheduled EDR Contact: 05/13/2013
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/10/2011
Date Data Arrived at EDR: 05/11/2011
Date Made Active in Reports: 06/14/2011
Number of Days to Update: 34

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/28/2013
Next Scheduled EDR Contact: 05/13/2013
Data Release Frequency: Semi-Annually

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 08/17/2012
Date Data Arrived at EDR: 08/28/2012
Date Made Active in Reports: 10/16/2012
Number of Days to Update: 49

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/28/2013
Next Scheduled EDR Contact: 05/13/2013
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/27/2012
Date Data Arrived at EDR: 08/28/2012
Date Made Active in Reports: 10/16/2012
Number of Days to Update: 49

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 01/28/2013
Next Scheduled EDR Contact: 05/13/2013
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 08/01/2012
Date Data Arrived at EDR: 08/02/2012
Date Made Active in Reports: 10/16/2012
Number of Days to Update: 75

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/28/2013
Next Scheduled EDR Contact: 05/13/2013
Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 09/06/2012
Date Data Arrived at EDR: 09/07/2012
Date Made Active in Reports: 10/16/2012
Number of Days to Update: 39

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/28/2013
Next Scheduled EDR Contact: 05/13/2013
Data Release Frequency: Quarterly

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 01/14/2013
Next Scheduled EDR Contact: 04/29/2013
Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

AUL: Engineering and Institutional Controls

A listing of sites with institutional and/or engineering controls in place.

Date of Government Version: 03/28/2012
Date Data Arrived at EDR: 03/28/2012
Date Made Active in Reports: 04/20/2012
Number of Days to Update: 23

Source: Department of Natural Resources & Environment
Telephone: 517-373-4828
Last EDR Contact: 12/03/2012
Next Scheduled EDR Contact: 03/18/2013
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 09/28/2012
Date Data Arrived at EDR: 10/02/2012
Date Made Active in Reports: 10/16/2012
Number of Days to Update: 14

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 01/04/2013
Next Scheduled EDR Contact: 04/15/2013
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Brownfields and USTfield Site Database

All state funded Part 201 and 213 sites, as well as LUST sites that have been redeveloped by private entities using the BEA process. Be aware that this is not a list of all of the potential brownfield sites in Michigan.

Date of Government Version: 07/27/2012
Date Data Arrived at EDR: 07/31/2012
Date Made Active in Reports: 09/20/2012
Number of Days to Update: 51

Source: Department of Natural Resources & Environment
Telephone: 517-373-4805
Last EDR Contact: 01/28/2013
Next Scheduled EDR Contact: 05/13/2013
Data Release Frequency: Varies

BROWNFIELDS 2: Brownfields Building and Land Site Locations

A listing of brownfield building and land site locations. The listing is a collaborative effort of Michigan Economic Development Corporation, Michigan Economic Developers Association, Detroit Edison, Detroit Area Commercial Board of Realtors

Date of Government Version: 04/09/2007
Date Data Arrived at EDR: 04/10/2007
Date Made Active in Reports: 05/01/2007
Number of Days to Update: 21

Source: Economic Development Corporation
Telephone: 888-522-0103
Last EDR Contact: 12/03/2012
Next Scheduled EDR Contact: 03/18/2013
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 12/10/2012
Date Data Arrived at EDR: 12/11/2012
Date Made Active in Reports: 12/20/2012
Number of Days to Update: 9

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 02/14/2013
Next Scheduled EDR Contact: 04/08/2013
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 01/28/2013
Next Scheduled EDR Contact: 05/13/2013
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWRCY: Recycling Facilities

A listing of recycling center locations.

Date of Government Version: 11/24/2009
Date Data Arrived at EDR: 09/30/2010
Date Made Active in Reports: 10/28/2010
Number of Days to Update: 28

Source: Department of Natural Resources & Environment
Telephone: 517-241-5719
Last EDR Contact: 01/04/2013
Next Scheduled EDR Contact: 04/15/2013
Data Release Frequency: Varies

HIST LF: Inactive Solid Waste Facilities

The database contains historical information and is no longer updated.

Date of Government Version: 03/01/1997
Date Data Arrived at EDR: 02/28/2003
Date Made Active in Reports: 03/06/2003
Number of Days to Update: 6

Source: Department of Natural Resources & Environment
Telephone: 517-335-4034
Last EDR Contact: 02/28/2003
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 02/05/2013
Next Scheduled EDR Contact: 05/20/2013
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 11/14/2012
Date Data Arrived at EDR: 12/11/2012
Date Made Active in Reports: 02/15/2013
Number of Days to Update: 66

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 12/03/2012
Next Scheduled EDR Contact: 03/18/2013
Data Release Frequency: Quarterly

DEL SHWS: Delisted List of Contaminated Sites

Sites that have been delisted or deleted from the List of Contaminated Sites. The available documentation for the site does not support its listing or the site no longer meets criteria specified in rules.

Date of Government Version: 11/08/2012
Date Data Arrived at EDR: 11/08/2012
Date Made Active in Reports: 11/28/2012
Number of Days to Update: 20

Source: Department of Natural Resources & Environment
Telephone: 517-373-9541
Last EDR Contact: 01/28/2013
Next Scheduled EDR Contact: 05/13/2013
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CDL: Clandestine Drug Lab Listing

A listing of clandestine drug lab locations.

Date of Government Version: 10/20/2008

Date Data Arrived at EDR: 11/18/2008

Date Made Active in Reports: 11/21/2008

Number of Days to Update: 3

Source: Department of Community Health

Telephone: 517-373-3740

Last EDR Contact: 05/13/2013

Next Scheduled EDR Contact: 05/13/2013

Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007

Date Data Arrived at EDR: 11/19/2008

Date Made Active in Reports: 03/30/2009

Number of Days to Update: 131

Source: Drug Enforcement Administration

Telephone: 202-307-1000

Last EDR Contact: 03/23/2009

Next Scheduled EDR Contact: 06/22/2009

Data Release Frequency: No Update Planned

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/16/2012

Date Data Arrived at EDR: 03/26/2012

Date Made Active in Reports: 06/14/2012

Number of Days to Update: 80

Source: Environmental Protection Agency

Telephone: 202-564-6023

Last EDR Contact: 01/28/2013

Next Scheduled EDR Contact: 05/13/2013

Data Release Frequency: Varies

LIENS: Lien List

An Environmental Lien is a charge, security, or encumbrance upon title to a property to secure the payment of a cost, damage, debt, obligation, or duty arising out of response actions, cleanup, or other remediation of hazardous substances or petroleum products upon a property, including (but not limited to) liens imposed pursuant to CERCLA 42 USC * 9607(1) and similar state or local laws. In other words: a lien placed upon a property's title due to an environmental condition

Date of Government Version: 10/02/2012

Date Data Arrived at EDR: 10/24/2012

Date Made Active in Reports: 11/28/2012

Number of Days to Update: 35

Source: Department of Natural Resources & Environment

Telephone: 517-373-9837

Last EDR Contact: 01/21/2013

Next Scheduled EDR Contact: 05/06/2013

Data Release Frequency: Varies

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 04/01/2012

Date Data Arrived at EDR: 04/03/2012

Date Made Active in Reports: 06/14/2012

Number of Days to Update: 72

Source: U.S. Department of Transportation

Telephone: 202-366-4555

Last EDR Contact: 01/03/2013

Next Scheduled EDR Contact: 04/15/2013

Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PEAS: Pollution Emergency Alerting System

Environmental pollution emergencies reported to the Department of Environmental Quality such as tanker accidents, pipeline breaks, and release of reportable quantities of hazardous substances.

Date of Government Version: 08/31/2012
Date Data Arrived at EDR: 09/27/2012
Date Made Active in Reports: 11/20/2012
Number of Days to Update: 54

Source: Department of Natural Resources & Environment
Telephone: 517-373-8427
Last EDR Contact: 12/10/2012
Next Scheduled EDR Contact: 03/25/2013
Data Release Frequency: Quarterly

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 12/11/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/15/2013
Number of Days to Update: 43

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 02/15/2013
Next Scheduled EDR Contact: 04/15/2013
Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transportation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 02/05/2013
Next Scheduled EDR Contact: 05/20/2013
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 01/17/2013
Next Scheduled EDR Contact: 04/29/2013
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 08/12/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 112

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 02/26/2013
Next Scheduled EDR Contact: 06/10/2013
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 10/01/2012
Date Data Arrived at EDR: 10/19/2012
Date Made Active in Reports: 12/20/2012
Number of Days to Update: 62

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 12/28/2012
Next Scheduled EDR Contact: 04/15/2013
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 02/27/2012	Source: EPA
Date Data Arrived at EDR: 03/14/2012	Telephone: 703-416-0223
Date Made Active in Reports: 06/14/2012	Last EDR Contact: 12/11/2012
Number of Days to Update: 92	Next Scheduled EDR Contact: 03/25/2013
	Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010	Source: Department of Energy
Date Data Arrived at EDR: 10/07/2011	Telephone: 505-845-0011
Date Made Active in Reports: 03/01/2012	Last EDR Contact: 02/25/2013
Number of Days to Update: 146	Next Scheduled EDR Contact: 06/10/2013
	Data Release Frequency: Varies

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/18/2011	Source: Department of Labor, Mine Safety and Health Administration
Date Data Arrived at EDR: 09/08/2011	Telephone: 303-231-5959
Date Made Active in Reports: 09/29/2011	Last EDR Contact: 12/05/2012
Number of Days to Update: 21	Next Scheduled EDR Contact: 03/18/2013
	Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2009	Source: EPA
Date Data Arrived at EDR: 09/01/2011	Telephone: 202-566-0250
Date Made Active in Reports: 01/10/2012	Last EDR Contact: 02/26/2013
Number of Days to Update: 131	Next Scheduled EDR Contact: 06/10/2013
	Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2006	Source: EPA
Date Data Arrived at EDR: 09/29/2010	Telephone: 202-260-5521
Date Made Active in Reports: 12/02/2010	Last EDR Contact: 12/28/2012
Number of Days to Update: 64	Next Scheduled EDR Contact: 04/08/2013
	Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 02/25/2013
Number of Days to Update: 25	Next Scheduled EDR Contact: 06/10/2013
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 02/25/2013
Number of Days to Update: 25	Next Scheduled EDR Contact: 06/10/2013
	Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2008
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009	Source: EPA
Date Data Arrived at EDR: 12/10/2010	Telephone: 202-564-4203
Date Made Active in Reports: 02/25/2011	Last EDR Contact: 01/28/2013
Number of Days to Update: 77	Next Scheduled EDR Contact: 05/13/2013
	Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 07/20/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/10/2011	Telephone: 202-564-5088
Date Made Active in Reports: 01/10/2012	Last EDR Contact: 01/17/2013
Number of Days to Update: 61	Next Scheduled EDR Contact: 04/29/2013
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 11/01/2010	Source: EPA
Date Data Arrived at EDR: 11/10/2010	Telephone: 202-566-0500
Date Made Active in Reports: 02/16/2011	Last EDR Contact: 01/16/2013
Number of Days to Update: 98	Next Scheduled EDR Contact: 04/29/2013
	Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 06/21/2011	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 07/15/2011	Telephone: 301-415-7169
Date Made Active in Reports: 09/13/2011	Last EDR Contact: 12/10/2012
Number of Days to Update: 60	Next Scheduled EDR Contact: 03/25/2013
	Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 10/02/2012	Source: Environmental Protection Agency
Date Data Arrived at EDR: 10/02/2012	Telephone: 202-343-9775
Date Made Active in Reports: 11/05/2012	Last EDR Contact: 01/09/2013
Number of Days to Update: 34	Next Scheduled EDR Contact: 04/22/2013
	Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 10/23/2011	Source: EPA
Date Data Arrived at EDR: 12/13/2011	Telephone: (312) 353-2000
Date Made Active in Reports: 03/01/2012	Last EDR Contact: 12/11/2012
Number of Days to Update: 79	Next Scheduled EDR Contact: 03/25/2013
	Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995	Source: EPA
Date Data Arrived at EDR: 07/03/1995	Telephone: 202-564-4104
Date Made Active in Reports: 08/07/1995	Last EDR Contact: 06/02/2008
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/01/2008
	Data Release Frequency: No Update Planned

RMP: Risk Management Plans

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 05/08/2012	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/25/2012	Telephone: 202-564-8600
Date Made Active in Reports: 07/10/2012	Last EDR Contact: 01/28/2013
Number of Days to Update: 46	Next Scheduled EDR Contact: 05/13/2013
	Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2009	Source: EPA/NTIS
Date Data Arrived at EDR: 03/01/2011	Telephone: 800-424-9346
Date Made Active in Reports: 05/02/2011	Last EDR Contact: 02/26/2013
Number of Days to Update: 62	Next Scheduled EDR Contact: 06/10/2013
	Data Release Frequency: Biennially

UIC: Underground Injection Wells Database

A listing of underground injection well locations. The UIC Program is responsible for regulating the construction, operation, permitting, and closure of injection wells that place fluids underground for storage or disposal.

Date of Government Version: 11/01/2012	Source: Department of Natural Resources & Environment
Date Data Arrived at EDR: 11/01/2012	Telephone: 517-241-1515
Date Made Active in Reports: 11/28/2012	Last EDR Contact: 01/28/2013
Number of Days to Update: 27	Next Scheduled EDR Contact: 05/13/2013
	Data Release Frequency: Varies

DRYCLEANERS: Drycleaning Establishments

A listing of drycleaning facilities in Michigan.

Date of Government Version: 10/22/2012	Source: Department of Natural Resources & Environment
Date Data Arrived at EDR: 10/24/2012	Telephone: 517-335-4586
Date Made Active in Reports: 11/28/2012	Last EDR Contact: 01/21/2013
Number of Days to Update: 35	Next Scheduled EDR Contact: 05/06/2013
	Data Release Frequency: Annually

NPDES: List of Active NPDES Permits

General information regarding NPDES (National Pollutant Discharge Elimination System) permits and NPDES Storm Water permits.

Date of Government Version: 10/09/2012	Source: Department of Natural Resources & Environment
Date Data Arrived at EDR: 10/11/2012	Telephone: 517-241-1300
Date Made Active in Reports: 10/30/2012	Last EDR Contact: 01/09/2013
Number of Days to Update: 19	Next Scheduled EDR Contact: 04/22/2013
	Data Release Frequency: Varies

AIRS: Permit and Emissions Inventory Data

Permit and emissions inventory data.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/27/2012
Date Data Arrived at EDR: 09/28/2012
Date Made Active in Reports: 10/30/2012
Number of Days to Update: 32

Source: Department of Natural Resources & Environment
Telephone: 517-373-7074
Last EDR Contact: 12/18/2012
Next Scheduled EDR Contact: 04/08/2013
Data Release Frequency: Varies

BEA: BASELINE ENVIRONMENTAL ASSESSMENT DATABASE

A Baseline Environmental Assessment (BEA) allows people to purchase or begin operating at a facility without being held liable for existing contamination. BEAs are used to gather enough information about the property being transferred so that existing contamination can be distinguished from any new releases that might occur after the new owner or operator takes over the property.

Date of Government Version: 11/26/2012
Date Data Arrived at EDR: 11/26/2012
Date Made Active in Reports: 01/14/2013
Number of Days to Update: 49

Source: Department of Natural Resources & Environment
Telephone: 517-373-9541
Last EDR Contact: 02/18/2013
Next Scheduled EDR Contact: 06/03/2013
Data Release Frequency: Semi-Annually

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/17/2013
Next Scheduled EDR Contact: 04/29/2013
Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 01/21/2013
Next Scheduled EDR Contact: 05/06/2013
Data Release Frequency: Varies

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 11/15/2012
Date Data Arrived at EDR: 11/16/2012
Date Made Active in Reports: 02/15/2013
Number of Days to Update: 91

Source: EPA
Telephone: 202-564-5962
Last EDR Contact: 12/28/2012
Next Scheduled EDR Contact: 04/15/2013
Data Release Frequency: Annually

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/13/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 36

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 02/12/2013
Next Scheduled EDR Contact: 05/27/2013
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 08/20/2012	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/28/2012	Telephone: 202-566-1917
Date Made Active in Reports: 11/05/2012	Last EDR Contact: 02/19/2013
Number of Days to Update: 69	Next Scheduled EDR Contact: 06/03/2013
	Data Release Frequency: Quarterly

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 10/19/2011	Telephone: 202-566-0517
Date Made Active in Reports: 01/10/2012	Last EDR Contact: 02/01/2013
Number of Days to Update: 83	Next Scheduled EDR Contact: 05/13/2013
	Data Release Frequency: Varies

COAL ASH: Coal Ash Disposal Sites

Coal fired power plants in Southeast Michigan that have coal ash handling on site.

Date of Government Version: 04/21/2011	Source: Department of Natural Resources & Environment
Date Data Arrived at EDR: 04/21/2011	Telephone: 586-753-3754
Date Made Active in Reports: 05/13/2011	Last EDR Contact: 01/07/2013
Number of Days to Update: 22	Next Scheduled EDR Contact: 04/22/2013
	Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005	Source: Department of Energy
Date Data Arrived at EDR: 08/07/2009	Telephone: 202-586-8719
Date Made Active in Reports: 10/22/2009	Last EDR Contact: 01/15/2013
Number of Days to Update: 76	Next Scheduled EDR Contact: 04/29/2013
	Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 08/17/2010	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/03/2011	Telephone: N/A
Date Made Active in Reports: 03/21/2011	Last EDR Contact: 12/11/2012
Number of Days to Update: 77	Next Scheduled EDR Contact: 03/25/2013
	Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial assurance information.

Date of Government Version: 01/17/2012	Source: Department of Natural Resources & Environment
Date Data Arrived at EDR: 01/18/2012	Telephone: 517-335-6610
Date Made Active in Reports: 02/10/2012	Last EDR Contact: 01/07/2013
Number of Days to Update: 23	Next Scheduled EDR Contact: 04/22/2013
	Data Release Frequency: Varies

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 11/15/2012
Date Data Arrived at EDR: 11/16/2012
Date Made Active in Reports: 02/15/2013
Number of Days to Update: 91

Source: EPA
Telephone: 202-564-5962
Last EDR Contact: 12/28/2012
Next Scheduled EDR Contact: 04/15/2013
Data Release Frequency: Annually

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 11/11/2011
Date Data Arrived at EDR: 05/18/2012
Date Made Active in Reports: 05/25/2012
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 02/15/2013
Next Scheduled EDR Contact: 05/27/2013
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 01/05/2011
Date Data Arrived at EDR: 01/07/2011
Date Made Active in Reports: 02/14/2011
Number of Days to Update: 38

Source: Department of Natural Resources & Environment
Telephone: 517-335-4034
Last EDR Contact: 01/02/2013
Next Scheduled EDR Contact: 04/15/2013
Data Release Frequency: Varies

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/01/2012
Date Data Arrived at EDR: 10/04/2012
Date Made Active in Reports: 11/05/2012
Number of Days to Update: 32

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: 04/15/2013
Data Release Frequency: Quarterly

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 01/17/2013
Next Scheduled EDR Contact: 04/29/2013
Data Release Frequency: N/A

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR US Hist Auto Stat: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR US Hist Cleaners: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR US Hist Auto Stat: EDR Proprietary Historic Gas Stations - Cole

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: N/A
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR US Hist Cleaners: EDR Proprietary Historic Dry Cleaners - Cole

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: N/A
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 11/19/2012
Date Data Arrived at EDR: 11/19/2012
Date Made Active in Reports: 01/03/2013
Number of Days to Update: 45

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 02/18/2013
Next Scheduled EDR Contact: 06/03/2013
Data Release Frequency: Annually

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/19/2012
Date Made Active in Reports: 08/28/2012
Number of Days to Update: 40

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/15/2013
Next Scheduled EDR Contact: 04/29/2013
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 11/01/2012
Date Data Arrived at EDR: 11/07/2012
Date Made Active in Reports: 12/11/2012
Number of Days to Update: 34

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 02/07/2013
Next Scheduled EDR Contact: 05/20/2013
Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/23/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 57

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/21/2013
Next Scheduled EDR Contact: 05/06/2013
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 06/22/2012
Date Made Active in Reports: 07/31/2012
Number of Days to Update: 39

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 02/25/2013
Next Scheduled EDR Contact: 06/10/2013
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/19/2012
Date Made Active in Reports: 09/27/2012
Number of Days to Update: 70

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 12/13/2012
Next Scheduled EDR Contact: 04/01/2013
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data

Source: Rextag Strategies Corp.
Telephone: (281) 769-2247

U.S. Electric Transmission and Power Plants Systems Digital GIS Data

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Day Care Centers, Group & Family Homes

Source: Bureau of REgulatory Services

Telephone: 517-373-8300

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory

Source: Department of Natural Resources

Telephone: 517-241-2254

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

STREET AND ADDRESS INFORMATION

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GEOCHECK[®] - PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

770 SOUTH ADAMS ROAD
770 SOUTH ADAMS ROAD
BIRMINGHAM, MI 48009

TARGET PROPERTY COORDINATES

Latitude (North):	42.5418 - 42° 32' 30.48"
Longitude (West):	83.206 - 83° 12' 21.60"
Universal Transverse Mercator:	Zone 17
UTM X (Meters):	318853.3
UTM Y (Meters):	4712078.5
Elevation:	756 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	42083-E2 BIRMINGHAM, MI
Most Recent Revision:	1981

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

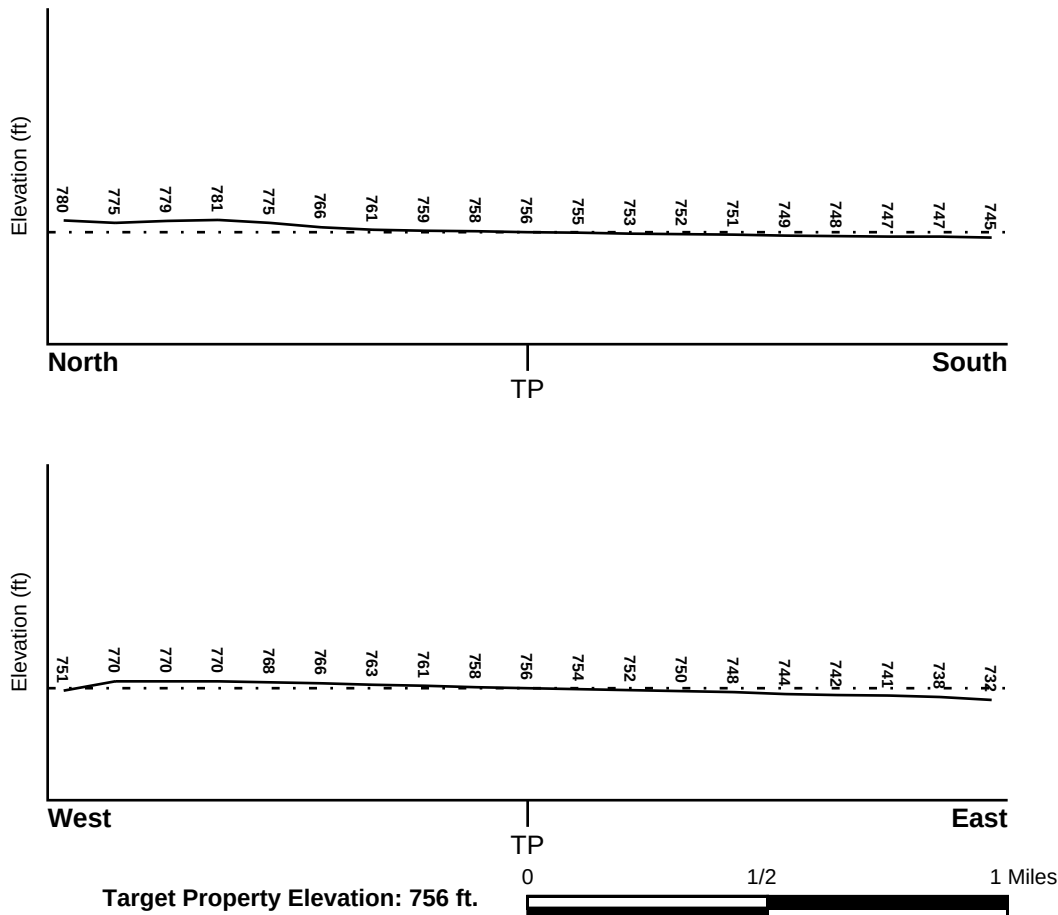
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County
OAKLAND, MI

FEMA Flood
Electronic Data
YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 26125C - FEMA DFIRM Flood data

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property
BIRMINGHAM

NWI Electronic
Data Coverage
YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data:*

Search Radius: 1.25 miles
Status: Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

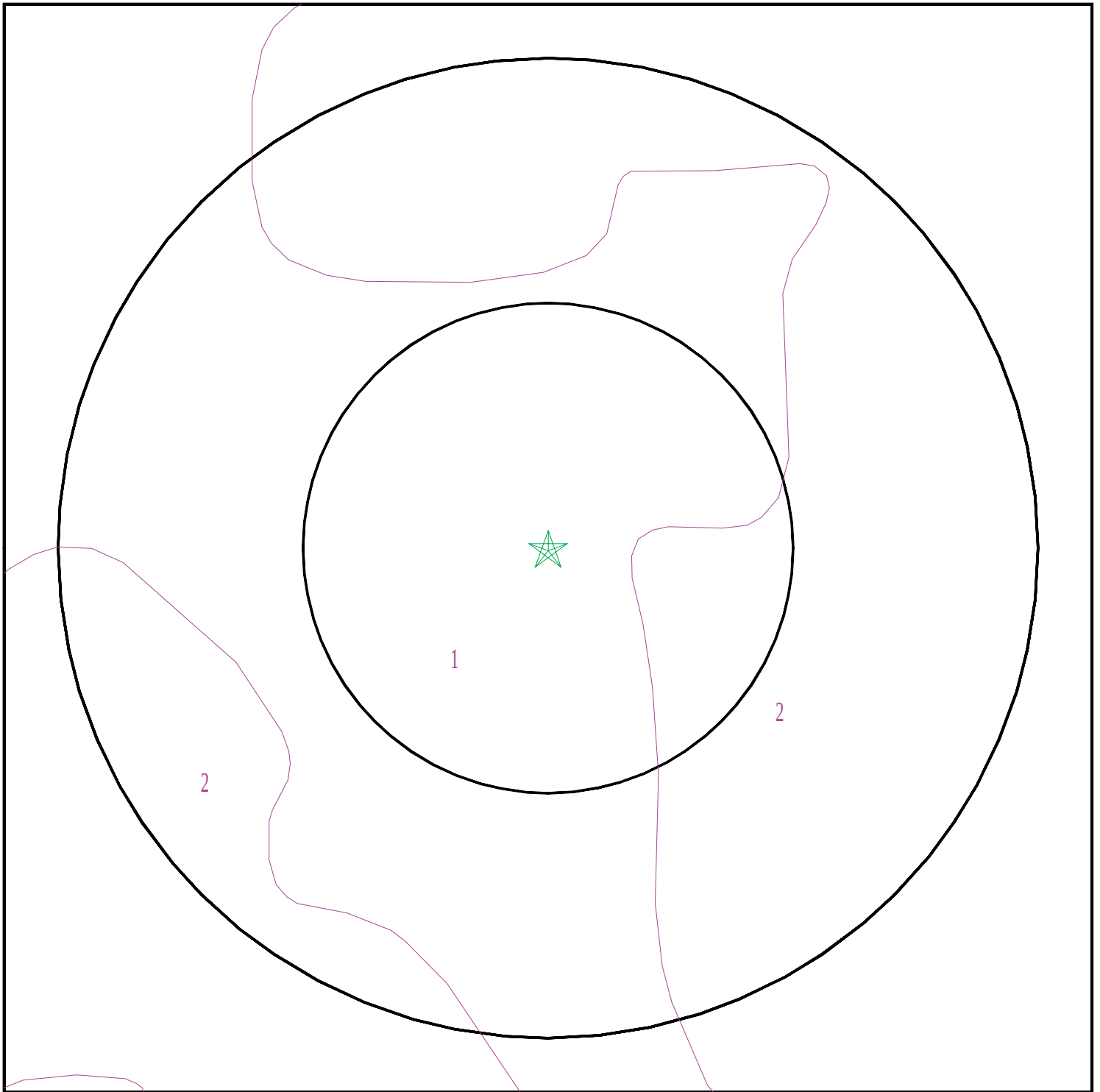
Era:	Paleozoic
System:	Devonian
Series:	Upper Devonian
Code:	D3 (decoded above as Era, System & Series)

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 03530350.2r



- ★ Target Property
- SSURGO Soil
- Water

0 1/16 1/8 1/4 Miles



SITE NAME: 770 South Adams Road
ADDRESS: 770 South Adams Road
Birmingham MI 48009
LAT/LONG: 42.5418 / 83.206

CLIENT: PM Environmental, Inc.
CONTACT: Candice Wilkins
INQUIRY #: 03530350.2r
DATE: February 27, 2013 10:47 am

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Urban land

Soil Surface Texture:
Hydrologic Group: Not reported

Soil Drainage Class:
Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

Soil Map ID: 2

Soil Component Name: Urban land

Soil Surface Texture:
Hydrologic Group: Not reported

Soil Drainage Class:
Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 46 inches

No Layer Information available.

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
2	USGS2308774	1/2 - 1 Mile South
3	USGS2308776	1/2 - 1 Mile SE
4	USGS2308808	1/2 - 1 Mile WNW
5	USGS2308802	1/2 - 1 Mile WNW
6	USGS2308773	1/2 - 1 Mile SSE
7	USGS2308822	1/2 - 1 Mile NNE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

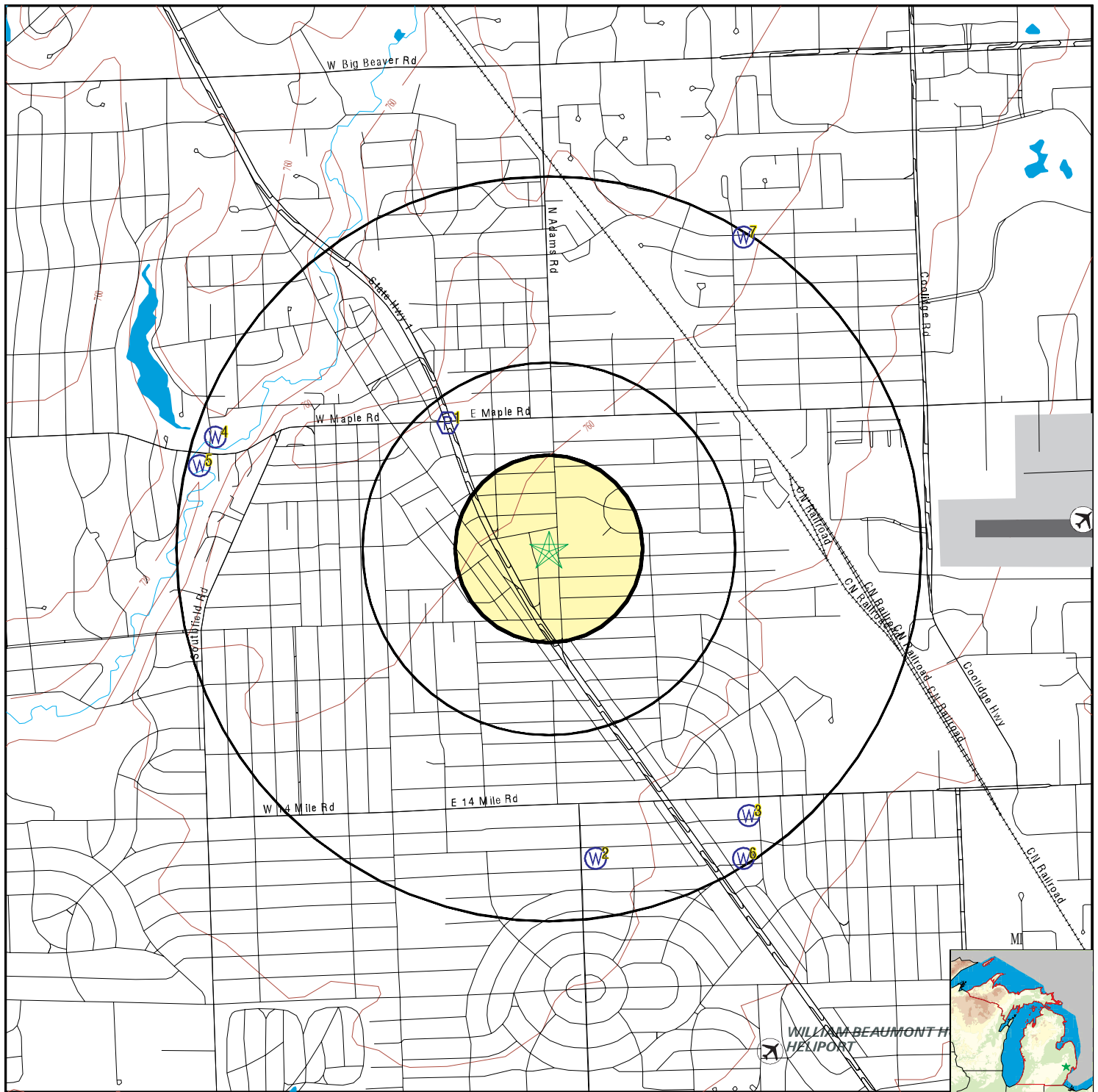
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	MI2033663	1/4 - 1/2 Mile NW

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

PHYSICAL SETTING SOURCE MAP - 03530350.2r



- County Boundary
- Major Roads
- Contour Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME: 770 South Adams Road
 ADDRESS: 770 South Adams Road
 Birmingham MI 48009
 LAT/LONG: 42.5418 / 83.206

CLIENT: PM Environmental, Inc.
 CONTACT: Candice Wilkins
 INQUIRY #: 03530350.2r
 DATE: February 27, 2013 10:47 am

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

1
NW
1/4 - 1/2 Mile
Higher

FRDS PWS MI2033663

PWS ID: MI2033663
Date Initiated: 7706 Date Deactivated: Not Reported
PWS Name: NATIVITY EPISCOPAL CHURCH
21220 FOURTEEN MILE ROAD
BIRMINGHAM 48010

Addressee / Facility: System Owner/Responsible Party
JOHN FREDENBURGH
S

Facility Latitude: 42 32 48 Facility Longitude: 083 12 41
City Served: BLOOMFIELD
Treatment Class: Untreated Population: 00000140

Violations information not reported.

2
South
1/2 - 1 Mile
Lower

FED USGS USGS2308774

Agency cd:	USGS	Site no:	423147083121301
Site name:	01N 11E 06BBCB 01	EDR Site id:	USGS2308774
Latitude:	423147	Dec lat:	42.52975703
Longitude:	0831213	Coor meth:	M
Dec lon:	-83.20354052	Latlong datum:	NAD27
Coor accr:	F	District:	26
Dec latlong datum:	NAD83	County:	125
State:	26	Land net:	S06T01NR11EM
Country:	US	Map scale:	Not Reported
Location map:	Not Reported		
Altitude:	745		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	10		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Detroit. Michigan. Area = 685 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	19490101
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	PLEISTOCENE SERIES		
Well depth:	194	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	1901-01-01
Water quality data end date:	1901-01-01	Water quality data count:	1
Ground water data begin date:	0000-00-00	Ground water data end date:	0000-00-00
Ground water data count:	0		

Ground-water levels, Number of Measurements: 0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

3
SE
1/2 - 1 Mile
Lower

FED USGS USGS2308776

Agency cd:	USGS	Site no:	423153083114402
Site name:	01N 11E 06BAAA 02		
Latitude:	423153	EDR Site id:	USGS2308776
Longitude:	0831144	Dec lat:	42.53142369
Dec lon:	-83.19548476	Coor meth:	M
Coor accr:	F	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	26
State:	26	County:	125
Country:	US	Land net:	S06T01NR11EM
Location map:	Not Reported	Map scale:	Not Reported
Altitude:	733		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	10		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Detroit. Michigan. Area = 685 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	19280101
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	PLEISTOCENE SERIES		
Well depth:	230	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	1936-09-23
Water quality data end date:	1942-07-06	Water quality data count:	2
Ground water data begin date:	1928-05-01	Ground water data end date:	1928-05-01
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1928-05-01	12.00	

4
WNW
1/2 - 1 Mile
Lower

FED USGS USGS2308808

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Agency cd:	USGS	Site no:	423246083132501
Site name:	02N 10E 36BBBA 01		
Latitude:	423246	EDR Site id:	USGS2308808
Longitude:	0831325	Dec lat:	42.54614559
Dec lon:	-83.22354176	Coor meth:	M
Coor accr:	F	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	26
State:	26	County:	125
Country:	US	Land net:	S36T02NR10EM
Location map:	Not Reported	Map scale:	Not Reported
Altitude:	725		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	10		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Detroit. Michigan. Area = 685 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	19210101
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	PLEISTOCENE SERIES		
Well depth:	96.0	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	1926-04-09
Water quality data end date:	1926-04-09	Water quality data count:	1
Ground water data begin date:	1921-01-01	Ground water data end date:	1921-01-01
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel

1921-01-01	20.00	

5

WNW

1/2 - 1 Mile

Lower

FED USGS

USGS2308802

Agency cd:	USGS	Site no:	423242083132801
Site name:	02N 10E 36BBBC 01		
Latitude:	423242	EDR Site id:	USGS2308802
Longitude:	0831328	Dec lat:	42.5450345
Dec lon:	-83.22437508	Coor meth:	M
Coor accr:	F	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	26
State:	26	County:	125
Country:	US	Land net:	S36T02NR10EM
Location map:	Not Reported	Map scale:	Not Reported
Altitude:	725		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	10		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Detroit. Michigan. Area = 685 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	EST

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	207	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	1938-11-16
Water quality data end date:	1938-11-16	Water quality data count:	1
Ground water data begin date:	0000-00-00	Ground water data end date:	0000-00-00
Ground water data count:	0		

Ground-water levels, Number of Measurements: 0

6
SSE
1/2 - 1 Mile
Lower

FED USGS USGS2308773

Agency cd:	USGS	Site no:	423147083114501
Site name:	01N 11E 06BADB 01	EDR Site id:	USGS2308773
Latitude:	423147	Dec lat:	42.52975705
Longitude:	0831145	Coor meth:	M
Dec lon:	-83.19576249	Latlong datum:	NAD27
Coor accr:	F	District:	26
Dec latlong datum:	NAD83	County:	125
State:	26	Land net:	S06T01NR11EM
Country:	US	Map scale:	Not Reported
Location map:	Not Reported		
Altitude:	733		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	10		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Detroit. Michigan. Area = 685 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	19500101
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	PLEISTOCENE SERIES		
Well depth:	194	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	1952-09-30
Water quality data end date:	1952-09-30	Water quality data count:	1
Ground water data begin date:	0000-00-00	Ground water data end date:	0000-00-00
Ground water data count:	0		

Ground-water levels, Number of Measurements: 0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

7

NNE

1/2 - 1 Mile
Higher

FED USGS

USGS2308822

Agency cd:	USGS	Site no:	423314083114501
Site name:	02N 11E 30DBBB 02		
Latitude:	423314	EDR Site id:	USGS2308822
Longitude:	0831145	Dec lat:	42.55392333
Dec lon:	-83.19576335	Coor meth:	M
Coor accr:	F	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	26
State:	26	County:	125
Country:	US	Land net:	S30T02NR11EM
Location map:	Not Reported	Map scale:	Not Reported
Altitude:	762		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	10		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Detroit. Michigan. Area = 685 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	19280101
Date inventoried:	Not Reported	Mean greenwich time offset:	EST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	PLEISTOCENE SERIES		
Well depth:	240	Hole depth:	Not Reported
Source of depth data:	Not Reported		
Project number:	Not Reported		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	1947-01-14
Water quality data end date:	1947-01-14	Water quality data count:	1
Ground water data begin date:	1928-09-01	Ground water data end date:	1928-09-01
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel

1928-09-01 13.00

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

RADON

AREA RADON INFORMATION

State Database: MI Radon

Radon Test Results

Zipcode	Test Date	LT Sign	Result
48009	5/28/2003		1.3
48009	1/24/2009		1.3
48009	1/6/1997		1.2
48009	8/22/2002		1.2
48009	5/24/2002		1.2
48009	3/26/2004		1.2
48009	3/26/2004		1.2
48009	3/26/2004		1.2
48009	2/8/2005		1.2
48009	10/13/1995		1.1
48009	7/1/1998		1.1
48009	5/10/2002		1.1
48009	5/31/2002		1.1
48009	2/24/2003		1.1
48009	1/27/2009		1.2
48009	1/24/2009		1.2
48009	2/17/2009		1.2
48009	2/14/2009		1.2
48009	2/2/2009		1.1
48009	3/22/2004		1.1
48009	3/7/2008		1.1
48009	6/8/2002		1.0
48009	2/2/2009		1.1
48009	7/3/1995		1.0
48009	2/26/1999		1.0
48009	2/16/2005		1.9
48009	2/2/2006		1.9
48009	11/15/2001		1.9
48009	4/20/1998		1.9
48009	3/11/2003		1.8
48009	10/13/2008		1.9
48009	10/27/2000		1.9
48009	2/27/2009		1.9
48009	4/3/2009		1.9
48009	1/13/1996		1.8
48009	5/11/2007	<	0.3
48009	5/7/2005		0.5
48009	3/8/2004		0.5
48009	1/29/2004	<	0.3
48009	1/12/2004	<	0.3
48009	4/7/2006	<	0.3
48009	6/2/2004	<	0.3
48009	3/21/2007		0.5
48009	8/30/1999		0.5
48009	11/16/2004	<	0.3
48009	3/18/1994		0.5
48009			

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

RADON

AREA RADON INFORMATION

	3/18/1994		0.5
48009	9/26/1998	<	0.3
48009	2/18/1999	<	0.3
48009	1/22/2008	<	0.3
48009	5/20/2003	<	0.3
48009	5/10/2002	<	0.3
48009	5/23/2002	<	0.3
48009	4/15/2002	<	0.3
48009	1/15/2007	<	0.3
48009	1/20/1998		0.8
48009	7/3/1995		0.8
48009	3/15/2004		0.7
48009	3/19/2003		0.8
48009	3/29/2004		0.8
48009	4/17/2004		0.6
48009	3/24/2006		0.8
48009	10/9/2004		0.9
48009	2/9/2004		0.9
48009	2/21/2004		0.9
48009	11/10/2006		0.9
48009	1/21/2008		0.6
48009	1/15/2008		0.6
48009	1/29/2009		0.6
48009	3/13/2009		0.7
48009	2/20/2009		0.6
48009	1/24/2009		0.8
48009	2/7/2009		0.8
48009	1/24/2009		0.6
48009	2/3/2009		0.9
48009	7/1/1998		0.7
48009	3/19/2003		0.6
48009	4/13/2002		0.6
48009	4/1/2002		0.6
48009	1/26/2009		0.9
48009	4/24/2002		0.5
48009	4/22/2003		0.6
48009	2/21/1995		1.8
48009	11/20/2007		1.8
48009	1/26/2009		2.6
48009	1/22/2009		2.8
48009	1/7/2002		2.5
48009	11/23/2007		2.4
48009	11/9/2007		2.4
48009	9/28/1999		2.4
48009	10/30/2006		2.2
48009	3/23/2009		2.4
48009	1/26/2009		2.3
48009	12/3/1994		2.2
48009	4/23/2002		2.2
48009	4/29/2002		2.2
48009	2/7/2003		2.2
48009	1/8/2007		2.3
48009	2/25/2002		2.1
48009	12/2/2002		2.7
48009	11/14/2003		2.6
48009	6/10/2002		2.7
48009			

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

RADON

AREA RADON INFORMATION

	1/13/2006		2.6
48009	10/31/2009		3.0
48009	1/3/2004		2.8
48009	11/3/2007		2.7
48009	11/7/2007		3.8
48009	7/28/2008		3.6
48009	5/21/2004		3.5
48009	4/28/2003		3.5
48009	1/2/2010		3.5
48009	9/8/2009		3.5
48009	11/6/2008		3.4
48009	2/25/2004		3.2
48009	4/9/2004		3.3
48009	11/10/2007		3.2
48009	1/24/2009	<	0.3
48009	11/11/2003		3.7
48009	1/25/2010	<	0.3
48009	1/4/1997		3.8
48009	1/14/2002		3.8
48009	6/9/2003		3.8
48009	11/22/1997		3.6
48009	10/13/1995		1.7
48009	7/29/2003		1.7
48009	4/29/2002		1.7
48009	10/31/2002		1.7
48009	1/18/2003		1.7
48009	1/28/2003		1.7
48009	7/16/2007		5.6
48009	7/16/1999		5.5
48009	1/24/2009		5.9
48009	6/12/2004		4.7
48009	10/20/2008		5.0
48009	9/29/2007		5.0
48009	3/13/2002		4.6
48009	5/27/2002		4.6
48009	6/9/2008		6.7
48009	7/6/2007		7.7
48009	4/12/2002		2.0
48009	5/8/2002		2.0
48009	9/17/2001		22.4
48009	3/5/2009		14.4
48009	2/7/2009		12.6
48009	5/27/2002		8.0
48009	6/24/2002		10.8
48009	7/24/1999		8.6
48009	1/24/2009		2.1
48009	11/22/2003		1.6
48009	12/30/2003		1.6
48009	2/7/2009		1.7
48009	1/29/2009		1.7
48009	11/7/2008		4.2
48009	10/10/2006		4.2
48009	8/19/2008		4.1
48009	2/1/2008		4.5
48009	10/23/2007		4.5
48009	4/21/2007		1.5
48009			

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

	1/14/2008	1.5
48009	7/14/2004	1.5
48009	4/7/2006	1.5
48009	4/12/2002	1.4
48009	7/29/2004	1.4
48009	7/27/2009	1.5
48009	10/19/2009	1.5
48009	5/29/2001	1.4
48009	1/29/2009	1.4
48009	4/7/2006	1.4
48009	12/4/2006	1.4

Federal EPA Radon Zone for OAKLAND County: 2

Note: Zone 1 indoor average level > 4 pCi/L.

: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.

: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 48009

Number of sites tested: 5

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	Not Reported	Not Reported	Not Reported	Not Reported
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	1.780 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory

Source: Department of Natural Resources

Telephone: 517-241-2254

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Data

Source: Department of Environmental Quality

Telephone: 517-335-9218

The data in this file was obtained from Wellogis, the Michigan Department of Environmental Quality Statewide Groundwater Database (SGWD). Wellogis contains approximately 425,000 water well records found within the State of Michigan, and although it represents the best available data, it cannot be considered a complete database of all the wells or well records in existence.

OTHER STATE DATABASE INFORMATION

Michigan Oil and Gas Wells

Source: Department of Environmental Quality

Locations of oil and gas wells are compiled from permit records on file at the Geological Survey Division (GSD), Michigan Department of Natural Resources.

RADON

State Database: MI Radon

Source: Department of Environmental Quality

Telephone: 517-335-9551

Radon Test Results

Michigan Radon Test Results

Source: Department of Environmental Quality

Telephone: 517-335-8037

These results are from test kits distributed by the local health departments and used by Michigan residents. There is no way of knowing whether the devices were used properly, whether there are duplicates (or repeat verification) test (i.e., more than one sample per home), etc.

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

STREET AND ADDRESS INFORMATION

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WRITTEN REQUESTS FOR FILE REVIEWS
AND WRITTEN RESPONSES



Lansing
3340 Ranger Road
Lansing, MI 48906
f: 877-884-6775
t: 517-321-3331

Detroit
4080 W. 11 Mile Rd
Berkley, MI 48072
f: 877-884-6775
t: 248-336-9988

Grand Rapids
77 Monroe Center, NW
Suite 602
Grand Rapids, MI 49503
f: 877-884-6775
t: 616-285-8857

ISO 9001 REGISTERED

VIA EMAIL: DEQFOIA@michigan.gov

February 27, 2013

Susan Vorce, FOIA Coordinator
Office of Environmental Assistance
Department of Environmental Quality

FOIA Coordinator:

Please accept this Freedom of Information Act request for file information for the following site(s) located in **Oakland County**:

RRD records maintained in the SEMI District Office Only:

- The Plant Station; 720 Adams Road, Birmingham
(Facility ID: 00018613)
- Goodyear Tire Center 1685; 835 Haynes Street, Birmingham
(Facility ID: 00021777)

We would like to review the files at the SE District office before copies are made.

Please contact me at 248-336-9988 if you have any questions or concerns. Thank you.

Sincerely,
PM Environmental, Inc.,

Alex J. Kozlowski

Alex Kozlowski
Staff Researcher
4080 West Eleven Mile Rd
Berkley, MI 48072
PME Project Number: 02-6286-0 AM (3-22-13)



Lansing
3340 Ranger Road
Lansing, MI 48906
f: 877-884-6775
t: 517-321-3331

Detroit
4080 W. 11 Mile Rd
Berkley, MI 48072
f: 877-884-6775
t: 248-336-9988

Grand Rapids
77 Monroe Center, NW
Suite 602
Grand Rapids, MI 49503
f: 877-884-6775
t: 616-285-8857

ISO 9001 REGISTERED

VIA EMAIL: DEQFOIA@michigan.gov

March 5, 2013

Susan Vorce, FOIA Coordinator
Office of Environmental Assistance
Department of Environmental Quality

FOIA Coordinator:

Please accept this Freedom of Information Act request for file information for the following site(s) located in **Oakland County**:

OWMRP Records Maintained in the SEMI District Office Only:

- Rosman Cleaners; 651 South Adams Road, Birmingham (EPA ID: MI0000079103)
- Perry Drug Store; 597 South Adams Road, Birmingham (EPA ID: Unknown)

We would like to review the files at the SEMI District office before copies are made.
Please contact me at 248-336-9988 if you have any questions or concerns. Thank you.

Sincerely,
PM Environmental, Inc.,

Alex J. Kozlowski

Alex Kozlowski
Staff Researcher
4080 West Eleven Mile Rd
Berkley, MI 48072
PME Project Number: 02-6286-0 AM (3-22-13)

Appendix E



PM PROFESSIONAL RESUMES



1-800-313-2966
www.pmenv.com
magar@pmenv.com

Education

- ñ Wayne State University
B.S. Environmental Studies
- ñ Wayne State University
B.A. Biological Sciences

Certifications

- ñ Successfully completed EDR Environmental Due Diligence 101 Course
- ñ Healthcare Provider American Red Cross Association, First Aid, CPR, and AED Training.

ANDREA MAGAR

STAFF CONSULTANT

Areas of expertise

- ñ Staff researcher for Phase I Environmental Site Assessments (ESAs).
- ñ Data collection, site investigation, and preparation of Phase I ESAs.
- ñ Collection and evaluation of data for Transaction Screens, Phase I Reports, and preparation of reports.
- ñ Experience in implementation and completion of various site assessment standards and profession protocol and commercial lending requirements (ASTM E-1527).



1-800-313-2966
www.pmenv.com
gable@pmenv.com

Education

- Oakland University B.S. Environmental Science
- Specialization: Environmental and Resource Management

Certifications

- Certified Asbestos Building Inspector Accreditation #A39706
- OSHA 2a CFR 1910.120 8-hour Annual Refresher Safety Training
- Successfully completed EDR Environmental Due Diligence 101 Course

KRISTIN GABLE

REGIONAL DUE DILIGENCE MANAGER

Ms. Gable is the Regional Manager of Due Diligence at PM Environmental, Inc. and has served clients in over 13 States. She specializes in Environmental Due Diligence including Phase I Environmental Site Assessments and customized environmental assessments to support all forms of real estate transactions. Ms. Gable has successfully managed due diligence services for several multi-state portfolios including a multi-property portfolio of asphalt-sealant manufacturing facilities. She has managed thousands of environmental due diligence projects, and her recent focus includes serving industrial and petroleum industry clients.

Areas of expertise

- Coordination and management of regional due diligence group.
- Staff Researcher for Phase I Environmental Site Assessments (ESAs).
- Data collection, site investigation, and preparation of Phase I ESA projects.
- Data collection, site investigation, and preparation of Transaction Screen projects.
- Experience in implementation and completion of various site assessment standards and professional protocol and commercial lending requirements (ASTM E-1527, ASTM E-1528).
- Peer Technical Review of Phase I ESA Projects using ASTM Standard 1527.



1-800-313-2966
www.pmenv.com
kruszewski@pmenv.com

Education

- ñ Michigan State University
B.S. Geology

Registration

Professional Geologist

- ñ State of Indiana

Certified UST Professional

- ñ State of Michigan

Certifications

- ñ OSHA 1910.120 Hazardous Waste Training
- ñ American Red Cross Standard First Aid and Adult CPR
- ñ Meets the definition of Environmental Professional as defined in § 312.10 of 40 CFR 312

Professional Activities

- ñ Michigan Association of Environmental Professionals
- ñ Environmental Bankers Association

KEVIN M. KRUSZEWSKI, P.G., Q.C.

VICE PRESIDENT OF ENVIRONMENTAL RISK MANAGEMENT

Mr. Kruszewski is a Vice President of Environmental Risk Management at PM Environmental, Inc. and has served clients in over 48 states since 1988. He specializes in Phase I and Phase II Environmental Site Assessments (ESAs), Baseline Environmental Assessments (BEAs), and Due Care Plans, Underground Storage Tank (UST) Closures, and Lender Risk Management. Mr. Kruszewski has been involved in thousands of transactions, including typical Environmental Due Diligence for purchase and refinance transactions, and participations and foreclosures. His recent focus includes serving financial clients based in the Midwest with investment interests across the country.

Areas of expertise

- ñ Real estate portfolio analysis for evaluation of environmental risk associated with single and multi property transactions for the lending industry.
- ñ Collateral and exposure analysis for over 3,000 real estate transactions, including single and multi commercial, industrial, and multi state properties.
- ñ Management of environmental due diligence associates with foreclosed properties.
- ñ Peer/Senior Technical Review for Baseline Environmental Assessment (BEA) Projects.
- ñ Peer/Senior Technical review for Due Care Analysis for BEAs in accordance with the Natural Resources and Environmental Protection Act, P.A. 451 of 1994, Parts 201 and 213
- ñ Peer/Senior Technical review of Phase I, Phase II, Phase III Environmental Site Assessment Projects.
- ñ Peer/Senior Technical review for Leaking Underground Storage Tank (LUST) Projects, including risk evaluation for the lending industry.
- ñ Technical review of land use based Corrective Action Plans.
- ñ Local, State, and Federal Regulatory Acts.
- ñ Technical Review of feasibility studies for the remediation of soil and groundwater.
- ñ Technical Review of generic and site-specific risk assessments.
- ñ On-site management of the containment and recovery of dense non-aqueous phase liquids (DNAPLs).

Appendix F



COMMON ACRONYMS AND TERMINOLOGY USED IN THE COURSE OF THIS PHASE I ESA

The following is a list of common acronyms:

All Appropriate Inquiry	AAI
Asbestos Containing Materials	ACM
Aboveground Storage Tank	AST
American Society for Testing Materials	ASTM
Approximate Minimum Search Distance	ASMD
Comprehensive Environmental Response, Compensation and Liability Act	CERCLA
Environmental Data Resources	EDR
Environmental Site Assessment	ESA
Federal Emergency Response Notification System	FERNs
Large Quantity Generator	LQG
Leaking Underground Storage Tank	LUST
National Priority List	NPL
No Further Remedial Action Planned	NFRAP
PM Environmental, Inc.	PME
Polychlorinated Biphenyls	PCBs
Resource Conservation and Recovery Act	RCRA
Small Quantity Generator	SQG
Treatment Storage and Disposal Facility	TSD
Underground Storage Tank	UST
United States Environmental Protection Agency	USEPA

TERMINOLOGY

The following provides definitions and descriptions of certain terms that may be used in this report. Several terms are defined by ASTM Standard Practice E 1527. The Standard Practice should be referenced for further detail (such as the precise wording), related definitions, or additional explanation regarding the meaning of terms.

Asbestos containing material (ACM): Any material found to contain greater than 1% asbestos using an analytical method that is approved by the USEPA for asbestos analysis.

De minimis conditions: Conditions that generally do not present a material risk or harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

Friable material: Defined in the National Emission Standards for Hazardous Air Pollutants (NESHAP) as a material that can be pulverized or reduced to dust using hand pressure only.

General risk of enforcement action: The likelihood that an environmental condition would be subject to enforcement action if brought to the attention of appropriate governmental agencies. If the circumstances suggest an enforcement action would be more likely than not, then the condition is considered a general risk of enforcement action.

Historical recognized environmental condition (HREC): Environmental condition which in the past would have been considered a recognized environmental condition, but which may or may not be considered a recognized environmental condition currently. The final decision rests

with the environmental professional and will be influenced by the current impact of the historical recognized environmental condition on the subject property. If a past release of any hazardous substances or petroleum products has occurred in connection with the subject property, with such remediation accepted by the responsible regulatory agency (for example, as evidenced by the issuance of a no further action letter or equivalent), this condition shall be considered a historical recognized environmental condition.

Non-friable material: Defined by National Emission Standards for Hazardous Air Pollutants (NESHAP) as a material that cannot be pulverized or reduced to dust using hand pressure only. According to NESHAP, non-friable building materials include those in Category I (packings, gaskets, resilient floor coverings/adhesives, and asphalt roofing materials) and those in Category II (all other materials).

Recognized environmental condition (REC): The presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the subject property or into the ground, ground water, or surface water of the subject property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

Subject property: The area that is the focus of a Phase I Environmental Site Assessment. The boundaries are not necessarily consistent with recorded legal descriptions of real estate, and are defined by the User.

Suspect ACM of concern: Defined as “(I) all friable suspect ACMs (II) any non-friable suspect ACMs expected to be disturbed by renovation or demolition activities planned for the subject property.”

USER'S CONTINUING OBLIGATIONS UNDER CERCLA

Conducting a Phase I ESA alone does not provide a landowner with protection against CERCLA liability. Landowners who want to maintain a bona Fide Prospective Purchaser, an Innocent Landowner, or a Contiguous Property Owner Defense must also comply with other pre-acquisition and post-acquisition requirements in the CERCLA regulations and AAI standards. The responsibilities for each defense are summarized below.

Bona Fide Prospective Purchaser Responsibilities

The Bona Fide Prospective Purchaser defense is intended for individuals or entities purchasing a property known to be contaminated. To obtain and maintain the defense, the individual or entity seeking the defense must also satisfy the following requirements (AAI, Section II D.1.):

- Have acquired a property after all disposal activities involving hazardous substances ceased at the property;
- Provide all legally required notices with respect to the discovery or release of any hazardous substances at the property;
- Exercise appropriate care by taking reasonable steps to stop continuing releases, prevent any threatened future releases, and prevent or limit human, environmental, or natural resources exposure to any previously released hazardous substance;
- Provide full cooperation, assistance, and access to persons authorized to conduct response actions or natural resource restorations;
- Comply with land use restrictions established or relied on in connection with a response action;
- Not impede the effectiveness or integrity of any institutional controls;
- Comply with any CERCLA request for information or administrative subpoena; and
- Not be potentially liable, or affiliated with any other person who is potentially liable for response costs for addressing releases at the property.

Innocent Landowner Responsibilities

The Innocent Landowner Defense protects individuals or entities (ultimately the "property owner") purchasing a property that is not known to be contaminated. The property owner must also satisfy the following requirements to obtain and maintain the defense (AAI, Section II D.3 and CERCLA Section 107(b)(3)):

- Have no reason to know that any hazardous substance which is the subject of a release of threatened release was disposed of on, in, or at the facility;
- Provide full cooperation, assistance and access to persons authorized to conduct response actions at the property;
- Comply with any land use restrictions and not impeding the effectiveness or integrity of any institutional controls;

- Take reasonable steps to stop continuing releases, prevent any threatened release, and prevent to limit human, environmental, or natural resource exposure to any hazardous substances released on or from the landowner's property;
- Demonstrate that the act or omission that caused the release or threat of release of hazardous substances and the resulting damages were caused by the third party with whom the person does not have employment, agency, or contractual relationship;
- Exercise due care with respect to the hazardous substance concerned, taking into consideration the characteristics of such hazardous substance, in light of all relevant facts and circumstances;
- Take precautions against foreseeable acts or omissions of a third party and the consequences that could result from such acts or omissions.

Contiguous Property Owner Defense

The Contiguous Property Owner Defense protects individuals or entities purchasing a property that is not known to be contaminated, but could be contaminated by migration from a contiguous property owned by someone else. To qualify as a contiguous property owner, a landowner must have no knowledge of contamination prior to acquisition, or reason to know of contamination at the time of acquisition, have conducted AAI, and meet all of the criteria set forth in AAI Section II.D.2 and CERCLA Section 107(q)(1)(A), which include:

- Not cause, contribute, or consent to the release or threatened release;
- Not be potentially liable nor affiliated with any other person potentially liable for response costs at the property;
- Take reasonable steps to stop continuing releases, prevent any threatened release, and prevent or limit human, environmental, or natural resource exposure to any hazardous substances released on or from the landowner's property;
- Provide full cooperation, assistance, and access to persons authorized to conduct response actions or natural resource restorations;
- Comply with land use restrictions established or relied on in connection with a response action;
- Not impede the effectiveness or integrity of any institutional controls;
- Comply with any CERCLA request for information or administrative subpoena;
- Provide all legally required notices with respect to discovery or release of any hazardous substances at the property.

Persons who know, or have reason to know, that the property is or could be contaminated at the time of acquisition of a property cannot qualify for the liability protection as a contiguous property owner, but may be entitled to Bona Fide Prospective Purchaser status.



February 15, 2021

ARJA Haynes, LLC
c/o Mr. John Shekerjian
36400 Woodward Ave; Suite 109
Bloomfield Hills, MI 48304

Darcy Environmental Consultants, LLC Project Number: 20086

RE: Phase I ESA for building and property located at 1000 Haynes Street, Birmingham, Michigan (Subject Site)

Dear Mr. Shekerjian:

Darcy Environmental Consultants, LLC is pleased to submit its report on the Phase I Environmental Site Assessment conducted at the above referenced Property.

The project objective was to perform a specified scope of research, evaluate the data, and render a professional opinion on environmental conditions on the Property. The information and opinions included in this report are exclusively for the use of ARJA Haynes, LLC.

We appreciate the opportunity to be of service to you on this project. Should you have any questions or desire further information, please contact us at (734) 395-1423.

Sincerely,

DARCY ENVIRONMENTAL CONSULTANTS, LLC

A handwritten signature in black ink, appearing to read "Allan Longyear", is enclosed in a thin black rectangular border.

Allan Longyear
Senior Project Manager



PHASE I ENVIRONMENTAL SITE ASSESSMENT

**Commercial Property
1000 Haynes Street, Birmingham, Michigan 48009**

Prepared for

**ARJA Haynes Street, LLC
c/o Mr. John Shekerjian
36400 Woodward Ave; Suite 109
Bloomfield Hills, MI 48304**

DARCY ENVIRONMENTAL PROJECT NUMBER 20086

February 15, 2021

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1.0 General Information

Project Name **Phase I ESA**

Project Number: 20086 Task 01

Consultant

Darcy Environmental Consultants LLC

702 North Brys Drive

Grosse Pointe Woods, MI 48236

Phone: (734) 395-1423

Email: alongyear@darcyenvironmental.com

Inspection Date: January 29, 2021

Report Date: February 15, 2021

Site

Commercial Property

1000 Haynes Street, Birmingham, MI 48009

County: Oakland

Latitude, Longitude:

42.542049 - N, -83.206414 - W

Client

ARJA Haynes Street, LLC

c/o Mr. John Shekerjian

36400 Woodward Ave.

Bloomfield Hills, MI 48304

Site Assessor:



Allan Longyear
Senior Project Manager

Senior Reviewer:



William C. Henderson
Vice President

General Notes:

Darcy Environmental Consultants, LLC (Darcy) conducted the Phase I Environmental Site Assessment (ESA) in order to provide an independent, professional opinion of the possible presence of Recognized Environmental Conditions (RECs) or other possible environmental concerns (if any) associated with the subject site as part of environmental due diligence.

A REC is defined as the presence or likely presence of any hazardous substance or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) or under conditions that pose a material threat of a future release to the environment.

A Controlled REC (CREC) is defined as a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, *with* hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.

A Historical REC (HREC) is defined as a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority, *without* subjecting the property to any required controls.

In accordance with the United States Environmental Protection Agency, 40 Code of Federal Regulations (CFR) Part 312, "All Appropriate Inquiry" (AAI), Darcy Environmental is providing the following Environmental Professional (EP) declarations.

EP Certification:

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in 312.10 of this part.



William C. Henderson - Vice President

AAI Certification:

I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Property. I have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



William C. Henderson - Vice President

2.0 Executive Summary

Current Use of Property

The subject site currently houses a Citizens Bank branch facility. Operations include a common, and teller, office and mechanical areas on the first floor and offices on the second floor. The current owner of the subject site is Citizens Bank/Charter One Bank and is zoned for commercial use. The subject site to be comprised of approximately 1.4-acres of developed land located at 1000 Haynes Street, in Birmingham, Oakland County, Michigan. The subject site consists of one two- story 6,702 square foot commercial building located in the central portion of the parcel. Asphalt paved parking surrounds the building on all sides and manicured grass and landscaping is present along the perimeter of the site. Access to the site is provided by one entrance along Haynes Street which adjoins the subject site to the north, along S Worth Street which adjoins the subject site to the west, and along S Adams Road which adjoins the subject site to the east. The parcel is relatively flat. The area surrounding the subject site is primarily developed for commercial use.

Database/Records Review

Darcy Environmental retained Envirosearch Corporation (Envirosearch) of Shelton, Connecticut, to review federal, tribal, state and EDR proprietary records related to the subject site and nearby properties within the ASTM approximate minimum search radius (as seen on the table below). However, Darcy Environmental typically reviews local, state, tribal or federal database records of those sites of known environmental contamination (i.e., SHWS, LUST, CERCLIS, and NPL sites) within a one-quarter mile radius of the subject site. Darcy Environmental considers sites within this specified search radius as having the most potential to impact the subject site. Also, Darcy Environmental typically reviews local, state, tribal or federal database records of those sites of suspected environmental contamination (i.e., UST, Indian UST and RCRA generator sites), which adjoin the subject site, or, in the professional opinion of Darcy Environmental, are of such nature and proximity to the subject site that they represent RECs. Darcy Environmental's evaluation of RECs includes circumstances where migration of hazardous substances or petroleum products in solid or liquid form at the surface or subsurface (including vapors) could reach the subject site.

- The Envirosearch report did not identify any listings for the subject site.
- Envirosearch identified The Plant Station site located 720 S Adams Road, which abuts the subject site to the north and east, as a Underground Storage Tank (UST), Leaking Underground Storage Tank (LUST) and non-hazardous liquid industrial waste facility (LWF) site. Records indicate that the site formerly had one 4,000-gallon gasoline UST and three 6,000-gallon gasoline USTs that were removed from the site in 1987. During the tank removal, a gasoline leak was discovered. The site underwent cleanup operations and achieved closure on November 24, 1998. Based on the long-term use of this site as a gasoline service station and in consideration of the potential for reuse of the subject site for residential purposes, Darcy conducted a limited scope subsurface investigation in November of 2020 to assess the potential for contamination present at the 720 Adams Road site to have adversely impacted the subject site. The results of this investigation (summarized in detail in **Section 6.4.5** and attached in **Appendix E**) indicate that the contamination associated with the off-site source located at 720 Adams Road has not

adversely impacted the subject site and no further investigation was recommended. Based on the results of the subsurface investigation and in consideration that the adjoining site is no longer operating as a gasoline service station, it is the opinion of the EP that the 720 S Adams Road site does not represent a REC.

- Envirosearch identified forty-one (41) sites listed within one-quarter mile of the subject site that appeared on one or more database including; State Hazardous Waste Site (SHWS), LUST, UST sites, LWF, BEA (Baseline Environmental Assessment), RCRA Non-Generator, RCRA very small quantity generator (VSQG), Hazardous Waste Generator (HWG), Historic Air Facility System (HIST AFS), Brownfields, Drycleaners, and AIRS. The sites representing the greatest concern are discussed below. Based on a review of the Envirosearch report, Darcy Environmental determined that these remaining sites are not located within close proximity (i.e., one-eighth mile) to the subject site to present a risk, have no open releases or violations reports or are hydraulically located down-gradient to the subject site. It is the opinion of the EP that these sites do not represent an REC to the subject site.
- In addition, Darcy Environmental reviewed the Envirosearch Unmapped Summary (list of sites with inadequate address information) and did not identify any sites of known or suspect contamination located within one-quarter mile of the subject site.
- Darcy Environmental conducted a preliminary vapor migration assessment of the property. The purpose of this assessment was to determine any potential risk related to volatile constituents associated with known soil or groundwater contamination in close proximity to the subject site that may adversely impact indoor air quality. Based on a review of an appropriate environmental database indicating that no reported open releases identified at the subject property or contiguous properties and of the recent subsurface investigation indicating no evidence of significant concentrations of VOCs in soil along the shared property boundary with the former LUST, it is the opinion of the EP that there is a low potential for vapor migration concerns to be present on the subject site.

Historical/Document Review

Based on information gathered during the site investigation and a review of aerial photographs, city directories and historic topographic maps, Darcy Environmental concluded that the subject site was initially developed as residential properties by at least 1921. By 1967, the residential buildings had been demolished. The subject site was developed with the current commercial building in 1978 and originally housed First Federal Service and Loan. The north, east and west adjacent properties were observed to be developed by 1921 with residential properties. The adjacent properties were redeveloped with commercial properties by 1969. It is noted that a gasoline service station with a history of releases from USTs was formerly present at the property located to the north and east of the subject site. A subsurface investigation performed by Darcy in November of 2020 has documented that this adjoining site use has not adversely impacted the subject site. It is the opinion of the EP that the historical site and adjoining land use does not represent a REC.

Site Reconnaissance Findings

During the site reconnaissance, Darcy Environmental evaluated the subject site for the potential presence of Recognized Environmental Conditions as defined by ASTM Designation: E 1527-13.

During the site reconnaissance, Darcy did not identify any RECs.

Other Environmental Considerations

No evaluation for other environmental considerations was conducted during this Phase I ESA.

Findings and Opinions

During the course of this Phase I ESA, Darcy Environmental did not identify any HRECs, CRECs or RECs associated with the subject site or nearby properties.

Conclusions

Darcy Environmental has performed this Phase I ESA in general conformance with the scope and limitations of ASTM Practice E1527-13 and AAI specifications for the subject site located at 1000 Haynes Street in Birmingham, Michigan. During the course of this Phase I ESA, the EP did not identify any RECs, HRECs or CRECs associated with the subject property or surrounding and adjacent properties. No further evaluation is warranted at this time.

Suggested Actions to Address Business Environmental Risk

The scope of services for this Phase I ESA did not include providing suggested actions to address business environmental risk.

Disclaimer

This report was prepared solely for the benefit of ARJA Haynes Street, LLC and no other party or entity shall have any claim against Darcy due to the performance or nonperformance of the services presented herein. Only ARJA Haynes Street, LLC may rely upon this report for the sole purpose of obtaining financing, obtaining refinancing, acquisition of the subject site, lease of the subject site, or sale of the subject site. Any other parties seeking reliance upon this report must obtain Darcy Environmental's prior written approval. Darcy Environmental specifically renounces any and all claims by parties asserting a third-party beneficiary status.

3.0 Introduction

3.1 Purpose

Darcy Environmental conducted the Phase I Environmental Site Assessment (ESA) in order to provide an independent, professional opinion of the possible presence of Recognized Environmental Conditions (RECs) or other possible environmental concerns (if any) associated with the subject site as part of environmental due diligence. As defined in American Society for Testing and Materials (ASTM) Designation: E 1527-13, the term Recognized Environmental Conditions means "the presence or likely presence of any hazardous substance or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) or under conditions that pose a material threat of a future release to the environment".

Performance of the Phase I ESA was intended to reduce, but not eliminate, uncertainty regarding the existence of Recognized Environmental Conditions in connection with the subject site.

3.2 Scope of Work

Darcy Environmental performed the Phase I ESA while using standards typically adhered to by other environmental consulting professionals. Darcy Environmental adheres to such professional standards in an effort to maintain innocent landowner defense options for sellers, bona fide prospective purchasers, lenders and/or contiguous property owners under guidelines set forth in the Federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The Phase I ESA was performed to meet the standard of "All Appropriate Inquiry" (AAI) as promulgated by the United States Environmental Protection Agency (USEPA) to qualify for the CERCLA innocent landowner defenses.

The Phase I ESA was conducted in general conformance with the ASTM Designation: E 1527-13, Standard Practice for Conducting Environmental Site Assessments and 40 Code of Federal Regulations (CFR) Part 312, AAI.

This Phase I ESA was performed to evaluate environmental risk and does not include any investigation involving business environmental risks.

The Scope of Work for the Phase I ESA included:

- A visual inspection of the subject site on January 29, 2021, and all improvements thereon to evaluate general environmental conditions;
- Establishing the present and past land uses at and adjacent to the site through the review of: (1) historical aerial photographs; (2) city directories; (3) the local topographic map; (4) local Assessment/Building Department/Tax records; (5) historical Sanborn Fire Insurance Maps, if available; (6) the local Fire Department, and (7) interviews with present and past owners, operators and/or occupants, when available;

- A review and evaluation of the following databases of federal, tribal, state, and local known or suspected sites of environmental contamination within the applicable ASTM recommended distance from the subject site, including but not limited to: (1) The United States Environmental Protection Agency's (USEPA's) National Priority List (NPL) records including, current NPL sites, proposed NPL sites, de-listed NPL sites and NPL recovery (Superfund Liens) sites; (2) The USEPA's Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) list of known or suspected hazardous waste sites; (3) The USEPA's Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)-No Further Remedial Action Planned (NFRAP) list of known or suspected hazardous waste sites; (4) The USEPA's Resource Conservation Recovery Act (RCRA) Corrective Action Report (CORRACTS) list for facilities that produce small quantities, large quantities, or transport, store, or dispose (TSD) of hazardous materials that are subject to corrective action under RCRA; (5) The USEPA's Resource Conservation Recovery Information System (RCRIS) Non-CORRACTS notifier list for facilities that generate small quantities, large quantities, or TSD of hazardous materials; (6) The USEPA's Emergency Response Notification System (ERNS) list for reported releases of oil and hazardous substances; (7) USEPA's listing of sites with activity use limitations (AUL), engineering controls (US Eng. Controls), or sites with institutional controls in place (US Inst. Controls); (8) USEPA's listing of Brownfields sites; (9) state and tribal-equivalent, prioritized listing of known sites of environmental contamination [State Hazardous Waste Sites (SHWS)]; (10) state and tribal-equivalent listing of NPL sites; (11) state and tribal-equivalent listing of CERCLA sites; (12) state and tribal-equivalent listing of current and formerly licensed and/or unlicensed landfill and disposal facilities (SWF/LF); (13) state and tribal-equivalent listing of Leaking Underground Storage Tank (LUST) sites; (14) state and tribal-equivalent listing of Registered Aboveground or Underground Storage Tanks (AST/UST); (15) state and tribal-equivalent listing of sites subject to engineering controls (Eng Controls); (16) state and tribal-equivalent listing of sites which are subject to institutional controls (Inst Controls); (17) state and tribal-equivalent listing of Voluntary Clean-up Sites (VCP); (18) state and tribal-equivalent listing of sites listing of Brownfield sites; (19) proprietary and state-specific environmental database sites within one-quarter mile of the subject site, and
- Darcy Environmental has also provided a list of references used to complete the project (**Appendix A**).

The Phase I ESA was conducted between the period of January 4, 2021 to February 15, 2021.

This Phase I ESA was completed by Allan Longyear, Senior Project Manager of Darcy Environmental, under the supervision of William C. Henderson, Vice President and Environmental Professional (EP). The EP's involvement includes the project planning; supervision; reviewing and interpreting all data collected; formation of findings and opinions; report review, and recommendations for any further investigations, if warranted. Personnel resumes are included in **Appendix B**.

3.3 Significant Assumptions

During the course of this Phase I ESA, no significant assumptions were made.

3.4 Limitations and Exceptions

Darcy Environmental conducted the Phase I ESA with the following limitations: (1) aerial photographs were not available prior to 1949 and (2) City of Birmingham fire department and complete building department records were not available to Darcy Environmental. These gaps, conditions or absences of information represent data failure in records pertaining to the subject site.

The information obtained from external sources, to the extent it was relied upon to form Darcy Environmental's opinion about the environmental condition of the site, was assumed to be complete and correct. Darcy Environmental cannot be responsible for the quality and content of information from these sources. Based on a review of readily available and reasonably ascertainable information, however, Darcy Environmental concluded that these limitations/data gaps should not materially limit the reliability of the report and that a thorough documentation of the subject site's environmental condition has been conducted.

3.5 Deviations from the ASTM Standard

No deviations from the recommended scope of ASTM Standard E 1527-13 or AAI were performed as part of this Phase I ESA with the exception of any additions noted in Detailed Scope of Services or any additional items addressed in Section 9.0 (Other Environmental Considerations).

3.6 Special Terms and Conditions

Authorization to perform this assessment was given by the client on January 4, 2021. Instructions as to the location of the property, access, and an explanation of the property and facilities to be assessed were provided by ARJA Haynes, LLC.

3.7 Reliance

Darcy Environmental stipulates that, as of the date of the report, the information and opinions included in this Phase I ESA may be used and relied upon by ARJA Haynes, LLC.

4.0 Site Description

4.1 Location and Legal Description

The subject site is located on the south side of Hanes Street west of Woodward Avenue, in the northeast quarter of Section 36, Township 2 North, Range 10 East, in the City of Birmingham, Oakland County, Michigan. A legal description (Parcel Number 08-19-36-283-024) for the subject site is presented in **Appendix H**. The location of the subject site is presented on the Site Location Map in Figure 1 (**Appendix C**).

4.2 Site and Vicinity Description

The subject site to be comprised of approximately 1.4-acres of developed land located at 1000 Haynes Street, in Birmingham, Oakland County, Michigan. The subject site consists of one two-story 6,702 square foot commercial building located in the central portion of the parcel. Asphalt paved parking surrounds the building on all sides and manicured grass and landscaping is present along the perimeter of the site. Access to the site is provided by one entrance along Haynes Street which adjoins the subject site to the north, along S Worth Street which adjoins the subject site to the west, and along S Adams Road which adjoins the subject site to the east. The parcel is relatively flat. The area surrounding the subject site is primarily developed for commercial use. The Site Plan View is included as Figure 2 (**Appendix C**).

4.3 Current Use of Property

The subject site currently houses a Citizens Bank branch facility. Operations include a common, and teller, office and mechanical areas on the first floor and offices on the second floor. The current owner of the subject site is Citizens Bank/Charter One Bank and is zoned for commercial use.

4.4 Description of Structures and Other Improvements

The current building is constructed of concrete block, steel and wood framing over a poured concrete slab and foundation. The exterior is finished in ornamental brick, metal and glass. The interior finishes associated with the building include ceramic, vinyl tile and carpeted flooring, wallboard and brick walls, wallboard with textured paint and lay in ceiling tiles.

4.5 Current Adjoining Property Information

The area surrounding the subject site is primarily commercial in use. The subject site is bordered to the north by Haynes Street beyond which are professional office buildings, to the north and east by a currently vacant building, used seasonally as a nursery, to the east by S Adams Road with a commercial strip center beyond, to the south by commercial office buildings and to the west by S Worth Street with a Walgreens Pharmacy beyond. No adverse environmental conditions or concerns were identified associated adjoining properties.

5.0 User Provided Information

5.1 Title Records

Title records were not provided by the user/client. However, a review of the Michigan EGLE Remediation and Redevelopment Division Perfected Lien List dated October 11, 2019 did not indicate the presence of any environmental liens associated with the subject site.

5.2 Environmental Liens and Activity/Use Limitations

The client/user indicated that they had no knowledge of any environmental liens or activity/use limitations associated with the subject site.

5.3 Specialized Knowledge

No specialized knowledge in connection with the current or historical use of the subject site, facility operations or adjacent properties was identified by the user/client.

5.4 Purchase Price and Market Value Comparison

No information was provided to Darcy Environmental regarding whether the purchase price for this property reflects the fair market value of the subject site.

5.5 Valuation Reduction for Environmental Issues

No information was provided to Darcy Environmental regarding whether environmental issues were identified by the user/client that could result in property value reduction.

5.6 Owner, Property Manager, and Occupant Information

No pertinent information in connection with the subject site was provided by the owner, the property manager or the occupant.

5.7 Reason for Performing Phase I

The Phase I ESA is being conducted for ARJA Haynes, LLC as part of environmental due diligence in connection with the potential purchase of the subject site. The User Provided Information questionnaire is included in **Appendix E**.

6.0 Records Review

6.1 Standard Environmental Records Sources

Darcy Environmental retained Envirosearch of Shelton, Connecticut, to review federal, tribal, state and EDR proprietary records related to the subject site and nearby properties within the ASTM approximate minimum search radius (as seen on the table below). However, Darcy Environmental typically reviews local, state, tribal or federal database records of those sites of known environmental contamination (i.e., SHWS, LUST, CERCLIS, and NPL sites) within a one-quarter mile radius of the subject site. Darcy Environmental considers sites within this specified search radius as having the most potential to impact the subject site. Also, Darcy Environmental typically reviews local, state, tribal or federal database records of those sites of suspected environmental contamination (i.e., UST, Indian UST and RCRA generator sites), which adjoin the subject site, or, in the professional opinion of Darcy Environmental, are of such nature and proximity to the subject site that they represent RECs. Darcy Environmental's evaluation of RECs includes circumstances where migration of hazardous substances or petroleum products in solid or liquid form at the surface or subsurface (including vapors) could reach the subject site.

- The Envirosearch report did not identify any listings for the subject site.
- Envirosearch identified The Plant Station site located 720 S Adams Road, which abuts the subject site to the north and east, as a Underground Storage Tank (UST), Leaking Underground Storage Tank (LUST) and non-hazardous liquid industrial waste facility (LWF) site. Records indicate that the site formerly had one 4,000-gallon gasoline UST and three 6,000-gallon gasoline USTs that were removed from the site in 1987. During the tank removal, a gasoline leak was discovered. The site underwent cleanup operations and achieved closure on November 24, 1998. Based on the long-term use of this site as a gasoline service station and in consideration of the potential for reuse of the subject site for residential purposes, Darcy conducted a limited scope subsurface investigation in November of 2020 to assess the potential for contamination present at the 720 Adams Road site to have adversely impacted the subject site. The results of this investigation (summarized in detail in **Section 6.4.5** and attached in **Appendix E**) indicate that the contamination associated with the off-site source located at 720 Adams Road has not adversely impacted the subject site and no further investigation was recommended. Based on the results of the subsurface investigation and in consideration that the adjoining site is no longer operating as a gasoline service station, it is the opinion of the EP that the 720 S Adams Road site does not represent a REC.
- Envirosearch identified forty-one (41) sites listed within one-quarter mile of the subject site that appeared on one or more database including; State Hazardous Waste Site (SHWS), LUST, UST sites, LWF, BEA (Baseline Environmental Assessment), RCRA Non-Generator, RCRA very small quantity generator (VSQG), Hazardous Waste Generator (HWG), Historic Air Facility System (HIST AFS), Brownfields, Drycleaners, and AIRS. The sites representing the greatest concern are discussed below. Based on a review of the Envirosearch report, Darcy Environmental determined that these remaining sites are not located within close proximity (i.e., one-eighth mile) to the subject site to present a risk, have no open releases or violations reports or are hydraulically located down-gradient to

the subject site. It is the opinion of the EP that these sites do not represent an REC to the subject site.

- In addition, Darcy Environmental reviewed the Envirosearch Unmapped Summary (list of sites with inadequate address information) and did not identify any sites of known or suspect contamination located within one-quarter mile of the subject site.
- Darcy Environmental conducted a preliminary vapor migration assessment of the property. The purpose of this assessment was to determine any potential risk related to volatile constituents associated with known soil or groundwater contamination in close proximity to the subject site that may adversely impact indoor air quality. Based on a review of an appropriate environmental database indicating that no reported open releases identified at the subject property or contiguous properties and of the recent subsurface investigation indicating no evidence of significant concentrations of VOCs in soil along the shared property boundary with the former LUST, it is the opinion of the EP that there is a low potential for vapor migration concerns to be present on the subject site.

The Envirosearch Government Records Report is included in **Appendix G**.

Map Findings Summary

DATABASE	DIST (Mile)	SP	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1
ARCHIVED RCRA TSD	0.5		0	0	0	--	--
RCRA_TSD	0.5		0	0	0	--	--
CERCLIS NFRAP	0.5		0	0	0	0	--
CERCLIS-HIST	0.5		0	0	0	--	--
SEMS_8R_ACTIVE	0.5		0	0	0	--	--
SEMS_8R_ARCHIVED	0.5		0	0	0	--	--
CORRACTS	1		0	0	0	--	--
EPA LF MOP	0.5		0	0	0	--	--
ERNS	SP		0	--	--	--	--
RCRA_LQG	0.25		0	0	--	--	--
RCRA_NONGEN	0.25		4	4	--	--	--
RCRA_SQG	0.25		0	0	--	--	--
RCRA_VSQQ	0.25		4	5	--	--	--
NPL	1		0	0	0	0	--
LUST - MI	0.5		6	5	12	0	--
AST - MI	0.25		0	0	--	--	--
UST - MI	0.25		4	6	--	--	--
BROWNFIELDS - MI	0.5		2	1	5	0	--
SHWS - MI	1		0	3	9	7	--
HIST LF - MI	0.5		0	0	0	--	--
SWF/LF - MI	0.5		0	0	0	--	--

Commercial Property
1000 Haynes Street, Birmingham, Michigan

DATABASE	DIST (Mile)	SP	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1
HWG - MI	0.25		7	7	--	--	--
BROWNFIELDS-	0.5		0	0	0	--	--
FED BROWNFIELDS	0.5		1	0	3	--	--
WDS - MI	0.5		0	0	0	--	--
HMIRS (DOT)	SP		0	--	--	--	--
HIST PEAS - MI	0.125		0	--	--	--	--
PEAS - MI	0.125		0	--	--	--	--
LIENS - MI	SP		0	--	--	--	--
US HIST CDL	SP		0	--	--	--	--
AFS	SP		0	--	--	--	--
BRS	SP		0	--	--	--	--
CDC HAZDAT	1		0	0	0	0	--
CORRECTIVE	0.5		0	0	0	--	--
DEBRIS R5 LF	0.5		0	0	0	--	--
FA HWF	SP		0	--	--	--	--
HIST AFS	SP		0	--	--	--	--
ICIS	SP		0	--	--	--	--
LUCIS	0.5		0	0	0	--	--
MINES	0.25		0	0	--	--	--
MLTS	SP		0	--	--	--	--
NPL AOC	1		0	0	0	0	--
NPL LIENS	SP		0	--	--	--	--
PADS	SP		0	--	--	--	--
PCS ENF	SP		0	--	--	--	--
RAATS	SP		0	--	--	--	--
ROD	1		0	0	0	0	--
SCRD	0.25		0	0	--	--	--
SEMS_SMELTER	SP		0	--	--	--	--
UMTRA	0.5		0	0	0	--	--
VAPOR	0.5		0	0	0	--	--
AIRS - MI	SP		0	--	--	--	--
AUL - MI	0.5		0	0	1	--	--
BEA - MI	0.5		4	5	17	--	--
COAL ASH - MI	0.5		0	0	0	--	--
DRYCLEANERS - MI	0.25		1	1	--	--	--
LWF - MI	0.25		7	9	--	--	--
NPDES - MI	SP		0	--	--	--	--
UIC - MI	SP		0	--	--	--	--
TOTAL		0	30	46	47	7	0

6.2 Additional Environmental Record Sources

Darcy Environmental reviewed current and historical files maintained by the City of Birmingham municipal offices including assessing office, building department and fire department for the subject site. The review of municipal records was conducted in order to identify possible environmental concerns (e.g., suspect building materials, USTs, ASTs, etc.) associated with the subject site.

Darcy Environmental requested any commonly known information from the assessing/building department representatives. Building Department records and assessing records indicate the total acreage of the property as 1.4 acres with one single- story 6,702 square foot commercial building located in the central portion of the parcel that was constructed in 1978. Records documentation is included in **Appendix H**.

Darcy Environmental contacted the City of Birmingham municipal offices to determine the zoning specifications for the subject site. The subject site is currently zoned B-2, General Business. The subject site is currently connected to municipal or public utilities with drinking water and sanitary sewer service available through the City of Birmingham. Electric utility service is available through DTE Energy and natural gas service is available through Consumers Energy.

The Oakland County Health Department (OCHD) maintain environmental files for sites throughout Calhoun County. The files contain field inspection reports from city inspectors, reported environmental problems, results of right-to-know programs and other miscellaneous data. Darcy Environmental submitted a FOIA request to the OCHD for any information regarding water wells, septic systems, hazardous material storage or any commonly known information that may be available from OCHD representatives. However, Darcy Environmental has not received a response as of the date of this report.

Darcy Environmental reviewed the MDEQ, Remediation and Redevelopment Division (RRD) Perfected Lien List, dated October 11, 2019 (most recent version available), regarding any recorded environmental liens for the subject site. Darcy Environmental did not identify any RRD environmental liens on file for the subject site or parent parcel. Records documentation is included in **Appendix H**.

6.3 Physical Setting Sources

Darcy Environmental reviewed the USGS 7.5 Minute Topographic Map of the subject site and surrounding area. According to the United States Geological Survey (USGS) Brighton, Michigan 7.5-minute quadrangle map (1961), the subject site is gently sloped to the southeast at an elevation of approximately 767 feet above mean sea level. Surface drainage in the area of the subject site appears to be generally to the west. Historical topographic maps were also reviewed for the years 1908, 1936, 1945, 1952, 1968, 1973, 1981, 2011, 2014, 2017 and 2019. These historical references indicated that the subject site had been developed with residential buildings by 1938. The 1952 through 1981 topographic map depict the subject site and surrounding properties as generally developed.

A review of the Oakland County Michigan soil map indicated that dominant soils at the subject site are described as Udorthents and Udipsamments. Soils are described as silt and clay loam that is well drained.

6.4 Historical Use Information

6.4.1 Historical Summary

Based on information gathered during the site investigation and a review of aerial photographs, city directories and historic topographic maps, Darcy Environmental concluded that the subject site was initially developed as residential properties by at least 1921. By 1967, the residential buildings had been demolished. The subject site was developed with the current commercial building in 1978 and originally housed First Federal Service and Loan. The north, east and west adjacent properties were observed to be developed by 1921 with residential properties. The adjacent properties were redeveloped with commercial properties by 1969. It is noted that a gasoline service station with a history of releases from USTs was formerly present at the property located to the north and east of the subject site. An subsurface investigation performed by Darcy in November of 2020 has documented that this adjoining site use has not adversely impacted the subject site. It is the opinion of the EP that the historical site and adjoining land use does not represent a REC.

6.4.2 City Directories

Darcy Environmental reviewed historical cross-index directories on file for the subject site and immediately adjoining properties. Darcy reviewed city directory data obtained from Envirosearch at approximate 5-year intervals between 1937 and 2014. The City Directory Abstracts are included in **Appendix F**.

Subject Property:

According to the directories, the subject site was identified as being occupied by First Federal Service and Loan in 1980. The site was occupied by 1st Federal of Michigan between 1985 and 1995 and was identified as vacant in 2001. By 2006 the subject site was occupied by Charter One Bank. Charter One Bank remained at the site through at least 2014.

Adjacent Properties:

According to the directories, the north adjacent property (999 Haynes Street) was identified as a multi-tenant commercial building between 1990 and 2014. The remaining properties were not listed in the city directories reviewed.

During the review of historical address directories, Darcy did not identify any additional occupants of environmental concern located on or near the subject site. Therefore, it is the opinion of the EP that the city directories have not identified any RECs associated with the subject site or adjacent properties.

6.4.3 Aerial Photos

Darcy Environmental reviewed aerial photographs for the years 1949, 1951, 1952, 1956, 1957, 1967, 1969, 1971, 1973, 1980, 1983, 1987, 1993, 1997, 1999, 2002, 2005, 2009, 2010, 2012, 2014, 2016, and 2018 to determine past use and changes in surface features that might indicate possible environmental concerns. Aerial Photography sources included the USGS, USDA, NHAP, NAPP, DOQ and NAIP. Aerial photographs are included in **Appendix F**.

The aerial photograph review is as follows:

Subject Site:

The 1949 through 1952 aerial photographs depict the subject site as developed with residential properties. On the 1967 aerial photograph, the residential buildings are depicted as being demolished and the subject site is vacant land. By 1980, the subject site had been developed with the current commercial building. Each of the aerials reviewed between 1983 and 2018 depict the property as developed with a commercial building, similar to the present-day conditions.

Adjacent Properties:

The 1949 through 1952 aerial photographs depict the adjoining properties as developed with residential properties or undeveloped land. By 1956, the surrounding properties had begun to be developed with commercial buildings with development completed by 1969. In the 1971 through 2018 aerial photographs the adjoining land use was observed as developed similar to present day conditions.

6.4.4 Sanborn/Historical Maps

Darcy Environmental submitted a request to Envirosearch for copies of available Sanborn Fire Insurance Maps that cover the subject site and surrounding properties. These historical maps may provide information pertaining to adverse land uses and the presence and/or location of USTs. Envirosearch concluded that Sanborn/Fire Insurance Maps were available for the Subject Property for the years 1921, 1926, 1931, and 1949. The Sanborn Maps are included in **Appendix F**.

A review of the Sanborn Fire Insurance Maps is as follows:

Subject Site:

On the 1921 through 1949 Sanborn maps depict the subject site as being developed with residential buildings.

Adjacent Properties:

On the 1921 through 1949 Sanborn maps, the surrounding properties are depicted as being developed with residential buildings.

6.4.5 Other Environmental Reports

During this assessment, Darcy reviewed a Limited Scope Subsurface Investigation conducted for the subject site by Darcy on November 20, 2020 with a report dated December 22, 2020. The purpose of the investigation was to evaluate the potential for environmental contamination to have migrated onto the subject site from an adjoining property located to the north and east (720 S Adams Road) which formerly operated a gasoline service station with a history of releases from underground storage tanks. The investigation included the advancement of six soil borings (B-1 through B-6) to a depth of sixteen-feet below surface grade using a truck mounted hydraulically-driven soil probe (Geoprobe®). The soil borings were advanced at the site to address the concerns identified within Darcy's review of historical records and reports which in Darcy's opinion indicated that the adjoining property located at 720 S Adams Road presented an environmental risk to the subject site. During the investigation, six soil samples (one per boring location) were submitted for analysis of VOCs. In addition, two soil samples were also analyzed for polynuclear aromatic hydrocarbons (PAHs).

Based on information obtained during the subsurface investigation, the soil stratigraphy at the subject site was determined to consist of poorly sorted sand and gravel rich fill soils that extend from just below the ground surfaces (i.e., topsoil or landscape mulch) to depths between approximately 1.0 to 2.0 feet bsg. Directly below the fill soil, firm, gray to brown mottled clay were consistently encountered that extended to the maximum explored depth of approximately 16.0-feet bsg. Groundwater was not encountered in any of the six soil borings advanced at the subject site.

In terms of VOCs in soil, with the exception of the presence of acetone identified in sample B-5 (2.0'), no VOCs were detected at concentrations above the respective laboratory lower reporting limits (LRLs) in any of the samples selected for analysis. The detected acetone was not detected at a concentration exceeding Part 201 Generic Residential CCSLs. It is believed that the low-level detection in Sample B-5 (2.0') for acetone should be a sample artifact and not inherent in the sample. The exact source of the artifact is not able to be determined, but potential causes could be any of the following: sample storage and transport and/or background laboratory levels due to routine analytical procedures or factors affecting the air handling system within the laboratory. Acetone is commonly found at low levels in environmental samples.

In terms of PNAs in soil, benzo(a)pyrene, benzo(b)fluoranthene and indeno(1,2,3-cd)pyrene were detected at a concentration above the respective laboratory LRLs in soil sample B-4 (7.0'). A review of the analytical results indicated that of the detected PNAs, none was found at a concentration determined to exceed Part 201 Generic Residential CCSLs. No PAHs were detected at concentrations above the respective LRLs in the other sample selected for analysis.

Based on a review the subsurface investigation findings and soil analytical results and in consideration of the lack of shallow groundwater at the subject site that could potentially act as a transport mechanism, it was Darcy's opinion that the past releases of petroleum products and automobile service operations associated with the north and east adjoining property (720 S Adams Road) had not adversely impacted the subject site. Further, based on the soil conditions observed, the lack of shallow groundwater as a transport mechanism, and in consideration that soil samples collected did not indicate the presence of elevated concentrations of VOCs, Darcy stated that it

was is unlikely that the off-site source of contamination would present a soil vapor intrusion issue for the subject site. The subsurface investigation demonstrated that the subject site does not qualify as a “facility”, as defined in Part 201 of the Natural Resources Environmental and Protection Act (NREPA), 1994, PA 451, as amended. Therefore, no further investigation is warranted.

7.0 Site Reconnaissance

7.1 Methodology and Limiting Conditions

On January 29, 2021, Allan Longyear, Senior Project Manager with Darcy Environmental, conducted a walking reconnaissance of the subject site. During the site reconnaissance, Darcy Environmental evaluated the subject site for the potential presence of the following Recognized Environmental Conditions: (1) hazardous substances; (2) petroleum products; (3) evidence of the presence of underground storage tanks (USTs); (4) evidence of the presence of aboveground storage tanks (ASTs); (5) other suspect containers; (6) polychlorinated biphenyl (PCB)-containing equipment; (7) interior or exterior staining/corrosion; (8) discharge features (i.e., current or former septic/leaching fields, floor drains, oil/water separators); (9) pits, ponds or lagoons; (10) evidence of excavation and/or landfiling activities; (11) evidence of surface soil/surface water stains and/or stressed vegetation; (12) water supply and/or groundwater monitoring wells, and (13) observations of adjacent property uses and potential evidence of adverse environmental impacts associated with adjoining properties (addressed in Section 4.5).

The weather conditions at the time of the site reconnaissance were heavy rain and approximately 25 degrees Fahrenheit. The visual reconnaissance consisted of observing the boundaries of the property and systematically traversing the site to provide an overlapping field of view, wherever possible. The periphery of the on-site structures was observed along with interior accessible common areas, storage, and maintenance areas. Photographs of pertinent site features identified during the site reconnaissance are included in **Appendix D**.

7.2 General Site Setting

The subject site to be comprised of approximately 1.4-acres of developed land located at 1000 Haynes Street, in Birmingham, Oakland County, Michigan. The subject site consists of one two-story 6,702 square foot commercial building located in the central portion of the parcel. Asphalt paved parking surrounds the building on all sides and manicured grass and landscaping is present along the perimeter of the site. Access to the site is provided by one entrance along Haynes Street which adjoins the subject site to the north, along S Worth Street which adjoins the subject site to the west, and along S Adams Road which adjoins the subject site to the east. The parcel is relatively flat. The area surrounding the subject site is primarily developed for commercial use..

The Site Inspection Environmental Checklist is included in **Appendix J**.

7.3 Site Visit Findings

7.3.1 Chemical and Material Storage

During the site reconnaissance, other than small quantities of single use cleaners associated with routine custodial activities, Darcy did not observe any chemical or petroleum product storage or usage.

7.3.2 USTs

Darcy Environmental evaluated the subject site for the possible presence of USTs. Typical indicators of USTs include: (1) gas pumps or pump islands; (2) vent pipes; (3) fill ports; or (4) unusual depressions. During the site reconnaissance Darcy Environmental did not observe any readily apparent evidence of the current/former presence of USTs at the subject site.

7.3.3 ASTs

During the site inspection, Darcy did not identify any ASTs at the subject site.

7.3.4 Other Suspect Containers

No other suspect containers were identified on the subject site during the site reconnaissance.

7.3.5 Equipment Likely to Contain PCBs

Darcy Environmental inspected the subject site for the presence of oil-cooled electrical equipment that may contain PCBs. During the site reconnaissance, Darcy Environmental observed one, pad-mounted transformer located west of the subject site building. The transformer appeared to be energized. No leaks or stains were observed in association with transformer during the site inspection. Darcy determined that the transformer is utility-owned. Based on the lack of leaks and/or stains observed in association with the transformers, it is the opinion of the EP that the transformer does not represent a REC. Darcy also observed one elevator in use at the subject site. No evidence of spills or staining were noted in the elevator equipment room. Based on the construction date of the building (1978), and in consideration that the use of PCBs was not banned until 1979, it is possible that low levels of PCBs may be present in the hydraulic oil associated with the elevator equipment. During any planned demolition, the elevator equipment oil should be properly characterized and disposed of.

7.3.6 Staining/Corrosion

During the site reconnaissance, Darcy did not observe any staining/corrosion located in the accessible portions of the subject building (i.e., retail area) and/or on the subject site.

7.3.7 Discharge Features

During the site reconnaissance, no discharge features (i.e., septic systems, floor drains, catch basins, oil/water separators, etc.) were observed on the subject site during the site reconnaissance. Two septic tanks associated with the former building was abandoned in 2002.

7.3.8 Pits, Ponds, And Lagoons

No pits, ponds or lagoons were observed on the subject site during the site reconnaissance.

7.3.9 Solid Waste Dumping/Landfills

No readily apparent evidence of solid waste dumping (i.e., unusual mounding, debris piles, or depressions), suspect fill material, or landfilling was identified on the subject site during the site reconnaissance.

7.3.10 Stained Soil/Stressed Vegetation

No stained soil or stressed vegetation was observed on the accessible portions of the subject site during the site reconnaissance.

7.3.11 Wells

No water supply wells were observed on the subject site during the site reconnaissance.

8.0 Interviews

With the exception of previously mentioned interviews and/or information received from the Client, owner, occupants and/or municipal offices, no other interviews were conducted during the course of this Phase I ESA. Interview documentation is included in **Appendix I**.

9.0 Other Environmental Considerations

The following are several business environmental considerations that are beyond the scope of a standard ASTM or most AAI Phase I ESAs that were identified during the site reconnaissance.

9.1 Controlled Substances

The presence of controlled substances on the subject site must be evaluated if the client is applying for or has been awarded a grant under CERCLA/EPA or if the property is considered abandoned.

The term "controlled substance" means a drug or other substance, or immediate precursor, included in schedule I, II, III, IV, or V of part B of 21 US Code 802. The drugs include but are not limited to ephedrine and pseudoephedrine, which are suppressants that are used in common over-the-counter weight control and decongestant drugs, as well as, acetone, toluene and other solvents. These "controlled substances" are used to manufacture various drugs for recreational use. Unusually large quantities (i.e., cases of cold tablets, diet pills, unexplained containers of solvents) would be observed if the substances were being misused and site use should be taken into account when evaluating for "controlled substances". The term does not include distilled spirits, wine, malt beverages, or tobacco, as those terms are defined or used in subtitle E of the Internal Revenue Code of 1986.

During the site reconnaissance, Darcy Environmental did not observe any evidence of the presence of controlled substances on the subject site.

9.2 Continuing Obligations

Owners or operators of real property may be subject to certain land use restrictions or institutional controls in connection with response activities conducted at the site. These obligations may include resource restrictions; conducting reasonable steps with respect to hazardous substance releases; provide full cooperation, assistance, and access to persons that are authorized to conduct response actions or natural resource restorations; comply with federal information requests and administrative subpoenas, and provide all legally required notices. During the site reconnaissance and review of reasonably ascertainable records, Darcy Environmental did not identify any situations suggestive of continuing environmental obligations (i.e., institutional limitations, engineering controls). Therefore, it is the opinion of the EP that the current and/or future owner of the subject site is not subject to continuing obligations.

9.3 Asbestos-Containing Materials

The scope of services for this Phase I ESA did not include an inspection or sampling of suspect ACMs.

9.4 Lead-Based Paint

The scope of services for this Phase I ESA did not include an evaluation of the presence of lead-based paint on the subject site.

9.5 Radon

The scope of services for this Phase I ESA did not include an evaluation for the potential presence of Radon in the area of the subject site.

9.6 Wetlands

The scope of services for this Phase I ESA did not include an evaluation of suspect wetland areas on the subject site.

9.7 Mold Evaluation

The scope of services for this Phase I ESA did not include a mold evaluation on the subject site.

9.8 Items of Non-Compliance

The scope of services for this Phase I ESA did not include items of non-compliance.

9.9 Client-Specific Items

The scope of services for this Phase I ESA did not include addressing any client-specific items for the subject site.

10.0 Phase I Findings/Opinions/Conclusions

10.1 Report Findings and Opinions

During the course of this Phase I ESA, Darcy Environmental did not identify any CRECs, HRECs or RECs associated with the subject site or nearby properties.

10.2 Conclusions

Darcy Environmental has performed this Phase I ESA in general conformance with the scope and limitations of ASTM Practice E1527-13 and AAI specifications for the subject site located at 1000 Haynes Street in Birmingham, Michigan. Any exceptions to, or deletions from, this practice are described in Section 3.4 of this report. During the course of this Phase I ESA, the EP did not identify any RECs, HRECs or CRECs associated with the subject property or surrounding and adjacent properties. No further evaluation is warranted at this time.

APPENDIX A
REFERENCES

REFERENCES

1. Aerial Photographs, for the years 1949, 1951, 1952, 1956, 1957, 1967, 1969, 1971, 1973, 1980, 1983, 1987, 1993, 1997, 1999, 2002, 2005, 2009, 2010, 2012, 2014, 2016, and 2018 to determine past use and changes in surface features that might indicate possible environmental concerns. Aerial Photography sources included the USGS, USDA, NHAP, NAPP, DOQ and NAIP.
2. Envirostate Government Records Report, Shelton, Connecticut, dated January 22, 2021
3. United States Department of Agriculture (USDA) Soil Conservation Service Soil Survey of Oakland County, Michigan (internet database)
4. EDR Physical Setting Source Summary
5. USGS Topographic Map, Birmingham, Michigan Quadrangles, 1908, 1936, 1945, 1952, 1968, 1981, 2011, 2014, 2017 and 2019
6. Assessment/Building Department records from the City of Birmingham, Oakland County municipal offices and/or internet database
7. Oakland County Environmental Health Department
8. City Directories Polk and Bressers's in approximate 5-year intervals for 1937 to 2014
9. EDR Sanborn Fire Insurance Maps
10. *Limited Scope Subsurface Investigation, December 22, 2020*, prepared by Darcy Environmental Consultants, LLC.

APPENDIX B
QUALIFICATIONS

Al Longyear | Senior Project Manager

Al has more than 32 years of experience in environmental consulting, real estate due diligence, compliance auditing, construction oversight and monitoring, and project management. Al is highly experienced with industrial and manufacturing related projects.

Al's personal experience includes, project management, conducting environmental site assessments, subsurface investigations, environmental permitting, compliance audits, underground storage tank investigations, risk-based corrective action closures, remedial system design, geophysical investigations, asbestos and lead management and Brownfield redevelopment consulting and contractor oversight. Project-level responsibilities also include the management of state-sponsored remedial investigations and remedial investigations and feasibility studies under CERCLA. Additional responsibilities include report writing, proposals, budget management, and knowledge and compliance with applicable federal, state, and local statutes and regulations.

Specific compliance project experience includes multi-media compliance auditing, air emissions inventory, air permit review and preparation of permits to install and operate, NPDES permits, EPCRA evaluation and reporting, industrial wastewater permitting, preparation of SPCC and storm water pollution prevention plans, and RCRA evaluations and permitting.

As an environmental project manager, he manages daily operations with respect to project and client initiatives within his project team and exercises controls to ensure work is completed on time and budget and that quality control and health and safety measures are consistent with professional standards and company policies.

EDUCATION

Bachelor of Science Geology
Wayne State University 1983

PREVIOUS EMPLOYMENT

Atwell LLC
Senior Project Manager 2003 to 2019

ATC/ATEC/BCM Engineers
Field Geologist and Project Manager 1990 to 2003

REGISTRATIONS

Professional Geologist – State of Tennessee

CERTIFICATIONS

Lead Inspector and Risk Assessor Certified NOISH 582 Asbestos Fiber Counting Techniques

SAFETY

OSHA 40-Hour Hazardous Waste Operations & Emergency Response

EXPERTISE

Air Quality Monitoring & Permitting
Asbestos & Lead-Based Paint
Brownfield Redevelopment
Due Diligence/Feasibility
Environmental Management Systems Development & Reporting
Hazardous Substances & Environmental Site Assessments
Health & Safety Plans
Indoor Air Quality

[Darcy Environmental Consultants](#)

Landfill Assessments & Monitoring
NEPA Reviews & Compliance
Oversight of Remediation Activities
Permitting & Compliance Assistance
Phase I, Phase II & Phase III ESAs
RCRA Assessments
Remediation Systems Design
Risk-based No Further Remediation (NFR) Determinations
Soil & Groundwater Remediation
Soil, Vapor & Groundwater Sampling
Solid & Hazardous Waste Identification / Management
Stormwater Evaluation
Superfund/CERCLA Investigations
Technical Reporting
UST Removal & Closure
Vapor Encroachment Assessment
Vapor & Groundwater Modeling
Voluntary Cleanup Regulations & Policies

RECENT RELEVANT EXPERIENCE

LG CHEM BATTERY MANUFACTURING FACILITY
HOLLAND, MICHIGAN

Environmental Project Manager responsible for environmental and ecological assessments and environmental permitting for the development of this 80-acre advance battery manufacturing complex. Detailed services include the and introduction and presentation of regulatory requirements and programs for LG Chem management and providing a framework and schedule for regulatory reporting and permitting consistent with the development goals. Conducted a review of all proposed facility Obtained and assisted the Michigan Department of Environmental Quality in obtaining the Air Permit to Install, aboveground storage tank permits, industrial discharge permits and NPDES permits. In addition, prepared and implemented written plans and procedures to comply with SPCC, NPDES, RCRA, EPCRA and Clean Air Act requirements to maintain the minor source status.

NESTLE MANUFACTURING FACILITY
MOUNT STERLING, KENTUCKY

Environmental lead auditor responsible for regulatory review and a comprehensive environmental audit of Nestle’s specialty foods manufacturing facility in Mount Sterling Kentucky. The audit activities included inspection of the facility, a review of all environmental programs and plans, pre and post audit reviews with facility management, and preparation of an audit report following facility protocols.

AUTOMOTIVE MANUFACTURER
DEARBORN, MICHIGAN

Project manager and lead auditor for comprehensive environmental assessments for over 40 facilities for a major automotive manufacturer. The assessments were primarily directed toward regulatory requirements with respect to RCRA regulations including Subpart C (Preparedness and Prevention) and Subpart D (Contingency Plan and Emergency Procedures), RCRA Subtitle I (Underground Storage Tanks), SPCC plans, SARA Title III requirements, the Clean Air Act, and the Clean Water Act. Project responsibilities included data acquisition, site interviews, conducting the site assessments, report writing, and oral presentations.

NESTLE MANUFACTURING FACILITY
CLEVELAND, OHIO

Acted as lead auditor responsible for conducting an emissions inventory and air permit review during a major expansion of Nestle’s LJ Minor facility located in Cleveland Ohio. The inventory included a comprehensive review of facility operations, raw materials use, existing permits, and existing and proposed pollution control equipment. The review was conducted to

determine the potential to emit and to address potential additional air permitting and compliance obligations and to maintain compliance at the facility.

WACKER CHEMICAL CORPORATION
NEW JERSEY, KENTUCKY, AND ULSAN, SOUTH KOREA

Project manager and lead auditor for comprehensive environmental assessments associated with due diligence prior to the client’s acquisition of three poly silicon manufacturing facilities located in the US and South Korea. The audit activities included an extensive review of existing facility operations, air, water and wastewater permits, regulatory reporting obligations, hazardous and liquid industrial waste disposal activities, and remedial investigation and corrective action plans. Project responsibilities included data acquisition, interviews, conducting the site assessments, and report writing. Follow up activities included the preparation of NPDES permits and Spill and Contingency Plans for the new owner.

STEEL FOUNDRY
NOVI, MICHIGAN

Project manager and lead auditor for an environmental review of a steel foundry located on Novi, Michigan. The scope of work consisted of a multi-media audit of the facility prior to its potential sale. The report provided recommendations for continued compliance, recommendations for additional reporting obligations for the new ownership, and an outline of the requirements necessary for the transfer of operational permits for air, water and hazardous waste operations to the new entity.

INLAND REPIPE
TEXAS, FLORIDA, MICHIGAN, AND CALIFORNIA

Project manager for the evaluation of an underground utility company and manufacturer of cured in place piping prior to its acquisition by a new owner. The evaluation included environmental due diligence, compliance reviews, and recommendations for compliance with air permitting requirements associated with facility operations in Texas, Michigan and California.

CBRE
DETROIT, MICHIGAN

Project manager for environmental issues related to various construction projects across the regional Detroit area. Environmental sampling and monitoring included lead-based paint sampling, asbestos sampling, indoor and outdoor air monitoring, health and safety monitoring, soil and water sampling, and waste characterization. Projects also included preparing Site Specific Health & Safety Plans and Due Care Plans.



WILLIAM C. HENDERSON, Vice President
(m) 734-260-1914; whenderson@darcyenvironmental.com

EDUCATION

Western Michigan University - M.S. Geology, 1988
Central Michigan University - B.S. Geology, 1983

PROFESSIONAL LICENSES/REGISTRATIONS

Certified Professional Geologist, State of Tennessee No. TN3374
Certified Professional Geologist, State of Indiana No. 1440
Certified Underground Storage Tank Professional No. 48

PROFESSIONAL ORGANIZATIONS

National Water Well Association
Michigan Chemistry Counsel
American Consulting Engineers Counsel Environmental Committee
Michigan Association of Environmental Professionals
Grosse Pointe Rotary

HONORS/AWARDS

Western Michigan University College Research Grant, 1985

PUBLICATIONS/PRESENTATIONS

Huang, M., Sklash, M., Biswas, N. and Henderson, W., 1995, Assessment of old and subsurface water contributions to storm runoff generation in flat fractured clayey terrain. Proceedings of Canadian Society for Civil Engineering, Vol. 1, p. 369-379, June 1995, Ottawa, Ontario.

Seismic Analysis of Reefs in the Traverse Formation, Allegan County, Masters Thesis, Western Michigan University, Kalamazoo, Michigan 1988.

Modern Equipment and Technologies: The Principles of Ground Penetrating Radar. Second Conference of Contaminated Sites and Remedial Actions. Troy, Michigan 1987.

The Traverse Group in Michigan. Devonian Carbonates and Evaporites of The Michigan Basin - A Core Workshop. Western Michigan University. Kalamazoo, Michigan 1985.

EXPERIENCE

Vice President of Environmental Services of Atwell LLC, 2009 – 2018

Responsible for development and organization of the Environmental and Natural Resource service sector at Atwell. These duties include business development, group management, financial and budget management, and client management. Specific corporate experience includes the following:

- Environmental and Natural Resource leader for multiple offices throughout the US.
- Environmental and Natural Resource leader for international project work.
- Startup offices in China and Canada for Environmental and Natural Resource services.

Vice President of Environmental Services of Atwell-Hicks, Inc., 1991 – 2009

Developed and organized the Environmental and Natural Resources service sector at Atwell-Hicks, Inc. since its inception. These duties included business development, group management, project management, and client management for the Environmental and Natural Resource services at all of the Atwell-Hicks office locations. Some specific experience includes the following:

- Conducted surface and subsurface studies in site characterization and environmental site assessment. Studies involved site investigations for various clients buying, selling or remortgaging property. Investigations included site inspections, design and implementation of drilling programs and sampling plans, and the determination of appropriate analytical methods and data interpretation.
- Managed and conducted various geophysical investigations on hazardous waste sites. The implementation of resistivity surveys, electromagnetic conductivity surveys, magnetometer surveys, and ground-penetrating radar surveys to aid in investigations at contaminated sites.
- Performed hydrogeological investigations (aquifer tests), analysis, and design for a soil and groundwater investigations
- Designed remediation systems (TCE, PCE, and petroleum).

Senior Group Member of the Hydrology and Geologic Studies Section of Clayton Environmental Consultants, Inc., 1989 to 1991

- Responsibilities included managing projects, coordinating and conducting field investigations, preparing reports and proposals, outlining geophysical studies, and applying remedial technologies to projects.
- Designed and supervised the implementation of remedial technologies on hazardous waste sites. Studies included choosing optimal remedial techniques, determining transporter and disposal locations, and meeting with regulatory agencies to determine remedial strategies.
- Conducted hydrogeologic studies for the investigation of contaminants on hazardous waste sites. Duties included developing monitor well construction designs, determining monitor well locations, conducting pump tests and analyses, performing slug tests, and determining the extent of vertical and horizontal contaminant migration.
- Managed and conducted various geophysical investigations on hazardous waste sites. The implementation of resistivity surveys, electromagnetic conductivity surveys, magnetometer surveys, ground-penetrating radar surveys, and seismic surveys were used to collect subsurface information to aid in investigations at contaminated sites.
- Provided expert witness consulting for a dry cleaners site in Roseville, Michigan. Site contamination involved PCE, TCE, DCE and VC in soil and groundwater. Negotiated with the MDEQ for the site closure.
- Provided expert witness consulting and testimony for a dry cleaners site in Flint, Michigan. Site contamination involved PCE, TCE, DCE and VC in soil and groundwater. Provided expert reports in supporting legal matters.
- Provided project management, expert witness consulting, and court testimony for a dry cleaners site in Livonia, Michigan. Site contamination involved PCE in soil and groundwater. Prepared corrective action plan and met with the MDEQ regarding the remediation.

Project Geologist/ Corporate Geophysicist, ENSR Consulting and Engineering, 1987 to 1989

- Managed and conducted geophysical studies using resistivity, electromagnetic methods, magnetometry, ground-penetrating radar, and seismic refraction and reflection.
- Conducted numerous geophysical modeling studies and analyses for hazardous waste site investigations on CERCLA Superfund sites in Indiana, New Jersey, and Massachusetts. Geophysical information obtained included depth to bedrock, depth to confining clay layers, saturated zone thickness, and delineation of contaminant plumes.

- Managed and conducted hydrogeologic investigations for water pollution control facilities and manufacturing facilities in Michigan, Vermont, New York, Massachusetts, and Texas. Projects included evaluating pump test design and implementation, designing and constructing monitoring wells, analyzing groundwater parameters, and recommending remedial technologies.
- Conducted and managed site specific hazardous waste investigations and remedial investigations in Michigan and New Jersey. Supervised and managed site operations for 16 remedial activities including the removal of aboveground and underground tanks, liquid and solid waste, and PCB contamination. Conducted daily meetings with remedial subcontractor, EPA oversight contractor, and field crews. Developed program for hazardous waste transporters and facilities to receive waste.
- Conducted property site investigations for various clients buying selling, or remortgaging property. Site investigations included historical investigations, site inspections, design and implementation of drilling programs and sampling plans, determination of appropriate analytical methods, and interpretation of data.

Project Manager, Testing Engineers and Consultants, 1986 to 1987

- Managed and conducted ground penetrating radar surveys and seismic surveys to delineate underground tanks, pipes, cavities and map soil horizons.
- Managed and conducted hydrogeologic studies for monitoring and testing groundwater conditions on contaminated sites. Developed monitor well locations and design. Determined appropriate analytical sampling plan and analyzed results to make recommendations.
- Supervised and trained three field technicians for environmental property assessments. Duties included scheduling projects, client contacts, and attending engineering seminars.

Geophysical and Core Lab Instructor and Assistant, Western Michigan University, 1984 to 1986

- Designed and instructed numerous geophysical laboratory and field exercises with contaminated sites. Assisted in the grading of laboratory exercises and corresponding with professor on laboratory field case studies.
- Assistant to Western Michigan University Core laboratory in the setup and care of oil well cores. Presented paper and poster exhibit for consulting professionals in the petroleum industry.

APPENDIX C

FIGURES

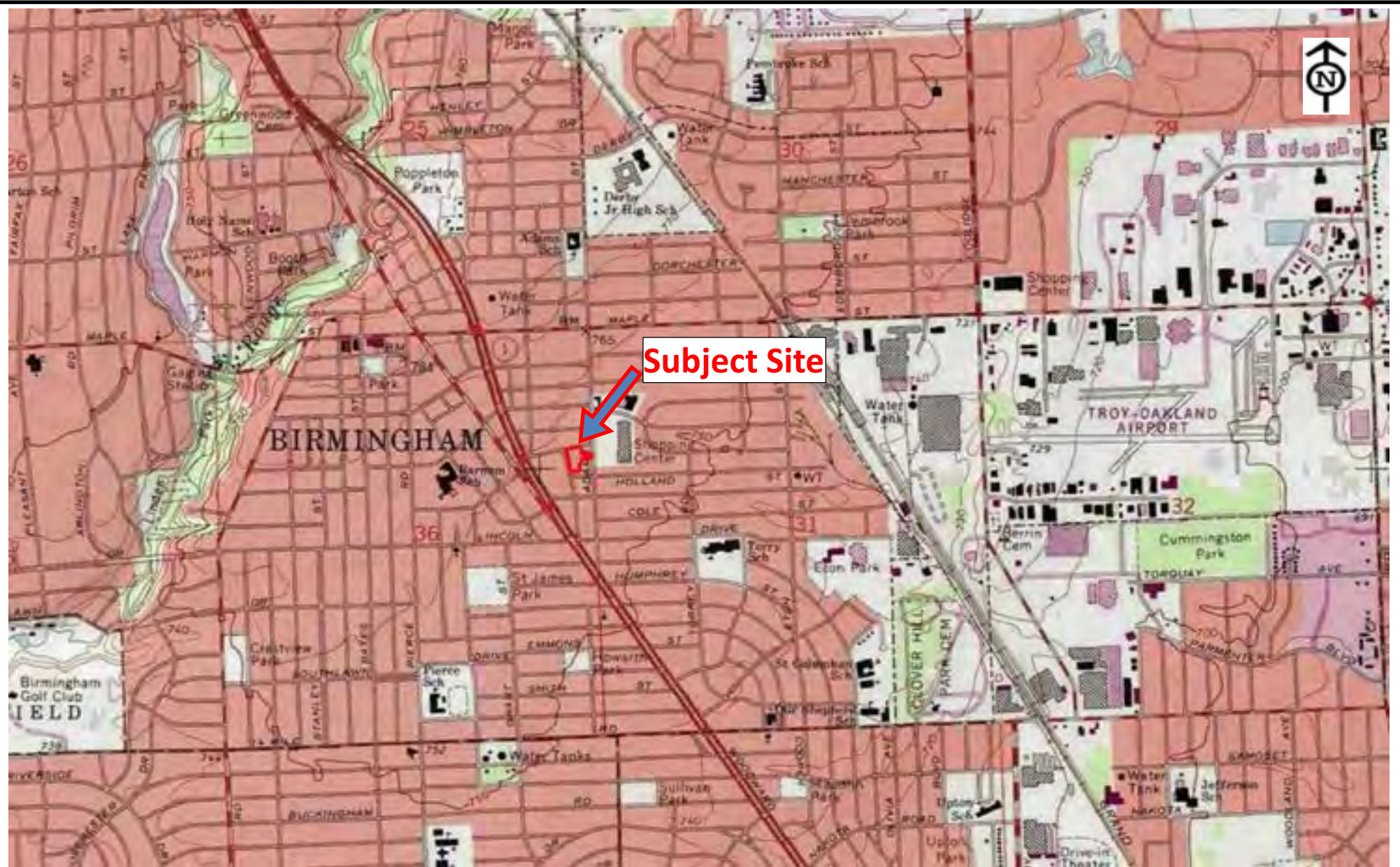


Figure 1: Site Location Map

1000 Haynes Street
Birmingham, Michigan
Project No.: 20086

11/20/2020



DARCY ENVIRONMENTAL

(313) 264-1216

www.darcyenvironmental.com

OFFICES IN NORTH AMERICA AND ASIA

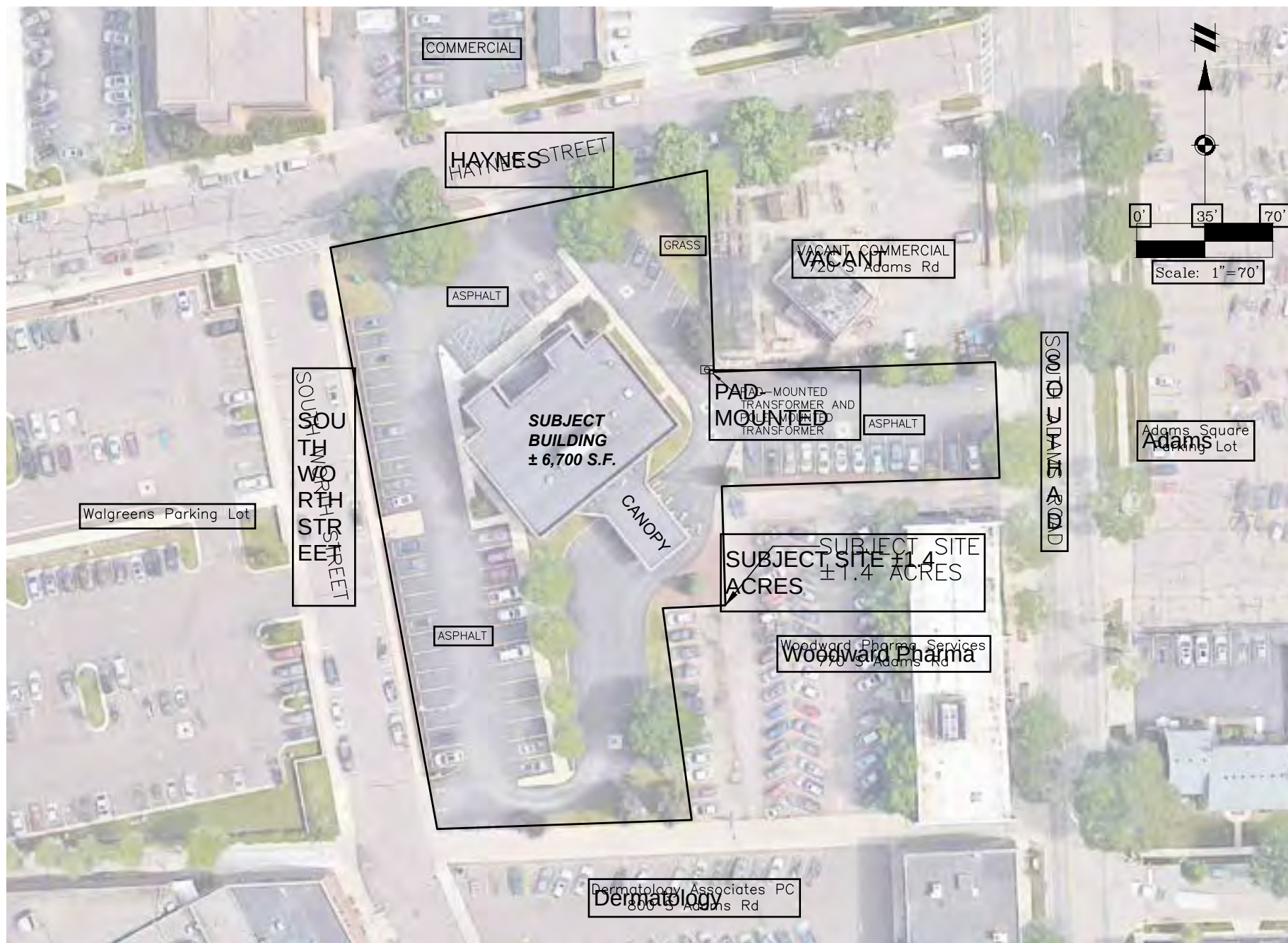


FIGURE 2: SITE PLAN WITH SOIL BORING AND SAMPLING LOCATIONS

1000 HAYNES STREET,
BIRMINGHAM, MI

PROJECT NO.: 20086
DATE: NOVEMBER 20, 2020

DR: BH
CAD FILE: 20086EV-01



DARCY ENVIRONMENTAL
(313) 264-1216
www.darcyenvironmental.com
SERVICES IN NORTH AMERICA AND ASIA

APPENDIX D
PHOTOGRAPHS



View of subject site, looking south



View of north adjoining property beyond Haynes



View north of subject site property (Plant Store/former Gas Station)



View west beyond S Worth Street (Walgreens beyond)



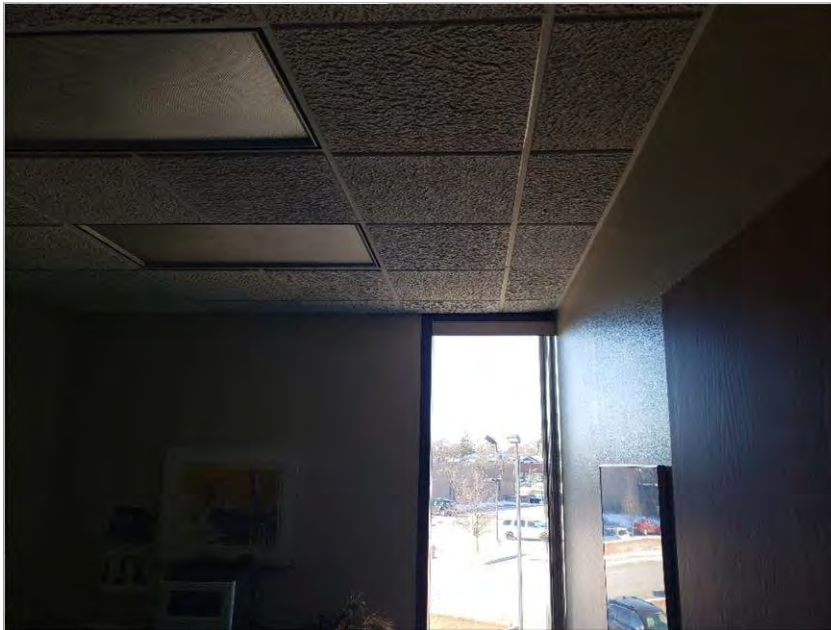
View southwest of the subject site (adjoining office building)



View of the subject building from the southwest



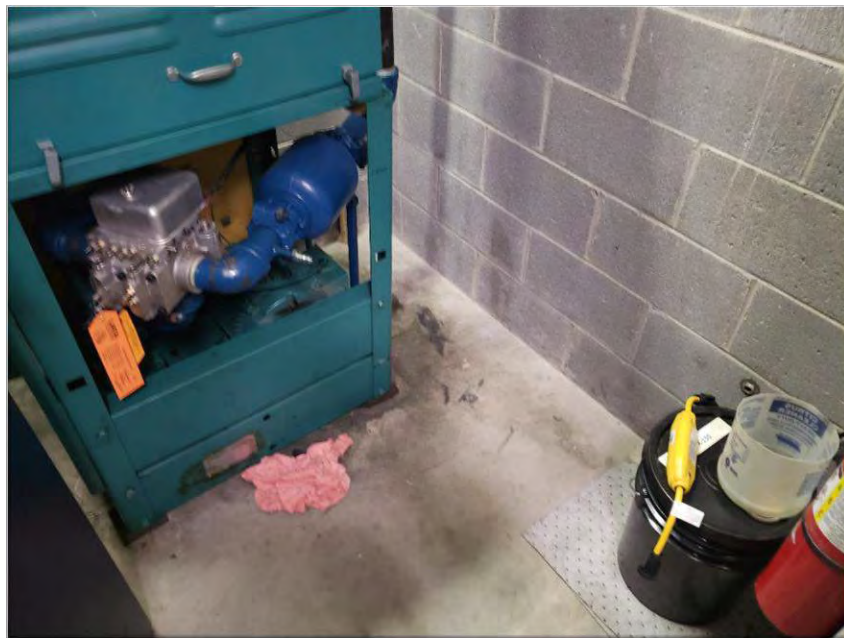
Main floor teller area



Office finishes (typical)



Interior mechanical room



Elevator equipment room

APPENDIX E

USER PROVIDED INFORMATION

USER PROVIDED QUESTIONNAIRE FOR PHASE I ESAs

In order to qualify for one of the *Landowner Liability Protections (LLPs)*¹ offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "*Brownfields Amendments*"),² the *user* must provide the following information (if available) to the *environmental professional*. Failure to provide this information could result in a determination that "*all appropriate inquiry*" is not complete.

Darcy Job Number: 20086

Darcy Job Name: 1000 Haynes, Birmingham MI

User Information

Name: ARJA Haynes, LLC
Address: 36400 Woodward Ave; Suite 109
City, State, Zip: Bloomfield Hills, MI 48302
Phone Number: (248) 885-1153

Question 1 – What is your relationship to the site?

☒ Owner ☐ Prospective Buyer ☐ Prospective Lender ☐ Other _____

Question 2 – What is the current use of the property?

☐ Residential
☒ Commercial *Please detail specific operations: - Bank Branch*
☐ Industrial
☐ Agricultural
☐ Other: _____

Question 3 – What is the intended use of the property? - Multifamily / mixed use

Question 4 – Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, as user:

- (a) Do you know the past uses of the property? - Bank branch
- (b) Do you know of specific chemicals that are present or once were present at the property? - No
- (c) Do you know of spills or other chemical releases that have taken place at the property? - No

- (d) Do you know of any environmental cleanups that have taken place at the property? -
No

Question 5 – Please detail any knowledge of current and/or previous ownership history. Attach any title records or chain of title information. – See attached.

Question 6 – Are you aware of any environmental liens or activity and land use limitations for the property? ☐ Yes ☒ No
If yes, please describe:

Has the title company been retained to check recorded land title records for environmental liens or activity and land use limitations? ☒ Yes ☐ No

Attach any title company records. See attached

Question 7 – Please detail any specialized knowledge you have regarding the subject site. Please include any information pertaining to site use history and environmental issues.

Question 8 – (a) Does the purchase price being paid for this property reasonably reflect the fair market value of the property? No

(b) If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property? No

Question 9 – Are you aware of any valuation reduction in the purchase price of the subject site to account for environmental issues? ☐ Yes ☒ No
If yes, please describe.

Question 10 – Please state the reason that the Phase I ESA is being performed. – Property purchase

Question 11 – Please identify all parties who will rely on the Phase I report.

Question 12 – A legal description or survey for the subject site is required to perform the Phase I ESA. Attach legal description or survey (if not already provided to Darcy). If one is not available, describe why.

This questionnaire was completed by:

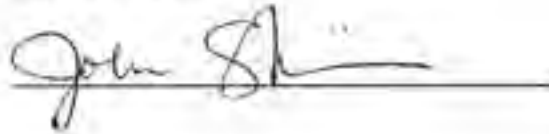
Title: Agent
Firm: ARJA Haynes, LLC
Address: 36400 Woodward Ave, Suite 109

Bloomfield Hills, MI 48304

Phone #: 248 885-1153

Date: February 12, 2021

Signature:

A handwritten signature in dark ink, appearing to read "John Schmitt", is written over a horizontal line.

MORTGAGE SURVEY

CERTIFIED TO: THE BRISTOL

PROPERTY DESCRIPTION:

Lots 11 and 14, O.E. SHATTUCK SUBDIVISION; Village, now City of Birmingham, Oakland County, Michigan, according to the plat thereof as recorded in Liber 8 of Plats, Page 14, Oakland County Records.

ALSO

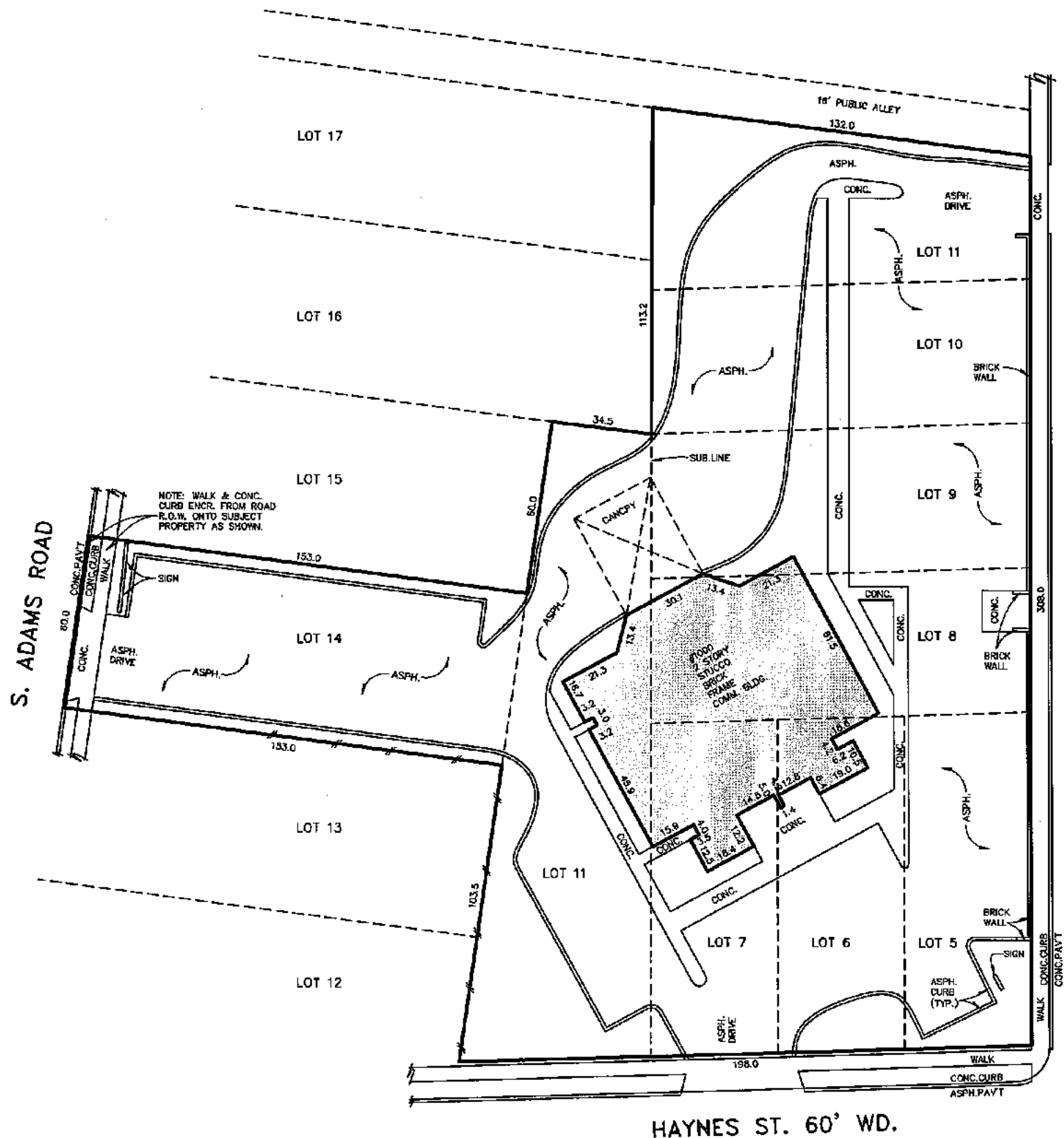
Lots 5 through 11 inclusive, RURAL SUBDIVISION OF LOTS 5, 6, 7, 8, 9 and 10 OF O.E. SHATTUCK SUBDIVISION; in Village of Birmingham, Oakland County, Michigan, according to the plat thereof as recorded in Liber 16 of Plats, Page 14, Oakland County Records.

Note: The property description is as furnished by client.

Subject to any part taken, used or deeded for street, road, or highway purposes.

NOTE: A COMPLETE CURRENT TITLE POLICY HAS NOT BEEN FURNISHED, THEREFORE EASEMENTS OR OTHER ENCUMBRANCES MAY NOT BE SHOWN AT THIS TIME.

NOTE: A BOUNDARY SURVEY IS NEEDED TO DETERMINE THE EXACT SIZE AND/OR LOCATION OF PROPERTY LINES, TO DETERMINE THE EXACT AMOUNT OF ENCROACHMENT AND/OR TO DETERMINE THE EXACT LOCATION OF FENCES.



THIS SURVEY DRAWING IS VOID IF THE PROFESSIONAL SEAL IS NOT IN BLUE INK.

THIS SURVEY DRAWING IS VOID IF THE PROFESSIONAL SEAL IS NOT IN BLUE INK.

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FAX: (588) 772-4048 FAX: (588) 772-4048 FAX: (734) 994-0887 FAX: (510) 894-8885
www.kemtecagroupofcompanies.com

PREPARED FOR: THE BRISTOL

DATE: 01/25/21	JOB #: 21-00195
SCALE: 1"=30'	REV.:
DRW. BY: A.K.	REV.:



631127970NBU

Remit Payment To:

Chicago Title of Michigan, Inc.

941 W. Milham Rd

Portage, MI 49024

Phone: (269)321-3055 Fax: (269)321-3051

Due upon receipt

Citizens Bank, NA

ATTN: Mary E. Hassan

One Citizens Plaza

Providence, RI 02903

INVOICE

Order Number:	631127970NBU	Invoice Date:	2/9/2021
		Invoice Number:	631127970NBU-1
		Operation:	02330.313461
Buyer/Borrower(s):	ARJA Haynes, LLC, a Michigan limited liability company	Seller(s):	Citizens Bank, N.A, a national banking association
Escrow Officer:	Corinne Hutchins		
Title Officer:	Ron Wiegierink	Sales Rep:	HOUSE ACCOUNT

Property Description (1):

1000 Haynes Ave., Birmingham, MI 48009

APN/Parcel ID(s): 08-19-36-283-024

Policies Applied For:	ALTA Owner's Policy 2006	\$2,500,000.00

Bill Code	Description	Amount
TP	Owner's Policy (Coverage \$2,500,000.00) (ALTA Owner's Policy 2006)	3,750.00
	Invoice total amount due:	\$3,750.00

Invoice Notes: If your transaction involves a tax deferred exchange, we offer this service through our 1031 company, IPX1031. As the nation's largest 1031 company, IPX1031 provides guidance and expertise. Security of exchange funds includes: segregated bank accounts, 100 million dollar Fidelity Bond, and 30 million dollar in Errors & Omissions Insurance. Fidelity National Title Group also provides a 50 million dollar Performance Guaranty for each exchange. For additional information or to set up an exchange, please call Rory Byrne, 616-257-3100 (office) or 616-970-6281 (mobile).

Thank you for the opportunity to serve you.
Please return a copy of this invoice with your payment

ALTA COMMITMENT FOR TITLE INSURANCE

Issued By:



CHICAGO TITLE
INSURANCE COMPANY

Commitment Number:

631127970NBU
Revision 2

NOTICE

IMPORTANT - READ CAREFULLY: THIS COMMITMENT IS AN OFFER TO ISSUE ONE OR MORE TITLE INSURANCE POLICIES. ALL CLAIMS OR REMEDIES SOUGHT AGAINST THE COMPANY INVOLVING THE CONTENT OF THIS COMMITMENT OR THE POLICY MUST BE BASED SOLELY IN CONTRACT.

THIS COMMITMENT IS NOT AN ABSTRACT OF TITLE, REPORT OF THE CONDITION OF TITLE, LEGAL OPINION, OPINION OF TITLE, OR OTHER REPRESENTATION OF THE STATUS OF TITLE. THE PROCEDURES USED BY THE COMPANY TO DETERMINE INSURABILITY OF THE TITLE, INCLUDING ANY SEARCH AND EXAMINATION, ARE PROPRIETARY TO THE COMPANY, WERE PERFORMED SOLELY FOR THE BENEFIT OF THE COMPANY, AND CREATE NO EXTRACTIONAL LIABILITY TO ANY PERSON, INCLUDING A PROPOSED INSURED.

THE COMPANY'S OBLIGATION UNDER THIS COMMITMENT IS TO ISSUE A POLICY TO A PROPOSED INSURED IDENTIFIED IN SCHEDULE A IN ACCORDANCE WITH THE TERMS AND PROVISIONS OF THIS COMMITMENT. THE COMPANY HAS NO LIABILITY OR OBLIGATION INVOLVING THE CONTENT OF THIS COMMITMENT TO ANY OTHER PERSON.

COMMITMENT TO ISSUE POLICY

Subject to the Notice; Schedule B, Part I-Requirements; Schedule B, Part II-Exceptions; and the Commitment Conditions, Chicago Title Insurance Company, a Florida corporation (the "Company"), commits to issue the Policy according to the terms and provisions of this Commitment. This Commitment is effective as of the Commitment Date shown in Schedule A for each Policy described in Schedule A, only when the Company has entered in Schedule A both the specified dollar amount as the Proposed Policy Amount and the name of the Proposed Insured.

If all of the Schedule B, Part I-Requirements have not been met within one hundred eighty (180) days after the Commitment Date, this Commitment terminates and the Company's liability and obligation end.

Issued By:

Chicago Title of Michigan, Inc.

Chicago Title Insurance Company

By:

Randy Quirk, President

Countersigned By:

Authorized Officer or Agent
Kevin Kossen, Michigan State Manager

Attest:

Marjorie Nemzura, Secretary

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Transaction Identification Data for reference only:

ISSUING OFFICE:	FOR SETTLEMENT INQUIRIES, CONTACT:
Chicago Title of Michigan, Inc. Commercial and Construction, 941 W. Milham Road Portage, MI 49024 Main Phone: (269)321-3055 Email: 313461d@ctt.com	Escrow Officer: Corinne Hutchins Chicago Title of Michigan, Inc. 941 W. Milham Rd Portage, MI 49024 Phone: 269-321-3055 Fax: 269-324-6380 Main Phone: (269)321-3055 Email: HutchinsC@CTT.com

Order Number: 631127970NBU

Property Address: 1000 Haynes Ave., Birmingham, MI 48009

SCHEDULE A

1. Commitment Date: January 13, 2021 at 08:00 AM
2. Policy to be issued:
 - (a) ALTA Owner's Policy 2006
Proposed Insured: ARJA Haynes, LLC, a Michigan limited liability company
Proposed Policy Amount: \$2,500,000.00
3. The estate or interest in the Land described or referred to in this Commitment is:
Fee Simple
4. The Title is, at the Commitment Date, vested in:
[First Federal Savings and Loan Association of Detroit](#)
5. The Land is described as follows:
SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF

END OF SCHEDULE A

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EXHIBIT "A"

Legal Description

For APN/Parcel ID(s): 08-19-36-283-024

Land situated in the City of Birmingham, Oakland County, Michigan, described as follows:

Lots 11 and 14, O. E. Shattuck Subdivision, Village, now City of Birmingham, Oakland County, Michigan, according to the recorded plat thereof, as recorded in [Liber 8 of Plats, Page 14](#), Oakland County Records.

Lots 5 through 11, inclusive, Rural Subdivision of Lots 5, 6, 7, 8, 9 and 10 of O.E. Shattuck Subdivision in the Village of Birmingham, according to the recorded plat thereof as recorded in [Liber 16 of Plats, Page 14](#), Oakland County Records.

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**SCHEDULE B, PART I
REQUIREMENTS**

All of the following Requirements must be met:

1. The Proposed Insured must notify the Company in writing of the name of any party not referred to in this Commitment who will obtain an interest in the Land or who will make a loan on the Land. The Company may then make additional Requirements or Exceptions.
2. Pay the agreed amount for the estate or interest to be insured.
3. Pay the premiums, fees, and charges for the Policy to the Company.
4. Documents satisfactory to the Company that convey the Title or create the Mortgage to be insured, or both, must be properly authorized, executed, delivered, and recorded in the Public Records.
5. Notice: Please be aware that due to the conflict between federal and state laws concerning the cultivation, distribution, manufacture or sale of marijuana, the Company is not able to close or insure any transaction involving Land that is associated with these activities.
6. Intentionally Deleted.
7. Intentionally Deleted.
8. Intentionally Deleted.
9. The Company will require the following documents for review prior to the issuance of any title insurance predicated upon a conveyance or encumbrance by the corporation named below:

Name of Corporation: Citizens Bank, N.A.

- a) A Copy of the corporation By-laws and Articles of Incorporation
- b) An original or certified copy of a resolution authorizing the transaction contemplated herein
- c) If the Articles and/or By-laws require approval by a parent organization, a copy of the Articles and By-laws of the parent
- d) A current dated certificate of good standing from the proper governmental authority of the state in which the entity was created

The Company reserves the right to add additional items or make further requirements after review of the requested documentation.

10. Record a Deed from Citizens Bank, N.A. formerly known as First Federal Savings and Loan Association of Detroit to the proposed insured.

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**SCHEDULE B, PART I
REQUIREMENTS**
(continued)

11. The search did not disclose any open mortgages or deeds of trust of record, therefore the Company reserves the right to require further evidence to confirm that the property is unencumbered, and further reserves the right to make additional requirements or add additional items or exceptions upon receipt of the requested evidence.

12. The Company will require that an Owner's Affidavit be completed before the issuance of any policy of title insurance.

The Company reserves the right to add additional items or make further requirements after review of the requested Affidavit.

13. Furnish proof of payment of the taxes and special assessments, if any, otherwise same will be shown as an exception on the final policy when issued.

2020 Winter Taxes: paid in the amount of \$15,612.81
2020 Summer Taxes: paid in the amount of \$60,174.55
SEV: \$2,39,070.00 (2020)
Taxable Value: \$1,441,190.00 (2020)
Assessed As: 10000 Haynes Ave
Tax Number: 08-19-36-283-024

Taxes information was provided by the Oakland County Treasurer (248-858-0611) and City of Birmingham Treasurer (248-530-1800) and is for informational purposes only. Please note personal property taxes have not been searched. Tax information is neither guaranteed nor insured. Please **verify** taxes prior to any closing.

NOTE: If subject property is connected to public utilities, furnish a proof of payment of the current bills showing that all charges have been paid or the policy to be issued will include an exception on Schedule B for "unpaid water, sewer, electric or gas charges, if any, that have not been levied as taxes against these lands."

END OF SCHEDULE B, PART I

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**SCHEDULE B, PART II
EXCEPTIONS**

THIS COMMITMENT DOES NOT REPUBLISH ANY COVENANT, CONDITION, RESTRICTION, OR LIMITATION CONTAINED IN ANY DOCUMENT REFERRED TO IN THIS COMMITMENT TO THE EXTENT THAT THE SPECIFIC COVENANT, CONDITION, RESTRICTION, OR LIMITATION VIOLATES STATE OR FEDERAL LAW BASED ON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, GENDER IDENTITY, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN.

The Policy will not insure against loss or damage resulting from the terms and provisions of any lease or easement identified in Schedule A, and will include the following Exceptions unless cleared to the satisfaction of the Company:

1. Any defect, lien, encumbrance, adverse claim, or other matter that appears for the first time in the Public Records or is created, attaches, or is disclosed between the Commitment Date and the date on which all of the Schedule B, Part I—Requirements are met.
2.
 - a. Rights or claims of parties in possession not shown by the Public Records.
 - b. Any encroachment, encumbrance, violation, variation or adverse circumstance affecting the Title that would be disclosed by an accurate and complete survey of the Land.
 - c. Easements or claims of easements not shown by the Public Records and existing water, mineral, oil and exploration rights.
 - d. Any lien, or right to a lien, for services, labor, or material, heretofore or hereafter furnished, imposed by law and not shown by the Public Records.
 - e. Any and all oil, gas, mineral, mining rights and/or reservations thereof.
 - f. Taxes or special assessments which are not shown as existing liens by the Public Records.
3. Covenants, conditions, restrictions and easements but omitting any covenants or restrictions, if any, including but not limited to those based upon race, color, religion, sex, sexual orientation, familial status, marital status, disability, handicap, national origin, ancestry, or source of income, as set forth in applicable state or federal laws, except to the extent that said covenant or restriction is permitted by applicable law, as set forth in the document

Recording No: [Liber 2725, Page 284](#)

4. Rights of tenants under unrecorded leases and any and all parties claiming by, through and thereunder.
5. Rights of the public to any portion of the Land lying within the bounds of any street, road, alley or highway.
6. Taxes and/or assessments which become a lien or become due and payable subsequent to the effective date herein.

END OF SCHEDULE B, PART II

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COMMITMENT CONDITIONS**1. DEFINITIONS**

- (a) "Knowledge" or "Known": Actual or imputed knowledge, but not constructive notice imparted by the Public Records.
- (b) "Land": The land described in Schedule A and affixed improvements that by law constitute real property. The term "Land" does not include any property beyond the lines of the area described in Schedule A, nor any right, title, interest, estate, or easement in abutting streets, roads, avenues, alleys, lanes, ways, or waterways, but this does not modify or limit the extent that a right of access to and from the Land is to be insured by the Policy.
- (c) "Mortgage": A mortgage, deed of trust, or other security instrument, including one evidenced by electronic means authorized by law.
- (d) "Policy": Each contract of title insurance, in a form adopted by the American Land Title Association, issued or to be issued by the Company pursuant to this Commitment.
- (e) "Proposed Insured": Each person identified in Schedule A as the Proposed Insured of each Policy to be issued pursuant to this Commitment.
- (f) "Proposed Policy Amount": Each dollar amount specified in Schedule A as the Proposed Policy Amount of each Policy to be issued pursuant to this Commitment.
- (g) "Public Records": Records established under state statutes at the Commitment Date for the purpose of imparting constructive notice of matters relating to real property to purchasers for value and without Knowledge.
- (h) "Title": The estate or interest described in Schedule A.

2. If all of the Schedule B, Part I-Requirements have not been met within the time period specified in the Commitment to Issue Policy, this Commitment terminates and the Company's liability and obligation end.

3. The Company's liability and obligation is limited by and this Commitment is not valid without:

- (a) the Notice;
- (b) the Commitment to Issue Policy;
- (c) the Commitment Conditions;
- (d) Schedule A;
- (e) Schedule B, Part I-Requirements;
- (f) Schedule B, Part II-Exceptions; and
- (g) a counter-signature by the Company or its issuing agent that may be in electronic form.

4. COMPANY'S RIGHT TO AMEND

The Company may amend this Commitment at any time. If the Company amends this Commitment to add a defect, lien, encumbrance, adverse claim, or other matter recorded in the Public Records prior to the Commitment Date, any liability of the Company is limited by Commitment Condition 5. The Company shall not be liable for any other amendment to this Commitment.

5. LIMITATIONS OF LIABILITY

- (a) The Company's liability under Commitment Condition 4 is limited to the Proposed Insured's actual expense incurred in the interval between the Company's delivery to the Proposed Insured of the Commitment and the delivery of the amended Commitment, resulting from the Proposed Insured's good faith reliance to:
 - (i) comply with the Schedule B, Part I-Requirements;
 - (ii) eliminate, with the Company's written consent, any Schedule B, Part II-Exceptions; or
 - (iii) acquire the Title or create the Mortgage covered by this Commitment.
- (b) The Company shall not be liable under Commitment Condition 5(a) if the Proposed Insured requested the amendment or had Knowledge of the matter and did not notify the Company about it in writing.
- (c) The Company will only have liability under Commitment Condition 4 if the Proposed Insured would not have incurred the expense had the Commitment included the added matter when the Commitment was first delivered to the Proposed Insured.
- (d) The Company's liability shall not exceed the lesser of the Proposed Insured's actual expense incurred in good faith and described in Commitment Conditions 5(a)(i) through 5(a)(iii) or the Proposed Policy Amount.
- (e) The Company shall not be liable for the content of the Transaction Identification Data, if any.
- (f) In no event shall the Company be obligated to issue the Policy referred to in this Commitment unless all of the Schedule B, Part I-Requirements have been met to the satisfaction of the Company.
- (g) In any event, the Company's liability is limited by the terms and provisions of the Policy.

This page is only a part of a 2016 ALTA® Commitment for Title Insurance issued by Chicago Title Insurance Company. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I-Requirements; Schedule B, Part II-Exceptions; and a counter-signature by the Company or its issuing agent that may be in electronic form.

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(continued)

6. LIABILITY OF THE COMPANY MUST BE BASED ON THIS COMMITMENT

- (a) Only a Proposed Insured identified in Schedule A, and no other person, may make a claim under this Commitment.
- (b) Any claim must be based in contract and must be restricted solely to the terms and provisions of this Commitment.
- (c) Until the Policy is issued, this Commitment, as last revised, is the exclusive and entire agreement between the parties with respect to the subject matter of this Commitment and supersedes all prior commitment negotiations, representations, and proposals of any kind, whether written or oral, express or implied, relating to the subject matter of this Commitment.
- (d) The deletion or modification of any Schedule B, Part II-Exception does not constitute an agreement or obligation to provide coverage beyond the terms and provisions of this Commitment or the Policy.
- (e) Any amendment or endorsement to this Commitment must be in writing and authenticated by a person authorized by the Company.
- (f) When the Policy is issued, all liability and obligation under this Commitment will end and the Company's only liability will be under the Policy.

7. IF THIS COMMITMENT HAS BEEN ISSUED BY AN ISSUING AGENT

The issuing agent is the Company's agent only for the limited purpose of issuing title insurance commitments and policies. The issuing agent is not the Company's agent for the purpose of providing closing or settlement services.

8. PRO-FORMA POLICY

The Company may provide, at the request of a Proposed Insured, a pro-forma policy illustrating the coverage that the Company may provide. A pro-forma policy neither reflects the status of Title at the time that the pro-forma policy is delivered to a Proposed Insured, nor is it a commitment to insure.

9. ARBITRATION

The Policy contains an arbitration clause. All arbitrable matters when the Proposed Policy Amount is Two Million And No/100 Dollars (\$2,000,000.00) or less shall be arbitrated at the option of either the Company or the Proposed Insured as the exclusive remedy of the parties. A Proposed Insured may review a copy of the arbitration rules at <http://www.alta.org/arbitration>.

END OF CONDITIONS

This page is only a part of a 2016 ALTA® Commitment for Title Insurance issued by Chicago Title Insurance Company. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I-Requirements; Schedule B, Part II-Exceptions; and a counter-signature by the Company or its issuing agent that may be in electronic form.

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Effective April 9, 2020

Fidelity National Financial, Inc. and its majority-owned subsidiary companies (collectively, "FNF," "our," or "we") respect and are committed to protecting your privacy. This Privacy Notice explains how we collect, use, and protect personal information, when and to whom we disclose such information, and the choices you have about the use and disclosure of that information.

A limited number of FNF subsidiaries have their own privacy notices. If a subsidiary has its own privacy notice, the privacy notice will be available on the subsidiary's website and this Privacy Notice does not apply.

Collection of Personal Information

FNF may collect the following categories of Personal Information:

- contact information (e.g., name, address, phone number, email address);
- demographic information (e.g., date of birth, gender, marital status);
- identity information (e.g. Social Security Number, driver's license, passport, or other government ID number);
- financial account information (e.g. loan or bank account information); and
- other personal information necessary to provide products or services to you.

We may collect Personal Information about you from:

- information we receive from you or your agent;
- information about your transactions with FNF, our affiliates, or others; and
- information we receive from consumer reporting agencies and/or governmental entities, either directly from these entities or through others.

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FNF automatically collects the following types of Browsing Information when you access an FNF website, online service, or application (each an "FNF Website") from your Internet browser, computer, and/or device:

- Internet Protocol (IP) address and operating system;
- browser version, language, and type;
- domain name system requests; and
- browsing history on the FNF Website, such as date and time of your visit to the FNF Website and visits to the pages within the FNF Website.

Like most websites, our servers automatically log each visitor to the FNF Website and may collect the Browsing Information described above. We use Browsing Information for system administration, troubleshooting, fraud investigation, and to improve our websites. Browsing Information generally does not reveal anything personal about you, though if you have created a user account for an FNF Website and are logged into that account, the FNF Website may be able to link certain browsing activity to your user account.

Other Online Specifics

Cookies. When you visit an FNF Website, a "cookie" may be sent to your computer. A cookie is a small piece of data that is sent to your Internet browser from a web server and stored on your computer's hard drive. Information gathered using cookies helps us improve your user experience. For example, a cookie can help the website load properly or can customize the display page based on your browser type and user preferences. You can choose whether or not to accept cookies by changing your Internet browser settings. Be aware that doing so may impair or limit some functionality of the FNF Website.

Web Beacons. We use web beacons to determine when and how many times a page has been viewed. This information is used to improve our websites.

Do Not Track. Currently our FNF Websites do not respond to "Do Not Track" features enabled through your browser.

Links to Other Sites. FNF Websites may contain links to unaffiliated third-party websites. FNF is not responsible for the privacy practices or content of those websites. We recommend that you read the privacy policy of every website you visit.

Use of Personal Information

FNF uses Personal Information for three main purposes:

- To provide products and services to you or in connection with a transaction involving you.
- To improve our products and services.
- To communicate with you about our, our affiliates', and others' products and services, jointly or independently.

When Information Is Disclosed

We may disclose your Personal Information and Browsing Information in the following circumstances:

- to enable us to detect or prevent criminal activity, fraud, material misrepresentation, or nondisclosure;
- to nonaffiliated service providers who provide or perform services or functions on our behalf and who agree to use the information only to provide such services or functions;
- to nonaffiliated third party service providers with whom we perform joint marketing, pursuant to an agreement with them to jointly market financial products or services to you;
- to law enforcement or authorities in connection with an investigation, or in response to a subpoena or court order; or
- in the good-faith belief that such disclosure is necessary to comply with legal process or applicable laws, or to protect the rights, property, or safety of FNF, its customers, or the public.

The law does not require your prior authorization and does not allow you to restrict the disclosures described above. Additionally, we may disclose your information to third parties for whom you have given us authorization or consent to make such disclosure. We do not otherwise share your Personal Information or Browsing Information with nonaffiliated third parties, except as required or permitted by law. We may share your Personal Information with affiliates (other companies owned by FNF) to directly market to you. Please see "Choices with Your Information" to learn how to restrict that sharing.

We reserve the right to transfer your Personal Information, Browsing Information, and any other information, in connection with the sale or other disposition of all or part of the FNF business and/or assets, or in the event of bankruptcy, reorganization, insolvency, receivership, or an assignment for the benefit of creditors. By submitting Personal Information and/or Browsing Information to FNF, you expressly agree and consent to the use and/or transfer of the foregoing information in connection with any of the above described proceedings.

Security of Your Information

We maintain physical, electronic, and procedural safeguards to protect your Personal Information.

Choices With Your Information

If you do not want FNF to share your information among our affiliates to directly market to you, you may send an "opt out" request by email, phone, or physical mail as directed at the end of this Privacy Notice. We do not share your Personal Information with nonaffiliates for their use to direct market to you without your consent.

Whether you submit Personal Information or Browsing Information to FNF is entirely up to you. If you decide not to submit Personal Information or Browsing Information, FNF may not be able to provide certain services or products to you.

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For Nevada Residents: You may be placed on our internal Do Not Call List by calling (888) 934-3354 or by contacting us via the information set forth at the end of this Privacy Notice. Nevada law requires that we also provide you with the following contact information: Bureau of Consumer Protection, Office of the Nevada Attorney General, 555 E. Washington St., Suite 3900, Las Vegas, NV 89101; Phone number: (702) 486-3132; email: BCPINFO@ag.state.nv.us.

For Oregon Residents: We will not share your Personal Information or Browsing Information with nonaffiliated third parties for marketing purposes, except after you have been informed by us of such sharing and had an opportunity to indicate that you do not want a disclosure made for marketing purposes.

For Vermont Residents: We will not disclose information about your creditworthiness to our affiliates and will not disclose your personal information, financial information, credit report, or health information to nonaffiliated third parties to market to you, other than as permitted by Vermont law, unless you authorize us to make those disclosures.

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Accessing and Correcting Information; Contact Us

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Fidelity National Financial, Inc.
601 Riverside Avenue,
Jacksonville, Florida 32204
Attn: Chief Privacy Officer



December 22, 2020

ARJA Haynes, LLC
c/o Mr. John Shekerjian
36400 Woodward Ave; Suite 109
Bloomfield Hills, MI 48304

Darcy Environmental Consultants, LLC Project Number: 20086

Subject: Limited Scope Subsurface Investigation for the property located at 1000 Haynes Street, Birmingham, Michigan

Dear Mr. Shekerjian:

Darcy Environmental Consultants, LLC (Darcy) was retained to conduct a Limited Scope Subsurface Investigation for the property located at 1000 Haynes Street, Birmingham, Michigan (subject site). The purpose of the investigation was to evaluate the potential for environmental contamination to have migrated onto the subject site from an adjoining property located to the north and east (720 S Adams Road) which formerly operated a gasoline service station with a history of releases from underground storage tanks.

The subject site to be comprised of approximately 1.4-acres of developed land located at 1000 Haynes Street, in Birmingham, Oakland County, Michigan. The subject site consists of one two-story 6,702 square foot commercial building located in the central portion of the parcel. Asphalt paved parking surrounds the building on all sides and manicured grass and landscaping is present along the perimeter of the site. Access to the site is provided by one entrance along Haynes Street which adjoins the subject site to the north, along S Worth Street which adjoins the subject site to the west, and along S Adams Road which adjoins the subject site to the east. The parcel is relatively flat. The area surrounding the subject site is primarily developed for commercial use. The location of the subject site is presented in **Figure 1**.

Darcy's scope of work included 1) completing six soil borings, 2) collecting soil and if encountered, groundwater samples, 3) submitting samples for laboratory analysis and 4) providing a brief letter report of findings.

Subsurface Investigation

On November 20, 2020, Darcy was on site to oversee the completion of soil borings. Darcy retained Terra Probe of Ottawa Lake, Michigan, to provide soil boring services. In total, six (6) soil borings (B-1 through B-6) were advanced at the subject site. Soil borings were conducted with the use of truck mounted hydraulically-driven soil probes (Geoprobe®) and advanced to a

Darcy Environmental Consultants
702 North Brys Drive, Grosse Pointe Woods, MI 48236
Tel: (734) 255-2701; www.darcyenvironmental.com

depth of sixteen-feet below surface grade (bsg). The soil borings were advanced at the site to address the concerns identified within Darcy's review of historical records and reports which in Darcy's opinion indicated that the adjoining property located at 720 S Adams Road presented an environmental risk to the subject site. Soil boring locations are depicted in **Figure 2**.

During the subsurface investigation, Darcy observed the decontamination of probing and sampling equipment (i.e., stainless steel samplers and push rods, and hand tools, etc.) used during the subsurface investigation. Between each borehole, samplers and equipment were decontaminated following the United States Environmental Protection Agency (USEPA) recommended protocol of: (1) washing and scrubbing utilizing a non-phosphate detergent solution; (2) rinsing with clean tap water; (3) rinsing with deionized water; and (4) air drying. Decontamination equipment included a high-pressure power washer, buckets, Alconox detergent, scrub brushes, and waste storage bags. Upon completion of each soil boring, soil cuttings were returned to each respective boring location.

Geoprobe® soil samples were collected via advancement of a four-foot-long stainless-steel sampler (with new acetate liner) through the first four feet of soil and then retracting. Subsequently, four-foot samplers were advanced, starting at approximately four feet bsg, with samples being collected at continuous depths until the borehole terminus was reached. The length of each extracted soil sample was measured and recorded. Each section of the soil sample was field screened for total volatile organic compounds (VOCs) using a Mini RAE Systems Model No. 2000 photoionization detector (PID). Soil was continuously logged for type, grain-size, color, and moisture. During the field screening of all extracted soil samples, no positive PID readings were identified in soils at any of the borings advanced during the investigation. In addition, no indication of staining or odors was identified. During the investigation no groundwater was encountered.

The Darcy Environmental Geologist: (1) examined one-half of each soil sample as it was extracted from the sampler and field-screened it for total VOCs with a PID; (2) collected and, as appropriate, preserved the remaining portions of each sample in dedicated containers provided by an analytical laboratory; (3) temporarily stored the soil samples between zero and four degrees Centigrade in ice-cooled containers; and (4) delivered select soil samples under appropriate chain-of-custody to an independent testing laboratory for potential analysis. Copies of the completed chain-of-custody documentation are included as an **Attachment**.

Darcy relinquished fifteen soil samples along with the chain-of-custody documentation, to ALS Laboratories, of Holland, Michigan for potential analysis. Of the collected samples, six were submitted for analysis of volatile organic compounds (VOCs) using EPA Method 8260C. In addition, two soil samples were also analyzed for polynuclear aromatic hydrocarbons (PAHs) by EPA Method 8270E.

Based on information obtained during the subsurface investigation, the soil stratigraphy at the subject site was determined to consist of poorly sorted sand and gravel rich fill soils that extend from just below the ground surfaces (i.e., topsoil or landscape mulch) to depths between approximately 1.0 to 2.0 feet bsg. Directly below the fill soil, firm, gray to brown mottled clay were consistently encountered that extended to the maximum explored depth of approximately 16.0-feet bsg. Groundwater was not encountered in any of the six soil borings advanced at the subject site.

Soil Analytical Results

The following sections present a discussion comparing the laboratory analytical results for soil samples collected/analyzed during the subsurface investigation to the current EGLE Public Act 451, Part 201 Generic Residential Cleanup Criteria and Screening Levels (CCSLs), dated December 30, 2013. Specifically, analytical data for soil samples were compared to the EGLE Part 201 Generic Residential Drinking Water Protection, Soil Volatilization to Indoor Air, and Soil Direct Contact. The comparison has demonstrated that the subject site does not qualify as a "facility" as defined in Part 201 of the NREPA, 1994, PA 451, as amended.

In terms of VOCs in soil, with the exception of the presence of acetone identified in sample B-5 (2.0'), no VOCs were detected at concentrations above the respective laboratory lower reporting limits (LRLs) in any of the samples selected for analysis. The detected acetone was not detected at a concentration exceeding Part 201 Generic Residential CCSLs. It is believed that the low-level detection in Sample B-5 (2.0') for acetone should be a sample artifact and not inherent in the sample. The exact source of the artifact is not able to be determined, but potential causes could be any of the following: sample storage and transport and/or background laboratory levels due to routine analytical procedures or factors affecting the air handling system within the laboratory. Acetone is commonly found at low levels in environmental samples.

In terms of PNAs in soil, benzo(a)pyrene, benzo(b)fluoranthene and indeno(1,2,3-cd)pyrene were detected at a concentration above the respective laboratory LRLs in soil sample B-4 (7.0'). A review of the analytical results indicated that of the detected PNAs, none was found at a concentration determined to exceed Part 201 Generic Residential CCSLs. No PAHs were detected at concentrations above the respective LRLs in the other sample selected for analysis.

Based on a review the subsurface investigation findings and soil analytical results and in consideration of the lack of shallow groundwater at the subject site that could potentially act as a transport mechanism, it is Darcy's opinion that the past releases of petroleum products and automobile service operations associated with the north and east adjoining property (720 S Adams Road) have not adversely impacted the subject site. Further, based on the soil conditions observed, the lack of shallow groundwater as a transport mechanism, and in consideration that soil samples collected did not indicate the presence of elevated concentrations of VOCs, it is unlikely that the off-site source will present a soil vapor intrusion issue for the subject site. The subsurface investigation has demonstrated that the subject site does not qualify as a "facility", as defined in

Mr. John Shekerjian
ARJA Haynes, LLC
December 22, 2020
Page 4

Part 201 of the Natural Resources Environmental and Protection Act (NREPA), 1994, PA 451, as amended. Therefore, no further investigation is warranted.

Limitations

Darcy conducted this Limited Scope Subsurface Investigation in a manner consistent with the level of care and skill ordinarily exercised by members of the engineering profession who perform similar engineering and environmental services under similar conditions. Darcy shall not be responsible for conditions or consequences arising from relevant information that was concealed or not fully disclosed at the time this investigation was conducted. Darcy's opinions and recommendations are based solely on information derived from the field observations and laboratory analysis of the submitted soil samples. The information and opinions included in this report are exclusively for the use of ARJA Haynes, LLC, who may rely upon the conclusions presented in this report.

We appreciate the opportunity to be of service to you on this project. If you have any questions, concerns or require additional information, please feel free to contact me at (734) 395-1423.

Sincerely,
DARCY, LLC

A handwritten signature in black ink, appearing to read "All R Longyear", with a long horizontal flourish extending to the right.

Allan R. Longyear
Environmental Professional
Senior Geologist

Attachments

FIGURES

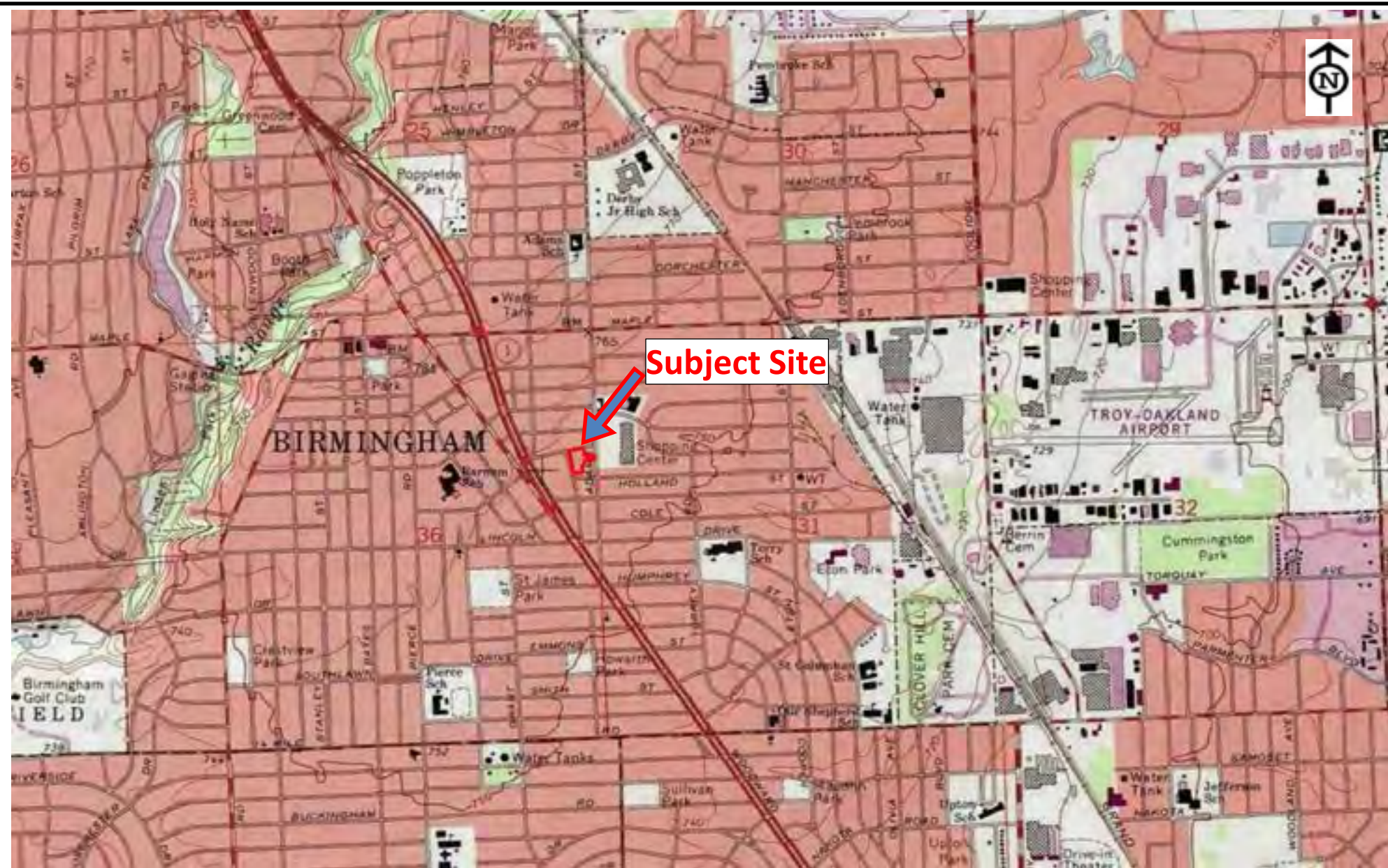


Figure 1: Site Location Map

1000 Haynes Street
Birmingham, Michigan
Project No.: 20086

11/20/2020



DARCY ENVIRONMENTAL

(313) 264-1216

www.darcyenvironmental.com

OFFICES IN NORTH AMERICA AND ASIA

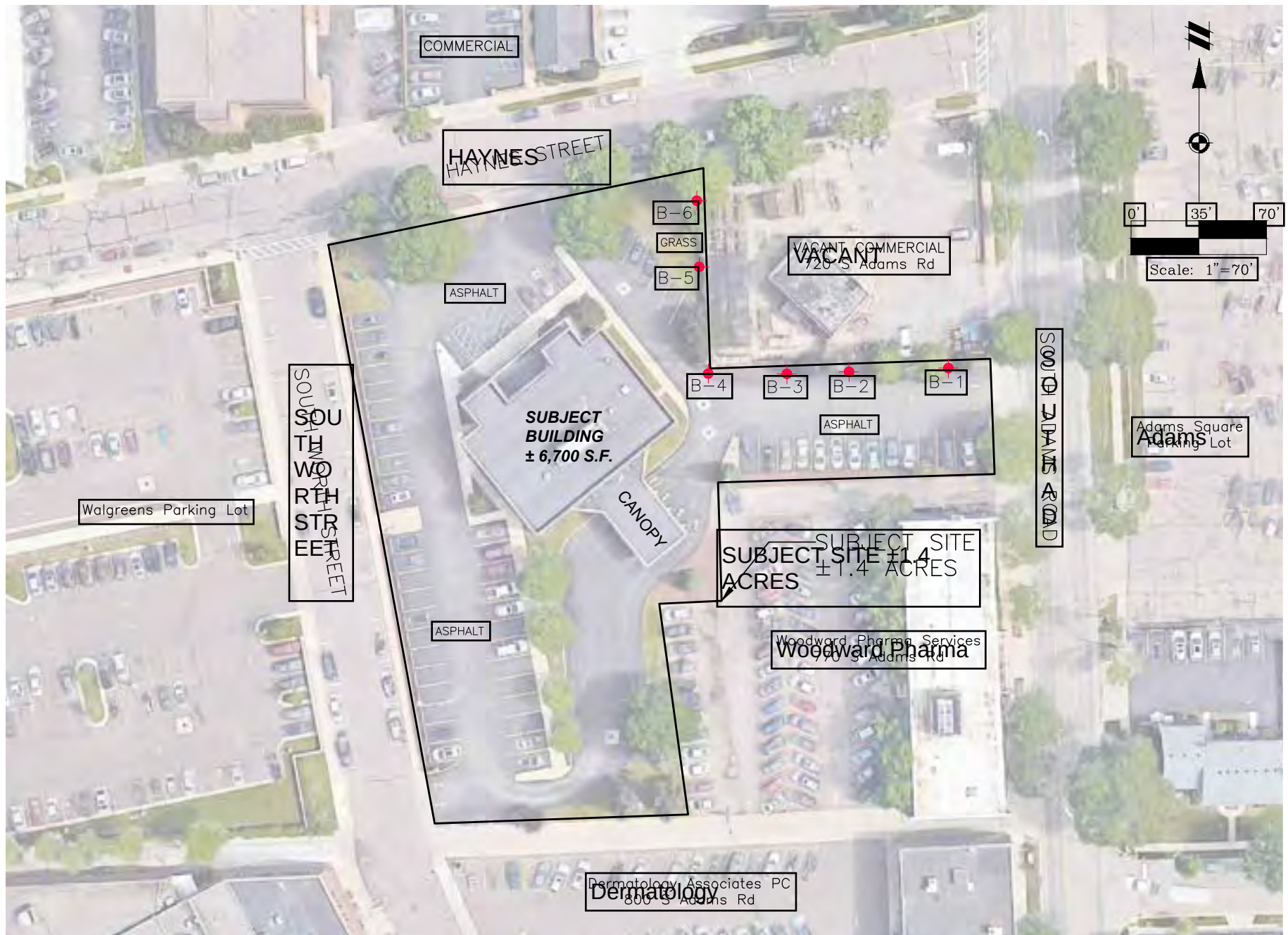


FIGURE 2: SITE PLAN WITH SOIL BORING AND SAMPLING LOCATIONS

1000 HAYNES STREET,
BIRMINGHAM, MI

LEGEND
 SOIL BORING LOCATION

PROJECT NO.: 20086
 DATE: NOVEMBER 20, 2020
 DR: BH
 CAD FILE: 20086EV-01



DARCY ENVIRONMENTAL
 (313) 264-1216
www.darcyenvironmental.com
SOURCES IN NORTH AMERICA AND ASIA

TABLES

Table 1
SUMMARY OF ANALYTICAL RESULTS FOR SOIL SAMPLES
1000 Haynes Stree, Birmingham, Michigan
Sampling Date(s): November 20, 2020

Sample I.D.	Chemical Abstract Service Number	B-1	B-2	B-3	B-4	B-5	B-6	Michigan EGLE Part 201 Residential			
								Drinking Water Protection Criteria	Groundwater Surface Water Interface Protection Criteria	Soil Volatilization to Indoor Air Inhalation Criteria	Direct Contact Criteria
Sample Depth		7.0'	10.0'	6.0'	7.0'	2.0'	10.0'				
VOLATILE ORGANIC COMPOUNDS (VOCs)											
Acetone		<79	<71	<79	<80	900	<70	15,000	34,000	290,000,000	23,000,000
All Other VOCs	Varies	<	<	<	<	<	<	NA	NA	NA	NA
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)											
Benzo(a)pyrene	50328	NS	NS	<4.9	5.7	NS	NS	NLL	NLL	NLV	2,000
Benzo(b)fluoranthene	205992	NS	NS	<4.9	5.2	NS	NS	NLL	NLL	ID	20,000
Indeno(1,2,3-cd)pyrene	193395	NS	NS	<4.9	7.5	NS	NS	NLL	NLL	NLV	20,000
All Other PAHs	129000	NS	NS	<4.9	<5.0	NS	NS	NA	NA	NA	NA

Notes:

1. Presented in ug/kg (ppb)
2. < = Less than method detection limit
3. NLV = Chemical is not likely to volatilize under most conditions
4. NA = Not Applicable
5. NS = Not selected for analysis
6. ID = Insufficent data to develop criterion
7. **BLACK BOLD** = Above Method Detection Limit

ATTACHMENTS



04-Dec-2020

Al Longyear
Darcy Environmental Consultants LLC
702 North Brys Drive
Grosse Pointe Woods, MI 48236

Re: **Phase II - 1000 Haynes, Birmingham, MI**

Work Order: **20112107**

Dear Al,

ALS Environmental received 15 samples on 24-Nov-2020 08:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 33.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

A handwritten signature in black ink, appearing to read "Bill Carey".

Electronically approved by: Bill Carey

Bill Carey
Project Manager

Report of Laboratory Analysis

Certificate No: MN 026-999-449

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Client: Darcy Environmental Consultants LLC
Project: Phase II - 1000 Haynes, Birmingham, MI
Work Order: 20112107

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
20112107-01	B-1 (7')	Soil		11/20/2020 09:45	11/24/2020 08:00	☐
20112107-02	B-1 (10')	Soil		11/20/2020 09:45	11/24/2020 08:00	☒
20112107-03	B-2 (2')	Soil		11/20/2020 10:20	11/24/2020 08:00	☒
20112107-04	B-2 (10')	Soil		11/20/2020 10:20	11/24/2020 08:00	☐
20112107-05	B-3 (3')	Soil		11/20/2020 10:50	11/24/2020 08:00	☒
20112107-06	B-3 (6')	Soil		11/20/2020 10:50	11/24/2020 08:00	☐
20112107-07	B-3 (12')	Soil		11/20/2020 10:50	11/24/2020 08:00	☒
20112107-08	B-4 (3')	Soil		11/20/2020 11:20	11/24/2020 08:00	☒
20112107-09	B-4 (7')	Soil		11/20/2020 11:20	11/24/2020 08:00	☐
20112107-10	B-4 (10')	Soil		11/20/2020 11:20	11/24/2020 08:00	☒
20112107-11	B-5 (2')	Soil		11/20/2020 11:50	11/24/2020 08:00	☐
20112107-12	B-5 (6')	Soil		11/20/2020 11:50	11/24/2020 08:00	☒
20112107-13	B-5 (10')	Soil		11/20/2020 11:50	11/24/2020 08:00	☒
20112107-14	B-6 (3')	Soil		11/20/2020 12:20	11/24/2020 08:00	☒
20112107-15	B-6 (10')	Soil		11/20/2020 12:20	11/24/2020 08:00	☐

Client: Darcy Environmental Consultants LLC
Project: Phase II - 1000 Haynes, Birmingham, MI
WorkOrder: 20112107

QUALIFIERS, ACRONYMS, UNITS

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
Hr	BOD/CBOD - Sample was reset outside Hold Time, value should be considered estimated.
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight

Client: Darcy Environmental Consultants LLC
Project: Phase II - 1000 Haynes, Birmingham, MI
Work Order: 20112107

Case Narrative

Samples for the above noted Work Order were received on 11/24/2020. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting. A copy of the laboratory's scope of accreditation is available upon request.

With the following exceptions, all sample analyses achieved analytical criteria.

Volatile Organics:

No other deviations or anomalies were noted.

Extractable Organics:

No other deviations or anomalies were noted.

Wet Chemistry:

No other deviations or anomalies were noted.

ALS Group, USA

Date: 04-Dec-20

Client: Darcy Environmental Consultants LLC
Project: Phase II - 1000 Haynes, Birmingham, MI
Sample ID: B-1 (7')
Collection Date: 11/20/2020 09:45 AM

Work Order: 20112107
Lab ID: 20112107-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260C	Prep: SW5035 11/24/20 15:50	Analyst: MF	
1,1,1-Trichloroethane	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
1,1,2,2-Tetrachloroethane	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
1,1,2-Trichloroethane	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
1,1,2-Trichlorotrifluoroethane	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
1,1-Dichloroethane	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
1,1-Dichloroethene	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
1,2,4-Trichlorobenzene	ND		79	µg/Kg-dry	1	12/2/2020 10:56 PM
1,2-Dibromo-3-chloropropane	ND		79	µg/Kg-dry	1	12/2/2020 10:56 PM
1,2-Dibromoethane	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
1,2-Dichlorobenzene	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
1,2-Dichloroethane	ND		79	µg/Kg-dry	1	12/2/2020 10:56 PM
1,2-Dichloropropane	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
1,3-Dichlorobenzene	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
1,4-Dichlorobenzene	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
2-Butanone	ND		160	µg/Kg-dry	1	12/2/2020 10:56 PM
2-Hexanone	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
4-Methyl-2-pentanone	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
Acetone	ND		79	µg/Kg-dry	1	12/2/2020 10:56 PM
Benzene	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
Bromodichloromethane	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
Bromoform	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
Bromomethane	ND		79	µg/Kg-dry	1	12/2/2020 10:56 PM
Carbon disulfide	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
Carbon tetrachloride	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
Chlorobenzene	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
Chloroethane	ND		79	µg/Kg-dry	1	12/2/2020 10:56 PM
Chloroform	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
Chloromethane	ND		79	µg/Kg-dry	1	12/2/2020 10:56 PM
cis-1,2-Dichloroethene	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
cis-1,3-Dichloropropene	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
Cyclohexane	ND		79	µg/Kg-dry	1	12/2/2020 10:56 PM
Dibromochloromethane	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
Dichlorodifluoromethane	ND		79	µg/Kg-dry	1	12/2/2020 10:56 PM
Ethylbenzene	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
Isopropylbenzene	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
Methyl acetate	ND		200	µg/Kg-dry	1	12/2/2020 10:56 PM
Methyl tert-butyl ether	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
Methylcyclohexane	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
Methylene chloride	ND		200	µg/Kg-dry	1	12/2/2020 10:56 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA**Date:** 04-Dec-20

Client: Darcy Environmental Consultants LLC
Project: Phase II - 1000 Haynes, Birmingham, MI
Sample ID: B-1 (7')
Collection Date: 11/20/2020 09:45 AM

Work Order: 20112107
Lab ID: 20112107-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Styrene	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
Tetrachloroethene	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
Toluene	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
trans-1,2-Dichloroethene	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
trans-1,3-Dichloropropene	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
Trichloroethene	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
Trichlorofluoromethane	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
Vinyl chloride	ND		24	µg/Kg-dry	1	12/2/2020 10:56 PM
Xylenes, Total	ND		71	µg/Kg-dry	1	12/2/2020 10:56 PM
Surr: 1,2-Dichloroethane-d4	98.3		70-130	%REC	1	12/2/2020 10:56 PM
Surr: 4-Bromofluorobenzene	104		70-130	%REC	1	12/2/2020 10:56 PM
Surr: Dibromofluoromethane	98.6		70-130	%REC	1	12/2/2020 10:56 PM
Surr: Toluene-d8	98.4		70-130	%REC	1	12/2/2020 10:56 PM
MOISTURE			SW3550C			Analyst: KTP
Moisture	17		0.10	% of sample	1	12/1/2020 01:34 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 04-Dec-20

Client: Darcy Environmental Consultants LLC
Project: Phase II - 1000 Haynes, Birmingham, MI
Sample ID: B-2 (10')
Collection Date: 11/20/2020 10:20 AM

Work Order: 20112107
Lab ID: 20112107-04
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260C	Prep: SW5035 11/24/20 15:50	Analyst: MF	
1,1,1-Trichloroethane	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
1,1,2,2-Tetrachloroethane	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
1,1,2-Trichloroethane	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
1,1,2-Trichlorotrifluoroethane	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
1,1-Dichloroethane	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
1,1-Dichloroethene	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
1,2,4-Trichlorobenzene	ND		71	µg/Kg-dry	1	12/2/2020 11:12 PM
1,2-Dibromo-3-chloropropane	ND		71	µg/Kg-dry	1	12/2/2020 11:12 PM
1,2-Dibromoethane	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
1,2-Dichlorobenzene	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
1,2-Dichloroethane	ND		71	µg/Kg-dry	1	12/2/2020 11:12 PM
1,2-Dichloropropane	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
1,3-Dichlorobenzene	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
1,4-Dichlorobenzene	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
2-Butanone	ND		140	µg/Kg-dry	1	12/2/2020 11:12 PM
2-Hexanone	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
4-Methyl-2-pentanone	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
Acetone	ND		71	µg/Kg-dry	1	12/2/2020 11:12 PM
Benzene	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
Bromodichloromethane	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
Bromoform	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
Bromomethane	ND		71	µg/Kg-dry	1	12/2/2020 11:12 PM
Carbon disulfide	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
Carbon tetrachloride	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
Chlorobenzene	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
Chloroethane	ND		71	µg/Kg-dry	1	12/2/2020 11:12 PM
Chloroform	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
Chloromethane	ND		71	µg/Kg-dry	1	12/2/2020 11:12 PM
cis-1,2-Dichloroethene	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
cis-1,3-Dichloropropene	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
Cyclohexane	ND		71	µg/Kg-dry	1	12/2/2020 11:12 PM
Dibromochloromethane	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
Dichlorodifluoromethane	ND		71	µg/Kg-dry	1	12/2/2020 11:12 PM
Ethylbenzene	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
Isopropylbenzene	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
Methyl acetate	ND		180	µg/Kg-dry	1	12/2/2020 11:12 PM
Methyl tert-butyl ether	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
Methylcyclohexane	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
Methylene chloride	ND		180	µg/Kg-dry	1	12/2/2020 11:12 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 04-Dec-20

Client: Darcy Environmental Consultants LLC
Project: Phase II - 1000 Haynes, Birmingham, MI
Sample ID: B-2 (10')
Collection Date: 11/20/2020 10:20 AM

Work Order: 20112107
Lab ID: 20112107-04
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Styrene	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
Tetrachloroethene	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
Toluene	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
trans-1,2-Dichloroethene	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
trans-1,3-Dichloropropene	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
Trichloroethene	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
Trichlorofluoromethane	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
Vinyl chloride	ND		21	µg/Kg-dry	1	12/2/2020 11:12 PM
Xylenes, Total	ND		64	µg/Kg-dry	1	12/2/2020 11:12 PM
Surr: 1,2-Dichloroethane-d4	98.1		70-130	%REC	1	12/2/2020 11:12 PM
Surr: 4-Bromofluorobenzene	101		70-130	%REC	1	12/2/2020 11:12 PM
Surr: Dibromofluoromethane	99.6		70-130	%REC	1	12/2/2020 11:12 PM
Surr: Toluene-d8	98.7		70-130	%REC	1	12/2/2020 11:12 PM
MOISTURE			SW3550C			Analyst: KTP
Moisture	13		0.10	% of sample	1	12/1/2020 03:09 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 04-Dec-20

Client: Darcy Environmental Consultants LLC
Project: Phase II - 1000 Haynes, Birmingham, MI
Sample ID: B-3 (6')
Collection Date: 11/20/2020 10:50 AM

Work Order: 20112107
Lab ID: 20112107-06
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)						
			SW8270E		Prep: SW3546 12/1/20 10:09	Analyst: EEW
1-Methylnaphthalene	ND		4.9	µg/Kg-dry	1	12/1/2020 06:24 PM
2-Chloronaphthalene	ND		4.9	µg/Kg-dry	1	12/1/2020 06:24 PM
2-Methylnaphthalene	ND		4.9	µg/Kg-dry	1	12/1/2020 06:24 PM
Acenaphthene	ND		4.9	µg/Kg-dry	1	12/1/2020 06:24 PM
Acenaphthylene	ND		4.9	µg/Kg-dry	1	12/1/2020 06:24 PM
Anthracene	ND		4.9	µg/Kg-dry	1	12/1/2020 06:24 PM
Benzo(a)anthracene	ND		4.9	µg/Kg-dry	1	12/1/2020 06:24 PM
Benzo(a)pyrene	ND		4.9	µg/Kg-dry	1	12/1/2020 06:24 PM
Benzo(b)fluoranthene	ND		4.9	µg/Kg-dry	1	12/1/2020 06:24 PM
Benzo(g,h,i)perylene	ND		4.9	µg/Kg-dry	1	12/1/2020 06:24 PM
Benzo(k)fluoranthene	ND		4.9	µg/Kg-dry	1	12/1/2020 06:24 PM
Chrysene	ND		4.9	µg/Kg-dry	1	12/1/2020 06:24 PM
Dibenzo(a,h)anthracene	ND		4.9	µg/Kg-dry	1	12/1/2020 06:24 PM
Fluoranthene	ND		4.9	µg/Kg-dry	1	12/1/2020 06:24 PM
Fluorene	ND		4.9	µg/Kg-dry	1	12/1/2020 06:24 PM
Indeno(1,2,3-cd)pyrene	ND		4.9	µg/Kg-dry	1	12/1/2020 06:24 PM
Naphthalene	ND		4.9	µg/Kg-dry	1	12/1/2020 06:24 PM
Phenanthrene	ND		4.9	µg/Kg-dry	1	12/1/2020 06:24 PM
Pyrene	ND		4.9	µg/Kg-dry	1	12/1/2020 06:24 PM
Surr: 2-Fluorobiphenyl	99.0		20-140	%REC	1	12/1/2020 06:24 PM
Surr: 4-Terphenyl-d14	123		22-172	%REC	1	12/1/2020 06:24 PM
Surr: Nitrobenzene-d5	103		28-140	%REC	1	12/1/2020 06:24 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260C		Prep: SW5035 11/24/20 15:50	Analyst: MF
1,1,1-Trichloroethane	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
1,1,2,2-Tetrachloroethane	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
1,1,2-Trichloroethane	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
1,1,2-Trichlorotrifluoroethane	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
1,1-Dichloroethane	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
1,1-Dichloroethene	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
1,2,4-Trichlorobenzene	ND		79	µg/Kg-dry	1	12/2/2020 11:28 PM
1,2-Dibromo-3-chloropropane	ND		79	µg/Kg-dry	1	12/2/2020 11:28 PM
1,2-Dibromoethane	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
1,2-Dichlorobenzene	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
1,2-Dichloroethane	ND		79	µg/Kg-dry	1	12/2/2020 11:28 PM
1,2-Dichloropropane	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
1,3-Dichlorobenzene	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
1,4-Dichlorobenzene	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
2-Butanone	ND		160	µg/Kg-dry	1	12/2/2020 11:28 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 04-Dec-20

Client: Darcy Environmental Consultants LLC
Project: Phase II - 1000 Haynes, Birmingham, MI
Sample ID: B-3 (6')
Collection Date: 11/20/2020 10:50 AM

Work Order: 20112107
Lab ID: 20112107-06
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
2-Hexanone	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
4-Methyl-2-pentanone	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
Acetone	ND		79	µg/Kg-dry	1	12/2/2020 11:28 PM
Benzene	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
Bromodichloromethane	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
Bromoform	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
Bromomethane	ND		79	µg/Kg-dry	1	12/2/2020 11:28 PM
Carbon disulfide	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
Carbon tetrachloride	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
Chlorobenzene	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
Chloroethane	ND		79	µg/Kg-dry	1	12/2/2020 11:28 PM
Chloroform	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
Chloromethane	ND		79	µg/Kg-dry	1	12/2/2020 11:28 PM
cis-1,2-Dichloroethene	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
cis-1,3-Dichloropropene	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
Cyclohexane	ND		79	µg/Kg-dry	1	12/2/2020 11:28 PM
Dibromochloromethane	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
Dichlorodifluoromethane	ND		79	µg/Kg-dry	1	12/2/2020 11:28 PM
Ethylbenzene	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
Isopropylbenzene	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
Methyl acetate	ND		200	µg/Kg-dry	1	12/2/2020 11:28 PM
Methyl tert-butyl ether	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
Methylcyclohexane	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
Methylene chloride	ND		200	µg/Kg-dry	1	12/2/2020 11:28 PM
Styrene	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
Tetrachloroethene	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
Toluene	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
trans-1,2-Dichloroethene	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
trans-1,3-Dichloropropene	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
Trichloroethene	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
Trichlorofluoromethane	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
Vinyl chloride	ND		24	µg/Kg-dry	1	12/2/2020 11:28 PM
Xylenes, Total	ND		71	µg/Kg-dry	1	12/2/2020 11:28 PM
Surr: 1,2-Dichloroethane-d4	97.3		70-130	%REC	1	12/2/2020 11:28 PM
Surr: 4-Bromofluorobenzene	104		70-130	%REC	1	12/2/2020 11:28 PM
Surr: Dibromofluoromethane	100		70-130	%REC	1	12/2/2020 11:28 PM
Surr: Toluene-d8	98.4		70-130	%REC	1	12/2/2020 11:28 PM
MOISTURE			SW3550C			Analyst: KTP
Moisture	16		0.10	% of sample	1	12/1/2020 03:09 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 04-Dec-20

Client: Darcy Environmental Consultants LLC
Project: Phase II - 1000 Haynes, Birmingham, MI
Sample ID: B-4 (7')
Collection Date: 11/20/2020 11:20 AM

Work Order: 20112107
Lab ID: 20112107-09
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHS)						
			SW8270E		Prep: SW3546 12/1/20 10:09	Analyst: EEW
1-Methylnaphthalene	ND		5.0	µg/Kg-dry	1	12/1/2020 06:40 PM
2-Chloronaphthalene	ND		5.0	µg/Kg-dry	1	12/1/2020 06:40 PM
2-Methylnaphthalene	ND		5.0	µg/Kg-dry	1	12/1/2020 06:40 PM
Acenaphthene	ND		5.0	µg/Kg-dry	1	12/1/2020 06:40 PM
Acenaphthylene	ND		5.0	µg/Kg-dry	1	12/1/2020 06:40 PM
Anthracene	ND		5.0	µg/Kg-dry	1	12/1/2020 06:40 PM
Benzo(a)anthracene	ND		5.0	µg/Kg-dry	1	12/1/2020 06:40 PM
Benzo(a)pyrene	5.7		5.0	µg/Kg-dry	1	12/1/2020 06:40 PM
Benzo(b)fluoranthene	5.2		5.0	µg/Kg-dry	1	12/1/2020 06:40 PM
Benzo(g,h,i)perylene	ND		5.0	µg/Kg-dry	1	12/1/2020 06:40 PM
Benzo(k)fluoranthene	ND		5.0	µg/Kg-dry	1	12/1/2020 06:40 PM
Chrysene	ND		5.0	µg/Kg-dry	1	12/1/2020 06:40 PM
Dibenzo(a,h)anthracene	ND		5.0	µg/Kg-dry	1	12/1/2020 06:40 PM
Fluoranthene	ND		5.0	µg/Kg-dry	1	12/1/2020 06:40 PM
Fluorene	ND		5.0	µg/Kg-dry	1	12/1/2020 06:40 PM
Indeno(1,2,3-cd)pyrene	7.5		5.0	µg/Kg-dry	1	12/1/2020 06:40 PM
Naphthalene	ND		5.0	µg/Kg-dry	1	12/1/2020 06:40 PM
Phenanthrene	ND		5.0	µg/Kg-dry	1	12/1/2020 06:40 PM
Pyrene	ND		5.0	µg/Kg-dry	1	12/1/2020 06:40 PM
Surr: 2-Fluorobiphenyl	98.7		20-140	%REC	1	12/1/2020 06:40 PM
Surr: 4-Terphenyl-d14	118		22-172	%REC	1	12/1/2020 06:40 PM
Surr: Nitrobenzene-d5	103		28-140	%REC	1	12/1/2020 06:40 PM
VOLATILE ORGANIC COMPOUNDS						
			SW8260C		Prep: SW5035 11/24/20 15:50	Analyst: MF
1,1,1-Trichloroethane	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
1,1,2,2-Tetrachloroethane	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
1,1,2-Trichloroethane	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
1,1,2-Trichlorotrifluoroethane	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
1,1-Dichloroethane	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
1,1-Dichloroethene	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
1,2,4-Trichlorobenzene	ND		80	µg/Kg-dry	1	12/2/2020 11:44 PM
1,2-Dibromo-3-chloropropane	ND		80	µg/Kg-dry	1	12/2/2020 11:44 PM
1,2-Dibromoethane	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
1,2-Dichlorobenzene	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
1,2-Dichloroethane	ND		80	µg/Kg-dry	1	12/2/2020 11:44 PM
1,2-Dichloropropane	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
1,3-Dichlorobenzene	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
1,4-Dichlorobenzene	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
2-Butanone	ND		160	µg/Kg-dry	1	12/2/2020 11:44 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 04-Dec-20

Client: Darcy Environmental Consultants LLC
Project: Phase II - 1000 Haynes, Birmingham, MI
Sample ID: B-4 (7')
Collection Date: 11/20/2020 11:20 AM

Work Order: 20112107
Lab ID: 20112107-09
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
2-Hexanone	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
4-Methyl-2-pentanone	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
Acetone	ND		80	µg/Kg-dry	1	12/2/2020 11:44 PM
Benzene	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
Bromodichloromethane	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
Bromoform	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
Bromomethane	ND		80	µg/Kg-dry	1	12/2/2020 11:44 PM
Carbon disulfide	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
Carbon tetrachloride	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
Chlorobenzene	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
Chloroethane	ND		80	µg/Kg-dry	1	12/2/2020 11:44 PM
Chloroform	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
Chloromethane	ND		80	µg/Kg-dry	1	12/2/2020 11:44 PM
cis-1,2-Dichloroethene	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
cis-1,3-Dichloropropene	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
Cyclohexane	ND		80	µg/Kg-dry	1	12/2/2020 11:44 PM
Dibromochloromethane	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
Dichlorodifluoromethane	ND		80	µg/Kg-dry	1	12/2/2020 11:44 PM
Ethylbenzene	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
Isopropylbenzene	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
Methyl acetate	ND		200	µg/Kg-dry	1	12/2/2020 11:44 PM
Methyl tert-butyl ether	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
Methylcyclohexane	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
Methylene chloride	ND		200	µg/Kg-dry	1	12/2/2020 11:44 PM
Styrene	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
Tetrachloroethene	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
Toluene	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
trans-1,2-Dichloroethene	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
trans-1,3-Dichloropropene	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
Trichloroethene	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
Trichlorofluoromethane	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
Vinyl chloride	ND		24	µg/Kg-dry	1	12/2/2020 11:44 PM
Xylenes, Total	ND		72	µg/Kg-dry	1	12/2/2020 11:44 PM
Surr: 1,2-Dichloroethane-d4	98.4		70-130	%REC	1	12/2/2020 11:44 PM
Surr: 4-Bromofluorobenzene	101		70-130	%REC	1	12/2/2020 11:44 PM
Surr: Dibromofluoromethane	100		70-130	%REC	1	12/2/2020 11:44 PM
Surr: Toluene-d8	98.3		70-130	%REC	1	12/2/2020 11:44 PM
MOISTURE			SW3550C			Analyst: KTP
Moisture	17		0.10	% of sample	1	12/1/2020 03:09 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 04-Dec-20

Client: Darcy Environmental Consultants LLC
Project: Phase II - 1000 Haynes, Birmingham, MI
Sample ID: B-5 (2')
Collection Date: 11/20/2020 11:50 AM

Work Order: 20112107
Lab ID: 20112107-11
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260C	Prep: SW5035 11/24/20 15:50		Analyst: MF
1,1,1-Trichloroethane	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
1,1,2,2-Tetrachloroethane	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
1,1,2-Trichloroethane	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
1,1,2-Trichlorotrifluoroethane	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
1,1-Dichloroethane	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
1,1-Dichloroethene	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
1,2,4-Trichlorobenzene	ND		78	µg/Kg-dry	1	12/3/2020 12:01 AM
1,2-Dibromo-3-chloropropane	ND		78	µg/Kg-dry	1	12/3/2020 12:01 AM
1,2-Dibromoethane	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
1,2-Dichlorobenzene	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
1,2-Dichloroethane	ND		78	µg/Kg-dry	1	12/3/2020 12:01 AM
1,2-Dichloropropane	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
1,3-Dichlorobenzene	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
1,4-Dichlorobenzene	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
2-Butanone	ND		160	µg/Kg-dry	1	12/3/2020 12:01 AM
2-Hexanone	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
4-Methyl-2-pentanone	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
Acetone	900		78	µg/Kg-dry	1	12/3/2020 12:01 AM
Benzene	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
Bromodichloromethane	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
Bromoform	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
Bromomethane	ND		78	µg/Kg-dry	1	12/3/2020 12:01 AM
Carbon disulfide	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
Carbon tetrachloride	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
Chlorobenzene	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
Chloroethane	ND		78	µg/Kg-dry	1	12/3/2020 12:01 AM
Chloroform	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
Chloromethane	ND		78	µg/Kg-dry	1	12/3/2020 12:01 AM
cis-1,2-Dichloroethene	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
cis-1,3-Dichloropropene	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
Cyclohexane	ND		78	µg/Kg-dry	1	12/3/2020 12:01 AM
Dibromochloromethane	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
Dichlorodifluoromethane	ND		78	µg/Kg-dry	1	12/3/2020 12:01 AM
Ethylbenzene	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
Isopropylbenzene	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
Methyl acetate	ND		190	µg/Kg-dry	1	12/3/2020 12:01 AM
Methyl tert-butyl ether	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
Methylcyclohexane	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
Methylene chloride	ND		190	µg/Kg-dry	1	12/3/2020 12:01 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 04-Dec-20

Client: Darcy Environmental Consultants LLC
Project: Phase II - 1000 Haynes, Birmingham, MI
Sample ID: B-5 (2')
Collection Date: 11/20/2020 11:50 AM

Work Order: 20112107
Lab ID: 20112107-11
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Styrene	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
Tetrachloroethene	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
Toluene	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
trans-1,2-Dichloroethene	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
trans-1,3-Dichloropropene	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
Trichloroethene	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
Trichlorofluoromethane	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
Vinyl chloride	ND		23	µg/Kg-dry	1	12/3/2020 12:01 AM
Xylenes, Total	ND		70	µg/Kg-dry	1	12/3/2020 12:01 AM
Surr: 1,2-Dichloroethane-d4	94.5		70-130	%REC	1	12/3/2020 12:01 AM
Surr: 4-Bromofluorobenzene	98.4		70-130	%REC	1	12/3/2020 12:01 AM
Surr: Dibromofluoromethane	98.7		70-130	%REC	1	12/3/2020 12:01 AM
Surr: Toluene-d8	98.6		70-130	%REC	1	12/3/2020 12:01 AM
MOISTURE			SW3550C			Analyst: KTP
Moisture	16		0.10	% of sample	1	12/1/2020 03:09 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 04-Dec-20

Client: Darcy Environmental Consultants LLC
Project: Phase II - 1000 Haynes, Birmingham, MI
Sample ID: B-6 (10')
Collection Date: 11/20/2020 12:20 PM

Work Order: 20112107
Lab ID: 20112107-15
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260C	Prep: SW5035 11/24/20 15:50	Analyst: MF	
1,1,1-Trichloroethane	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
1,1,2,2-Tetrachloroethane	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
1,1,2-Trichloroethane	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
1,1,2-Trichlorotrifluoroethane	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
1,1-Dichloroethane	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
1,1-Dichloroethene	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
1,2,4-Trichlorobenzene	ND		70	µg/Kg-dry	1	12/3/2020 12:17 AM
1,2-Dibromo-3-chloropropane	ND		70	µg/Kg-dry	1	12/3/2020 12:17 AM
1,2-Dibromoethane	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
1,2-Dichlorobenzene	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
1,2-Dichloroethane	ND		70	µg/Kg-dry	1	12/3/2020 12:17 AM
1,2-Dichloropropane	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
1,3-Dichlorobenzene	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
1,4-Dichlorobenzene	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
2-Butanone	ND		140	µg/Kg-dry	1	12/3/2020 12:17 AM
2-Hexanone	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
4-Methyl-2-pentanone	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
Acetone	ND		70	µg/Kg-dry	1	12/3/2020 12:17 AM
Benzene	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
Bromodichloromethane	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
Bromoform	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
Bromomethane	ND		70	µg/Kg-dry	1	12/3/2020 12:17 AM
Carbon disulfide	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
Carbon tetrachloride	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
Chlorobenzene	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
Chloroethane	ND		70	µg/Kg-dry	1	12/3/2020 12:17 AM
Chloroform	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
Chloromethane	ND		70	µg/Kg-dry	1	12/3/2020 12:17 AM
cis-1,2-Dichloroethene	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
cis-1,3-Dichloropropene	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
Cyclohexane	ND		70	µg/Kg-dry	1	12/3/2020 12:17 AM
Dibromochloromethane	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
Dichlorodifluoromethane	ND		70	µg/Kg-dry	1	12/3/2020 12:17 AM
Ethylbenzene	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
Isopropylbenzene	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
Methyl acetate	ND		180	µg/Kg-dry	1	12/3/2020 12:17 AM
Methyl tert-butyl ether	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
Methylcyclohexane	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
Methylene chloride	ND		180	µg/Kg-dry	1	12/3/2020 12:17 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: 04-Dec-20

Client: Darcy Environmental Consultants LLC
Project: Phase II - 1000 Haynes, Birmingham, MI
Sample ID: B-6 (10')
Collection Date: 11/20/2020 12:20 PM

Work Order: 20112107
Lab ID: 20112107-15
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Styrene	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
Tetrachloroethene	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
Toluene	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
trans-1,2-Dichloroethene	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
trans-1,3-Dichloropropene	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
Trichloroethene	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
Trichlorofluoromethane	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
Vinyl chloride	ND		21	µg/Kg-dry	1	12/3/2020 12:17 AM
Xylenes, Total	ND		63	µg/Kg-dry	1	12/3/2020 12:17 AM
Surr: 1,2-Dichloroethane-d4	98.6		70-130	%REC	1	12/3/2020 12:17 AM
Surr: 4-Bromofluorobenzene	105		70-130	%REC	1	12/3/2020 12:17 AM
Surr: Dibromofluoromethane	97.3		70-130	%REC	1	12/3/2020 12:17 AM
Surr: Toluene-d8	101		70-130	%REC	1	12/3/2020 12:17 AM
MOISTURE			SW3550C			Analyst: KTP
Moisture	11		0.10	% of sample	1	12/1/2020 03:09 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Darcy Environmental Consultants LLC
Work Order: 20112107
Project: Phase II - 1000 Haynes, Birmingham, MI

QC BATCH REPORT

Batch ID: **168484** Instrument ID **SVMS6** Method: **SW8270E**

MBLK		Sample ID: SBLKS1-168484-168484				Units: µg/Kg		Analysis Date: 12/1/2020 01:57 PM		
Client ID:		Run ID: SVMS6_201201A				SeqNo: 6950518		Prep Date: 12/1/2020		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	ND	4.2								
2-Chloronaphthalene	ND	4.2								
2-Methylnaphthalene	ND	4.2								
Acenaphthene	ND	4.2								
Acenaphthylene	ND	4.2								
Anthracene	ND	4.2								
Benzo(a)anthracene	ND	4.2								
Benzo(a)pyrene	ND	4.2								
Benzo(b)fluoranthene	ND	4.2								
Benzo(g,h,i)perylene	ND	4.2								
Benzo(k)fluoranthene	ND	4.2								
Chrysene	ND	4.2								
Dibenzo(a,h)anthracene	ND	4.2								
Fluoranthene	ND	4.2								
Fluorene	ND	4.2								
Indeno(1,2,3-cd)pyrene	ND	4.2								
Naphthalene	ND	4.2								
Phenanthrene	ND	4.2								
Pyrene	ND	4.2								
<i>Surr: 2-Fluorobiphenyl</i>	<i>3199</i>	<i>0</i>	<i>3333</i>	<i>0</i>	<i>96</i>	<i>20-140</i>	<i>0</i>			
<i>Surr: 4-Terphenyl-d14</i>	<i>3214</i>	<i>0</i>	<i>3333</i>	<i>0</i>	<i>96.4</i>	<i>22-172</i>	<i>0</i>			
<i>Surr: Nitrobenzene-d5</i>	<i>2947</i>	<i>0</i>	<i>3333</i>	<i>0</i>	<i>88.4</i>	<i>28-140</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Darcy Environmental Consultants LLC
Work Order: 20112107
Project: Phase II - 1000 Haynes, Birmingham, MI

QC BATCH REPORT

Batch ID: **168484** Instrument ID **SVMS6** Method: **SW8270E**

LCS				Sample ID: SLCSS1-168484-168484			Units: µg/Kg		Analysis Date: 12/1/2020 02:12 PM		
Client ID:			Run ID: SVMS6_201201A			SeqNo: 6950519		Prep Date: 12/1/2020		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1-Methylnaphthalene	1207	4.2	1333	0	90.6	40-140	0				
2-Chloronaphthalene	1173	4.2	1333	0	88	40-140	0				
2-Methylnaphthalene	1108	4.2	1333	0	83.2	40-140	0				
Acenaphthene	1170	4.2	1333	0	87.7	40-140	0				
Acenaphthylene	1211	4.2	1333	0	90.9	40-140	0				
Anthracene	1215	4.2	1333	0	91.1	40-140	0				
Benzo(a)anthracene	1159	4.2	1333	0	86.9	40-140	0				
Benzo(a)pyrene	1101	4.2	1333	0	82.6	40-140	0				
Benzo(b)fluoranthene	1089	4.2	1333	0	81.7	40-140	0				
Benzo(g,h,i)perylene	1341	4.2	1333	0	101	40-140	0				
Benzo(k)fluoranthene	1062	4.2	1333	0	79.7	40-140	0				
Chrysene	1162	4.2	1333	0	87.2	40-140	0				
Dibenzo(a,h)anthracene	1229	4.2	1333	0	92.2	40-140	0				
Fluoranthene	1200	4.2	1333	0	90	40-140	0				
Fluorene	1175	4.2	1333	0	88.2	40-140	0				
Indeno(1,2,3-cd)pyrene	1318	4.2	1333	0	98.9	40-140	0				
Naphthalene	1207	4.2	1333	0	90.6	40-140	0				
Phenanthrene	1191	4.2	1333	0	89.4	40-140	0				
Pyrene	919.7	4.2	1333	0	69	40-140	0				
Surr: 2-Fluorobiphenyl	3220	0	3333	0	96.6	20-140	0				
Surr: 4-Terphenyl-d14	3018	0	3333	0	90.5	22-172	0				
Surr: Nitrobenzene-d5	2142	0	3333	0	64.3	28-140	0				

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Darcy Environmental Consultants LLC
Work Order: 20112107
Project: Phase II - 1000 Haynes, Birmingham, MI

QC BATCH REPORT

Batch ID: **168484** Instrument ID **SVMS6** Method: **SW8270E**

MS				Sample ID: 20112090-04B MS		Units: µg/Kg		Analysis Date: 12/1/2020 02:28 PM		
Client ID:			Run ID: SVMS6_201201A			SeqNo: 6950520		Prep Date: 12/1/2020		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1247	4.1	1310	6.357	94.7	40-140		0		
2-Chloronaphthalene	1242	4.1	1310	0	94.8	40-140		0		
2-Methylnaphthalene	1287	4.1	1310	12.31	97.3	40-140		0		
Acenaphthene	1224	4.1	1310	0	93.4	40-140		0		
Acenaphthylene	1274	4.1	1310	0	97.2	40-140		0		
Anthracene	1230	4.1	1310	0	93.8	40-140		0		
Benzo(a)anthracene	1103	4.1	1310	4.743	83.8	40-140		0		
Benzo(a)pyrene	1024	4.1	1310	4.336	77.8	40-140		0		
Benzo(b)fluoranthene	1024	4.1	1310	5.526	77.7	40-140		0		
Benzo(g,h,i)perylene	1185	4.1	1310	6.829	89.9	40-140		0		
Benzo(k)fluoranthene	1043	4.1	1310	2.526	79.4	40-140		0		
Chrysene	1104	4.1	1310	2.07	84.1	40-140		0		
Dibenzo(a,h)anthracene	1088	4.1	1310	0	83	40-140		0		
Fluoranthene	1121	4.1	1310	0	85.5	40-140		0		
Fluorene	1236	4.1	1310	3.129	94.1	40-140		0		
Indeno(1,2,3-cd)pyrene	1098	4.1	1310	0	83.8	40-140		0		
Naphthalene	1287	4.1	1310	4.841	97.9	40-140		0		
Phenanthrene	1207	4.1	1310	0	92.1	40-140		0		
Pyrene	1075	4.1	1310	1.891	81.9	40-140		0		
Surr: 2-Fluorobiphenyl	3305	0	3276	0	101	20-140		0		
Surr: 4-Terphenyl-d14	3337	0	3276	0	102	22-172		0		
Surr: Nitrobenzene-d5	3095	0	3276	0	94.5	28-140		0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Darcy Environmental Consultants LLC
Work Order: 20112107
Project: Phase II - 1000 Haynes, Birmingham, MI

QC BATCH REPORT

Batch ID: **168484** Instrument ID **SVMS6** Method: **SW8270E**

MSD				Sample ID: 20112090-04B MSD			Units: µg/Kg		Analysis Date: 12/1/2020 02:44 PM	
Client ID:				Run ID: SVMS6_201201A			SeqNo: 6950521		Prep Date: 12/1/2020	
									DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	1239	4.1	1325	6.357	93	40-140	1247	0.612	30	
2-Chloronaphthalene	1227	4.1	1325	0	92.6	40-140	1242	1.25	30	
2-Methylnaphthalene	1285	4.1	1325	12.31	96.1	40-140	1287	0.179	30	
Acenaphthene	1212	4.1	1325	0	91.4	40-140	1224	1.03	30	
Acenaphthylene	1260	4.1	1325	0	95.1	40-140	1274	1.12	30	
Anthracene	1235	4.1	1325	0	93.2	40-140	1230	0.399	30	
Benzo(a)anthracene	1193	4.1	1325	4.743	89.6	40-140	1103	7.78	30	
Benzo(a)pyrene	1139	4.1	1325	4.336	85.6	40-140	1024	10.6	30	
Benzo(b)fluoranthene	1155	4.1	1325	5.526	86.8	40-140	1024	12.1	30	
Benzo(g,h,i)perylene	1214	4.1	1325	6.829	91.1	40-140	1185	2.44	30	
Benzo(k)fluoranthene	1185	4.1	1325	2.526	89.3	40-140	1043	12.8	30	
Chrysene	1177	4.1	1325	2.07	88.7	40-140	1104	6.35	30	
Dibenzo(a,h)anthracene	1108	4.1	1325	0	83.6	40-140	1088	1.82	30	
Fluoranthene	1178	4.1	1325	0	88.9	40-140	1121	4.97	30	
Fluorene	1219	4.1	1325	3.129	91.8	40-140	1236	1.37	30	
Indeno(1,2,3-cd)pyrene	1134	4.1	1325	0	85.6	40-140	1098	3.18	30	
Naphthalene	1278	4.1	1325	4.841	96.1	40-140	1287	0.725	30	
Phenanthrene	1209	4.1	1325	0	91.2	40-140	1207	0.163	30	
Pyrene	1026	4.1	1325	1.891	77.3	40-140	1075	4.69	30	
Surr: 2-Fluorobiphenyl	3190	0	3313	0	96.3	20-140	3305	3.57	30	
Surr: 4-Terphenyl-d14	3246	0	3313	0	98	22-172	3337	2.76	30	
Surr: Nitrobenzene-d5	3093	0	3313	0	93.4	28-140	3095	0.0582	30	

The following samples were analyzed in this batch:

20112107-06B 20112107-09B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Darcy Environmental Consultants LLC
Work Order: 20112107
Project: Phase II - 1000 Haynes, Birmingham, MI

QC BATCH REPORT

Batch ID: **168248** Instrument ID **VMS11** Method: **SW8260C**

MBLK				Sample ID: MBLK-168248-168248			Units: µg/Kg-dry		Analysis Date: 12/2/2020 05:16 PM		
Client ID:			Run ID: VMS11_201202A			SeqNo: 6953674		Prep Date: 11/24/2020		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,1,1-Trichloroethane	ND	30									
1,1,2,2-Tetrachloroethane	ND	30									
1,1,2-Trichloroethane	ND	30									
1,1,2-Trichlorotrifluoroethane	ND	30									
1,1-Dichloroethane	ND	30									
1,1-Dichloroethene	ND	30									
1,2,4-Trichlorobenzene	ND	100									
1,2-Dibromo-3-chloropropane	ND	100									
1,2-Dibromoethane	ND	30									
1,2-Dichlorobenzene	ND	30									
1,2-Dichloroethane	ND	100									
1,2-Dichloropropane	ND	30									
1,3-Dichlorobenzene	ND	30									
1,4-Dichlorobenzene	ND	30									
2-Butanone	ND	200									
2-Hexanone	ND	30									
4-Methyl-2-pentanone	ND	30									
Acetone	ND	100									
Benzene	ND	30									
Bromodichloromethane	ND	30									
Bromoform	ND	30									
Bromomethane	ND	100									
Carbon disulfide	ND	30									
Carbon tetrachloride	ND	30									
Chlorobenzene	ND	30									
Chloroethane	ND	100									
Chloroform	ND	30									
Chloromethane	ND	100									
cis-1,2-Dichloroethene	ND	30									
cis-1,3-Dichloropropene	ND	30									
Cyclohexane	ND	100									
Dibromochloromethane	ND	30									
Dichlorodifluoromethane	ND	100									
Ethylbenzene	ND	30									
Isopropylbenzene	ND	30									
Methyl acetate	ND	250									
Methyl tert-butyl ether	ND	30									
Methylcyclohexane	ND	30									
Methylene chloride	ND	250									
Styrene	ND	30									
Tetrachloroethene	ND	30									
Toluene	ND	30									

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Darcy Environmental Consultants LLC
Work Order: 20112107
Project: Phase II - 1000 Haynes, Birmingham, MI

QC BATCH REPORT

Batch ID: 168248	Instrument ID VMS11	Method: SW8260C					
trans-1,2-Dichloroethene	ND	30					
trans-1,3-Dichloropropene	ND	30					
Trichloroethene	ND	30					
Trichlorofluoromethane	ND	30					
Vinyl chloride	ND	30					
Xylenes, Total	ND	90					
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>1110</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>111</i>	<i>70-130</i>	<i>0</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>1022</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>102</i>	<i>70-130</i>	<i>0</i>
<i>Surr: Dibromofluoromethane</i>	<i>982.5</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>98.2</i>	<i>70-130</i>	<i>0</i>
<i>Surr: Toluene-d8</i>	<i>984.5</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>98.4</i>	<i>70-130</i>	<i>0</i>

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Darcy Environmental Consultants LLC
Work Order: 20112107
Project: Phase II - 1000 Haynes, Birmingham, MI

QC BATCH REPORT

Batch ID: **168248** Instrument ID **VMS11** Method: **SW8260C**

LCS				Sample ID: LCS-168248-168248			Units: µg/Kg-dry		Analysis Date: 12/2/2020 04:10 PM	
Client ID:				Run ID: VMS11_201202A			SeqNo: 6953672		Prep Date: 11/24/2020	
							DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	1072	30	1000	0	107	70-135	0			
1,1,2,2-Tetrachloroethane	1072	30	1000	0	107	55-130	0			
1,1,2-Trichloroethane	1022	30	1000	0	102	60-125	0			
1,1-Dichloroethane	1036	30	1000	0	104	75-125	0			
1,1-Dichloroethene	1133	30	1000	0	113	76-148	0			
1,2,4-Trichlorobenzene	808	100	1000	0	80.8	65-130	0			
1,2-Dibromo-3-chloropropane	786.5	100	1000	0	78.6	40-135	0			
1,2-Dibromoethane	1060	30	1000	0	106	80-195	0			
1,2-Dichlorobenzene	970.5	30	1000	0	97	75-120	0			
1,2-Dichloroethane	1172	100	1000	0	117	70-135	0			
1,2-Dichloropropane	1046	30	1000	0	105	70-120	0			
1,3-Dichlorobenzene	988	30	1000	0	98.8	70-125	0			
1,4-Dichlorobenzene	990.5	30	1000	0	99	70-125	0			
2-Butanone	1210	200	1000	0	121	30-160	0			
2-Hexanone	1102	30	1000	0	110	45-145	0			
4-Methyl-2-pentanone	1510	30	1000	0	151	74-176	0			
Acetone	1401	100	1000	0	140	20-160	0			
Benzene	1054	30	1000	0	105	75-125	0			
Bromodichloromethane	1026	30	1000	0	103	70-130	0			
Bromoform	727	30	1000	0	72.7	55-135	0			
Bromomethane	1062	100	1000	0	106	50-170	0			
Carbon disulfide	1086	30	1000	0	109	45-160	0			
Carbon tetrachloride	1016	30	1000	0	102	65-135	0			
Chlorobenzene	968	30	1000	0	96.8	75-125	0			
Chloroethane	1198	100	1000	0	120	40-155	0			
Chloroform	1070	30	1000	0	107	66-140	0			
Chloromethane	1164	100	1000	0	116	50-144	0			
cis-1,2-Dichloroethene	1110	30	1000	0	111	65-125	0			
cis-1,3-Dichloropropene	1014	30	1000	0	101	70-125	0			
Dibromochloromethane	844	30	1000	0	84.4	65-135	0			
Dichlorodifluoromethane	1291	100	1000	0	129	35-135	0			
Ethylbenzene	998	30	1000	0	99.8	75-125	0			
Isopropylbenzene	966.5	30	1000	0	96.6	75-130	0			
Methyl tert-butyl ether	988	30	1000	0	98.8	75-125	0			
Methylene chloride	1106	250	1000	0	111	55-145	0			
Styrene	975	30	1000	0	97.5	80-138	0			
Tetrachloroethene	963.5	30	1000	0	96.4	67-167	0			
Toluene	1001	30	1000	0	100	70-125	0			
trans-1,2-Dichloroethene	1084	30	1000	0	108	65-135	0			
trans-1,3-Dichloropropene	919.5	30	1000	0	92	59-129	0			
Trichloroethene	971	30	1000	0	97.1	75-125	0			
Trichlorofluoromethane	799	30	1000	0	79.9	25-185	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Darcy Environmental Consultants LLC
Work Order: 20112107
Project: Phase II - 1000 Haynes, Birmingham, MI

QC BATCH REPORT

Batch ID: 168248		Instrument ID VMS11		Method: SW8260C			
Vinyl chloride	1146	30	1000	0	115	60-125	0
Xylenes, Total	3004	90	3000	0	100	75-125	0
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>1128</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>113</i>	<i>70-130</i>	<i>0</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>1004</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>100</i>	<i>70-130</i>	<i>0</i>
<i>Surr: Dibromofluoromethane</i>	<i>993</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>99.3</i>	<i>70-130</i>	<i>0</i>
<i>Surr: Toluene-d8</i>	<i>989.5</i>	<i>0</i>	<i>1000</i>	<i>0</i>	<i>99</i>	<i>70-130</i>	<i>0</i>

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Darcy Environmental Consultants LLC
Work Order: 20112107
Project: Phase II - 1000 Haynes, Birmingham, MI

QC BATCH REPORT

Batch ID: **168248** Instrument ID **VMS11** Method: **SW8260C**

MS				Sample ID: 20111987-01A MS		Units: µg/Kg-dry		Analysis Date: 12/3/2020 12:17 AM		
Client ID:		Run ID: VMS11_201202A			SeqNo: 6953572		Prep Date: 11/24/2020		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	11160	320	10530		0	106	70-135	0		
1,1,2,2-Tetrachloroethane	9242	320	10530		0	87.8	55-130	0		
1,1,2-Trichloroethane	10180	320	10530		0	96.8	60-125	0		
1,1-Dichloroethane	11520	320	10530		0	109	75-125	0		
1,1-Dichloroethene	12490	320	10530		0	119	76-148	0		
1,2,4-Trichlorobenzene	8132	1,100	10530		0	77.3	65-130	0		
1,2-Dibromo-3-chloropropane	7426	1,100	10530		0	70.6	40-135	0		
1,2-Dibromoethane	10600	320	10530		0	101	80-195	0		
1,2-Dichlorobenzene	9989	320	10530		0	94.9	75-120	0		
1,2-Dichloroethane	11910	1,100	10530		0	113	70-135	0		
1,2-Dichloropropane	10990	320	10530		0	104	70-120	0		
1,3-Dichlorobenzene	10050	320	10530		0	95.5	70-125	0		
1,4-Dichlorobenzene	10010	320	10530		0	95.1	70-125	0		
2-Butanone	22070	2,100	10530		0	210	30-160	0		S
2-Hexanone	16860	320	10530		0	160	45-145	0		S
4-Methyl-2-pentanone	14760	320	10530		0	140	74-176	0		
Acetone	30650	1,100	10530	920.6	282	20-160	0			S
Benzene	11250	320	10530		0	107	75-125	0		
Bromodichloromethane	10370	320	10530		0	98.5	70-130	0		
Bromoform	6405	320	10530		0	60.9	55-135	0		
Bromomethane	3063	1,100	10530		0	29.1	50-170	0		S
Carbon disulfide	12420	320	10530		0	118	45-160	0		
Carbon tetrachloride	10210	320	10530		0	97	65-135	0		
Chlorobenzene	10180	320	10530		0	96.8	75-125	0		
Chloroethane	8984	1,100	10530		0	85.4	40-155	0		
Chloroform	11670	320	10530		0	111	66-140	0		
Chloromethane	14340	1,100	10530		0	136	50-144	0		
cis-1,2-Dichloroethene	11850	320	10530		0	113	65-125	0		
cis-1,3-Dichloropropene	9979	320	10530		0	94.8	70-125	0		
Dibromochloromethane	7800	320	10530		0	74.1	65-135	0		
Dichlorodifluoromethane	15500	1,100	10530		0	147	35-135	0		S
Ethylbenzene	10630	320	10530		0	101	75-125	0		
Isopropylbenzene	10420	320	10530		0	99	75-130	0		
Methyl tert-butyl ether	10680	320	10530		0	101	75-125	0		
Methylene chloride	12300	2,600	10530		0	117	55-145	0		
Styrene	10280	320	10530		0	97.7	80-138	0		
Tetrachloroethene	17870	320	10530		0	170	67-167	0		S
Toluene	10580	320	10530		0	101	70-125	0		
trans-1,2-Dichloroethene	11690	320	10530		0	111	65-135	0		
trans-1,3-Dichloropropene	8900	320	10530		0	84.6	59-129	0		
Trichloroethene	11150	320	10530		0	106	75-125	0		
Trichlorofluoromethane	8868	320	10530		0	84.3	25-185	0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Darcy Environmental Consultants LLC
Work Order: 20112107
Project: Phase II - 1000 Haynes, Birmingham, MI

QC BATCH REPORT

Batch ID: 168248		Instrument ID VMS11		Method: SW8260C				
Vinyl chloride	13590	320	10530	0	129	60-125	0	S
Xylenes, Total	31950	950	31580	0	101	75-125	0	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>11720</i>	<i>0</i>	<i>10530</i>	<i>0</i>	<i>111</i>	<i>70-130</i>	<i>0</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>10780</i>	<i>0</i>	<i>10530</i>	<i>0</i>	<i>102</i>	<i>70-130</i>	<i>0</i>	
<i>Surr: Dibromofluoromethane</i>	<i>10380</i>	<i>0</i>	<i>10530</i>	<i>0</i>	<i>98.6</i>	<i>70-130</i>	<i>0</i>	
<i>Surr: Toluene-d8</i>	<i>10380</i>	<i>0</i>	<i>10530</i>	<i>0</i>	<i>98.7</i>	<i>70-130</i>	<i>0</i>	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Darcy Environmental Consultants LLC
Work Order: 20112107
Project: Phase II - 1000 Haynes, Birmingham, MI

QC BATCH REPORT

Batch ID: **168248** Instrument ID **VMS11** Method: **SW8260C**

MSD				Sample ID: 20111987-01A MSD			Units: µg/Kg-dry		Analysis Date: 12/3/2020 12:39 AM	
Client ID:				Run ID: VMS11_201202A			SeqNo: 6953573		Prep Date: 11/24/2020	
							DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	10650	300	9901	0	108	70-135	11160	4.67	30	
1,1,2,2-Tetrachloroethane	8698	300	9901	0	87.9	55-130	9242	6.07	30	
1,1,2-Trichloroethane	9906	300	9901	0	100	60-125	10180	2.77	30	
1,1-Dichloroethane	10830	300	9901	0	109	75-125	11520	6.21	30	
1,1-Dichloroethene	12050	300	9901	0	122	76-148	12490	3.63	30	
1,2,4-Trichlorobenzene	8040	990	9901	0	81.2	65-130	8132	1.14	30	
1,2-Dibromo-3-chloropropane	6960	990	9901	0	70.3	40-135	7426	6.48	30	
1,2-Dibromoethane	10060	300	9901	0	102	80-195	10600	5.18	30	
1,2-Dichlorobenzene	9332	300	9901	0	94.2	75-120	9989	6.81	30	
1,2-Dichloroethane	11290	990	9901	0	114	70-135	11910	5.37	30	
1,2-Dichloropropane	10390	300	9901	0	105	70-120	10990	5.69	30	
1,3-Dichlorobenzene	9450	300	9901	0	95.5	70-125	10050	6.17	30	
1,4-Dichlorobenzene	9569	300	9901	0	96.7	70-125	10010	4.45	30	
2-Butanone	21160	2,000	9901	0	214	30-160	22070	4.21	30	S
2-Hexanone	16160	300	9901	0	163	45-145	16860	4.24	30	S
4-Methyl-2-pentanone	14260	300	9901	0	144	74-176	14760	3.49	30	
Acetone	29690	990	9901	920.6	291	20-160	30650	3.2	30	S
Benzene	10760	300	9901	0	109	75-125	11250	4.45	30	
Bromodichloromethane	9757	300	9901	0	98.6	70-130	10370	6.07	30	
Bromoform	6173	300	9901	0	62.4	55-135	6405	3.69	30	
Bromomethane	3203	990	9901	0	32.3	50-170	3063	4.46	30	S
Carbon disulfide	11930	300	9901	0	120	45-160	12420	4.07	30	
Carbon tetrachloride	9762	300	9901	0	98.6	65-135	10210	4.49	30	
Chlorobenzene	9757	300	9901	0	98.6	75-125	10180	4.28	30	
Chloroethane	7752	990	9901	0	78.3	40-155	8984	14.7	30	
Chloroform	10820	300	9901	0	109	66-140	11670	7.53	30	
Chloromethane	13630	990	9901	0	138	50-144	14340	5.06	30	
cis-1,2-Dichloroethene	11350	300	9901	0	115	65-125	11850	4.32	30	
cis-1,3-Dichloropropene	9307	300	9901	0	94	70-125	9979	6.97	30	
Dibromochloromethane	7609	300	9901	0	76.8	65-135	7800	2.48	30	
Dichlorodifluoromethane	14610	990	9901	0	148	35-135	15500	5.92	30	S
Ethylbenzene	10280	300	9901	0	104	75-125	10630	3.34	30	
Isopropylbenzene	10010	300	9901	0	101	75-130	10420	3.92	30	
Methyl tert-butyl ether	10140	300	9901	0	102	75-125	10680	5.14	30	
Methylene chloride	11590	2,500	9901	0	117	55-145	12300	5.91	30	
Styrene	9807	300	9901	0	99	80-138	10280	4.75	30	
Tetrachloroethene	17280	300	9901	0	174	67-167	17870	3.39	30	S
Toluene	10170	300	9901	0	103	70-125	10580	3.96	30	
trans-1,2-Dichloroethene	11120	300	9901	0	112	65-135	11690	5	30	
trans-1,3-Dichloropropene	8535	300	9901	0	86.2	59-129	8900	4.19	30	
Trichloroethene	10580	300	9901	0	107	75-125	11150	5.18	30	
Trichlorofluoromethane	8480	300	9901	0	85.7	25-185	8868	4.48	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Darcy Environmental Consultants LLC
Work Order: 20112107
Project: Phase II - 1000 Haynes, Birmingham, MI

QC BATCH REPORT

Batch ID: 168248	Instrument ID VMS11		Method: SW8260C							
Vinyl chloride	13070	300	9901	0	132	60-125	13590	3.9	30	S
Xylenes, Total	30590	890	29700	0	103	75-125	31950	4.34	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>10910</i>	<i>0</i>	<i>9901</i>	<i>0</i>	<i>110</i>	<i>70-130</i>	<i>11720</i>	<i>7.16</i>	<i>30</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>10320</i>	<i>0</i>	<i>9901</i>	<i>0</i>	<i>104</i>	<i>70-130</i>	<i>10780</i>	<i>4.38</i>	<i>30</i>	
<i>Surr: Dibromofluoromethane</i>	<i>9663</i>	<i>0</i>	<i>9901</i>	<i>0</i>	<i>97.6</i>	<i>70-130</i>	<i>10380</i>	<i>7.14</i>	<i>30</i>	
<i>Surr: Toluene-d8</i>	<i>9866</i>	<i>0</i>	<i>9901</i>	<i>0</i>	<i>99.7</i>	<i>70-130</i>	<i>10380</i>	<i>5.11</i>	<i>30</i>	

The following samples were analyzed in this batch:

20112107-01A	20112107-04A	20112107-06A
20112107-09A	20112107-11A	20112107-15A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Darcy Environmental Consultants LLC
Work Order: 20112107
Project: Phase II - 1000 Haynes, Birmingham, MI

QC BATCH REPORT

Batch ID: **R304840** Instrument ID **MOIST** Method: **SW3550C**

MBLK		Sample ID: WBLKS-R304840				Units: % of sample		Analysis Date: 12/1/2020 01:34 PM		
Client ID:		Run ID: MOIST_201201A		SeqNo: 6950798		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture ND 0.10

LCS		Sample ID: LCS-R304840				Units: % of sample		Analysis Date: 12/1/2020 01:34 PM		
Client ID:		Run ID: MOIST_201201A		SeqNo: 6950797		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 100 0.10 100 0 100 98-102 0

DUP		Sample ID: 20111956-01B DUP				Units: % of sample		Analysis Date: 12/1/2020 01:34 PM		
Client ID:		Run ID: MOIST_201201A		SeqNo: 6950780		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 10.89 0.10 0 0 0 0-0 11.01 1.1 10

DUP		Sample ID: 20112029-08A DUP				Units: % of sample		Analysis Date: 12/1/2020 01:34 PM		
Client ID:		Run ID: MOIST_201201A		SeqNo: 6950789		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 30.67 0.10 0 0 0 0-0 29.41 4.19 10

The following samples were analyzed in this batch:

20112107-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Darcy Environmental Consultants LLC
Work Order: 20112107
Project: Phase II - 1000 Haynes, Birmingham, MI

QC BATCH REPORT

Batch ID: **R304841** Instrument ID **MOIST** Method: **SW3550C**

MBLK		Sample ID: WBLKS-R304841				Units: % of sample		Analysis Date: 12/1/2020 03:09 PM		
Client ID:		Run ID: MOIST_201201B		SeqNo: 6950822		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.10								

LCS		Sample ID: LCS-R304841				Units: % of sample		Analysis Date: 12/1/2020 03:09 PM		
Client ID:		Run ID: MOIST_201201B		SeqNo: 6950821		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.10	100	0	100	98-102	0			

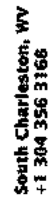
DUP		Sample ID: 20112107-04B DUP				Units: % of sample		Analysis Date: 12/1/2020 03:09 PM		
Client ID: B-2 (10')		Run ID: MOIST_201201B		SeqNo: 6950805		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	12.4	0.10	0	0	0	0-0	12.8	3.17	10	

DUP		Sample ID: 20112199-01B DUP				Units: % of sample		Analysis Date: 12/1/2020 03:09 PM		
Client ID:		Run ID: MOIST_201201B		SeqNo: 6950815		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	15.88	0.10	0	0	0	0-0	16.03	0.94	10	

The following samples were analyzed in this batch:

20112107-04B	20112107-06B	20112107-09B
20112107-11B	20112107-15B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



**South Charleston, WV
+1 304 356 3166**

COC ID: 192488

Note:

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2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

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+1 513 733 5336
Everett, WA
+1 425 356 2600

Fort Collins, CO
+1 970 490 1511
Holland, MI
+1 616 399 6070

Chain of Custody Form

Houston, TX
+1 281 530 5656
Middletown, PA
+1 717 944 5541

Spring City, PA
+1 610 948 4903
Salt Lake City, UT
+1 801 266 7700

South Charleston, WV
+1 304 356 3168
York, PA
+1 717 505 5280

Page 2 of 2

COC ID: 192763

Customer Information				ALS Project Manager				ALS Work Order #									
Project Information				Parameter/Method Request for Analysis													
Purchase Order	Project Name	Project Number	Bill To Company	Invoice Attn	Address	City/State/Zip	Phone	Fax	e-Mail Address	VOCs							
Work Order	Darcy Environmental Consultants LLC	20086	Darcy Environmental Consultants LLC	702 North Bays Drive	Grosse Pointe Woods, MI 48230	(313) 264-1216											
Company Name	Allan Longyear																
Send Report To																	
Address																	
City/State/Zip																	
Phone																	
Fax																	
e-Mail Address																	
Longyear@darcyenvironmental.com																	
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
11	B-5 (2')	11/20/2020	11:50	S		Z	X										
12	B-5 (6')		11:50														X
13	B-5 (10')		11:50														X
14	B-6 (3')		12:20														X
15	B-6 (10')	11/20/2020	12:20	S		Z	X										
6																	
7																	
8																	
9																	
10																	
Sample(s) Please Print & Sign		Shipment Method		Required Turnaround Time (Check Box)		Results Due Date:											
Bob Hu / [Signature]		Other		X Std 10 Wk Days		2 Wk Days		24 Hour									
Relinquished by: [Signature]		Date: 11/23/2020		Time: 13:15 pm		Relinquished by (Laboratory): [Signature]		Date: 11/23/2020		Time: 5:00		Relinquished by (Laboratory): [Signature]		Date: 11/24/2020		Time: 0800	
Relinquished by: [Signature]		Date: 11/23/2020		Time: 5:00		Relinquished by (Laboratory): [Signature]		Date: 11/23/2020		Time: 5:00		Relinquished by (Laboratory): [Signature]		Date: 11/24/2020		Time: 0800	
Relinquished by: [Signature]		Date: 11/24/2020		Time: 1000		Relinquished by (Laboratory): [Signature]		Date: 11/24/2020		Time: 1000		Relinquished by (Laboratory): [Signature]		Date: 11/24/2020		Time: 0800	
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other		8-4°C		9-5035		Cooler Temp: 2-22°C		Cooler ID: 141		QC Package: (Check One Box Below)		Level II Std QC		Level III Std QC/Retest Data		Level IV SW846/CLP	

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

Sample Receipt Checklist

Client Name: **DARCYENV**

Date/Time Received: **24-Nov-20 08:00**

Work Order: **20112107**

Received by: **DS**

Checklist completed by Diane Shaw 24-Nov-20
eSignature Date

Reviewed by: Bill Carey 24-Nov-20
eSignature Date

Matrices: Soil

Carrier name: Courier

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	
Sample(s) received on ice?	Yes ☒	No ☐	
Temperature(s)/Thermometer(s):	<u>2.2/2.2 c</u>		<u>IR1</u>
Cooler(s)/Kit(s):	<u></u>		
Date/Time sample(s) sent to storage:	<u>11/24/2020 10:26:59 AM</u>		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☒
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒
pH adjusted?	Yes ☐	No ☐	N/A ☒
pH adjusted by:	<u>-</u>		

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

APPENDIX F
HISTORICAL RESEARCH DOCUMENTATION



Historical Aerial Photo Report | 2021

Order Number: 49822

Report Generated: 01/26/2021

Project Name: Commercial Property

Project Number: 20086

Commercial Property

1000 Haynes St

Birmingham, MI, 48009

2 Corporate Dr

Suite 450

Shelton, CT 06484

Toll Free: 866-211-2028

www.envirositecorp.com

Envirosite's Historical Aerial Photo Report is designed to assist in evaluating a subject property resulting from past activities. EnviroSite's Historical Aerial Photo Report includes a search of available historical aerial photographs, dating back to the 1930s, or earliest available photographs.

ENVIROSITE SEARCHED SOURCES

SUBJECT PROPERTY:

Commercial Property
1000 Haynes St
Birmingham, MI, 48009

YEAR:

1949
1951
1952
1956
1957
1967
1969
1971
1973
1980
1983
1987
1993
1997
1999
2002
2005
2009
2010
2012
2014
2016
2018

SCALE:

1" = 500'
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SOURCE:

U.S.D.A
U.S.G.S
U.S.D.A
U.S.G.S
U.S.D.A
U.S.G.S
U.S.G.S
U.S.G.S
U.S.G.S
NHAP
NHAP
NAPP
U.S.D.A
DOQ
U.S.G.S
NAIP
NAIP
NAIP
NAIP
NAIP
NAIP
NAIP
NAIP

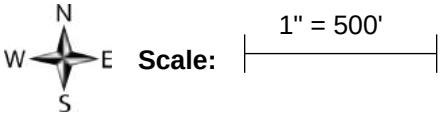
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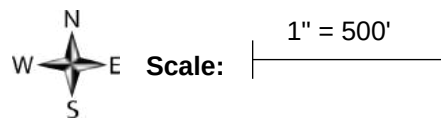
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FLIGHT YEAR:
1949



FLIGHT YEAR:
1957



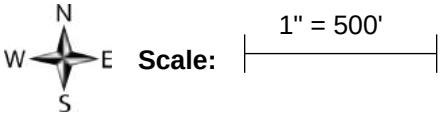
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1951



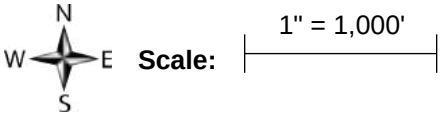
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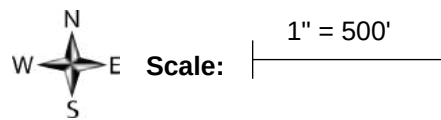
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1952



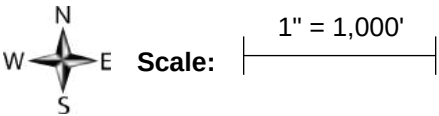
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1956



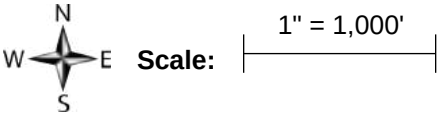
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1967



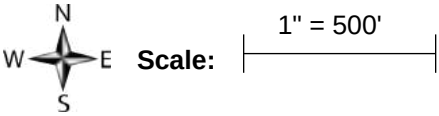
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1969



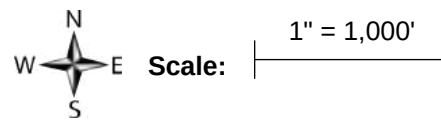
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1971



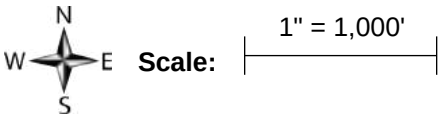
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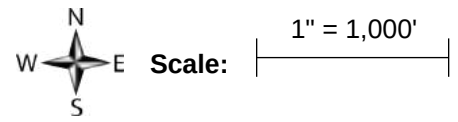
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1980



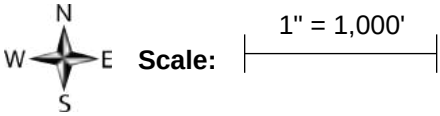
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1983



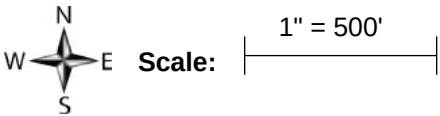
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1987



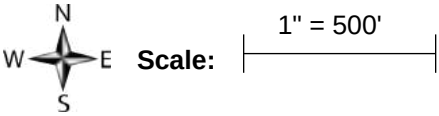
FLIGHT YEAR:
1993



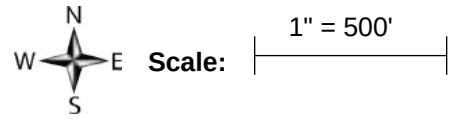
FLIGHT YEAR:
1997



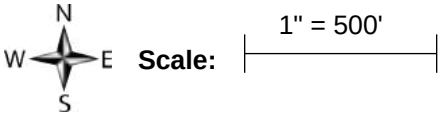
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1999



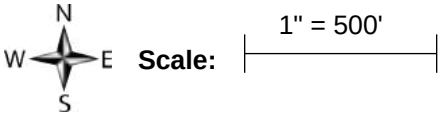
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2002



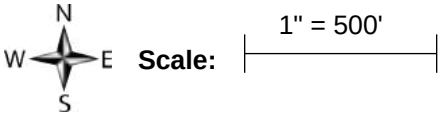
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2005



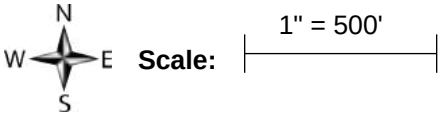
FLIGHT YEAR:
2009



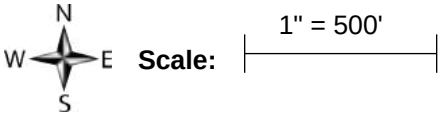
FLIGHT YEAR:
2010



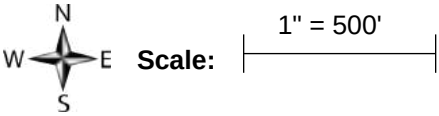
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2012



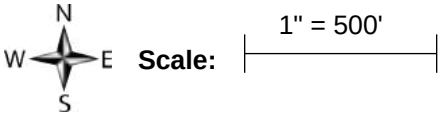
FLIGHT YEAR:
2014



FLIGHT YEAR:
2016



FLIGHT YEAR:
2018





Historical Topographic Map Report | 2021

Order Number: 49822

Report Generated: 01/22/2021

Project Name: Commercial Property

Project Number: 20086

Commercial Property
1000 Haynes St
Birmingham, MI 48009

2 Corporate Drive
Suite 450
Shelton, CT 06484
Toll Free: 866-211-2028
www.envirositecorp.com

Envirosite's Historical Topographic Map Report is designed to assist in evaluating a subject property resulting from past activities. EnviroSite's Historical Topographic Map Report includes a search of USGS historical topographic maps, dating back to the early 1900s.

TOPOGRAPHIC MAPS FOUND:

	<u>Map Name:</u>	<u>Year:</u>	<u>Revision Year:</u>	<u>Scale:</u>
1.	<u>Rochester</u>	1908	N/R	1 : 62500
2.	<u>Birmingham</u>	1936	N/R	1 : 31680
3.	<u>Birmingham</u>	1945	N/R	1 : 24000
4.	<u>Birmingham</u>	1952	N/R	1 : 24000
5.	<u>Birmingham</u>	1968	N/R	1 : 24000
6.	<u>Birmingham</u>	1968	1973	1 : 24000
7.	<u>Birmingham</u>	1968	1981	1 : 24000
8.	<u>Birmingham</u>	1981	1981	1 : 24000
9.	<u>Birmingham</u>	2011	N/R	1 : 24000
10.	<u>Birmingham</u>	2014	N/R	1 : 24000
11.	<u>Birmingham</u>	2017	N/R	1 : 24000
12.	<u>Birmingham</u>	2019	N/R	1 : 24000

The USGS 7.5 minute series includes scales 1:24,000 / 1:25,000 / 1:31,680. The USGS 15 minute series includes scales 1:48,000 / 1:62,500 / 1:63,360. The USGS 30x60 minute series scale is 1:100,000.

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SUBJECT NAME: Commercial Property
ADDRESS: 1000 Haynes St, Birmingham, MI, 48009
LAT/LONG: 42.542049 / -83.206414

PREPARED FOR: Darcy Environmental Consultants LLC
ORDER #: 49822
REPORT DATE: 01/22/2021

SUBJECT QUAD:

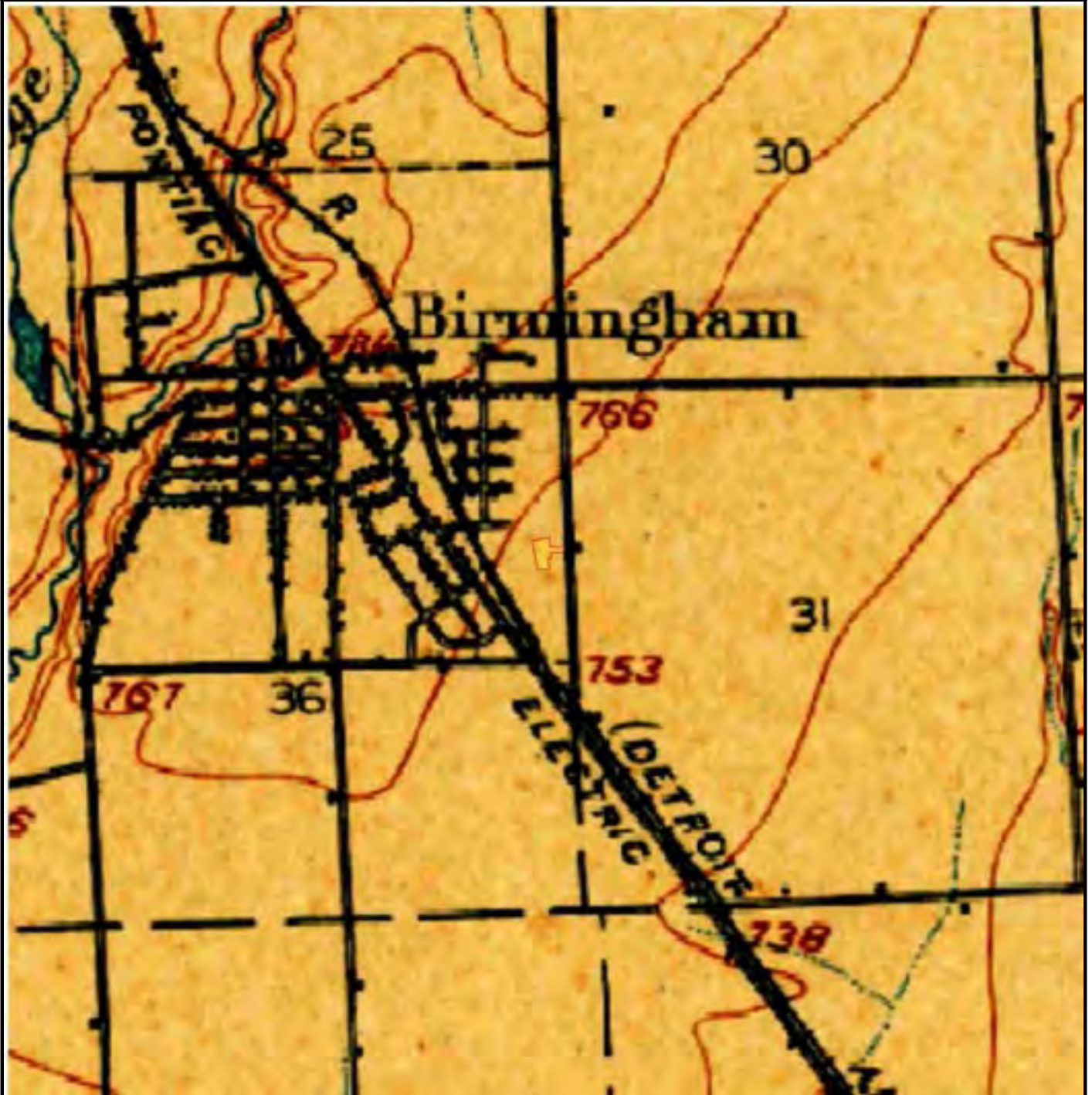
MAP NAME: Rochester

MAP YEAR: 1908

REVISION YEAR: N/R

SCALE: 1 : 62500

Part 1



SUBJECT NAME: Commercial Property
 ADDRESS: 1000 Haynes St, Birmingham, MI, 48009
 LAT/LONG: 42.542049 / -83.206414

PREPARED FOR: Darcy Environmental Consultants LLC
 ORDER #: 49822
 REPORT DATE: 01/22/2021

SUBJECT QUAD:

MAP NAME: Birmingham

MAP YEAR: 1936

REVISION YEAR: N/R

SCALE: 1 : 31680

Part 1



SUBJECT NAME: Commercial Property
ADDRESS: 1000 Haynes St, Birmingham, MI, 48009
LAT/LONG: 42.542049 / -83.206414

PREPARED FOR: Darcy Environmental Consultants LLC
ORDER #: 49822
REPORT DATE: 01/22/2021

SUBJECT QUAD:

MAP NAME: Birmingham

MAP YEAR: 1945

REVISION YEAR: N/R

SCALE: 1 : 24000

Part 1



SUBJECT NAME: Commercial Property
 ADDRESS: 1000 Haynes St, Birmingham, MI, 48009
 LAT/LONG: 42.542049 / -83.206414

PREPARED FOR: Darcy Environmental Consultants LLC
 ORDER #: 49822
 REPORT DATE: 01/22/2021

SUBJECT QUAD:

MAP NAME: Birmingham

MAP YEAR: 1952

REVISION YEAR: N/R

SCALE: 1 : 24000

Part 1



SUBJECT NAME: Commercial Property
ADDRESS: 1000 Haynes St, Birmingham, MI, 48009
LAT/LONG: 42.542049 / -83.206414

PREPARED FOR: Darcy Environmental Consultants LLC
ORDER #: 49822
REPORT DATE: 01/22/2021

SUBJECT QUAD:

MAP NAME: Birmingham

MAP YEAR: 1968

REVISION YEAR: N/R

SCALE: 1 : 24000

Part 1



SUBJECT NAME: Commercial Property
 ADDRESS: 1000 Haynes St, Birmingham, MI, 48009
 LAT/LONG: 42.542049 / -83.206414

PREPARED FOR: Darcy Environmental Consultants LLC
 ORDER #: 49822
 REPORT DATE: 01/22/2021

SUBJECT QUAD:

MAP NAME: Birmingham

MAP YEAR: 1968

REVISION YEAR: 1973

SCALE: 1 : 24000

Part 1



SUBJECT NAME: Commercial Property
ADDRESS: 1000 Haynes St, Birmingham, MI, 48009
LAT/LONG: 42.542049 / -83.206414

PREPARED FOR: Darcy Environmental Consultants LLC
ORDER #: 49822
REPORT DATE: 01/22/2021

SUBJECT QUAD:

MAP NAME: Birmingham

MAP YEAR: 1968

REVISION YEAR: 1981

SCALE: 1 : 24000

Part 1



SUBJECT NAME: Commercial Property
ADDRESS: 1000 Haynes St, Birmingham, MI, 48009
LAT/LONG: 42.542049 / -83.206414

PREPARED FOR: Darcy Environmental Consultants LLC
ORDER #: 49822
REPORT DATE: 01/22/2021

SUBJECT QUAD:

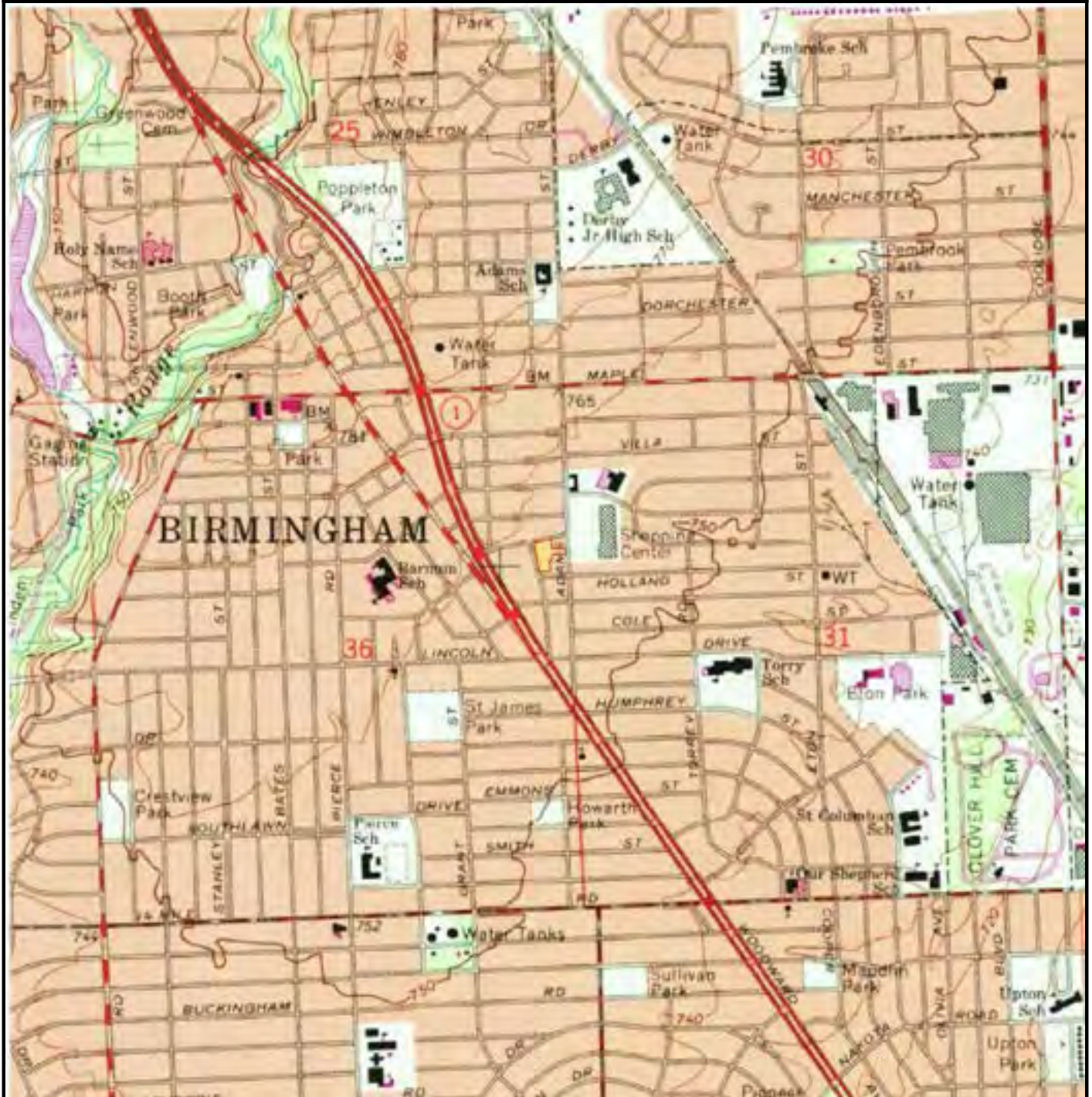
MAP NAME: Birmingham

MAP YEAR: 1981

REVISION YEAR: 1981

SCALE: 1 : 24000

Part 1



SUBJECT NAME: Commercial Property
 ADDRESS: 1000 Haynes St, Birmingham, MI, 48009
 LAT/LONG: 42.542049 / -83.206414

PREPARED FOR: Darcy Environmental Consultants LLC
 ORDER #: 49822
 REPORT DATE: 01/22/2021

SUBJECT QUAD:

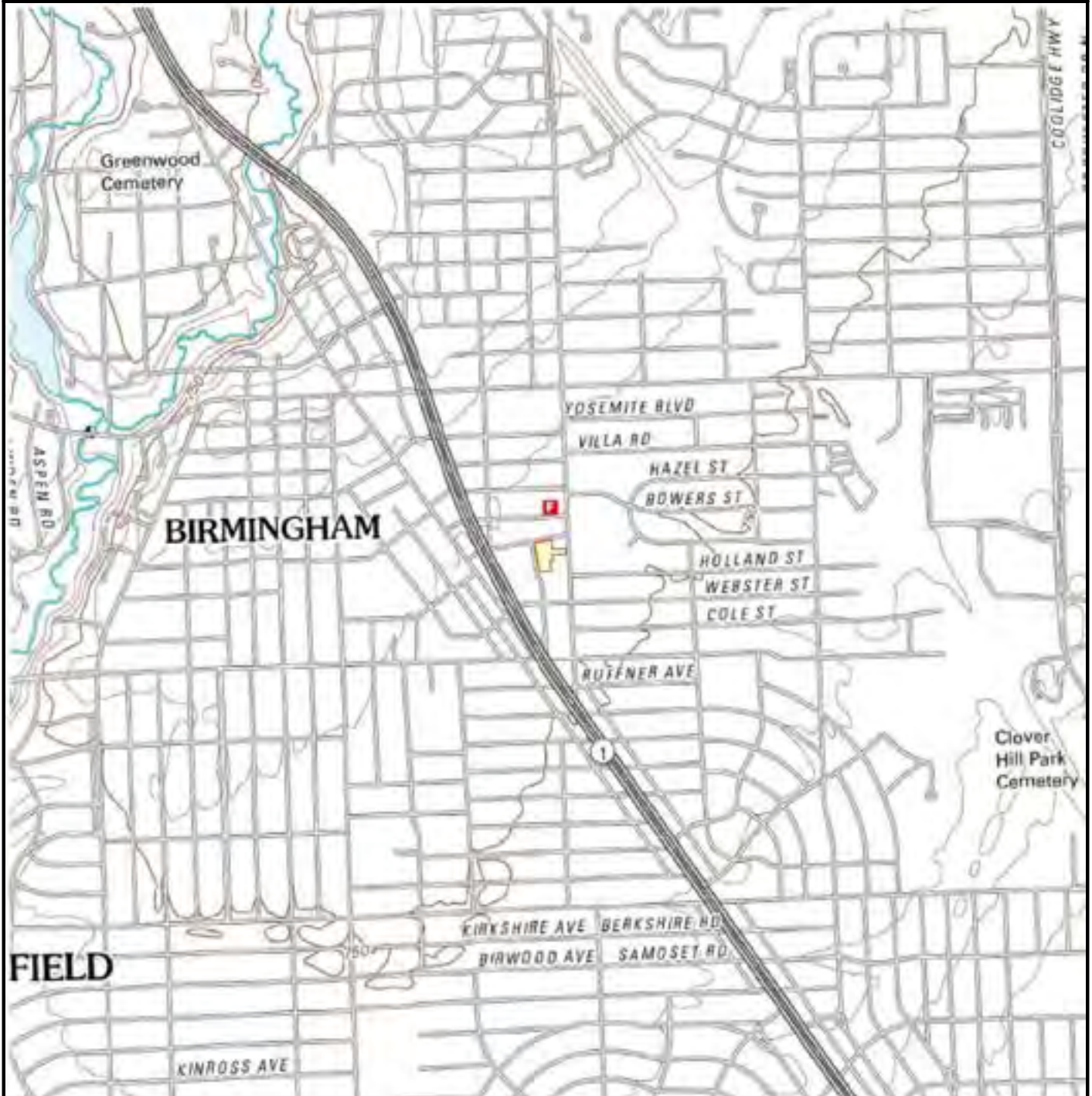
MAP NAME: Birmingham

MAP YEAR: 2011

REVISION YEAR: N/R

SCALE: 1 : 24000

Part 1



SUBJECT NAME: Commercial Property
 ADDRESS: 1000 Haynes St, Birmingham, MI, 48009
 LAT/LONG: 42.542049 / -83.206414

PREPARED FOR: Darcy Environmental Consultants LLC
 ORDER #: 49822
 REPORT DATE: 01/22/2021

SUBJECT QUAD:

MAP NAME: Birmingham

MAP YEAR: 2014

REVISION YEAR: N/R

SCALE: 1 : 24000

Part 1



Historical Topographic Map

2021

SUBJECT NAME: Commercial Property
ADDRESS: 1000 Haynes St, Birmingham, MI, 48009
LAT/LONG: 42.542049 / -83.206414

PREPARED FOR: Darcy Environmental Consultants LLC
ORDER #: 49822
REPORT DATE: 01/22/2021

SUBJECT QUAD:

MAP NAME: Birmingham

MAP YEAR: 2017

REVISION YEAR: N/R

SCALE: 1 : 24000

Part 1



SUBJECT NAME: Commercial Property
 ADDRESS: 1000 Haynes St, Birmingham, MI, 48009
 LAT/LONG: 42.542049 / -83.206414

PREPARED FOR: Darcy Environmental Consultants LLC
 ORDER #: 49822
 REPORT DATE: 01/22/2021

SUBJECT QUAD:

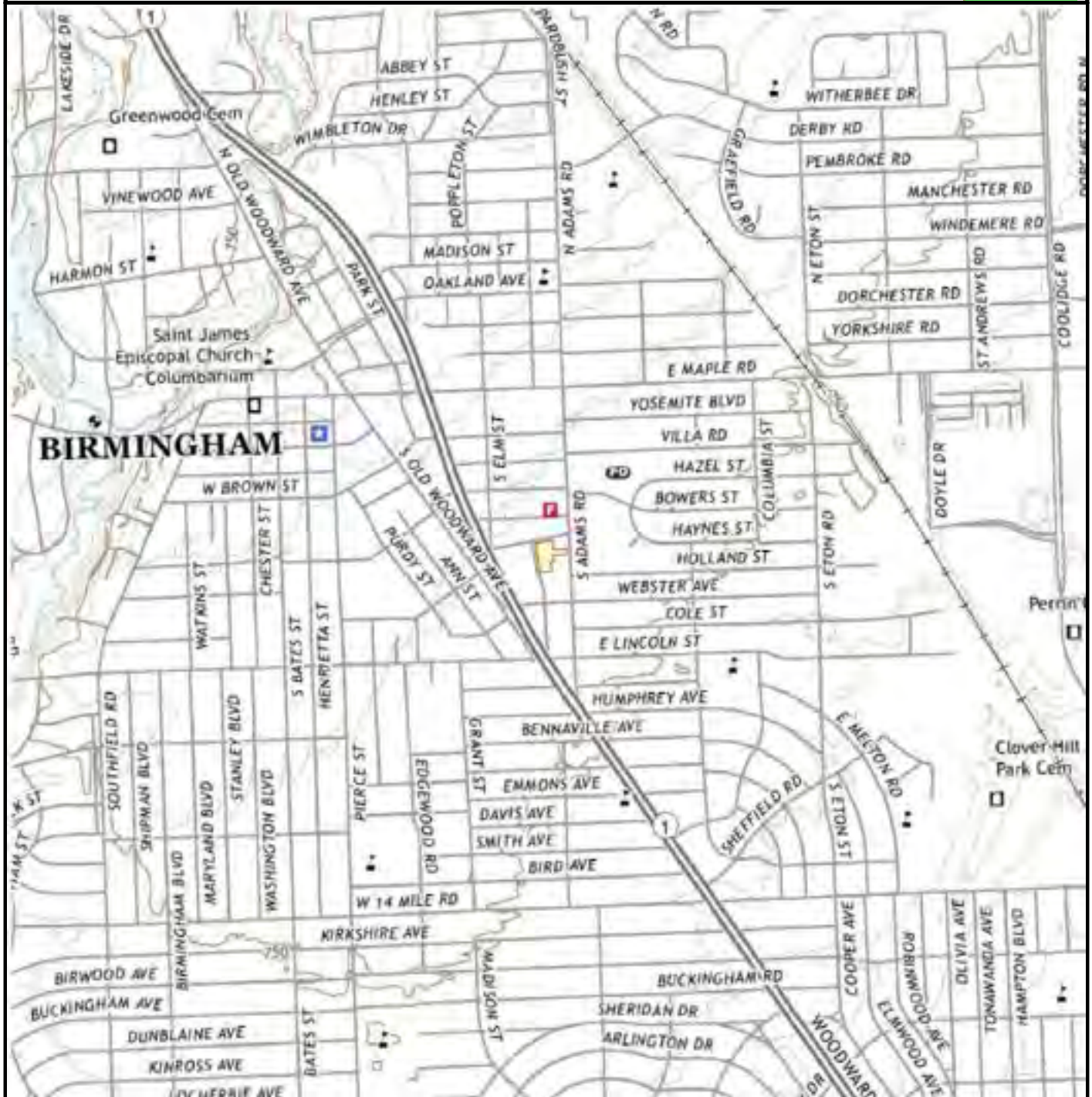
MAP NAME: Birmingham

MAP YEAR: 2019

REVISION YEAR: N/R

SCALE: 1 : 24000

Part 1



HIG Research Summary

Site Location

Commercial Property
1000 Haynes St
Birmingham, MI

Requested by

Envirosite Corporation
2 Corporate Drive
Shelton, CT

HIG Project

2045763

Client Project

49822

Date Created

01/25/2021



This Research Summary identifies the products and services provided by Historical Information Gatherers, Inc. (HIG) for the above referenced site location. All products are provided as PDFs unless otherwise noted.

City Directory Pages/Abstracts

Research Methodology: A search was conducted for city directories that include coverage of the site area using HIG's City Directory Collection and other sources, if needed. Directories for the following years were identified for the site area. A comma between date ranges indicates a gap of 10 years or more in available city directories:

Oakland County South 1954-2014
Birmingham 1937-1949, 1983

The above listed directories were reviewed at approximate 5 year intervals to determine if the street(s) specified in the order were included in the directories and had listings for the site area. HIG attempted to identify former street names and aliases and if identified, these were also included in the review.

Research Results: City directory information, when provided, was used to create a multi-page file(s) named CD- followed by the street name. When City Directory Pages are provided, the publication name and date are shown at the top of each page. When a City Directory abstract is provided, the first page of the abstract includes the relevant publication information. The years of coverage identified for each street and any identified historical street names are as follows:

Haynes St (1939-2014)

FIM+ Maps

The HIG Historical Map Collection and the United States Library of Congress Map Collection were searched for fire insurance maps (FIMs), real estate atlases and similar maps for the site location and adjoining properties. These maps were used to create a multi-page file named FIM+Maps. The maps have title blocks that include the map publisher, year the map was created and, if applicable, the year the map was last updated. The years provided are:

1921, 1926, 1931, 1949

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BRESSER'S PAGE 58

2011 SOUTH OAKLAND COUNTY

HAYNES ST

245 Stacy L Block Linn ACSW Psc 08 248 593 5088
 *Steve Marica MSW 08 248 594 5275
 245 *Ulrich John P 09 248 544 1520
 *Raymond J Vasser 02 248 546 2147
 *Wagner Raymond J PhD 00 248 646 2747
 *Wagner John Walsh MD 08 248 258 9085
 1000 *Charter One Bank 08 248 644 7510
 *Charter One Mortgage 08 248 901 1321
 8815 *Income Protection Agency Inc 98 248 642 5885
 1010 *Schwerman Mark L MD Jd P 09 248 647 0390

-S ADAMS RD INTS

-BOWERS ST INTS

1300 Mena L Potarcangeli 95 * NP
 1312 Jaden Beiko Doms 77 * 248 645 8569
 1325 Scott Doms 77 * 248 645 6529
 9324 * NP
 1330 Eric Schubring 08 * NP
 1325 Kenneth Chao Kung Hwa 09 * NP
 1399 Frank Carl Davis 99 * 248 594 3449
 1400 Jeffrey Michael Patterson 04 * NP
 1400 Michelle Louise Patterson 04 * NP
 1415 Jennifer Lisa Gartin 07 * NP
 1448 Todd Price Swales 08 * NP

-HAYNES CT INTS

1492 Eric Torrey 76 * 248 731 7642
 Elizabeth Louise Watson 08 248 731 7642
 1495 Marie Meredith Meredith 08 * NP
 1506 Kathryn Carter 91 * NP
 Paul R Carter 91 * NP
 1507 Bradford Jarrett McNeer 03 * 248 792 5068
 C A McNeer 03 * 248 792 5068
 1523 Nicolas Pilegor 02 * 248 645 5102
 1524 Joseph Andrew Valentine 04 * NP
 1540 Dawn Marie Stares 89 * NP
 Daryl Turner 89 * NP

1540 Joe John Tespa 99 248 193 9391
 Rose Anna Tespa 99 248 593 9391
 1568 Brian H Rameedbottom 09 * NP
 1575 Carol Lee Peterson 82 * 248 540 1609
 1587 * NP
 1591 J Pearson Gavin 05 * NP
 1603 Kyle Michael Uink 05 * NP
 1605 Kathleen M Paron 05 * NP
 1606 Isabelle W Clark 85 * 248 644 0471
 Steven Lang Clark 85 * 248 644 0471
 Greg David Thompson 99 248 723 5612
 Janice Thompson 99 248 723 5612

1623 John Marie Campbell 90 * NP
 1629 Susan Alberta Kowitz 90 * NP
 1640 Morrison Paul Kern 75 * 248 545 9308
 Tina Ann Kern 75 * 248 545 9308
 1645 Ann Marie Kuzmer 03 248 723 0914
 1652 Nancy A Bantano 08 * NP
 1661 Deborah E Weiss 08 * NP

-TERRY ST INTS

1674 Kayla Brophy 89 * 248 644 3221
 Robin Ann Brophy 91 * 248 644 3221
 1675 *Amphibious & Gale Systems 01 * 248 203 9003
 Jerrold R Kolesch 04 * 248 594 1143
 Evelyn Julia Keller 89 * 248 645 2853
 1691 Walter John Ruchbach Jr 01 * NP
 1693 Carolyn Ann Swanson 01 * NP
 John Lawrence Swanson 01 * NP
 1698 Nancy Mary Dorn 07 248 194 1396
 Henry Zobenich James 07 248 194 1396
 Henry Horton 07 248 594 1396
 1707 *Elanet Maghaddam 09 * NP
 1709 Felicia Beth Silver 91 * 248 594 3080
 Jennifer Rose Silver 91 * 248 594 3080

*Saver Design 02 248 594 5984
 1725 Arthur Leon Robin 89 * 248 545 5982
 Susan S Robin 89 * 248 545 5982
 1722 Ronald Meiboe 96 * NP
 1725 Michael Stephen Ogorek 01 * 248 647 4719
 1727 Keith Frederick Harbort 01 * NP
 1751 Lauren Lee Brown 00 248 644 4057
 1753 Delmar Lee Welch 94 * NP
 Linda Dawn Welch 94 * NP
 1754 Betty Hines 01 248 193 9553
 Robert E Hines 01 248 193 9553

1774 Alexander D Carr 05 * NP
 1773 Jennifer L Stevens 04 248 792 2016
 Robert W Stevens II 04 248 792 2016
 1783 Emily Michelle Bright 08 * NP
 1785 Corrine Sue Jacobson 07 248 593 1818
 1795 Hanesha M Rogers 04 * 248 723 3938
 1798 Cynthia Rose English 05 * NP
 Douglas Monroe English 05 * NP

-COLUMBIA ST INTS

1809 Kevin Patrick McManis 84 * 248 646 8205
 Charles E Salgot 94 248 258 3931
 1822 Tammy Lynn Salgot 94 248 258 3931
 1825 Gerald Lee Lapage Jr 82 * 248 644 6369
 Sharon Lynn Lapage 82 * 248 644 6369
 1843 Kathleen E Mueller 01 * 248 792 2678
 1861 Hugo Susan Mendez 03 * NP
 Steven Kenneth Mendez 03 * NP
 1866 Michael George Wiga 84 * 248 646 3723
 Sandra Sue Wiga 84 * 248 646 3723

1875 Marlor A Matthews 98 * NP
 Moly Ann Matthews 98 * NP
 1878 Carrie Bragg 01 * NP
 Scott James Bragg 01 * NP
 1889 Jason Weber 01 * 248 792 2489
 1890 Gladys Olen Sargent 87 * 248 642 4528
 1900 Scott Daniel Lewis 90 * 248 703 2936
 Nancy L Westcott 95 * 248 703 2936

1901 Julie Ann Bullock 80 * 248 644 0027
 1904 * NP
 1906 Or Rangswany Subramaniam 92 * 248 258 0981
 Leona Hsuwath Sloan 92 * 248 258 0981
 David Sloan 92 * 248 258 0981
 1947 Patricia Ann Kerr 82 * 248 547 3690
 1948 Dorothy Marie Zimmler 82 * 248 540 9948
 Michele A Zimmler 82 * 248 540 9948

1960 Ron James Tine 00 * 248 988 8885
 Jennifer Marie Tine 00 * 248 988 8885
 1973 Kimberly Irene Rowland 08 * 248 792 9555
 Thomas Renning Rowland 08 * 248 792 9555
 1982 Hunter Holmes 81 248 647 4188
 Casey James Bear 07 * NP
 Ron K Bear 07 * NP

-S ETON ST INTS

119 RESIDENCE 33 BUSINESS

HAZEL ST

Birmingham
 CT 1529 06 820 - 2028 \$A
 CT 1532 06 940 1838 \$B
 820 2028 48009

-S ELM ST INTS

820 * Moses Farris 09 * NP
 823 Doug Champagne 87 * NP
 Gayle Lynn Champagne 87 * NP
 844 Carmen Walker 07 * NP
 875 * Flora Garcia 97 * NP
 * Loretta Burdick 97 * NP
 893 820 05 * 248 723 9565
 905 Claudine Kossar 05 * 248 723 9565
 Claudine Elizabeth Kall 05 * 248 723 9565
 Pat Chapman 09 * NP
 942 James Sokol 04 * NP

952 * Thomas McElroy 02 * NP
 Angela Lee Lemont 07 * NP
 Samuel James Lemont 07 * NP
 960 Ashley J Gonsler 08 * NP
 Chelsey Patricia Gonsler 08 * NP
 977 Heather Michele Tack 06 * 248 723 7169
 Steven Michael Tack 06 * 248 723 7169
 982 * James Savage 04 * 248 792 6382
 * Matthew P Savage 04 * 248 792 6382
 987 * Elizabeth Ellen Atallah 06 248 593 9235
 * Pierre Charbel Atallah 06 248 593 9235

988 * NP
 1011 Dr Praya D Kothari 05 248 845 8093
 1009 Pamela N Mace 89 * 248 540 0020
 1031 Jennifer Przybyl 03 248 584 5838
 1036 * Brenda Sue Spante 04 * 248 399 4817
 * Stanley Philip Spante 04 * 248 399 4817
 1044 Marylin Catherine Vozza 08 * NP
 Michael P Vozza 08 * NP
 1053 Shelly Lynn Greenlee 04 * NP
 1060 Jennifer M Kay 08 * NP
 Steven John Kay 08 * NP
 1077 Reed Elliott Lawrence 06 * NP
 1078 Dr J Lohrstein 00 248 263 2164
 1085 Bridget Ann Howell 93 * NP
 David Ross Howell 93 * NP

-S ADAMS RD INTS

1215 Marjorie Elizabeth Ellis 74 * 248 644 4296
 Fenghua H Cao 94 * 248 123 3267
 1331 Qi Shen 94 * 248 703 0818
 1346 Graz Czerwinski 89 * 248 647 7548
 C Wozniak Franklyn 89 * 248 647 7548
 1353 Donald Larry Scarsell 83 * 248 540 9195
 1362 Kathleen Marie Jurcic 67 248 723 0981
 1377 Orlando Frank Jurcic 67 248 723 0981
 1397 Alberto Desanti 08 * NP
 1401 Kimberly Ann Hunter 05 * 248 433 8153
 William J Hunter II 05 * 248 433 8153
 1414 Carl Joseph Evangelista 73 * 248 645 5276
 Nancy Jeanne Evangelista 73 * 248 645 5276

1435 Constantine Covo 77 * 248 642 8538
 Thomas Velkovic 77 * 248 642 8538
 1469 Sonat Therese Ladewicz 78 * 248 646 8131
 Stephen P Ladewicz 78 * 248 646 8131
 1486 Mary Magorian 78 * 248 646 8179
 Theodore Magorian 78 * 248 646 8179
 1522 Robert John Chisworth 05 * 248 594 0901
 Sandra Mary Unsworth 05 * 248 594 0901
 15279 Mary Klona 74 * 248 644 4075
 Mary Klona 74 * 248 644 4075

1543 Barbara Jean Martz 68 * 248 546 1138
 1544 James Alan Eng Jr 83 * 248 642 5732
 Sandra Jean Eng 03 * 248 642 5732
 1565 Brynne Scott Olson 01 * 248 792 6411
 1582 * Jeffrey Scott Ewing 88 * NP
 * Mary Kay Kellogg 88 * NP
 1589 Steven Carlos 01 * 248 646 1343
 Carlo Steven 01 * 248 646 1343
 1593 William Russell 67 * 248 645 1696
 William Bruce Russell 67 * 248 645 1696

1596 Laurie Barbara Craig 87 * 248 645 9484
 Marc Alan Craig 87 * 248 645 9484
 1602 Kathleen Ann Hudson 87 * 248 642 5189
 1611 * Louis John Hudson 87 * 248 642 5189
 1626 Ali Avrel Chabab 04 * 248 258 4487
 Lisa Anne Richards 04 * 248 258 4487
 1637 Joanne Maria Smith 09 * 248 203 2710
 Jonathan Lewis Smith 09 * 248 203 2710
 1638 Kenneth Longobardi 01 * 248 647 4070
 Brooke Michelle Roy 01 * 248 647 4070
 1650 Edward Edmund Genthum 77 * 248 647 8455
 Mary Theresa Genthum 77 * 248 647 8455

1656 * Gerald William Lentao 01 * 248 792 6190
 * Jack A Lentao 01 * 248 792 6190
 1684 * Nicolette Maria Kaptur 87 * NP
 1689 * Irene P Kity 73 * 248 642 0914
 1704 John Michael Vanderveer 92 * 248 644 4207
 1722 Brett J Halberman 08 * NP
 1731 David John Essad 07 * NP
 Julie Ann Essad 07 * NP

1748 Brian Michael Hanson 83 * 248 642 9482
 Joanne Elizabeth Hanson 83 * 248 642 9482
 1753 Linda Lee Rutherford 81 * 248 644 3295
 1766 Barbara Mary Scriver 94 * NP
 Wayne A Scriver 94 * NP
 1777 James Michael Fox 03 * NP
 Rebecca Lynn Fox 03 * NP

1780 Shirley Gagnon 94 * NP
 1794 Laura Margaret Sorge 94 * 248 258 0676
 1795 * NP
 -COLUMBIA ST INTS
 1807 * NP
 1808 * Vela May Strech 86 * 248 644 7958
 1821 * Joyce Ann Brauner 75 * 248 644 2904
 * Robert Albert Brauner 75 * 248 644 2904
 1824 J Battaglia 94 * 248 203 6990
 Stephanie Michelle Battaglia 94 * 248 203 6990
 C Santa 06 * NP
 Carol DeChing Santa 06 * NP
 1845 Samantha Kestine Ladue 06 * NP
 1856 Susan Elaine Conrad 94 * 248 647 4997
 1863 Joyce Ann Henry 94 * 248 647 4997
 1870 Connie M Sanborn 99 * 248 203 9103
 Todd Alan Sanborn 99 * 248 203 9103

1881 Donald Jacobine 03 * NP
 Stephen D Jacobine 03 * NP
 1888 * Shelby Solutions 87 248 203 2430
 J Shelby 87 248 203 2430
 1904 Allegretto Garlicka 01 * NP
 1915 1915 01 * NP
 1930 Aaron Miller 01 * NP
 1943 Inna C Witt 06 * NP
 1948 Pamela N Witt 06 * NP
 1962 Christine H Schwartz 90 * 248 645 6767
 1973 * NP
 1974 Alice Joann Cole 97 * 248 647 3188
 1998 Constantine Ann Romanelli 86 * NP
 1999 * NP
 2004 Lucia Zamorano 07 * NP
 Dr Paul Christian Kilger 07 * NP

*Pythagoras Inc 07 248 594 5079
 C Chatterjee 08 * NP
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648		NP
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711		NP
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	*W C Potter Jr Atty	74
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884		NP
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844	Michael Parks	93
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299	JOHN L. HARRIS	3	5404855
300	JOHN L. HARRIS	3	5404856
301	JOHN L. HARRIS	3	5404857
302	JOHN L. HARRIS	3	5404858
303	JOHN L. HARRIS	3	5404859
304	JOHN L. HARRIS	3	5404860
305	JOHN L. HARRIS	3	5404861
306	JOHN L. HARRIS	3	5404862
307	JOHN L. HARRIS	3	5404863
308	JOHN L. HARRIS	3	5404864
309	JOHN L. HARRIS	3	5404865
310	JOHN L. HARRIS	3	5404866
311	JOHN L. HARRIS	3	5404867
312	JOHN L. HARRIS	3	5404868
313	JOHN L. HARRIS	3	5404869
314	JOHN L. HARRIS	3	5404870
315	JOHN L. HARRIS	3	5404871
316	JOHN L. HARRIS	3	5404872
317	JOHN L. HARRIS	3	5404873
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319	JOHN L. HARRIS	3	5404875
320	JOHN L. HARRIS	3	5404876
321	JOHN L. HARRIS	3	5404877
322	JOHN L. HARRIS	3	5404878
323	JOHN L. HARRIS	3	5404879
324	JOHN L. HARRIS	3	5404880
325	JOHN L. HARRIS	3	5404881
326	JOHN L. HARRIS	3	5404882
327	JOHN L. HARRIS	3	5404883
328	JOHN L. HARRIS	3	5404884
329	JOHN L. HARRIS	3	5404885
330	JOHN L. HARRIS	3	5404886
331	JOHN L. HARRIS	3	5404887
332	JOHN L. HARRIS	3	5404888
333	JOHN L. HARRIS	3	5404889
334	JOHN L. HARRIS	3	5404890
335	JOHN L. HARRIS	3	5404891
336	JOHN L. HARRIS	3	5404892
337	JOHN L. HARRIS	3	5404893
338	JOHN L. HARRIS	3	5404894
339	JOHN L. HARRIS	3	5404895
340	JOHN L. HARRIS	3	5404896
341	JOHN L. HARRIS	3	5404897
342	JOHN L. HARRIS	3	5404898
343	JOHN L. HARRIS	3	5404899
344	JOHN L. HARRIS	3	5404900
345	JOHN L. HARRIS	3	5404901
346	JOHN L. HARRIS	3	5404902
347	JOHN L. HARRIS	3	5404903
348	JOHN L. HARRIS	3	5404904
349	JOHN L. HARRIS	3	5404905
350	JOHN L. HARRIS	3	5404906
351	JOHN L. HARRIS	3	5404907
352	JOHN L. HARRIS	3	5404908
353	JOHN L. HARRIS	3	5404909
354	JOHN L. HARRIS	3	5404910
355	JOHN L. HARRIS	3	5404911
356	JOHN L. HARRIS	3	5404912
357	JOHN L. HARRIS	3	5404913
358	JOHN L. HARRIS	3	5404914
359	JOHN L. HARRIS	3	5404915
360	JOHN L. HARRIS	3	5404916
361	JOHN L. HARRIS	3	5404917
362	JOHN L. HARRIS	3	5404918
363	JOHN L. HARRIS	3	5404919
364	JOHN L. HARRIS		

HAYNES

000	1000 T 1020	100000
001	DOVER FIRE CO	100000
002	PAULSON INC	100000
003	WAGNER INC	100000
004	AM	100000
005	INCREASE	100000
006	POWELL ACCT	100000
007	BARBARA DAIN	100000
008	SLIN SARE	100000
009	PATTERSON ECTE	100000
010	NP	100000
011	FEDERAL DM	100000
012	FEDERAL DM	100000
013	FED OF MICH	100000
014	APPRAISAL CO	100000
015	TRIMBLE	100000
016	HOMER LIVING	100000
017	NP	100000
018	STODOLTER	100000
019	NICK CONCA	100000
020	HANK BOWARD	100000
021	WALKER	100000
022	WILLIAM T PLANK	100000
023	ROBERT G MURPHY	100000
024	WILLIAM B HENRY	100000
025	1401	100000
026	ALFRED WATSON	100000
027	ALAN W BARKER	100000
028	WILLIAM W BARKER	100000
029	EARL S JONES	100000
030	F FILIPESCU	100000
031	F ALLEN	100000
032	ROBERT W USE	100000
033	FLOYD S KANDEL	100000
034	WILLIAM W BARKER	100000
035	WILLIAM W BARKER	100000
036	WILLIAM W BARKER	100000
037	WILLIAM W BARKER	100000
038	WILLIAM W BARKER	100000

BIRMINGHAM

926	DUMMA, CLARENCE	HA 657007
927	EDWARDS, J. WERN	CA 611639
928	LOUIS, J. JEROME	HA 643088
929		
930	WALTER, LACEY	SA 672222
931	WILLIAM, RALPH	CA 625290
932	WILLIAMS, H. DAVID	SA 637388
933	W. C. CURRAN	SA 647327
934		
935	W. H. HEDGECOCK	LA 616122
936		
937	MAYNES, OT	HA 6808
938		
939	13700 S 200 E	1228 AC 601012
940	JOHN C. AUSTIN	HA 612023
941		
942	JAMES S. MACK	LA 647212
943	W. C. LANDAUER	LA 642567
944		
945	W. GOLUBOVICH	LA 648029
946	W. ROSENBERG	
947		
948	HAZEL	HA 6838
949		
950	730 S 1000 E	1028 AC 601012
951	JERRY, CECILE	HA 644032
952	JOELLA M. DENE	CA 645048
953	E. C. GUARD	HA 653771
954		
955	THOMAS, MICHAEL	HA 646397
956		
957	J. M. SCHRAM	CA 642038
958	ANTHONY, GEMAN	CA 648175
959	EDDIE A. WELAND	LA 645042
960	M. H. WELCH	HA 658281
961	HIN, PAUL	HA 625366
962	ANDREW, FRED SWIFT	CA 643184
963	C. W. BRADY	CA 643787
964	DEITH, E. LEWIS	LA 646470
965	D. C. CHAN	LA 644931
966	PETER S. SABB	LA 650102
967	DAVID, PATTON	CA 643187
968	FRANK F. MCGRAW	LA 646748
969	T. W. KRAVILLIA	LA 643767
970	DAVID A. DUNN	CA 645777
971		
972	WILLIAM R. FRANKEL	SA 637268
973	CARL C. KUMMER	LA 637240
974	A. MILBRAND	SA 637840
975	C. DOWD	LA 642308
976	R. BLEIGH	LA 640540
977	LALA, STAN	LA 648047
978	M. A. LAPORDA	HA 648046
979	J. MURRAY	LA 648811
980		
981	THOMAS W. ELLIS	LA 646490
982	1246	
983	FRANKLIN C. HOLMES	LA 646497
984		
985	J. W. REY	LA 648107
986	MURMEL, S. CARROLL	CA 609171
987	MOCHTIG, FORUM I	LA 641071
988	CARL, EVANGELISTA	LA 649526
989	ALFRED W. MARSHALL	LA 645019
990	C. VELCOVIC	LA 647044
991	MELVIN H. HOWARD	LA 648042
992	W. C. WILCOFF	LA 648111
993	W. C. KHALIL	LA 645626
994	THEODORE, MARGARET	LA 648179
995	ARON, STANLEY	LA 644720
996	NICHOLAS, RYONA	CA 643075
997	WILLIAM F. FRIEDER	LA 641208
998	FRANK A. HARTZ	LA 611376
999	W. C. QUINCY	LA 642303
1000	THOMAS, WITCHESTER	LA 645626
1001	HANLAN, J. SWICK	LA 643041
1002	DANNY, GOODMAN	LA 640272
1003	WILLIAM B. HUSSELL	LA 649388

CHAD

126	LOUIS J HUDSON	5425494
127	W SCOTT RICH	5441205
128	D L LALIC	5400367
129	ROBERT A BELTRAY	5422182
130	WOLFGANG M BRATRAY	5479425
131		NO
132	SHAPIR RABIER	5459191
133	ADAM P F CARDIN	5447583
134	JOHN S ROBERTS	5440512
135	J BLAKE	5456761
136	JOHN A BUCK	5445207
137	WILL MURK	5401308
138	A WOLF	5440081
139	J J STOREHOUSE	5461158
140	PAUL E MYER	5443342
141	WILLIAM R WENNING	5443292
142	ZIYA STRICK	5421918
143	WILLIAM S BACH	5444082
144	MICHAEL J THOMAS	5421777
145	S SHAN	5454915
146	STANLEY C EDE	5421398
147		NO
148	FRIEDT STRECH PNTS	5447058
149	ROBERT A BRADSHAW	5442204
150	PAUL RICH	5466172
151	VERNON LAMER	5423758
152		NO
153	DONALD L BOSTCH	5424613
154		NO
155	LESLIE C CRADY	5451173
156	PAUL R MCWAT	5435348
157	JOHN M HIGHT	5444925
158		NO
159	D SALIN	5445574
160	CLINTON R WISE	5441824

J. LEWIS 6 6
J. LEWIS 6 6

02 RICHARD DREGAN J 045510V

CRUCE

90	JOHN TADIAN	20424907
99	DAVID A. ROSEMAN	06410442
	JO ANNE SCIENCE	06410435
HAZELWOOD		
	PO- BYE T JORDAN	04410119
2	WALTER GERGEN	7 04005761
44	N L KOHLMEIER	04412220
59	MICHAEL DARZA	04410889
61	WILLIAM CARSON	04410648
67	PHILIP F FCS	04410735
68	LARRY J DILLON	2 04437723
MO		
10	J KINGSBLEY COTTON	7 04050997
24	HOWARD ENGARD	04406633
31	GEORGE S GAIN	04404181
76	ROBERT M LEAVINE	04411022
77	WILLIAM BROWN	04406635
	JO ANNE SCIENCE	

[illegible]

ERNEST S BOULSAU		846-2930
RICHARD WROGEMAN	3	643-5509
PAUL D HACKER	3	642-9658
DICKIE M CRUCE	8	642-5458
JACK HANNE	3	647-5275
JOHN P DUMITZA	1114	644-9263
MICHAEL E TODD	1	642-0948
97 RESIDENCE	3	BUSINESS

AZELWOOD 48009

708- 999 T 103002	844-0111
CHRISTOPHER C AERNI	-8474365
H L KOHLMEIER	8461320
EDWARD W LYONS	8425124
WILLIAM D CARSON	844-9966
JOHN A LOFFER	4 646-0284
LARRY J SPILEN	2 642-3722

ND

LOREN BRUECKEL	6	647-6817
HOWARD ENGARD		716-6033
GEORGE S GUIN		666-6163
ROBERT M LEAVENS		6661352
WILLIAM D BROWN	9	646-8035

12 RESIDENCE

HENLEY 48008

200- 999 T 1031	844-0512
ROBERT J WILLIAMS	842-152
ROBERT J WILLIAMS	8477754
D K SIMPSON	646-0347
D K SIMPSON	0 647-5890
WILLIAM N CARPPELL	816-7390
CHARLES A EDDY	716-0147
WILLIAM L BOWDIE	646-5477
ROBERT S WILLIAMS	646-0656
FREDK C ECKHOUT	646-9046

EALM, D ZIN
E JAMES ER

H A BEKEN	6467776
MRS GEO A ANDERSON	6450668
HOWARD L PHILLIPS	6466533
JOHN R SMITH	6464444
JOHN K BOONE	6422931
PHILIP H SMITH	6462931
JOULIS L RUSSO	6471769
JOHN P STRUSS	6420470
MRS S NABARIAN	6455446
GEO J AUCHTERLONIE	6464355
EMMANUEL PAPADAKIS	6440291
HAROLD R GEARY	6464444
MARGARET A WALSH	6426049
JAMES A ALDER	6440566
H F GANIARD	6470213
REV H C MCGHEE	6424135
RICHARD N KIEPPE	6466360
J E CORIEN	6466555

C. ROBERT B.
B. A. SICKLE

R ADRIAN			
R ARTHUR LINDSAY	3	6425862	
R HERBERT J HADLTON	4	8475793	
R RICHARD E LODEING	2	6473568	
R HAROLD T STEPHENS		6441699	
R ARTHUR MEYER		6472997	
R CHARLES HASTINGS	9	6473000	
R OWEN PERRY	4	6467445	
R M RESIDENCE	1	BUSINESS	

HENRIETTA 48009

300- 1999 T	1029	86.011	
R I BUCK	7	6442540	
R ESTER KORINSKY		86420974	
R JOHN E ROTH		81940777	
R E BRUCE HENSEY		8474667	

Y. KAWANISHI, T. H. A.

0	B B Atkins	3	6442322
0	ALEXANDER BLAIN IV	7	86655973
1	BRUCE SCOTT BLAIN	7	86655973
1	MARTGER J BIGHAM	4	86655973
2	DAVID HEATH	8	86652819
9	GEORGE BOEHMKE	4	8670881
0	PERRIN B SHATTUCK	8	8665496
1	JOSEPH WILLIS	8	8676794
1	JAMES S BALOWIN	8	8673944
7	M E FRANZEN	8	8682623
2	GREGORY M CERNAK	4	6426025
8	H L SHERIDAN	8	8660553
2	JOHN L ELLIOTT	8	8665668
5	DAVID H TUCKER	1	8665668
8	N PHILLIPS	7	8646475
1	HILMER C CARLSON	4	8647893
6	R H BRYSSSELBOUT	8	8661835
7	V UTLEY	3	8626224
8	S D WRIGHTON	1	8626626
3	ELWIN H PETERSON	8	8644864
4	CNEIL L BELLON	1	8663915
6	R E DECKER	8	8646374
7	WILLIAM T CARLSON	3	8655150
7	R I OYE	8	8665374
8	HAH MEDMAN	1	8643374
9	CHARLES C HOOVER	7	8647692
0	ROR KAMEL HASSAN	8	8614913
1	D A CAMERON	3	8628731
2	WILLIAM A BLAZER	3	8653236
3	JANE E NEAFIE	8	8623468
3	DALTON HARRIS	4	8648214
4	RICHARD DEAN STACKA	8	8673844
9	JAMES KAROS	8	8647497
9	GARY NEWINGHAM	7	8662558
2	G A SPRAGUE	7	8644433
2	HENRY D GUST	8	8661233
3	D L SELLERS	8	8642266
6	L A MOKINS	1	8678599
6	JOSEPH S CUDLEY	0	8665705
8	R M MAYER	4	8627611
8	L E NARD	4	8627611
7	E C CLARK	8	8644783
7	D J TIBBLE	9	8606511
8	H H NEUWMAN	8	6443223
8	MRS J A GILRAY SR	8	8620808

NO DEREK FIRM
C
NO DEREK FIRM

93	CARL BIRGE	016122
93	CARL C REYNOLDS	0 05571
11	JOHN V INGOLD	M14791
	C LAWALL SMITH	4 044933
20	C BIONDILLO	4 044129
22	ADRIAN C JOHNSON	546229
40	JAMES R BUCHANAN	M14657
47	JAMES M RUSSELL	4 042357
56	M M GRIFFITH	9 040447
67	PERCY LOCKHART	545454
80	WALTER R BARKLEY	M2127

40 BIRMINGHAM

1758 RODERICK H PARKER 6 0422714
1762 ROOF SCORING INC 04227541
1766 DR H SCHENKEL 6 0422274
1770 HAROLD S BARRON 04227553
1774 PIER C BARRON 04227553
1778 S L ROSENTHAL 04223222
1782 NP
1786 NP
1790 LEONARD L ROGERS 6 0471241
1794 E F ARCHER 6 0468672
25 RESIDENCE 5 BUSINESS

GREENLAWN 48009

1242 JOHN B WHITTAKER 4 0469521
1256 GILBERT SETTLE 6 0429183
2 RESIDENCE

GREENWOOD 48009

200- 899 T 103002 SA..011
255 ENSIE SMITH ALLEN 0465960
259 MICHAEL J VALKS 6 0477634
292 D K ROSEVELT 0466925
303 ROBERT J WENDE 6 0425936
310 EDWARD T RANEY 7 0468718
319 DM C SALLISBURY 04677588
324 PAUL P FRENOO 6 0469176
327 ROBERT L MORRIS 0468310
335 ROY GRAVLIN 0462995
336 NP
347 ROBERT E GIBLIN 5 0474248
348 HRS LEGRAND F DALY 3 0461327

364 EARL GROVES 3 0461327
371 OTTO M RACETTE 0461323
371 MYRTLE THOMSON 0467232
388 JOSEPH E BALLEW 2 0474777
395 MARVIN W BARR 7 0444354
407 BURKE C CAMPBELL 8 0463674
410 HENRY A MANLEY 0468880
436 LAWRENCE H POMEROY 0461378
442 ROBERT BATES 1 0464735
452 FRED C NISSLEY 0464450
511 E R HADGICHAN 0462788
523 GALE L BERG 5 0427229
543 ROSE M STRICKLAND 0423099
559 NP
575 J DAVID HEINZ 0448856
587 HILTON A JUDE 0462316
611 GEORGE F WEDER 0462239
628 NP
631 C F BEECHER 4 0424289
656 ROBERT INNES 0465366
656 E H SESTOK 4 0444878
667 J W SCHEJAL 6 0472985
711 GEORGE F SHERIDAN 0463517
733 JOHN FARR 0467530
739 S W FREDERICK 0410549
780 JOAN DAVIS 0471106
*DR D M HIRSCH JR 04222054
787 M B HORTON 0465389
819 E V MALARNEY 0461180
828 GORDON L BARNES 0471852
837 JOHN C BARNES 0467888
843 CHRISTIAN GUTSCH 04620072
879 EDWARD J KVIET JR 0467999
44 RESIDENCE 1 BUSINESS

HAMILTON 48011

100- 599 T 1031 SB..012
106 NP
107 NP
110 CHARLES CHYNOWETH 6 0421118
115 OWEN PETTI 0427451
128 ROBERT M REK JR 0462396
135 THEODORE J CARRON 0462910
140 HAROLD O HARRIS 6 0423849
159 EDWARD L COLLINS 7 0473913
168 ROBERT T ROTH 6 0467632
185 FRANKLIN B ROBERTS 0465619
221 JIMMIE BUSTIC PUR 0414918
232 WM H REYNOLDS 0467530
233 ROBERT C CHARLTONS 0465689
243 NP
246 A F VONDERHAAR 6 0460670
269 HORMOLD SPRING GOS 0463976
283 HORMEYS FINE JEWELRY 0467626
WM WATKINS JWR 2 0471648
315 C W BARR 0471648
*LAFAYT RADIO ELCTN 0460346
320 NP
327 POLY CLEAN CENTER 0469066
*GARCO INC 0469066
*PAUL J GABERY 0469066
332 CHURCHILLS OF SCHM 0474955
335 E D BURRUGHS 7 0444408
336 NP
344 PAULES TRAVEL AGCY 0428230
*FATES MIL REPR 0428231
*JACK PRICKER ARCH 0462686
346 WILSON BARRER SHP 0428233
360 J D MCNARD RLT EST 0443500
*BERNOLD ETTERASSCO 0443500
*R F CHAPOTON RLT EST 0443500
*EARL W FERNELIUS 0443500
*R W ETTER RLT EST 0443500
*ETTERASSCO INC 0443500
*B VAN HAN 0443500
*WHITFIELD RLT EST 0443500
*ALLEN A STROM RLT 0443500
*J T ELLIOTT RLT EST 0443500
*HEN JONES 0443500
*STROM CO INS 0443500
365 RALPH H STUCK 0443500
377E JONES FLOOR CVRG 0444483
*JONES FLOOR COVERG 0444483
377E BIRMINGHAM FLOWERS 0460120
3813 BASKIN ICE CREAM 0468208
*BRASH RBN ICE CREAM 0468208
383 BIRMINGHAM KNT LNS CT 0462472
*DR JOE W JOHNSON 0462472
384 DR M WHITE 0461246
391 DR ALVA D RUSH 0463343
395 CHRISTYS HAIR STYL 0470078
400 HARRISON W WELDER 0413898
412 EDWARD J NOLAN 0469571
500 M C DAWSON 0469571
515 JAMES A HALL 4 0469719
LAURA F HALL 6 0469719
575 THOMAS LAHIFF 0474179
580 WILLIAM L BONES JR 7 0429685
WILLIAM L BONES JR 7 0429685
622 DR JOHN F OZUBA 0465966
644 LYNN MITCHELL 3 0464658
WENDY MITCHELL 3 0464658
656 BRITTON M MISTELES 0469663
33 BUSINESS

HANNA

300- 799 T 1029 SB..011
395 LAMOND BAIRD ROYDS 0460135
364 JAMES T WILSON 4 0460485
380 KARL M GEORGE 0469239
387 NP
411 RICHARD J MCCLAREN 0448535
412 C F DELBRIDGE JR 0460824
425 MILKA ICONOMOFF 2 0462775
447 MICHAEL LOWE 0423640
JOYCE G LOWE 0423640
463 GEORGE E FENBER 6 0466086
470 WILES H RUPY 0467289
491 EDWIN M POWLER 3 0444531
492 JAMES F CLARKE 8 0424776
511 G L WENZL 6 0446071
M M WENZL 0446071
512 JOHN MOOSMAN 0444695
519 ROBERT J GUAIL JR 0462357
524 KENNETH H PERKINS 3 0427551
535 J S CARR 3 0464369
547 R BRUCE MCLELLAND 7 0467816
552 HOWARD D RITTER 0423331
560 JOHN EDWARD YOUNG 0462335
568 P C BURNETT 0463395
584 CRAIG S KALLEN 6 0422135
592 C E RICHARDSON 0427992
593 C H HOLMES 6 0444773
604*GOODE REAL ESTATE 0471898
GILBERT GOODE JR 0468865
657 W A GIBBONS 0468865
658 MERILL J SCHLAACK 0468865
653 ROBERT E YATES 3 0466283
636 KEVIN C WALDORF 0467396
ROBERT KIPP 7 0468186
647 JOACHIM MATTHEWS 0468186
658 W A REED 6 0468186
667 FRED A BROTHMER 1 0468186
672 L V VAUGHN 1 0468186
A V WHITE 0468186
679 JAMES R TEMPLE 0468186
690 ALEX J LAPOINTE 2 0468186
699 WILLIAM R RALLS 0468186
701 WILLIAM E KINLEY 0468186
704 G J MONTGOMERY 0468186
722 CLARENCE H MCVEY 6 0477852
733 J M FORTSON 4 0468186
750 N P GREENBAUM 6 0477852
47 RESIDENCE 1 BUSINESS

HARMON 48009

200- 599 T 103002 SA..011
268 A M WOOD 6 0462621
272 D P KAMBO 0462621
288*G BIRKERTSASSCO 0477446
292 NP
309 GORDON S WOOD 3 0468969
372 R H BUTLER 0467689
383 ADA S MOORE 0468111
415 RUSSELL W SYMES 0429070
420 VINTON BIRCH 0445788
440 CLYDE H MULHURN 4 0464420
465 JOHN F EDELY 5 0472387
488 MILD A FISHER 0465792
519 JOHN W MURPHY 1 0470528
521 NP
544 JOHN A HEADE 0429430
548 NP
572 WALTER C REINKE 7 0469969
603 WILLIAM H THORNBURN 0465193
627 MARY ELLEN RYAN 0467179
630 HOLY NAME CONVENT 0468106
635 FOREST K FOWLER 0465179
637 CYRIL L DAY 8 0422970
651 MRS JOSEPH E KEENA 0465543
663 JOHN J FEEHLEY 5 0471694
676 M VIRGINIA TARRIER 4 0467694
680 HOLY NAME SCHL 0424722
*HOLY NAME SCHL 0424722
691 J MEICKENAND 0466824
707 NP
711 FRED K GIBB II 8 0424932
DAVID W MILLS 6 0473467
743 DANIEL C DEVINE 6 0445078
760 EDWARD H GAGNE 0461931
767 ARTHUR J BLAZBY 0468132
P H BROWN 0469873
787 ZOLTAN SPESKY 6 0461854
788 EDNET J GAGNE 3 0468132
810 ROBERT C WERMAN 5 0463531
827 HAROLD C MICKMAN 0464086
850 JOHN E DEWENTER 4 0470506
855 REV L C GILLETTE 0460233
864 VERNON BRYANT 0443990
895 STAN R TURNER 0464081
916 SEVA BARNI 5 0467782
GLADYS ROGERS 0477222
920 GEORGE S ROBINSON 0442959
929 WILLIAM B WOODBURN 6 0460234
940 CARL F INGRAHAM 6 0471117
945 JOHN B SMITH 4 0468285
940 DONALD A SCHNEIDER 0467176
47 RESIDENCE 4 BUSINESS

HAWTHORNE RD 48009

100- 799 T 103001 SA..011
120 A LESLIE SCHAEFER 0476847
123 J F KING 4 0447309
B A KING JR 6 0447309
174 D E MACKENZIE 0444828
185 JOHN E JAMIESON 0443226
216 FRANK J GAGANERY 0477237
225 LAWRENCE A HULBERT 5 0442713
MRS R HULBERT 5 0442713
272 CHARLES E LEWIS 7 0445323
285 JAMES W FREDERICK 0445395
320 E W BRENN 0444031
345 CLIFFORD BAUGH 0444031
348 DOCKEY CRAIGHAG 5 0440627
380 R C STOLTE 0474541
454 DR W A POTRANSKI 3 0469265
512 MRS JACOB WANTING 0472263
540 LEROY BRAISTED 0468807
607 C V GARDNER 0427680
633 HAROLD C KENNEDY 0444403
655 DR G B CARPENTER 1 0460384
20 RESIDENCE

HAYNES

800- 1999 T 1028 SC..012
833*BERKINGHAM LOCKSMITH 0479730
835*LIBERTY CLANK PLNT 0469700
*LIBERTY CLEANERS 0460222
851 WILLOS SINTAY 0462607
SAMUEL MOORE 0422454
909*J D WILSBERRY ARCHT 0440004
*G BIRKERTS ARCHT 0440004
*BERKERTSASSCO ARCH 0440004
911*BARONA SALON 0467051
985*ATLANTY BROS CO INC 0419400
1008 ROGER CRONA 0424422
1025*BERKINGHAM GLLRY INC 0427455
1036 JAMES A SIELAF 6 0467848
1045*AGA ASPHALT PAVING 043900

HAYNES 48008

1300 BERT A CRAWFORD 0471927
1302 NP
1312 NIAZI BARDHA 6 0473715
1324 WALKER A KERN 0468033
1334 A K CHICA 0468705
1392 C E BERTSNER 5 0468024
1400 ROBERT G MCWITTIE 0467874
1415 WILLIAM N HUNTER 0467866
1448 GERALD F DALKA 0463119
1441 ROBERT M ANDERSON 0477378
1482 F ARTHUR BYLINGTON 0467848
1495 MRS C D BREVAND 3 0468214
1506 NP
1507 LEWIS R BOBBINS 0465415
1523*OR BERGE NAJARIAN 0474199
1524 M L JENSEN JR 6 0476130
1526 ROBERT E WEE 0465147
1528 WALTER F WENES 0465147
1508 ALFRED W WINBORN 0465149
1510 HAROLD M LYNNEIS 0468091
1592 WILLIAM T MCLEAN 7 0428382
1591 ROGER L PARINEAU 04680765
1603 AGAR STARK 0467551
1605 J R JAMES 0463245
1646 WILLIAM L GILBERT 0470108
1661 NP
1673 DOUGLET ALVINY 0422294
1678 BRYAN WYTHLODS 0467193
1680 JOHN L DAVIDSON 3 0473261
1683 L F SCHNEIDER 6 0467170
1687 L F SCHNEIDER 6 0467170
1689 STEWART F RECKA 0469629
1690 EDWARD F USHER 0466193
1691 H MUMFORD WETO 0465390
1694 ARNOLD PETERSON 2 0467206
1695 WYATT A GAVIN 04628517
1697 VICTOR H SGOO 6 0470799
1698 WILF F CONSIERE 7 0474014
1699 WILF F CONSIERE 7 0468995
1693 JAMES F MCQUIRE 0466939
1694 DONALD E VAN LEO 3 0465123
1695 EDWARD L WHITAKER 0427428
1708 NP
1710 ALLEN B WILHELF 5 0474219
1711 ROY H GILBERT 0465090
1712 JAY H HATFIELD 7 0474359
1713 E E VANHORN 5 0470715
1715 RONALD G CANTRELL 0424295
1727 A G SREARM 0477948
1731 RAYMOND H HECK 6 0443335
1752*TYLLOTTSON STUDIO 0477949
1753 C E LISK 2 0462282
1754 NP
1774 BUD PRICE 0463384
F R VANLANDINGHAM 0463190
1775 E V HUBBARD 0426363
FRANK W TURNER 6 0475012
1776 DONALD W BENA 0462217
1793 JAMES H BENDER 0463919
1795 WM W MCNAUGHTON JR 0474623
1796 NP
1798 S M LINEBERGER 0467636
1809 A PRISCILLIANO 0474220
1810 NP
1822 RODNEY L BERN 0465610
1823 GERALD LE PAGE 2 0466369
1863 VIRGINIA A BURROWS 0461957
1884 LEROY J HEUGH 4 0463926
1861 WENDELL G ASPLIN 0422105
1880 NP
1875 OTHEL STEVENSON 0470351
1876 DETER SIRON JR 0426585
1880 NP
1890 WILLIS J REYER 0449413
1900 NP
1919 M J OCHARME 6 0472955
1924 JAMES W READING 0443752
1933 WILBURN E BRICK 6 0467368
1934 JUNE WASSERSKI 6 0463279
1947 THOMAS W KERR 2 0473090
1948 LOUIS J ZIMMEL 4 0469084
1959 NP
1960 WALTER LACEY 0470248
1970 WILLIAM PASCOE 7 0472468
1982 PHELIP H DAFGE 4 0473368
1984 NP
1999 GEORGE WEGA 6 0463723
89 RESIDENCE 12 BUSINESS

HAYNES CT 48008

100- 1999 T 1028 SC..012
1342 NP
1380 A GLENN KING 0424987
1395 JOHN A CROSSMAN 0468231
1366 DONALD E CAVENCERS 0424568
1374 MICHAEL E LASOVAGE 0421047
1382 W BRALOWSKY 0467868
1398 HANNA P PRITCHARD 0465672
7 RESIDENCE

HAZEL 48008

700- 1999 T 1028 SC..012
216 JAMES P GORMAN 6 0423284
844 ZELLA M DEWEY 0445669
ROBERT T COCKE 8 0427265
867 NP
868 WILLARD BROWN 0417890
893 CHIN SOON 0426996
896 J M SCHRIENER 0465175
921 NP
939 H L MCLEROY 5 0446081
955 ANDREW FREAR BUTT 0423194
960 R J GRESHAMER 0469212
982 JOHN J MARKS 4 0468079
998 HAROLD PHILLIPS 043497

BIRMINGHAM

1011 DAVID PATTON 0467157
1020 WILLIAM E PITNEY 1 0460498
1031 NP
1044 DONALD E MORSE 0477430
1053 LEO A STIERS 042056
1060 ALICE M BAGSHAW 5 0463567
1077 ALICE M BAGSHAW 0463567
1085 M A LA PONSA 2 0469402
J M MURRAY 6 0477628
1115 WILLIAM ELLIS 0442744
1131 THEODORE T TANASE 6 0463563
1146 V J CAPUTO SR 0470343
1153 FRANKLYN HOLMES 0467843
1155 WARREN J WUTTER 0467857
1179 ROBERT KIGHT 7 0475615
1197 RUSSELL M GARMAN 0465751
1403 PHILIP P BRUNO 0467058
1414 HERBERT M GOST 0469357
1435 JOHN H TODD 4 0467552
1438 REV B J BURA 0429580
1440 MELVIN H ROMAIN 0469562
1449 L M LISZKIEWICZ 0468131
1461 MAC CHIKALUK 0463989
1486 THEODORE MAGURAN 0468179
1522 DAVID E LARSON 0462838
1527 NICHOLAS RTONA 0467875
BRUCE L BOWBY 0469056
1548 PHILIP A MARTZ 6 0461135
1564 ANTHONY J GENNA 2 0473608
1565 ROBERT M SIEMERT 8 0427024
1582 DAVID R CRESHIRE 4 0470283
1589 A J ZAEHRINGER 7 0426218
1593 WILLIAM S RUSSELL 0465036
WARREN A WICKLAND 0468361
1602 ARTHUR D CRAIG 4 0461642
1611 LOUIS J HUGSON 8 0425494
1620 WM H BERGER JR 0425069
1637 A D LALIC 0468367
1638 PHILIP J LA PINE 3 0468084
1650 RICHARD O WARE 3 0472580
1673 ERNEST BARDHA 7 0472351
1684 RONALD S GOODBURN 0464072
1696 S G SUTHERLAND 6 0478248
1699 JAMES W BOLIN 8 0477972
1704 L W KNIGHT 6 0467729
1707 JOHN H NIGLEY 2 0473287
1712 L WOLF 7 0460091
1731 C J STONEHOUSE 0461149
1748 PAUL E MCTEER 0468382
1753 WILLIAM RUTHERBERG 0443265
1765 MYRTLE BARDHA 6 0474416
1777 NP
1780 NP
1782 DAVID C HAWKINS 0473744
1795 AGIM BARDHA 7 0462007
1807 NP
1808*FRITZ STRECH PATH 0470508
1821 ROBERT A BRAUNER 0442904
1824 RICHARD W ENHEIT 5 0476311
1842 RICHARD L RAND FLOR 0462323
*REL FLORSEWER SRV 0462723
EUGENE L RANG 7 0478680
1845 NP
1856 DONALD E CAMPBELL 3 0468726
1859 NP
1861 LESLIE G CAMPBELL 0461272
1863 STEVEN H ERWIN 5 0472915
1881 EMERSON W RICE 5 0464014
1889 NP
1901 NP
1904 MICHAEL W GROSS 8 0424593
1915 NP
1916 NP
1919 PAUL J ROY 0467061
1930 S R FLEISCHER 0463758
1943 GEORGE T COREY 0425566
1948 ERNEST S ROULEAU 5 0462930
1962 NP
1967 NP
1973 DICKIE R CRUCE 8 0428468
1974 NP
1998 ROBERT M ADD 6 0476843
1999 N E BELANGER 7 0443116
95 RESIDENCE 3 BUSINESS

HAZELWOOD 48009

700- 899 T 103002 SA..011
735 JAMES W WILFORD 0412939
744 H L KOHLMEIER 0441320
759 EDWARD W LYONS 8 0421142
764 WILLIAM D CARSON 3 0469068
765 A SOST 7 0467680
788 JOHN M NOLAN 2 0422713
815 NP
820 LOREN BRECKELS 6 0476817
844 HOWARD ENSARD 0468833
851 GEORGE S GUIN 5 0464163
867 ROBERT H LEAVENS 2 0461352
WILLIAM B BROWN 0468035
12 RESIDENCE

HENLEY 48008

200- 999 T 1031 SB..012
250 ROBERT J WILLIAMS 0477768
ROBERT J WILLIAMS 0471710
292 O K SIMPSON 6 0475890
O K SIMPSON 0460347
319 WILLIAM N CAMPBELL 0473990
320 CHARLES A RODY 0461467
342 WING F JARVIS 3 0472016
358 ROBERT R WILLIAMS 0468698
359 FRED C ECKHOUT 4 0469544
445 KARL B ZINT JR 5 0460343
460 E JAMES ERWIN 8 0425377
463 M A BERKER 2 0447776
467 HOWARD L PHILLIP 6 0465531
510 ROBERT E MILLER JR 2 0440594
511 PETER K BOYNE 1 0444664
530 JULIUS L RUSSU 7 0471769
550 JOHN P STROUSS 0462840
555 J KEVIN SMITH 6 0445125
587 GEO J AUCHTERLONIE 8 0444355
621 HENRY C MCQUEEN 0413881
633 HAROLD B GEARY 0467747
640 BETHEL O KELLEY 0413139
678 JAMES A ALIBER 0418586
740 R P GANTARD 0470213
749 DAN H MUFFMAN 0466238
DAN H MUFFMAN 0462512
755 RICHARD N KIERPE 0416880
770 J E GRIEN 0460551
800 WALTER B BOOTH 0447435
801 ROBERT J MCCLAND 0460001
833 HARRY E ROSEN 0442437
LORETTA BRECKEN 0442437
852 ALBERT E FREED 0461846
CLYDE SNYDER 0461846
937 DR R R GALPIN 0460299

40 BIRMINGHAM

1892 KENNETH B NEWBERRY 3 6446560
1900 GEORGE N SKRUBB 3 6473734
1901 EDWARD HAMMERSTEIN 3 6465209
1905 EUGENE U BEGO 1 MI17092
1906 JAMES E FULLER 3 6473028
1921 GUY O HITT 3 MI40588
1927 W N HOLMES 3 MI44730
1928 J THORBERG 1 MI40458
1930 DOUGLAS J HOLTER 3 6445533
1936 NP
1938 RONALD R LEIST 3 6440726
1940 NOEL R COOK 3 6440706
1941 JACKSON MC LAUGHLIN 3 6471255
1942 DONALD S JACOBSON 1 MI17091
1943 A L HOLTZ 3 6445368
1944 JOHN A SEELEY 3 6443805
JOSEPHINE W SEELEY 2 6441805
1946 ELON JIPSON 2 6442963
1948 ROBERT S KETCHUM 3 6449208
1950 JACK F COSTOLO 3 6440643
1951 GERALD P DAVID 3 6441559
1954 JOHN W CAMPBELL 3 6472886
1955 HOWARD A LOVE JR 2 6473668
1960 OSCAR A GOTTSCH 3 6440015
1961 MARY ANN SHERWOOD 3 6471639
LOUI OLSEN 3 6471639
1964 R W LEMOYNE 3 6440715
1965 E J EUSTICE 2 6440322
1970 ROBERT O BRADLEY 3 6440555
1971 BURKE D CAMPBELL 3 6443674
1974 ARTHUR W JACKRISON 2 6473773
KAREN N GRAHAM 2 6471959
MARYLU ROBERTSON 2 6471959
1981 THEO R SCHROEDER 3 6441751
1983 CAROLYN PACHECO 0 MI18756
1984 S L SAAVEDRA 3 6442074
1985 DR JOHN G GRAUPNER 3 6472325
R S WILCOX 3 6472325
1987 MARIAN HOAG 3 6471018
LOIS E WENTWORTH 1 MI17018
1988 WILBUR C BUCKHEIT 3 6442900
1989 L E MC DONNELL 2 6473589
1990 EDGAR A DEYO 3 6470849
1991 T R PRICE 3 6469847
171 RESIDENCE

GRANT

48009

1900-1999 T23029 SA..011
1146 ELOUISE WOOSTER 3 MI17432
*HAYBELLE BEAUTY SH MI17432
11604 JINCKIN LAUNDROMAT 3 6449878
11844 WOODCRAFT CO MI14042
*SMITH WOODCRAFT CO MI14042
1 RESIDENCE 4 BUSINESS

GREENLAWN

48009

1171-1372 T23030 SA..011
1242 JOHN B WHITAKER 3 6449523
1356 DR JOHN W SIGLER 3 MI45983
2 RESIDENCE

GREENWOOD

48009

200-899 T23030 SA..011
240 NORMAN C WHITE 3 MI63409
255 ELSIE SMITH ALLEN 3 6445960
270 JOHN F ROSS JR 3 MI45392
292 D K ROOSEVELT 3 MI44215
303 ALBERT F AMUSSENER 3 6472268
319 JOSEPH J GRANDA 0 MI48531
324 JOHN J CALE JR 3 6441028
327 ROBERT L MORRIS 3 MI188310
335 ROY GRAVILIN 3 MI140428
347 ROBERT E SULLIVAN 3 6473294
348 MRS LEONARD F DALY 3 MI181327
364 EARL GROVES 3 MI181323
371 OTTO M RACETTE 3 MI12671
383 BERNADINE C ALLEN 3 6446687
P GLAVE 3 6446243
MYRTLE THOMSON 3 6472732
388 JOSEPH D BULONE 2 6447477
407 ROBERT L WERNER 3 6444423
419 HENRY A MANLEY 3 MI166800
436 MRS L H POMEROY 0 MI181378
443 ROBERT BATES 1 MI184725
452 MARGARET MC DONOUGH MI174701
511 E F HARRISON 3 6447788
525 MRS ELLEN J BENIS 3 6446449
543 GEORGE B WOLF 3 6447964
575 J DAVID HEINZ 3 MI18696
587 MILTON A ZUBE 0 MI162318
611 GEORGE WEBER 0 MI162209
631 C F BEECHER 3 6442689
655 ROBERT INNES 3 MI165366
656 E H SESTOK 3 6446678
667 ROBERT F JAMIESON 3 6472092
711 JAMES E BLOCKER 3 MI160449
ROBERT O SHEPLER 0 MI165428
759 JOHN M FARR 3 MI146735
759 GERTRUDE FREDERICK 3 MI140649
780 S W MUNNLEY 3 6446282
787 H B HORTON 2 6471963
819 ELSTIE V MALARNEY 3 MI14389
828 M R MICHARDIS 3 6446792
843 GERALD A LOCKHART 3 MI166019
879 EDWARD J KVIET JR 3 MI174499
44 RESIDENCE

HAMILTON

48011

100-699 T23031 SA..012
110 MICHAEL S FRISCH 3 MI170712
115 OWEN PETTI 3 MI14358
128 R L GUYMON 3 MI170287
159 CLIFFORD E SIMMONS 1 MI155616
168 DOUGLAS H EMEN 3 MI17886

BRESSER'S CROSS-INDEX DIRECTORY

186 F B ROBERTS 3 MI62619
221 JIMMIES RUSTIC FUR MI41919
222 G L CHRISTOPHER 3 6470899
243 DR WM J HOPKINS 3 MI17952
246 LAWRENCE H BECK 3 MI19369
260 GRISWOLD SPRING GDS 3 6453976
283 JONES FLOOR CRVING 3 6444483
*E JONES FLOOR COVR 3 6444483
314 CHARLES K BACKUS 2 6446711
*WILLIAM STONE ARCH 3 6446711
315 LAFFY RADIO ELCTR 3 6440345
D L BAKER 2 MI17648
WELLIAM G BURGESS 3 MI17648
327 GARCO INCORPORATED 3 6461543
*PAUL T GARTLEY 3 6461543
*POLY CLEAN CENTER 3 6461543
332 DAVID C DAVIS FURN 3 6461543
335 E T BURROUGHS 3 6444483
336 ROBERT D WILEY 3 MI15711
344 FRANK STRAUSSASSOC 3 6446811
*HOLFORT ASSOC WC MI170773
346 POLITES BARBER SHP 3 6442273
360 BERNOT ETERASSOC 3 6443500
*ROLAND W BERNOT 3 6443500
*R W EITER RL EST 3 6443500
*ALLEN A STROM RLTR 3 6443500
*JACK T ELLIOTT 3 6443500
*B A VAN MAAREN 3 6443500
*HENDRIK J HOUW ENG 3 6470573
*STROM CO INS 3 MI17400
365 RALPH M STRUCK 3 MI15367
375 CARLS APPL SERV 3 MI10888
*HANTHORNE ELECT CO MI14200
377 VILLAGE GOURMET INC 3 6443450
*VILLAGE GOURMET REST 3 6443450
379 BIRMGH TRAVEL SERV MI15711
381 31 BASKIN RB ICECR 3 6448208
*BASKIN RBN ICE CREM 3 6448208
383 JOSEPH W JOHNSON 3 6462472
*BIRMGH CMT LNS CT 3 6447472
384 DR R H WHITE 3 MI16144
391 DR ALVA D RUSH 3 MI10845
395 CHRISTIYS HAIR STYL 3 MI10708
400 HARRISON W WILDER 3 MI13898
412 EDMUND T NOLAN 3 MI14530
500 NP
515 JAMES A HALL 3 6469749
575 WAYNE M SPADE 3 MI17392
580 ALLAN J FORD 3 6474285
622 DR JOHN F DELIUBA 3 MI15948
644 LYNN MITCHELL 3 MI16688
WENDY MITCHELL 3 MI16688
666 HOWARD J STOK 2 MI18473
28 RESIDENCE 31 BUSINESS

HANNA

48009

300-799 T23029 SA..011
355 MRS LANDON B BOYD 3 MI16104
364 JAMES T WILSON 3 6445643
380 KARL M GEORGE 3 MI169239
387 NP
411 JOHN F OTT JR 0 MI18114
412 C F DELBRIDGE JR 3 6460824
425 MILKA I CONOMOFF 2 6446275
447 LELAND J BUNYAN 0 MI180992
463 MILTON D HACKLER 0 MI160792
470 MILES H TUFT 3 6471299
491 EDWIN H FOWLER 3 6444236
492 NP
511 MARY M WENZL 3 MI146071
TRUDY WENZL 3 MI146071
512 JOHN MOOSMAN 3 MI144596
519 ROBERT J QUAIL JR 3 MI148357
524 KENNETH W GUNN 3 6440531
535 CASSAM A WILSON 0 MI143061
536 J S CARR 3 MI164309
547 JAMES R LOUGHRAN 3 MI18918
552 HOWARD R RITTER 3 MI143331
560 NP
567 P G BURRETT 3 MI166395
584 ARTHUR C PECK 3 MI15442
592 G E RICHARDSON 3 MI17992
593 J R GRIFFITH 3 6444585
SARAH LARSON 3 6444585
604 GILBERT GOODE JR 0 MI188846
*GOODE REAL ESTATE 3 6471898
607 W A GIBBONS 3 MI165181
620 MERRILL J SCHLACK 3 MI16681
629 ROBERT E YATES 3 6446243
636 MRS FRANK LOSSINO JR 3 MI143493
TERRY J ROBERTS JR 3 6449476
647 JOACHIM MATTHESIU 3 MI162188
658 RICHARD J MCCLARKE 3 6448535
667 FREDRICK PROTHORPE 3 MI146260
672 MRS ADA WHITE 3 MI164848
LILLIAN S VAUGHN 1 MI164848
679 JAMES R TEMPLE 0 MI160067
690 ALER J LAPOINTE 2 6465715
695 L A HORN 3 6446110
701 WILLIAM E KINDLEY 3 6467399
704 LUTHER HEACOCK 3 MI16299
733 J M FARRINGTON 3 6463533
765 JOHN J SADIET 3 MI14727
45 RESIDENCE 1 BUSINESS

HARMON

48009

248-960 T23030 SA..012
248 MRS D C PRIER 3 6445703
272 HARRY MOGG 3 6443942
288 ARTHUR N CIRK 3 MI146275
292 SUZANNE CRAIG 3 MI16777
359 GORDON S WOOD 3 6448909
372 R H RUTLER 3 MI185869
*SAV-UN-STAS 3 MI169355
383 NP
ADA S MOORE 3 MI144413
415 RUSSELL W SYMES 3 MI143749
420 VINTON BIRCH 3 MI15769
460 CLYDE H MULHURN 3 6444408
485 H N DAVOCK 3 MI17961
ALFRED C MOORE 3 MI17961
488 MILO A FISHER 3 MI165792
490 HAN W MURPHY 1 MI170528

BIRMINGHAM

521 NP
548 JOHN P MEADE 3 6444726
572 HARVEY K GLOR 3 6442960
603 WILLIAM L THORNBURN 3 MI45183
627 MARY ELLEN RYAN 3 MI16179
630 HOLY NAME CONVENT 3 MI46106
635 FOREST K FOWLER 3 MI45179
637 JOHN J FEEHELEY 3 6471094
651 MRS J E KEENAN 3 MI160343
663 CAREY MALONEY 3 MI142445
679 M VIRGINIA TARRIER 3 6443652
680 HOLY NAME SCHL 3 MI142722
691 THOMAS J CAHILL 3 6444492
707 ANNA S PARKS 3 MI142445
711 JENNIFER M MILLS 3 6471411
KIRK W MILLS 2 6473467
743 E J CLOUTIER JR 3 MI144164
760 EDWARD H GAGNE 3 MI146931
767 ARTHUR J BLAKLEY 3 MI168312
787 J J MCGOWAN 0 MI141366
788 ERNEST J SAVOIE 3 6472863
810 ROBERT E TOMASELLO 3 6448178
827 HAROLD C HICKMAN 3 MI14066
850 JOHN E DEWENTER 3 6470506
855 JOHN M RADY 1 MI147795
884 VERNON BRYANT 3 MI13990
899 VIRGINIA MERRILL 3 MI14081
STAN R TURNER 3 MI164081
915 GLADYS ROGERS 3 MI147722
920 GEORGE S ROBINSON 3 MI142059
929 VICTOR W CANEVER 3 MI14740
940 CARL F INGRAM 3 MI14117
945 JOHN B SMITH 3 6446283
960 SAMUEL H COMBS 0 MI166539
47 RESIDENCE 3 BUSINESS
HAWTHORNE RD 48008
320-399 T23030 SA..011
1204 LPSALTY STRAEFER 3 MI17847
123 J F KING 3 6447309
174 D F HAYNIE 3 6446020
185 WILLIAM L BODIG 3 6446890
214 MRS E BLUMKETT 3 6445792
DONALD S BLUMKETT 3 MI140153
725 MARY MARIS 3 MI140110
774 CHARLES E LEWIS 3 MI146323
783 JAMES W WIEDERICK 3 MI145398
797 E W TRENN 3 MI144931
845 CLIFFORD BAUGH 3 MI146760
867 HARRIS H AYERS 3 6461290
880 A C STOLE 3 MI17541
*HAYNIE & ROZHANSKI 3 6446265
517 H F KLEIN 3 MI160924
540 LEMMY BARNHART 3 MI16807
577 E V BARNHART 3 MI142768
513 HAROLD J LEMMEY 3 MI144403
555 DR W F CARPENTER 1 MI160384
19 RESIDENCE

HAYNES

48011

800-1999 T23028 SC..012
813 BIRMGHNDUM LOCKSMITH 3 MI17939
835 LIBERTY CLEANERS 3 MI40222
*LIBERTY CLNRS PLNT 3 MI14970
891 NP
HIROKO OBA 3 6443626
985 TAYLOR BROS CO INC 3 MI149400
1008 ETHEL L KUHLMAN 3 MI17823
1025 BIRMGH LDRG SUPPLY 3 MI143636
1036 IRENE E YOUNG 3 MI144218
1045 AGA ASPHALT PAVING 3 MI143800
1048 CHESTER L GARDNER 3 6471068
***** 48008
1302 JAMES R EAGAN 3 6445923
1312 NP
1324 WALTER A KERN 3 MI146133
1336 NICK ONICA 0 MI14705
1399 EARL W FERNELLES 3 6444546
1400 ROBERT G MCWITTIE 3 MI146784
1415 WILLIAM N HUNTER 3 6447868
1448 GERALD F DALKA 3 MI153119
1461 GEORGE LADUKE 3 6440748
1492 F ARTHUR BYINGTON 3 MI147245
1495 MRS C G DREYDAHL 3 6448214
1506 JOSEPH A LAFAYE 3 MI165296
1507 LEWIS R ROBBINS 3 MI165415
1523 DR H F SMITH JR 3 6470526
1524 JOHN L STRACHAN 3 MI165363
1540 ROBERT W GEE 3 6443197
1549 LEOLA STEVENS 0 MI167372
1568 GEORGE W WINBORN 3 MI165149
1575 HAROLD W LYNES 3 MI168093
1582 JOHN D COOLEY 3 6473290
1591 JAMES C SAYLOR 3 6443110
L K DRAKE 3 6471420
ROBERT E CRINK 3 6471420
1603 ADAM STARR 3 MI17551
1605 LOUIS NARRA 3 6443510
1606 EDWARD J HORVATH 0 MI146327
1621 S S HOFFMAN 3 6473227
1623 MARK G BARRIS 3 6441968
1640 BRUCE REYNOLDS 3 MI171193
1649 JOHN L DAVIDSON 3 6473261
1645 C SCHWENGER 3 MI146701
1647 LILA F ECKER 3 MI146323
1652 WILLIAM ONISO 3 6448630
1659 DENNIS KNIGHT 3 6447093
1661 B MUNFORD REID 3 MI165390
1674 ARMAND PETERSON 2 6447206
1675 C M QUARTERS 3 6446260
1677 VIRGIL R HALL 3 6445863
1686 G E HAMILTON 0 MI165218
1691 EARL F STRICKFADEN 3 6472054
1693 THOMAS T MORTENSON 3 6445992
1698 DONALD E VAN LOO 3 6445123
1704 EDWIN L WHITAKER 0 MI144021
1706 HELEN J GRINNELL 3 MI142132
1707 ALAN L GOULD 3 6443858
1709 RICHARD E GOODWIN 3 6447915
1720 CLIFFORD H BROWN 3 MI166984
1722 CHARLES R GASS 3 6449570
1725 GEORGE H DAVIS 3 6443920

1727 DR HARRY INGBERG 3 6447307
1751 JAMES H SCHROEDER 3 MI163919
1752 TILLOTSON STUDIO 3 MI17799
1753 D E LUSK 2 6446282
1754 E W SCHNAKE 3 MI170396
1774 RALPH L PRICE 1 MI163190
1775 KATHRYN HUBBARD 3 MI142323
DANIEL F WILLER 3 6473168
1793 LLOYD H MILLER 3 6471083
1795 ANDREW W KLEIN 3 6442424
1796 HAROLD J HILL 2 6449670
1798 TEOFIL SWONTEK 3 6473841
1809 A PRISCANDARO 3 MI14228
1810 HARRY MOGG 3 MI163605
1822 JAMES S ROSS 2 6473132
1825 GERALD LE PAGE 2 6446369
1843 N S BURROWS 3 6440957
*DECORATING SERVICE MI144534
*DIEMER DCRGT CO 3 644554
1844 LEROY J HUGH 3 6443926
1861 WILLIAM SPENCER 3 6448957
1866 C BRAITHWAITE 3 MI166113
1875 OTHO STEVENSON 3 MI170351
1878 R L BRAITHWAITE 3 MI170351
1889 DANIEL L JOHNSON 3 6440073
1890 WILLI J BEYER 3 MI149433
1900 W HIGGINBOTHAM 3 MI148282
1901 RAYMOND F COURCE 3 6448637
1919 ALLEN L FRANKO 1 MI149734
1924 JAMES W READING 3 6443762
1933 GEORGE A NILES 3 6448924
1947 THOMAS W KERR 2 6473696
1948 LOUIS J ZIMMEL 3 6440084
1959 NP
1960 WALTER LACEY 3 MI170246
1975 CHARLES PHILPO 3 6470235
1982 PHILLIP H DAFCE 3 6473368
1994 NP
1999 ARTHUR M CONN 3 MI165349
90 RESIDENCE 9 BUSINESS

HAYNES CT

48008

1900-1999 T23028 SC..012
1342 DONALD E KOHTE 3 MI166982
1350 A GLENN WING 3 MI142987
1355 JOHN A CROSSMAN 3 MI168231
1364 NP
1374 REX FREEMAN 3 MI163478
1382 V BRALOWSKY 3 MI170508
1398 HARRY P PRITCHARD 3 MI165672
7 RESIDENCE

HAZEL

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814 RICHARD EGAN 3 6446876
844 ZELLA M BEWEY 3 6445669
846 DOROTHY M MAHER 3 6445538
867 W D SCHWALLIE 3 MI161853
868 WILLARD BROWN 3 MI14789
893 CHIN SOON 3 MI162956
896 J M SCRIBNER 3 MI147099
920 ANTHONY SPENAR 3 MI146175
921 WENG WONG 2 6470487
939 WILLIAM MCILROY 3 MI146081
955 ANDREW FREAR BUTT 3 MI143194
960 ROBERT GRIESHABER 3 MI169212
982 JOHN J MARKS 3 6448079
985 NP
998 HAROLD PHILLIPS 3 MI143497
1011 WILLIAM SEEBACK 2 6470734
1020 WILLIAM E PITNEY 1 MI160498
1031 NP
1044 GRACE L WHEELER 1 MI143267
1055 LEO A STIERS 3 MI142056
1060 ALICE M NGRAM 3 6443567
1077 NP
ALICE MILBRAND 3 6447446
1085 M A LA PONSA 2 6449402
1315 WILLIAM ELLIS 3 MI142744
1331 HENRY F JOHNSON 3 MI163741
1346 BIRMGHNDUM ELEC 3 MI149313
J PAUL NAUD 3 MI149313
1353 FRANKLIN C HOLMES 3 MI144493
1367 WARREN R BUTTER 3 6447857
1379 HERBERT B HAGER 3 MI165989
1397 RUSSELL W GARMAN 3 MI165751
1403 PHILIP P BRUNO 3 6447058
1414 HERBERT W GOST 0 MI169307
1435 JOHN M TODD 3 6449582
1438 DR FRANK BAUER 3 6446482
1460 MELVIN H ROMAIN 3 6446942
1469 L M LISZKIEWICZ 3 MI168131
1481 MAC CHEKALUK 3 MI163989
1486 THEODORE MAGURAN 3 MI168179
1522 A J STILL JR 3 6471378
1527 NICHOLAS KTONA 3 MI144075
1543 ROY F SCHROEDER JR 3 6447449
1548 STEVE SENSI 3 6443982
1564 ANTHONY J GENNA 2 6473408
1565 PAUL M LIVINGSTON 3 MI170549
1582 DAVID CHESNIRE 3 6470289
1589 DR JAS A PANNIN 3 6448071
1593 JAMES R STEIN 3 6473511
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1626 CHARLES R GATES 3 6441446
1637 A D LALIC 3 6447378
1638 PHILIP J LA PIRE 3 6448584
1650 RICHARD O WARE 3 6472580
1655 NP
1673 ROBERT J ROSS 2 6446792
1684 R S GOODBURN 3 6444072
1696 DAIN R MCKOWN 3 6448950
1699 MEL JOHNSON 3 6445340
1704 W J HARTMAN JR 3 647637
1707 JOHN P HIGLEY 2 6473387
1722 PAUL A HEINEN 3 6440882
1731 G J STONEHOUSE 3 MI163149
1748 PAUL E MCTEER 3 6448382
1753 W RUTHERBERG 0 MI143295
1766 WILLIAM BINDER 3 6441614
1777 RALPH A SCOTT 0 MI166619
1780 C T GAGNON 3 6440882

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BRESSER'S CROSS-INDEX DIRECTORY

BIRMINGHAM

HAYNES

635* LIBERTY CLEANERS M140222
 *LIBERTY CLNRS PLNT M149700
 891 ELIZABETH SIMENTON M148991
 SOPHIA MITCHELL M140748
 887 LOWELL S MURKIN M146143
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 985* TAYLOR BROS CO INC M149900
 1008 ETHEL L KUHLMAN M148723
 1023* BIRNIGH LBRG SUPPLY M146363
 1036 IRENE E YOUNG M144218
 1045* ASA ASPHLT PYNG CO M143000
 1244 WALTER A KERN M146333
 1399 EARL W FERNELINE M148436
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 1540 STEVE A KALLAS M142384
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 1643 GERTRUDE B COOK M144701
 C L SCHNEIDER M144323
 1647 LILA F ECKER M144323
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 1659 ROBERT G SIMPSON M140259
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 1706 HELEN J GRINNELL M147666
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 1727 HARRY W BARNES M1470529
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 1875 OTHO STEVENSON M140208
 1878 R L BRIGHTWATE M149413
 1889 FRED UPMEGROVER M146282
 1900 WILLIS J BEYER M1468637
 1900 W HIGGINBOTHAM M1469753
 1901 RAYMOND C KOURCE M143762
 1919 HAROLD C DOLLAR M1463054
 1924 RUTH A READING M142114
 1936 EDGAR MUMFORD JR M144421
 1947 WALLACE E MCCASBY M147046
 1948 FRANK A FERRARO M144584
 1960 WALTER LACEY M1460973
 1975 RONALD A JOHNS M140859
 1982 GERALD J DEVERE M145349
 1994 E R PESSLELL M145349
 1999 ARTHUR H CONN 82 RES T BUS

HAYNES CT

3342 DONALD E KOHTE M146982
 3350 A GLENN WING M142987
 3355 JOHN A CROSSMAN M148231
 3374 REX FREEMAN M143470
 3382 V BRILLOWSKY M147058
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HAZEL

779 GEORGE D SPENCER M145588
 GENEVIEVE JOHNSON M141144
 816 LATHROP M WILKIE M146965
 844 ZELLA M DENEY M145669
 867 W G SCHWALLIE M148153
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 896 J N SCRIBNER M147099
 920 ANTHONY SPENAR M146175
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 940 FAY M LEFAVE M147025
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 MRS G E GREENE M145336
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 1020 DWIGHT BROOKS M140760
 1031 ARDEN AMWEG M149257
 1044 NORMAN W COUCH M146574
 1053 LEO A STIERS M142056

1060 ALBERT B BARBITT M141097
 1071 ALICE MILBRAND M147446
 1078 H G SMITH M145708
 1085* CHARLES W GODAU M141398
 1315 WILLIAM ELLIS M142744
 1331 HENRY P JOHNSON M143741
 1344 JOSEPH NAUD M149313
 *BIRMINGHAM ELEC M149313
 1353 FRANKLYN C HOLMES M144493
 1362 WARREN J RUTTER M146757
 1379 HERBERT O HAHN M145989
 1397 RUSSELL W GARMAN M145751
 1403 PHILIP P BRUND M147058
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 1481 MAL CHERALUK M145989
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 1564 BEN L ROUSE M146071
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 1589 FRANK C HEIDEL M147558
 1593 EDWARD A RUBIN M147145
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 1704 W J HARTMAN JR M147887
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 1722 PAUL A HEINER M144030
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 1748 PAUL E MCETER M148382
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 1780* C T GAGNON M140881
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 1842* J J WOLF JR M146094
 1845 FRANK G FUZESARI M147480
 1856 JEAN C DINSMORE M148124
 1859 C B FRANKLIN M143359
 1863 LESLIE G CRABB M141875
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 1999 PHILIP F ASHTON M145438
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733 JAMES W MILFORD JR M142939
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 759 JAMES F ANDERSON M143193
 764 RICHARD L WEST M141489
 787 GEORGE S SCOTT M146280
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 844 SANFRED E OCHNER M143397
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 314 WILLIAM N CAMPBELL M147390
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 358 R B WILLIAMS M140656
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 640 BETHEL KELLEY M143129
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 800 WALTER B BOOTH M147453
 801 ROBERT J HOLLAND M140001
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 937 DR R R GALPIN M140290
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 *FOXGAIN M142214
 *MARION J FOX M142214
 383 JAMES E GROSS M141052
 384 BALTAZAR KORAB M145418
 410 MYRA SHOMMAN M146728
 ROSE BUCK M142540
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 535 JACK COLENSO M141033
 536 MRS C R MONTAGU M146597
 544 MRS H S TEMPLE M142916
 557 W E ATKINS M142324

560 WALTER J PIEL M146914
 571 MARTON J BORGMAN M149382
 572 GEORGE MACDONALD M144278
 579 SAMUEL W PAQUETTE M148533
 S W PAQUETTE M148533
 590 PENNIE R SHATTUCK M146496
 591 JOSEPH WILLIS M147696
 611 MRS ERNEST BALDWIN M143927
 627 GEORGE BOEHNEKE M170841
 661 A J FOWLER M146488
 668 HELEN SHERRIDAN M146053
 692 JOHN H ELLIOTT M145660
 695 C E ATTIG M141653
 715 T B KLEINGENSMITH M146657
 751 HILMER C CARLSON M147893
 756 T A MAXWELL JR M145065
 768 NORMAN B CHRISTIE M145082
 773 WILLARD S KELLEY M170448
 784 ELIZABETH BOWIS M145177
 ESTELLA ADAMS M145177
 789 MRS ALLEN MCGARR M148785
 809 JOHN R ROSE M147199
 PETER VANDUJ M146853
 820 GERALD R LINTON M149138
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 840 GEORGE P NELSON M149115
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 852 G A SPRAGUE M144437
 854 HENRY DAHLQUIST M141232
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 866 MRS O HERDSHERWER M146960
 875 FRANK H HOME M143154
 877 EUGENE E BURNS M145947
 878 TAYLOR CARL M145182
 880 MRS J C BERTICK M146646
 888 MRS JAY F BLOD M170013
 890 C M FARKER M145358
 891 CARL BINKLE M142925
 891 JAMES E WILLOCK M147990
 891 JOHN W HURVES M140799
 910 J W INGLD M147922
 910 H B MASON M146954
 940 JAMES R BHOJANAN M146679
 947 ROBERT A HUNLEY M147746
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 947 VERNY C LONCHART M145470
 960 WALTER W HARKLEY M141276
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 968 JOHN E BURNARD M145472
 997 H C CONNOR M170611
 1010 EUGENIA WHEAT M146339
 1012 DR W R BRITTON M146187
 1010 CLYDE E HARRING M142642
 1017 MRS CLIFFE BRYANT M149607
 W F UTERMOHLEN M149607
 1086 E H WHITE M149122
 1087 FREDERICK F RAINY M144267
 1088 FRIEDRICH C CALHOUN M140530
 *K A CRAWFORD M140530
 1050 JOHN H ROSSO M140869
 1051 RUSSELL S HOLLIDAY M145666
 1053 MILDRED E HART M149109
 1146 HELEN BESEAU M146202
 E P HANN JR M145946
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 1220 DR MARCUS W FROST M140261
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 1256 PETE Y BURNS M140802
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 SANDRA K MATHEWS M149849
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 1345 H S FORD JR M144273
 1346 JOHN W CLARK M148480
 1376 R H ZIMMERMANN M149203
 1377 GEORGE STONER M147850
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 1470 ANSON W HILBORN M142691
 ANSON W HILBORN M142691
 1482 ALEX SOMERVILLE M142994
 1488 GEORGE S KNOPP M148856
 1500 WILLIAM H DUCKER M149450
 *DR DOROTHY GOERNER M149450
 1501 JAMES I STALKER M146388
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 1520 DANIEL WAITS M144277
 1537 VERNON L BUTLER M142489
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 1604 JACK KACHADURIAN M140010
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 1698 JOHN J KEEVAN M147818
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 1712 JOHN E WEBSTER M145953

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 1122 HAROLD M STEPHEN M146751
 1135 LORIN J VOLLMER M146795
 1140 REVIN J JAMIESON M146680
 1147 JAMES W FREDERICK M145398
 1160 FRANK J HOWLIT M140414
 1200 DR JACK A HUNKEY M148971
 1221 SIDNEY W HUFF JR M146390
 1275 WALTER E FRY M146653
 1276 RALPH H BACKUS M147622
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123 JOHN MACKENZIE M147414
 NO # MARY N HAMMOND M146882
 NO # KATHLEEN JENNISON M142154
 NO # DRW L LOWRIE M142154
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1111 CLARENCE A JOHNSON M143098
 1113 ROBERT B FARLOW M143496
 1115 KATHLEEN A HENLEY M140662
 1116 WILLIAM BRISH M140521
 1128 VIOLET E AWE M148743
 1137 C G GUNNELLEY M143492
 1164 MYRTLE G SALTARD M147916
 1171 H B WASSON M146755
 1180 CARL O FREDERICKSON M147232
 1198 VERNON KEENER M142317
 1212 PAUL BITKOWSKI M145220
 1221 CLYDE FRENCH M142825
 1232 HAROLD WENTWORTH M140976
 1239 FRANCES MONTGOMERY M145722
 1244 HUGH M MACKAY M1460809
 1264 NORMAN V PAYNE M147703
 1278 ALFRED VON RAGAN M143505
 1283 FRANK C TRUSSELL M149543
 1291 A D RUSSELL M140491
 1292 DR F STAINTHORPE M144986
 1311 A O WILLIS M145321
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 1339 MERLE A ELDRIDGE M146027
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 1361 J C MASARIK M147272
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 1408 EMMETT DEXTER M141896
 1428 KENNETH P PARKER M143614
 1444 ALBERT SAVINO M146128
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 1469 BERNARD S JANVETTA M144538
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 1509 ARTHUR H GREEN M144873
 1512 DAVID NAUMANN M145280
 1526 ARTHUR W DOWNS M142270
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 1544 LUELL L COLLINS M143655
 1550 JOHN P NITZKE M146334
 1551 THEO O PERFETTI M147960
 1572 CLARENCE A BIRKELL M145371
 1585 RALPH W MCCURRY M145599
 1614 LESLIE KNOWLES M140032
 1617 GEORGE DIMAS M147943
 1622 CARL J LISEWSKI M143843
 1623 CHARLES ANDERSON M149395
 1643 EDWIN N RYDELL M143495
 1646 MYRLAND R GUGG M146847
 1654 LAWRENCE TOUTANT M146552
 1661 SCOTT HOBBS M147063
 PATRICIA ACKERMAN M147063
 1670 PAUL W DOERNER M170597
 1673 JAMES E RENNELL M143934
 1685 WILLIAM R DAHLBERG M147963
 1686 WALTER BALLI M145376
 1694 GEORGE M BERNARDO M140338
 JULIA E BERNARDO M140338
 1697 JACK E GALVIN M141864
 1704 ROBERT LINDOOD M141378
 1709 LARRY D FUHRMAN M141012
 1716 DAVID E CREASEY M148996
 1721 GERALD KROSS M147227
 1732 HAROLD HANDLEY M141420
 1735 C D HAMACHER M146856
 1743 JAMES H WEDDELL M143657
 1744 WILLIAM J DANAHAR M170580
 1758 BERNHARD A R URBAN M143138

22 BIRMINGHAM

GRAEFIELD ROAD

1965 JOHN J DYER MI-4-7991
1970 MALCOLM R MCKINNON MI-4-0016
1971 C A ROBERTSON MI-4-2155
1974 R D MARSHALL MI-4-5435
1975 SHERMAN McDONALD MI-4-0226
1983 LEE BELANGER MI-4-1462
1984 J O CRUMPLISH MI-4-0532
1985 W M WALSH MI-4-6450
1986 E A DUNN JR MI-4-0283
1987 J A VANDENBERG MI-4-6570
1988 HERBERT C BIGELOW MI-4-1021
1989 DONALD F COOPER MI-4-0041
1990 WALTER E SCHULZ JR MI-4-8375
1991 JOHN P BEAVITT MI-4-8457

GRANT

1148 ELOUISE HOOPER MI-4-7432
*MAYBELLE BTY SHOP MI-4-7432
1184 *SMITH WOODCRAFT CO MI-4-0424
*WOODCRAFT CO MI-4-0424

GRAY CT

156 T D CARLISLE MI-4-4688
227 DALE SPICER MI-4-5216
232 JOHN R MACGREGOR MI-4-2035

GREENLAWN

1356 *DR JOHN W SIGLER MI-4-8983

GREENWOOD AVE

248 NORMAN C WHITE MI-4-1540
255 J J HAMEL JR MI-4-0676
270 JOHN F ROSIER JR MI-4-1973
292 MRS D K ROUSEVELT MI-4-9577
303 RICHARD STEVENS MI-4-3864
310 WILLIAM DUPLER MI-4-2505
324 ARTHUR T LOUGEE MI-4-5768
327 JOSEPH A BYRNE MI-4-9246
335 ROY GRAYLIN MI-4-0428
336 MRS JAMES BARR MI-4-0973
347 GEORGE S STOCKEY MI-4-0950
MRS P M LYNDALL MI-4-3094
348 WILLIAM F NEWTON MI-4-1791
364 EARL GROVES MI-4-1323
371 OTTO H RACETTE MI-4-2672
383 MADELINE R VICK MI-4-0539
MYRTLE THOMPSON MI-4-7371
SALLY POWELL MI-4-3254
LILLIAN B CLAWSON MI-4-0464
388 ROY E BROWN MI-4-3383
407 E W REYNOLDS MI-4-2586
412 WALTER E FLINN MI-4-0886
419 HENRY A MANLEY MI-4-0516
436 J R POMEROY MI-4-2886
511 E F HARRISON MI-4-2788
525 WILLIAM T THOMAS JR MI-4-0865
543 ARTHUR B ROEBEN MI-4-1984
559 R J SANDERS MI-4-6674
575 J DAVID HEINZ MI-4-0886
587 W M WORCESTER MI-4-2318
611 ERNEST E HANN MI-4-1891
R H HANN MI-4-1891
628 MRS E COUSINS MI-4-0101
631 MRS G A BECHER MI-4-2689
640 A JEROME BOSLEY MI-4-5150
655 J M ROBERTSON MI-4-6509
656 DR L E OLMEAD MI-4-4254
667 A E HEAD MI-4-4422
711 L F COLBROVE JR MI-4-3776
738 JOHN M AHR MI-4-6732
759 G M FREDERICK MI-4-0649
787 H B HORTON MI-4-5389
819 WILLIAM MALARNEY MI-4-4180
828 A G TODD MI-4-7142
843 KARL BRONSON MI-4-0529
879 EDWARD J KRET JR MI-4-7499

HAMILTON AVE

168 DOUGLAS H EREN MI-4-7153
278 CHARLES H SMITH MI-4-3240
279 CATHERINE HODGE MI-4-1348
280 *LET W ADY MI-4-7522
314 ARTHUR C REINHOLD MI-4-2312
332 *MICHAEL LAFORAY SPLY MI-4-6733
336 ROBERT D WILEY MI-4-5503
367 W E FOSTER MI-4-1443
379 *DR R H WHITE MI-4-1248
*PONTIAC DAILY PRESS MI-4-0844
*PONTIAC DAILY PRESS MI-4-1813
*BIRMINGHAM TAYL SV MI-4-9711
JOHN R FOSTER MI-4-1046
391 *DR SIDNEY MILLER MI-4-3120
480 P C NIELSEN MI-4-1162
482 WILLIAM AXLER MI-4-3090
JACK STEWART MI-4-0893
870 *PONTIAC PRESS MI-4-0844

HANNA

364 J P OWENS MI-4-6490
380 A A KIEKHOFF MI-4-8859
411 HUGH C WALSTON MI-4-9515
412 WILLIAM R SAYLOR MI-4-4226
463 MRS L HASTREITER MI-4-0285
470 HARVEY J HOME MI-4-6236
491 BRADLEY PRUDEN MI-4-0892
511 J F WENZL MI-4-6071
519 RICHARD L MILLER MI-4-1356
524 ROBERT KELLEHER MI-4-0415
535 CASSANDRA WILSON MI-4-3063
536 HENRY STEPHENS MI-4-3448
547 L O CURP MI-4-1923
552 M D IRITTER MI-4-3331
560 ANTHONY J DALEY MI-4-3109
563 P G BURNETT MI-4-1910
584 ARTHUR C PECK MI-4-9421
592 G E RICHARDSON MI-4-7092
593 C WALK MI-4-3634
604 CLEMENS X CASTLE MI-4-0667
607 W A SIBBONS MI-4-0129
620 HERRILL J SCHLAACK MI-4-8681
623 ELLIOTT E REDIES MI-4-3093
636 C A JESSUP MI-4-5025
ROBERT L JESSUP MI-4-4413
W R MCCONNACHY MI-4-3063
658 GEORGE W ZINKY MI-4-9410
667 FRED C PROTHORPE MI-4-6260

BRESSER'S CROSS INDEX DIRECTORY

679 WILLIAM H TODD MI-4-1203
695 WILLIAM S HODGE MI-4-0310
701 C G BORELET MI-4-2085
704 LUTHER HADCOCK MI-4-6399
728 L J SLUSSER MI-4-3723
735 I W BARRER MI-4-8045
765 JOHN W SAGLIER MI-4-9237

HARMON AVE

268 MAY BELLE CLARA MI-4-9145
272 ARCHIE A YORK MI-4-4426
288 MRS M GOLDENBOGEN MI-4-1140
292 ROBERT B THOMPSON MI-4-6073
359 JAMES H HERBST MI-4-8806
372 H BUELER MI-4-5034
383 ADA S MOORE MI-4-6113
419 J P CUMMINGS MI-4-5578
420 VINTON P BIRCH MI-4-5769
440 RANDOLPH W HEIZER MI-4-0315
485 K N DAYOCK MI-4-3780
R C HUPP JR MI-4-3780
488 MILO A FISHER MI-4-9269
519 *MOLVERINE EQUIP CO MI-4-8411
A E FICHMANN MI-4-8411
544 R W SANDERS MI-4-2728
548 E W BERNDT MI-4-6051
592 C R SANDERSON MI-4-2711
603 WILLIAM L THORNBURN MI-4-3183
630 *HOLY NAME CONVENT MI-4-8106
635 FOREST K FOWLER MI-4-9179
637 EDWARD F BURNHAM MI-4-1979
651 H J HANNAH MI-4-6996
663 FREDERICK J HASON MI-4-6133
679 HERMAN P TODD MI-4-5872
680 *HOLY NAME SCHL MI-4-2722
591 STUART M ALLEN MI-4-5383
707 ANNA S PARKS MI-4-7049
743 JOHN M HONTING MI-4-8023
760 DON H BACON MI-4-6931
767 A J BLAZBY MI-4-7881
787 J H VANOUSSEN MI-4-1309
810 MEDVIN POSNER JR MI-4-2874
827 HAROLD HIGHMAN MI-4-4086
MRS S WILLIAM LEADER MI-4-3116
855 A W QUINN MI-4-3116
864 VERNON BRYANT MI-4-3590
895 BENJAMIN Y FUENTE MI-4-1823
915 MRS BEATH BOO MI-4-1388
GLADYS BOO MI-4-1322
929 VICTOR A GIBBY MI-4-1914
940 CARL INSERIAN MI-4-7112
945 WALTER F TAYLOR MI-4-7356
960 ROBERT L MARTIN MI-4-1889

HAWTHORNE RD

120 A LESLIE SCHAEFER MI-4-9360
123 *BARNARD HUBER MI-4-4634
175 DOROTHY HACHARZ MI-4-6658
185 R C CUMMINGS MI-4-1136
216 DONALD S HUTTON MI-4-1333
NIELS DIFFIDENT MI-4-3245
225 MARK HARRIS MI-4-0110
L P ROBERTS MI-4-0110
272 CHARLES E SMITH MI-4-7181
285 BEVERLY D BOYD MI-4-7181
320 E W BRINN MI-4-8011
345 THOMAS H HURLEY MI-4-8750
348 L B BILLINGS MI-4-7221
360 R C STILLER MI-4-7541
ROBERT EDWARDS LYFFACE MI-4-1240
454 MARK B DEARSS MI-4-1240
512 ORREN L ANDREWS MI-4-5562
540 T F THORNTON MI-4-1311
607 CLARENCE GARDNER MI-4-2768
633 HAROLD KENNEDY MI-4-4413
655 WILLIAM W WILLIAMS MI-4-8780

HAYNES

835 *LIBERTY CLEANERS MI-4-0222
*LIBERTY CLEANERS MI-4-9700
851 THEO MITCHELL MI-4-0748
887 HELLER DEHABLOCKER MI-4-3194
EDWARD W MITCHELL MI-4-3194
916 JAMES DIMAS MI-4-4888
940 GUY SHATTUCK MI-4-6919
985 *TAYLOR BROS CO INC MI-4-9400
1006 ETEL L KUHLMAN MI-4-3995
1025 *JOHN ROSSONS IN MI-4-1960
TIMOTHY LERNSUPPLY CO MI-4-3636
1034 IRENE E YOUNG MI-4-4218
1045 *ASA ASPHALT PAVING MI-4-3800
1048 EARL SIMMONS MI-4-0681
1809 A PRISCILLA OHIO MI-4-7228
1810 HARRY HODGE MI-4-3005
1827 ROBERT C HANNOW MI-4-8394
1843 N S BURGESS MI-4-0957
1844 ROLLAND B REYNOLDS MI-4-7135
1851 VINCENT TIDONY MI-4-3209
1856 LAVERNE F SMITH MI-4-2539
1877 WILLIAM AXLER JR MI-4-9875
1878 DONALD MACDONALD MI-4-9517
1889 GERALD E TWEDDIE MI-4-0807
1890 WILLIS J BEYER MI-4-9413
1900 W HIGGINOTHAM MI-4-8282
1901 CHARLES DUNKEL MI-4-4036
1919 RALPH GREEN MI-4-6172
1924 JAS W READING MI-4-1058
1936 CHARLES ANDERSON MI-4-4395
1947 WALLACE E MCCASKEY MI-4-2114

HAZEL

776 WALTER V MASON MI-4-7627
779 GEORGE D SPENCER MI-4-5586
816 ARTHUR STALEY MI-4-6177
MARILYN L STALEY MI-4-6177
844 ZEILA M DEWEY MI-4-5669
867 VERNON FOUACRE MI-4-9096
888 WILLARD BROWN MI-4-1789
893 RAY S FAYE MI-4-0497
896 J W SCRIBNER MI-4-7099
920 ANTHONY SPEAR MI-4-6175
921 JOHN E FANCHER MI-4-6326
939 WILLIAM MCILROY MI-4-6081
940 FAY M LAFAYE MI-4-9025
952 J THOMAS MARTIN MI-4-4013
982 W BACKUS MI-4-6720
988 HAROLD PHILLIPS MI-4-3497
1011 DR R E GIBSON MI-4-2030
1020 DWIGHT BROOKS MI-4-0768
1031 RICHARD W JONES JR MI-4-3426
1044 ARTHUR L JONES JR MI-4-3426
1053 LFO A STEERS MI-4-2056
1060 ALBERT D BARBITT MI-4-1097
1077 MRS R G HOOPER MI-4-7683
1078 H G SMITH MI-4-2087

BIRMINGHAM

1085 CHARLES W GODAU MI-4-1598
1807 AMELIA L LENOARD MI-4-3576
1808 FRITZ W STRECH MI-4-7058
1821 SUSAN SCHROEDER MI-4-2804
1824 WILLIAM C STRANG MI-4-5046
1845 FRANK G FUZZESANI MI-4-3606
1856 MRS GUY C BROWN MI-4-1947
ROBERT L HENDERSON MI-4-7342
1859 CHARLES FRANKLIN MI-4-3394
1863 LESLIE G CHABE MI-4-1272
1870 THOMAS S REED MI-4-6088
1881 SAHL J FOX MI-4-1094
1888 RICHARD W METTRICK MI-4-1579
1901 JAMES OSTERHOUDT MI-4-2093
1904 ELMER J SMITH MI-4-1526
1916 KATHRYN TATONIN MI-4-1652
1929 PAUL J ROY MI-4-0883
1943 DEVERE T COREY MI-4-2506
1948 ROBERT NAUMANN MI-4-4080
1962 WILLIAM HARTZ MI-4-0694
1967 ANDY S TELEK MI-4-8022

HAZELWOOD AVE

735 JAMES W MILFORD JR MI-4-2930
744 H L KOHLMEIER MI-4-9465
759 R H SPENCER MI-4-6598
764 HUGH KEYS MI-4-6527
787 GEORGE S SCOTT MI-4-0357
788 GEORGE H VANDUREN MI-4-3649
815 GEORGE GILLETTE MI-4-0704
820 ROBERT H PORTER MI-4-2880
844 RALPH R HOTCHKISS MI-4-2259
851 FRANK H HARDY MI-4-3181
876 MALCOLM T MURRAY MI-4-6392
877 E L PILKINGTON MI-4-0394

HENLEY DR

250 ROBERT J WILLIAMS MI-4-2988
258 ROBERT B WILLIAMS MI-4-0656
292 O K SIMPSON MI-4-0347
319 CHARLES RENFREW MI-4-0749
340 ARTHUR WRADY MI-4-0749
342 ARCH B FRASER MI-4-4041
359 R A EMMETT JR MI-4-0691
442 GEORGE HEIDENAN MI-4-9169
487 IRENE H NEUMANN MI-4-3251
511 PETER B SUMM MI-4-1240
539 ALFRED R WATERS MI-4-9614
587 V B WATKINS MI-4-0997
621 HENRY C HEGUEEN MI-4-3881
640 BETHEL B KELLEY MI-4-3139
678 C J BOCK MI-4-9581
759 WILLIAM C ALLEE MI-4-0393
801 ROBT J HOLLAND MI-4-0001
937 DR R H GALLPIN MI-4-0290
995 ARTHUR J THORNER MI-4-1696

HENRIETTA

339 HARRY HALE MI-4-7217
THOMAS P SHEARER MI-4-2084
355 *RALPH A HAIN MI-4-2114
*WILCOX LAIRD MI-4-7400
*LAIRD WILCOX MI-4-7400
366 RICHARD STEPHENSON MI-4-1350
383 MRS MAUDE E BROOKS MI-4-2049
410 MYRA SHOKMAN MI-4-6728
ROBERT BUCK MI-4-2540
415 KENNETH W DUFF MI-4-9218
530 JOHN E GOTH MI-4-0217
*J ROTHISONS MI-4-0217
535 JACK COLENSO MI-4-1033
536 H C MURRAY MI-4-0206
544 DONALD KENEALY MI-4-0393
MRS H S TENPLE MI-4-2016
547 NORMA B GUSTAFSSON MI-4-4757
557 W E ATKINS MI-4-2322
560 ALTON H HAAK MI-4-2586
H J BORGMAN MI-4-9382
572 GEORGE MACDONALD MI-4-4278
590 PERRIN B SHATTUCK MI-4-6496
591 JOS WILLIS MI-4-7694
627 THOMAS A HARDING MI-4-6616
647 GEORGE ARMSTRONG MI-4-0062
652 *JOHN BROOKS MI-4-3098
681 A J FOWLER MI-4-6488
688 HELEN SMERIDAN MI-4-1361
692 FRANK DEMPSEY JR MI-4-8895
695 WALTER R BARKLEY MI-4-1276
706 H C COLBY MI-4-2736
751 WILMER C CARLSON MI-4-7893
756 T A MAXWELL JR MI-4-5486
768 JOHN H BROOKES MI-4-1271
771 JOHN H ROSSO MI-4-0869
773 RICHARD H YOUNG MI-4-8978
784 JACK D FULLER MI-4-2251
786 R W JONES MI-4-6474
789 MRS ALLEN MCCOIR MI-4-8785
791 WARREN NEWMAN MI-4-8568
809 DR L S MELCH MI-4-9271
L E SHALBERG MI-4-5427
JACK THOMPSON MI-4-2720
820 W B GARY MI-4-4812
821 G S GURIN MI-4-9466
DONALD D MARTIN MI-4-2404
822 BRIDA WATCH MI-4-2587
DORRIS HARTS MI-4-2887
833 JAMES M PEABODY MI-4-1445
CARL R LUNDOLAD MI-4-0810
838 M J DUPUIS MI-4-9445
840 JOHN F TRAUPE MI-4-3558
849 ROBERT J ADAMS MI-4-8666
EARL F KUEHL MI-4-0305
852 G A SPRAGUE MI-4-4437
854 HENRY DALLQUIST MI-4-1332
859 G CORREGAN MI-4-3764
863 MRS H ALFRED MI-4-0877
866 MRS S HAMILTON MI-4-0705
868 G C MCGAVRAN MI-4-6768
875 FRANK H HOWE MI-4-3154
877 ALBERT S BURNS MI-4-2681
878 J R LENOARD MI-4-1059
888 HENRY A HOUSTON MI-4-3127
MRS F B CITER MI-4-0382
890 CARL B ROE MI-4-0336
891 CARL BENKLE MI-4-1412
893 MRS K F CEHLER MI-4-1048
911 PAUL J SHINE MI-4-1697
H FROST MI-4-0123
920 H D BUDD MI-4-2647
922 VERN C MARKLEY SR MI-4-1753
940 JAMES R BUCHANAN MI-4-8570
947 DONALD L SCHICK MI-4-1370
956 MRS PAUL H SMITH MI-4-4332
967 FREDY LOCHMART MI-4-5470
980 MRS CLARENCE WHITE MI-4-0793
982 HENRY B GEORGE MI-4-8014
995 JOHN D BURKE MI-4-5472
997 ALEX J LAPOINTE MI-4-5468

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Structural Steel
Smokestacks
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Machinery
Tanks
Road
Machinery
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Ships - Boats

Birmingham
2552

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Below 13 Mile Rd.

JUDSON BRADWAY CO.

REALTORS

See Page 62, Buyers' Guide

Developers of *Bloomfield Village* on West Maple

A 600-Acre Rigidly Restricted Residential Community With Building Sites 80 to 200 Feet Front With All City Improvements and Low Taxes

Main Office Majestic Bldg., Detroit
Phone Woodward 2-9700

Birmingham Branch W. Maple
at Cranbrook, Phone B-ham 1414

HARMON AV — From 511 N Woodward av west to Lakeside dr, 2 south of Oak
2684 Bainbridge Janet M
2724 York Archie A
2884 Goldenbogen Wm H
2924 Thompson Robt B
3594 Vershure Norman D
3724 Hart A Jesse
3834 Moore Ada S Mrs
Bonnie Briar begins
4154 Keppel Chas J Rev
4204 Birch J Vinton
4604 Johnson Harry E
4854 Fisher Milo A
Tooting la begins
5194 Tarkington Byron G
5444 Marih Geo E
5484 Chamberlain Otis L
5724 Tuomey Mabel
Woodland av begins
6034 Thorburn Wm L
608 Alumni House (Holy Name Church)
630 Holy Name RC Church
Holy Name RC Convent
Sisters of the Immaculate Heart of Mary
6354 Wines Lawrence M
6374 Collins Harry V Jr
651 Vacant
6334 Brinkman Robt P
6794 Todd Hiram P
6914 Allen Stuart M
Greenwood av intersects
ne cor Holy Name School
Greenwood av intersects
7074 Baldus Emma Mrs
rear 4 Girmus Mary P Mrs
743 Matzger Hoyt
7604 Howe Clayton B
7674 Bleazby Arth J

7874 Fowler Beulah B Mrs
7884 Blake Alice M Mrs
Baldwin av ends

810 Vacant
8554 Thomas Jos T
8844 Bryant Vernon C
8954 deBeaubien Jules
Lakeview av begins

9154 Rogers Gladys
9404 Ingraham Carl F
9604 Booth Fredk E

HARROW RD (Bloomfield Twp) — From Oxford dr east to Eaton, 2 south Manor rd

2104 Williams Harry
2704 Sockett Ray C
2754 Brodie Robt B
2904 Dean Menno

HARSDALE NORTH (Bloomfield Twp) — From Harsdale rd north to Sunningdale, 1 west of Stoneleigh dr

Δ Vernor Jas

HARSDALE WEST (Bloomfield Twp) — From Sunningdale south to Ardmore (No houses)

HARSDALE RD (Bloomfield Twp) — From Lahser rd west, 1 north of Lone Pine rd

Δ Bel Wm C
8604 Spencer Louis M
48054 Vernor Jas

PHONE 4400

CLOHSET & McCUTCHEON

Authorized Hudson
Sales and Service

Birmingham, Mich.



820 S. Woodward

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Headquarters for
Sherwin-Williams Paints
and
Scotts Lawn Care Products

40 Years of Continuous Service

PAUL E. KURTH, Prop.

205 N. Woodward Ave.

Phone 110

HAVERHILL ROAD (Bloomfield Hills) — From Tarboro east and southeast to Dunston rd, 2 north of Quar-ton rd
(No houses)

HAWTHORNE (Bloomfield Twp) — From Squirrel rd east, 1 south of Highwood dr
(No houses)

HAWTHORNE RD — From W Maple av south and west to Linden rd, 1 west of Southfield rd

1234 Fletcher Ralph C
1744 Mackenzie Dorothy C

1854 Cunningham Raymond C

2164 Plunkett Mabel T Mrs

2254 Harris Mark B

2724 Lewis Chas E

2854 Boyd B Roger

3204 Brehm Edw W

3484 Billings Leo B

3804 Stolte Richd C

416 Vacant

4544 Jesson Stanley P

5124 Andrews Orren L

5404 Cole Melvin W

Aspen rd ends

6074 Gardiner Clarence V

6334 Ketchum Karl E

6554 Scriven Albert J

HAYNES — From 716 S Woodward av east to S Adams and from Columbia av east to S Eton rd
Hunter blvd intersects
Elm ends

8354 Liberty Cleaners (ofc & plant)
8514 Mitchell Theo M

8604 Schaule Robt

887 Baldwin Wm J

8884 Robbins Orville

9164 Dimas Jas

9404 Shattuck Guy A

9854 Taylor Bros Co Inc
road contrs

S Worth begins

10084 Kuhlman Leslie A

10254 Birmingham Lumber & Supply Co Inc

10364 Young Lloyd W

10454 A & A Asphalt Paving Co

10484 Simmons Ora W Mrs

S Adams av intersects
(Unopened to Columbia)

1809 Vacant

1810 Vacant

1822 Vacant

1825 Vacant

1843 Vacant

1844 Vacant

1861 Vacant

1866 Vacant

1875 Vacant

1878 Vacant

1889 Vacant

1890 Vacant

1900 Vacant

1901 Vacant

1919 Vacant

1924 Vacant

1933 Vacant



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&
Storage
Co.

Fireproof
Warehouse

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2112

Matthew's

Men's and Ladies' Tailor — Furrier
Cleaning and Pressing

244 E. Maple
Phone 4314

Birmingham

186 Pierce
Phone 2895

PARKS COAL Company

Builders'
Supplies

Dupont
Paints

369
E. Maple
Av.

PHONE
2020

Hotter
Coal
&
Coke

FEEDS SEEDS FERTILIZERS McCLELLAN FEED & SALT CO. 153-155 S. WOODWARD AV. PHONE 314

HARMON AV.—Contd
488⁴Fisher Milo A ©
519⁴Wasey Josephine W
Mrs ©
544⁴Kellermann Ernest D
548⁴Ornas Theo
572⁴Tuomey Mabel ©

Woodland av begins

603 Newman Geo A ©
608⁴Duncan Jas A Rev
630 Holy Name Church
4Holy Name Convent
Sisters of the Immacu-
late Heart of Mary

635⁴Schad Herman F
637⁴Dugan Chas A
651⁴Parry Donald J
663⁴Evans Sue D Mrs ©
679⁴Pokorny Chas A
691⁴Allen Stuart M ©

Greenwood av intersects
ne cor Greenwood Holy
Name School

Greenwood av intersects
707⁴Baldus Emma Mrs ©
rear Girmus Mary Mrs
743⁴Landis Henry N
760⁴Ricks David M
787⁴Bleasby Arth J ©
787⁴Fowler Richd C ©
788⁴Blake Alice M

Baldwin av ends

855⁴Potter Horace W ©
884⁴Bryant Vernon C
895⁴Streng J Truman

Lakeview av begins

915⁴Rogers Gladys ©
940⁴Raviolo Victor G
960⁴Booth Fredk E ©

**HARROD ROAD (Bloomfield
Twp)—From Oxford dr
east to Eaton, 2 south
Manor rd**

210⁴Williams Harry ©
270⁴Dorris Fred M ©
275⁴Wagner Albert P ©
290⁴Dean Stella Mrs ©

**HARSDALE RD (Bloomfield
Twp)—First north of Lone
Pine rd from Lahser rd
west**

860⁴Spencer Louis M ©
4805⁴Holzworth Christopher
E ©

**HAVERHILL RD (Bloomfield
Hills)—From Tarboro east
and southeast to Dunston
rd, 2 north of Quarton rd
(No houses)**

**HAWTHORNE RD—From W
Maple av south and west
to Linden rd, 1 west of
Southfield rd**

123⁴Fletcher Ralph C ©
174⁴Mackenzie Dorothy C
185⁴Mason Lloyd
216⁴Phunkett Edw M
225⁴Harris Mark ©
272⁴Lewis Chas E ©
285⁴Ulrich Arth E ©
320⁴Brehm Edw W ©
348⁴Billings Leo B
380⁴Stolte Richd C ©
416⁴Cobb Thos H ©
454⁴Reitter Raymond F
512⁴Andrews Orren L ©
540 Vacant

Aspen rd ends

607⁴Gardiner Clarence V ©
633⁴Green David A ©
655⁴Scriven Albert J ©

STACEY'S SERVICE Gasoline and Motor Oils BIRMINGHAM 9114 **BRIARBANK GARAGE** Wrecker Service Complete Repairing BIRMINGHAM 1155 Woodward at West Long Lake Road Bloomfield Hills, Mich.

HUSTON C. Sherwin-Williams **HARDWARE Co.** Paints General Hardware Housewares—Sporting Goods *Continuous Service Since 1909* PAUL E. KURTH, Prop. 205 N. Woodward Ave. Phone 110

**HAYNES—From 716 S Wood-
ward av east to S Adams
and from Columbia av east
to S Eton rd**

Hunter blvd intersects
Elm ends

851⁴Mitchell Theo M ©
860⁴Conwell Jas B
887⁴Harris Carrie M Mrs
888⁴Robbins Orville ©
916 Flowers Bernard
940⁴Shattuck Guy A ©
985⁴Taylor Bros Co Inc
road contrs

S Worth begins

1008⁴Kuhlman Leslie A ©
1036 Young Lloyd W ©
1048⁴Simmons Earl

**HAZEL—From 515 S Wood-
ward av east to Adams av
and from Columbia av east
to S Eton rd**

Palm ends

719⁴Lake Richd W ©
748 Phillips Jas C
779⁴Spencer Geo P ©

Elm intersects

810 Robbert Judith
816 Staley Arth S ©
844⁴Dewey Arnold N
867⁴Green Wm M ©
868⁴Brown Willard M ©

Unopened to Columbia
Columbia intersects

893⁴Payne Ray ©
896⁴Scribner Jas M ©
920⁴Spehar Anthony M ©
921⁴Gelsz Chas F ©
930 Williams Robt R ©
939 Westerby Fenton T ©
955⁴Cavaller Dominic N ©
960⁴Greene Gorton E ©

982⁴Backus Wilson M Rev
©

995⁴Jewell Danl E ©
998⁴Phillips Harold ©
1011⁴Steffee Greta Mrs ©
1020⁴Stamman Arnold L ©
1044⁴Carten Mildred Mrs ©
1031⁴DeView Harden ©
1060⁴Stiers Leo A ©
1060⁴Babbitt Albert B ©
1078⁴Smith Hubert G ©

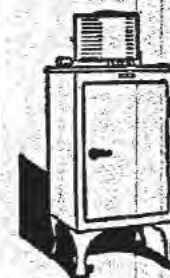
**HAZELWOOD AV—From 811
Vinewood av north to Oak,
3 west of N Woodward av**
735⁴Winegar W Ral ©
744 Vacant
759⁴Zoellin Fredk J
764⁴Keyes Hugh T ©
787⁴deBeaubien Eileen N
Mrs ©

788⁴VanBuren Geo H ©
815⁴Medbury Clara M Mrs
©

820⁴Packard C Armand ©
844⁴Kearns Richd E ©
851⁴Reddick Emma Mrs ©
876⁴Brown Leonard E ©
877⁴Pilkington Ernest L ©

**HENLEY DRIVE—From 205
N Abbey rd east and north-
east to Shepardsbush rd, 1
north of Wembleton dr**
319⁴Renfrew Chas W ©
320⁴Wragby Arth A
359⁴Londergan Margt Mrs
Oxford dr intersects

445⁴Heideman Geo H ©
445⁴Neumann Carl W
511⁴Boyne Peter K ©
539⁴Waggoner Glenn C ©
bldg contr
587⁴Thomas Jos T
Warwick dr intersects



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for
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Refrigerators

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Fixtures
Wiring and
Repair Service

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Co.**

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PHONE
223



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WABEEK BLDG.

BIRMINGHAM

PHONE 328-J

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Builders'
Supplies

Dupont
Paints

283
Brownell
St.

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Coal
&
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GENERAL MOTORS SERVICE

TEL. BIRMINGHAM 306

HARMON AV—Contd
855 Potter Horace W
884 Trimmer Montgomery R

Lakeview av begins
915 Unger Jack W
940 Pfeil Geo
960 Booth Fred E

HARSDALE RD (Bloomfield Twp)—First north of Lone Pine rd from Lasher rd west
4805 Wolf Geo F

HAVERHILL RD (Bloomfield Hills)—From Tarboro east and southeast to Dunston rd, 2 north of Quarton rd (No houses)

HAWTHORNE RD—From W Maple av south and west to Linden rd, 1 west of Southfield rd

123 Hunt E R
216 Wasey Albert
225 Harris Mark
McCutcheon Mary C S pract

271 Vacant
272 Lewis Chas E
285 Lepire John L
320 Brehm E W
348 Kinnison Chas S
380 Seltzman Harold O
416 Cobb Thos H
512 Andrews Orren L
540 Olsen K B

Aspen rd ends
633 Green David A

HAYNES—From 716 S Woodward av east to S Adams and from Columbia av east to S Eton rd

745 Torrence Fuel Co (garage)
790 Taylor Bros Inc contrs Elm ends

820 Mathieu Edw J
844 Mitchell Chas E
851 Mitchell Theo M
860 Hammel Arth L
887 Willis Freeman A
888 Robbins Orville

916 Sluiter Walter
940 Shattuck Guy A
S Worth begins

1008 Kuhlman Leslie A
1036 Kelley Chas W
1048 Capling Ralz

HAZEL—From 515 S Woodward av east to Adams av and from Columbia av east to S Eton rd

680 Bidwell Benj B
Palm ends

719 Lake Richd W lubricants
720 Harris Carrie M Mrs nurse

748 Fyfe Wm
776 Coryell Albert L
779 Staley Arth A

Elm intersects

816 Smith Homer S
844 Woodard Wayne S
Dewey Arnold

867 Green Wm M
868 Brown Willard M

Williams Boot Shop

Florsheim Shoes for Men
Treadeasy Shoes for Women
Pied Piper Shoes for Children
Shoes Repaired by Expert Workman

115 W. MAPLE AVE.

PHONE 117



HAZELWOOD AV—From 811 Vinewood av north to Oak, 3 west of N Woodward av

735 Vacant
759 Zoellin Fredk J
764 Keyes Hugh T
787 Lucas Edw D
788 VanBuren Geo H
815 Riordan Leo J
820 Everingham Frank S
844 Kearns Richd E
851 Reddick Tom
876 Tillotson Robt F contr
877 Pilkington Ernest L

HENLEY DRIVE — From 205 Abbey rd east and north-east to Tottenham rd, 1 north of Wimbleton dr

319 Brinson Carl
359 Ilett Edw W
Oxford dr intersects

445 Edmonds Robt K
487 Vacant
511 Boyne Peter K
539 Waggoner Glenn C contr

587 Thompson Earl A
Warwick dr intersects
640 Hurlbut Carl O
756 Allee Wm C
937 Frey Julian

HENRIETTA — From W Maple av south to W Clawson rd, 1 west of Pierce

Martin intersects
City Park
Merrill intersects

171 Bissett Harry E Co elec refrigeration
339 McDougall Albert D

355 Seager Leon R
366 Bennett Fred
368 Parker Ervin H
383 Sullivan Cleveland C
384 Martin Dorothy Mrs
Townsend intersects

410 Tuggey Arth J
Scribner Jas M
415 Hopkins Fredk B
Brown intersects

535 Hulbert Zadie
536 Murray Harlow C
Blake Dorothy nurse
544 Whitney Edw G
547 Gage Raymond D
557 Atkins Willard E
560 Newman Frances G Mrs

571 Lee Harry A
572 MacDonald Geo A
trucking

579 Lemke Jos A
591 Waldrip Edw M
611 Potere Henry P
627 Wade Marie K Mrs
647 Webster Harold G
651 Young Fred L
668 Collins Michl C
Sheridan Jas H
692 Dahlquist Henry F
Frank intersects

751 Hempstead Henry M
756 Maxwell Thos E
Collins Geo W

768 Duffield Jos D
789 Turner Walter E
791 Lentz Julia B Mrs
809 Ohild Huntley jr
Hilty Maude Mrs

821 King Elbert W
833 Gayman Wendell P
Kanauer Harry E

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Rexall
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Drug Store

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W. Maple
Av.

PROMPT
DELIVERY

PHONE
61

JOHN L. TRACY

REPRESENTATIVE

Metropolitan Life Insurance Company

359 MERRILL ST.

PHONE 2850

BUY WITH CONFIDENCE

J. H. SHERIDAN REAL ESTATE

256 S. WOODWARD AVE.

TEL. 159 W

HIG Research Summary

Site Location

Commercial Property
1000 Haynes St
Birmingham, MI

Requested by

Envirosite Corporation
2 Corporate Drive
Shelton, CT

HIG Project

2045763

Client Project

49822

Date Created

01/25/2021



This Research Summary identifies the products and services provided by Historical Information Gatherers, Inc. (HIG) for the above referenced site location. All products are provided as PDFs unless otherwise noted.

City Directory Pages/Abstracts

Research Methodology: A search was conducted for city directories that include coverage of the site area using HIG's City Directory Collection and other sources, if needed. Directories for the following years were identified for the site area. A comma between date ranges indicates a gap of 10 years or more in available city directories:

Oakland County South 1954-2014
Birmingham 1937-1949, 1983

The above listed directories were reviewed at approximate 5 year intervals to determine if the street(s) specified in the order were included in the directories and had listings for the site area. HIG attempted to identify former street names and aliases and if identified, these were also included in the review.

Research Results: City directory information, when provided, was used to create a multi-page file(s) named CD- followed by the street name. When City Directory Pages are provided, the publication name and date are shown at the top of each page. When a City Directory abstract is provided, the first page of the abstract includes the relevant publication information. The years of coverage identified for each street and any identified historical street names are as follows:

Haynes St (1939-2014)

FIM+ Maps

The HIG Historical Map Collection and the United States Library of Congress Map Collection were searched for fire insurance maps (FIMs), real estate atlases and similar maps for the site location and adjoining properties. These maps were used to create a multi-page file named FIM+Maps. The maps have title blocks that include the map publisher, year the map was created and, if applicable, the year the map was last updated. The years provided are:

1921, 1926, 1931, 1949

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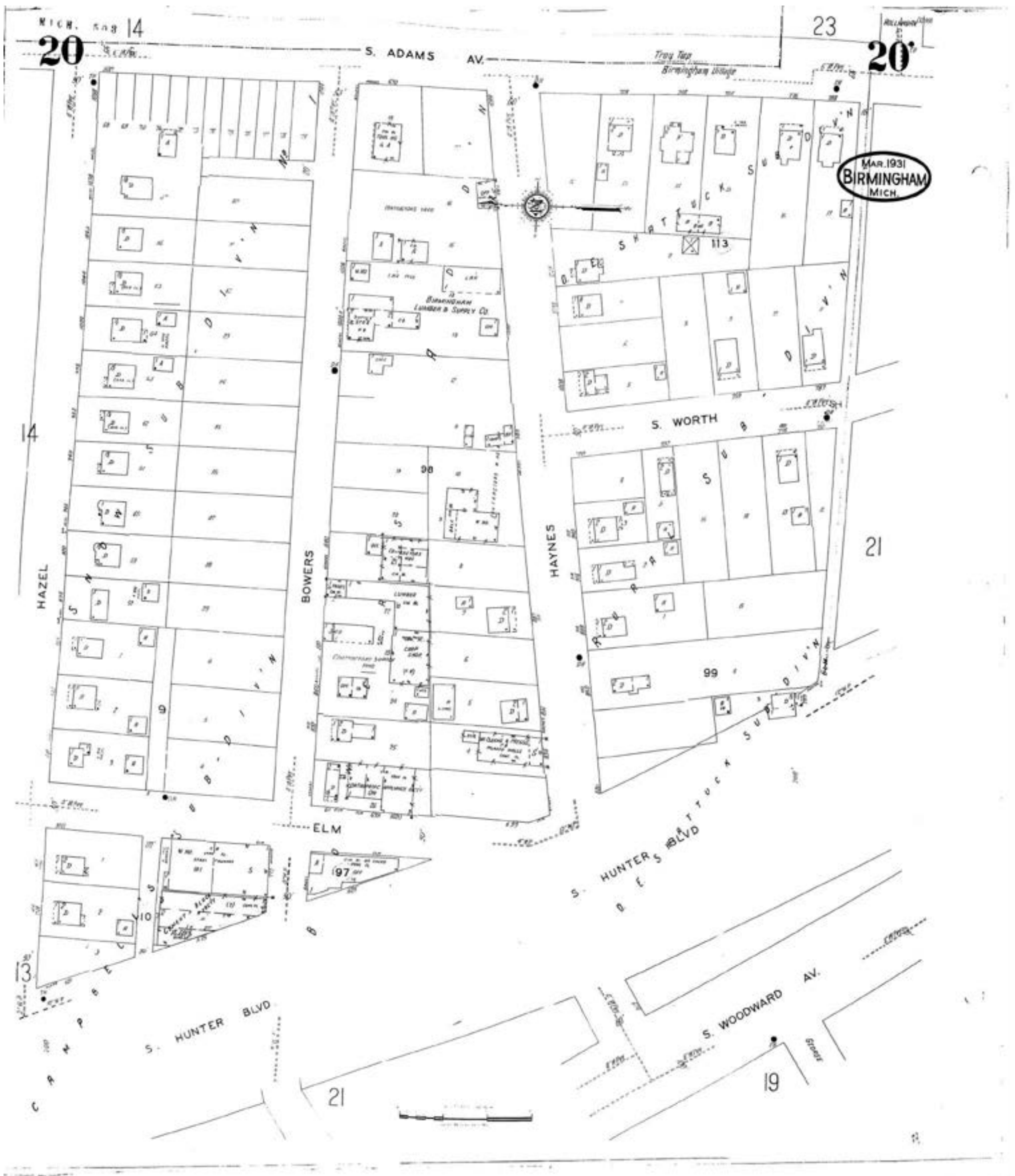
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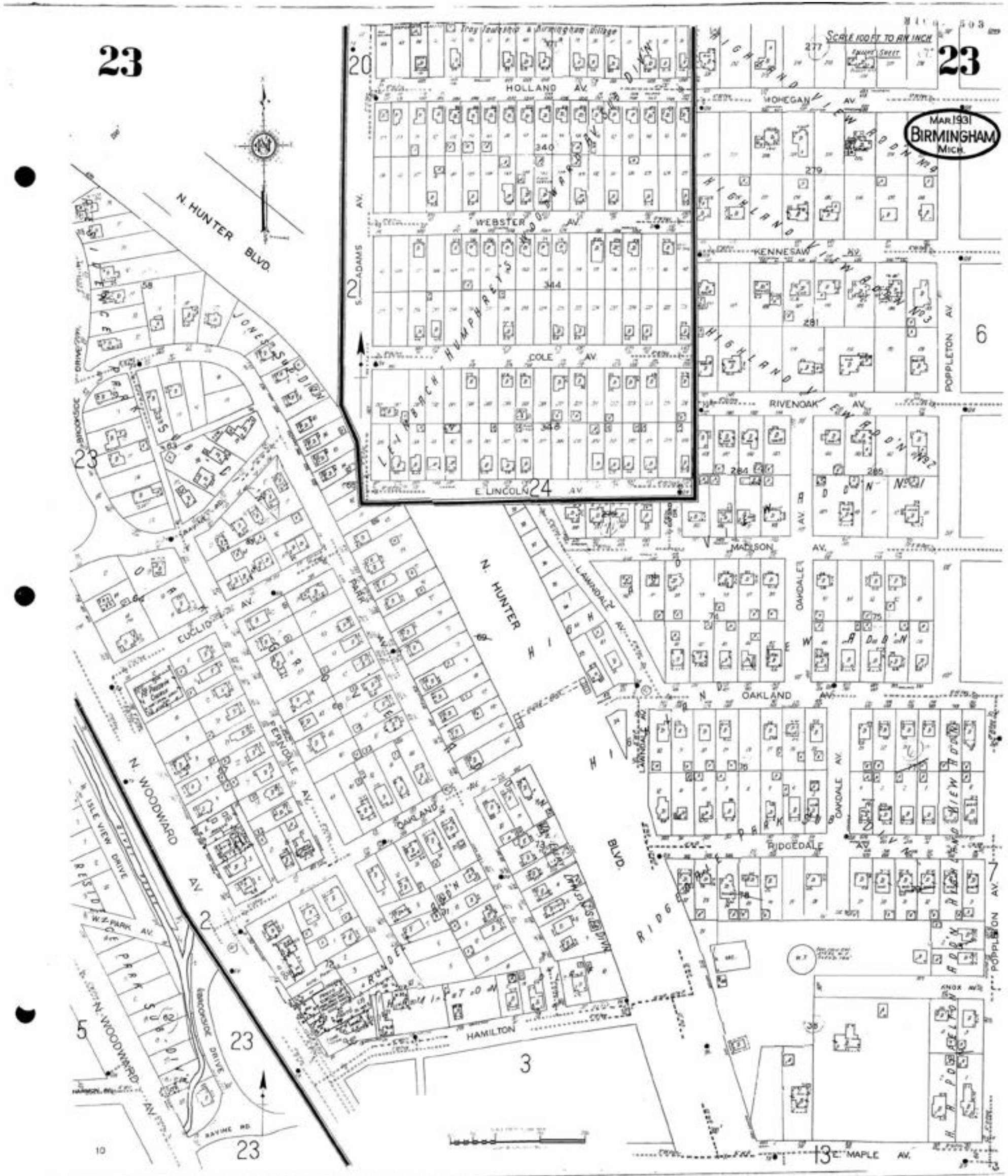
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 Publisher: Sanborn Map Co.
 Publication Name: Birmingham, MI
 Base Map Date: March 1931
 Revised Date: May 1949
 Republished Date:
 Sheet Number: 20

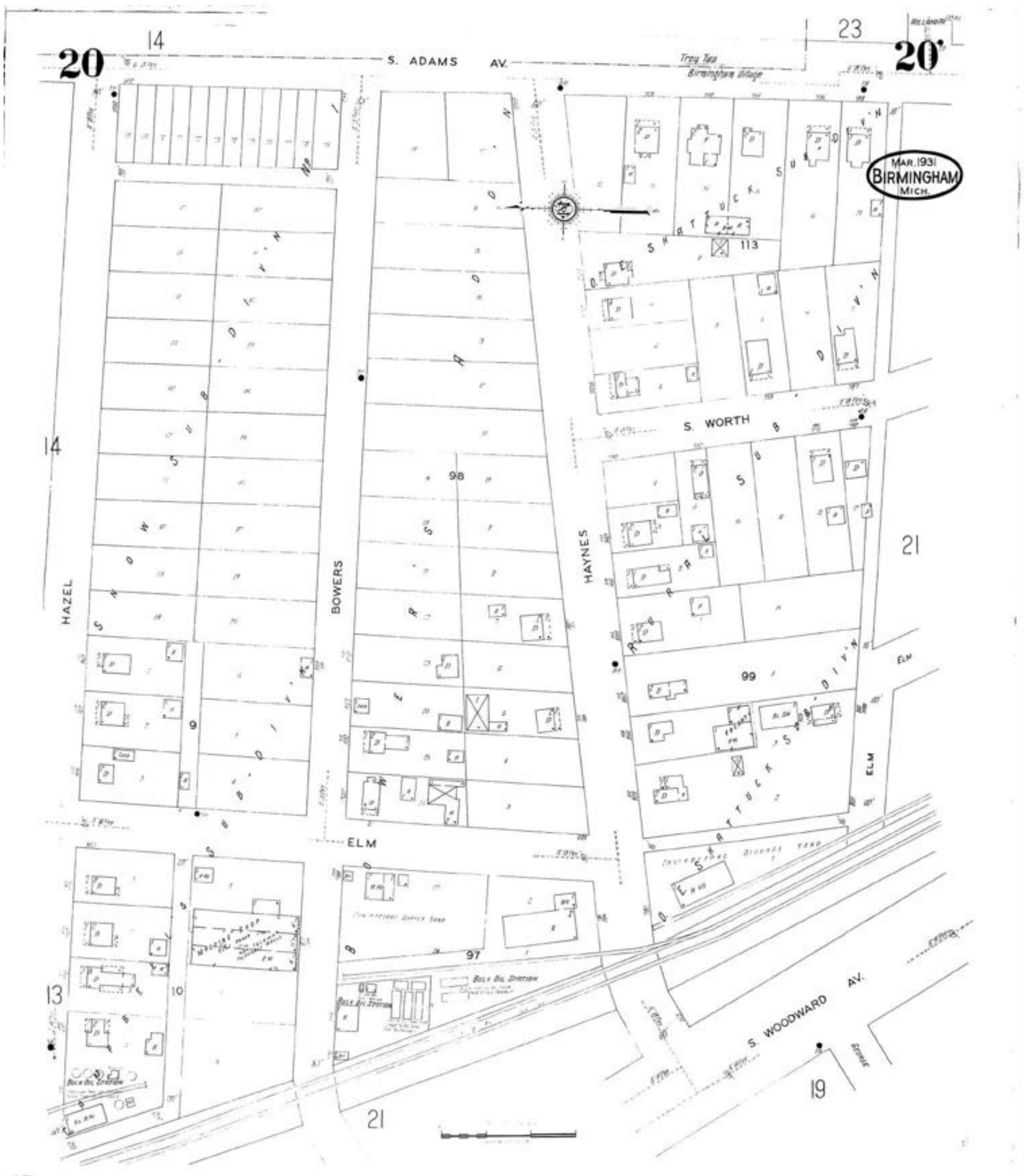
1949

Requested by: Envirosite Corporation

Commercial Property
 1000 Haynes St
 Birmingham, MI 48009
 Client Project # 49822
 HIG Project # 2045763 www.historicalinfo.com







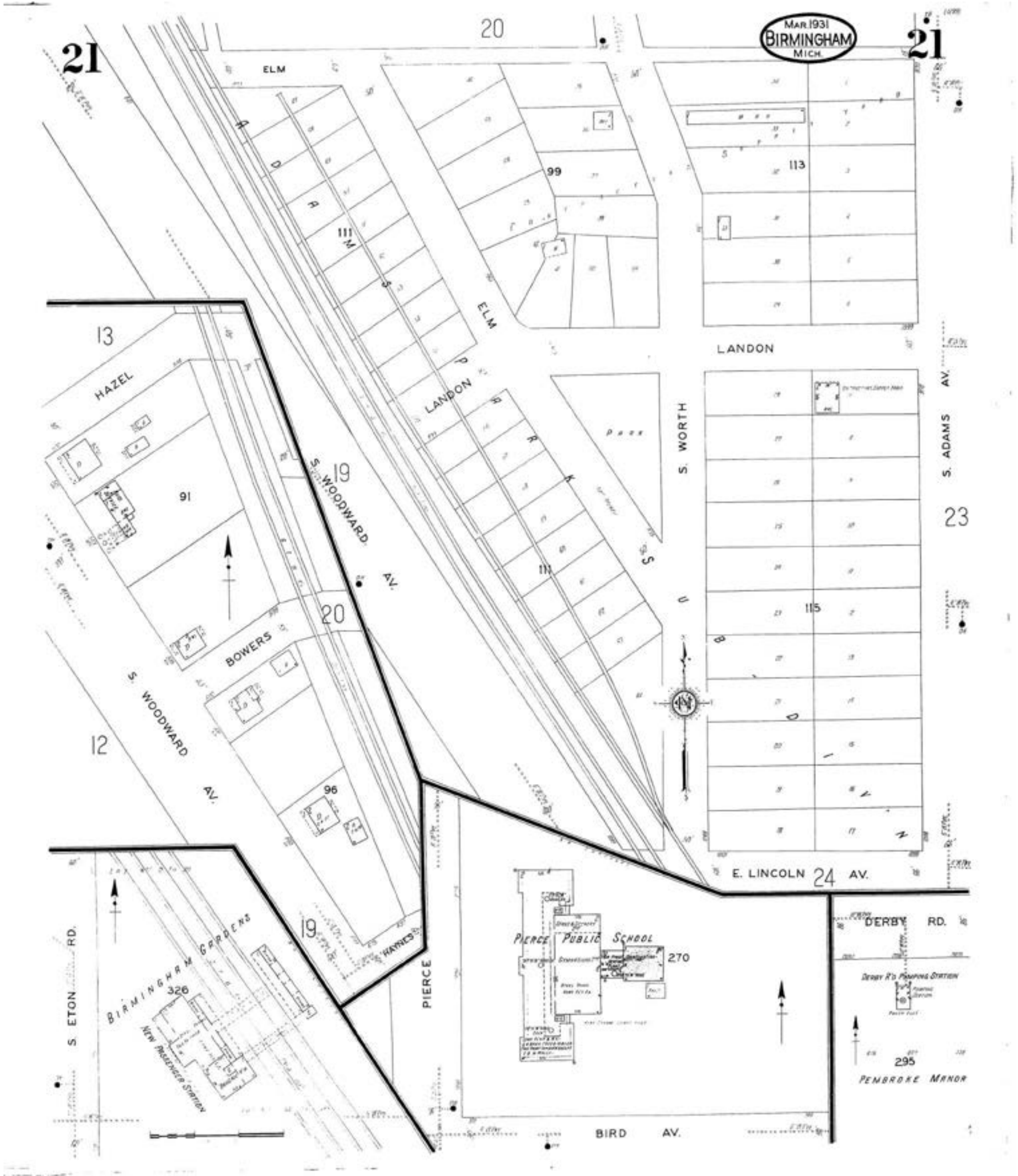
Map Type: Fire Insurance
 Publisher: Sanborn Map Co.
 Publication Name: Birmingham, MI
 Base Map Date: March 1931
 Revised Date:
 Republished Date:
 Sheet Number: 20

1931

Requested by: Envirosite Corporation

Commercial Property
 1000 Haynes St
 Birmingham, MI 48009
 Client Project # 49822
 HIG Project # 2045763 www.historicalinfo.com





Map Type: Fire Insurance
Publisher: Sanborn Map Co.
Publication Name: Birmingham, MI
Base Map Date: March 1931
Revised Date:
Republished Date:
Sheet Number: 21

1931

Requested by: Envirosite Corporation

Commercial Property
1000 Haynes St
Birmingham, MI 48009
Client Project # 49822
HIG Project # 2045763 www.historicalinfo.com







Map Type: Fire Insurance
Publisher: Sanborn Map Co.
Publication Name: Birmingham, MI
Base Map Date: July 1926
Revised Date:
Republished Date:
Sheet Number: 5

1926

Requested by: Envirosite Corporation

Commercial Property
1000 Haynes St
Birmingham, MI 48009
Client Project # 49822
HIG Project # 2045763 www.historicalinfo.com





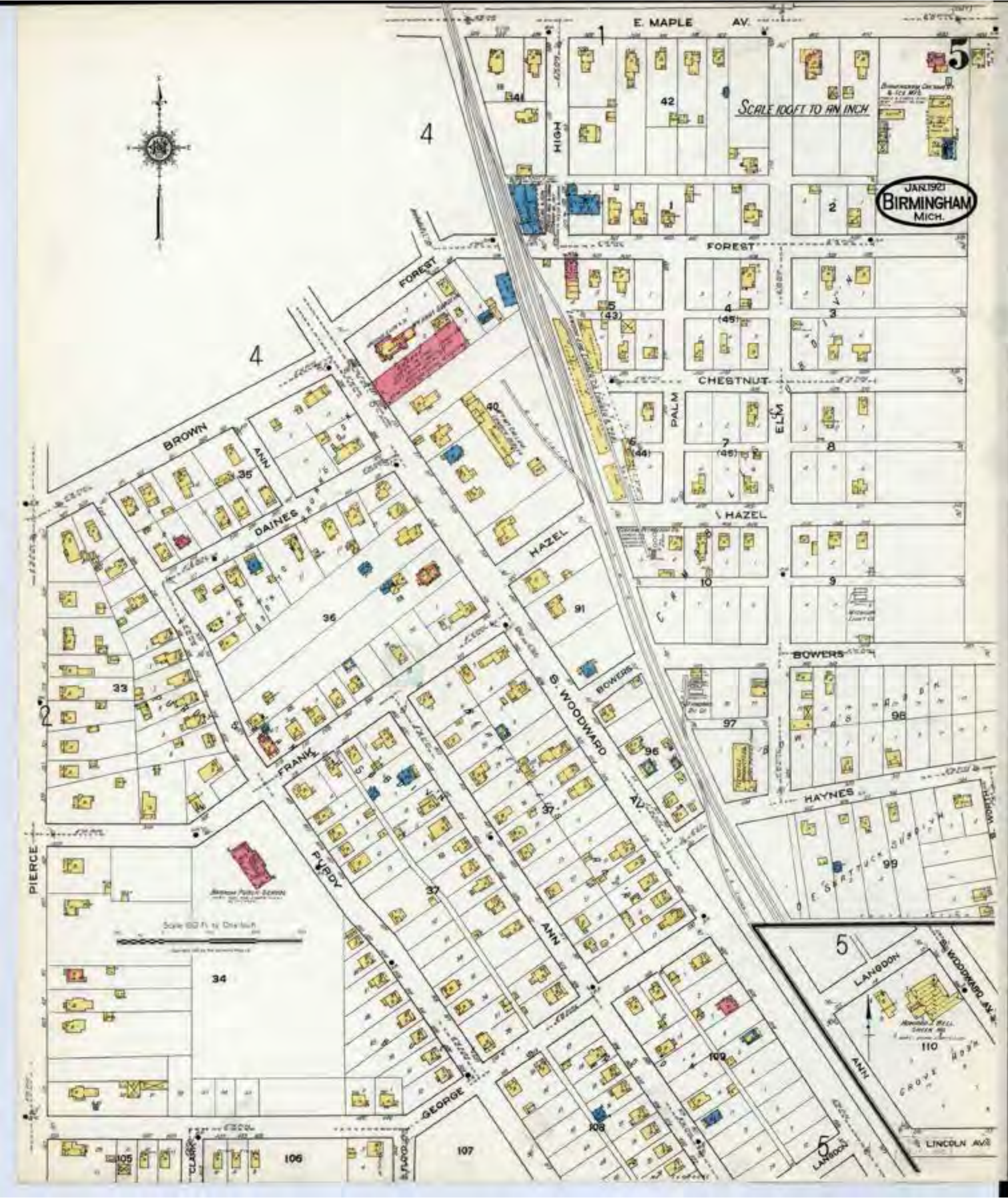
Map Type: Fire Insurance
Publisher: Sanborn Map Co.
Publication Name: Birmingham, MI
Base Map Date: July 1926
Revised Date:
Republished Date:
Sheet Number: 6

1926

Requested by: Envirosite Corporation

Commercial Property
1000 Haynes St
Birmingham, MI 48009
Client Project # 49822
HIG Project # 2045763 www.historicalinfo.com





Map Type: Fire Insurance
Publisher: Sanborn Map Co.
Publication Name: Birmingham, MI
Base Map Date: January 1921
Revised Date:
Republished Date:
Sheet Number: 5

1921

Requested by: Envirosite Corporation

Commercial Property
1000 Haynes St
Birmingham, MI 48009
Client Project # 49822
HIG Project # 2045763 www.historicalinfo.com



APPENDIXG

REGULATORY RECORDS DOCUMENTATION



Government Records Report | 2021

Order Number: 49822

Report Generated: 01/22/2021

Project Name: Commercial Property

Project Number: 20086

Commercial Property
1000 Haynes St
Birmingham, MI 48009

2 Corporate Drive
Suite 450
Shelton, CT 06484
Toll Free: 866-211-2028
www.envirositecorp.com

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<u>Executive Summary by Distance</u>	<u>2</u>
<u>Executive Summary by Database</u>	<u>5</u>
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<u>Area Map</u>	<u>21</u>
<u>Map Findings Summary</u>	<u>22</u>
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Envirosite Corporation has conducted a search of all reasonably ascertainable records in accordance with EPA's AAI (40 CFR Part 312) requirements and the ASTM E-1527-13 Environmental Site Assessments standard.

SUBJECT PROPERTY INFORMATION:

ADDRESS:

Commercial Property
1000 Haynes St
Birmingham, MI 48009

COORDINATES:

Latitude (North):	42.542049 - 42°32'31.4"
Longitude (West):	-83.206414 - -83°12'23.1"
Universal Transverse Mercator:	Zone 17N
UTM X (Meters):	318825.12
UTM Y (Meters):	4712321.43

ELEVATION:

Elevation:	755.010 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH SUBJECT PROPERTY:

Subject Property Map: 42083-E2 Birmingham, MI
Most Recent Revision: 2017

Executive Summary by Distance

2021

<u>MAP ID</u>	<u>SITE NAME</u>	<u>ADDRESS</u>	<u>DATABASE(S)</u>	<u>RELATIVE ELEVATION</u>	<u>DIRECTION / DISTANCE</u>
A1	The Plant Station	720 ADAMS	LUST - MI	Lower	ENE / 0.007 mi.
A2	THE PLANT STATION PLANT STATION	720 S ADAMS RD	LUST - MI, LWF - MI, UST - MI	Lower	ENE / 0.010 mi.
B3	Fred Lavery Company Lavery MI Dea...	907 and 911 Haynes Street	BEA - MI	Higher	WNW / 0.026 mi.
A4	BIRMINGHAM GROUP INC	770 S ADAMS RD	ECHO, FRS, LWF - MI, RCRA_NONGEN	Lower	ESE / 0.028 mi.
5	WEISMAN CLEANERS II	875 S WORTH ST	ECHO, FRS, HWG - MI, RCRA_NONGEN	Higher	S / 0.034 mi.
C6	ROSMAN CLEANERS	651 S ADAMS RD 651 SOUT...	DRYCLEANERS - MI, ECHO, FRS, HWG - MI, LW...	Higher	NE / 0.037 mi.
B7	PARMLEYS COLLISION	880 BOWERS ST	LWF - MI	Higher	NW / 0.057 mi.
C8	PERRY DRUG STORES INC RITE AID ...	597 S ADAMS RD 597 S AD...	BROWNFIELDS - MI, ECHO, FRS, HWG - MI, RC...	Higher	NE / 0.065 mi.
D9	HALBEISEN TOM INC Goodyear Tire ...	835 HAYNES ST	ECHO, FRS, HWG - MI, LUST - MI, RCRA_VSQG,...	Higher	W / 0.074 mi.
D10	WALGREENS CO #15391 WALGREEN...	34300 WOODWARD AVE	ECHO, FRS, HWG - MI, MANIFEST - IN, RCRA_VSQG	Higher	WSW / 0.078 mi.
11	908 S. Adams, LLC	908 South Adams Road	BEA - MI	Lower	SSE / 0.081 mi.
E12	Birmingham Cleaners	1253 S WOODWARD	LUST - MI	Lower	SW / 0.104 mi.
13	JAN LEITAO	1020 HAZEL ST	LWF - MI	Higher	N / 0.104 mi.
F14	AMERICAR AMERICAR RENTAL SYSTEM	860 S OLD WOODWARD AVE	LUST - MI, LWF - MI, UST - MI	Higher	SW / 0.107 mi.
F15	Americar	860 S WOODWARD	LUST - MI	Higher	WSW / 0.115 mi.
E16	DEN-AIR AUTO SERVICE CO BIRMIN...	1775 S WOODWARD AVE 125...	BEA - MI, ECHO, FRS, HIST AFS 2, HWG - MI, L...	Lower	SW / 0.116 mi.
E17	912 SOUTH OLD WOODWARD	912 SOUTH OLD WOODWARD	FED BROWNFIELDS, FRS	Lower	SW / 0.118 mi.
E18	912 Old Woodward, LLC	912 South Old Woodward Av...	BEA - MI, BROWNFIELDS - MI	Lower	SW / 0.120 mi.
C19	US POSTAL SERVICE	1221 BOWERS ST	ECHO, FRS, HWG - MI, RCRA_NONGEN	Higher	NE / 0.120 mi.
E20	CITGO	1531 S WOODWARD	UST - MI	Lower	SSW / 0.123 mi.
E21	WOODLINC/MICH LTD PARTNERSHIP	1050 S OLD WOODWARD AVE	LUST - MI, SHWS - MI, UST - MI	Lower	SSW / 0.125 mi.
G22	TIFFANY FLORIST	772 S OLD WOODWARD AVE	LUST - MI, SHWS - MI, UST - MI	Higher	W / 0.128 mi.
G23	VIRGINIA C CLOHSET TRUST 772-78...	784 S OLD WOODWARD AVE	ECHO, FRS, LWF - MI, RCRA_NONGEN	Higher	W / 0.130 mi.
G24	Tiffany Florist Woodward and George...	772-784 S Old Woodward ...	BEA - MI, LUST - MI, SHWS - MI	Higher	W / 0.131 mi.
E25	FORMER BIRMINGHAM CLEANERS	1253 S. WOODWARD AVENUE	BEA - MI	Lower	SSW / 0.133 mi.
H26	Golling Motors, Inc.	34500 Woodward	BROWNFIELDS - MI	Higher	WNW / 0.134 mi.
G27	VILLAGE JEEP EAGLE	666 S WOODWARD	UST - MI	Higher	W / 0.139 mi.
H28	Golling Motors, Inc.	34500 Woodward Avenue	BEA - MI	Higher	WNW / 0.142 mi.
E29	CRISSMAN CADILLAC	1350 S WOODWARD AVE	LWF - MI	Lower	SSW / 0.142 mi.
G30	Jimmies Rustics	690 South Old Woodward	BEA - MI	Higher	W / 0.146 mi.
E31	PERIMETER PROPERTIES LLC 1000 B...	1000 S OLD WOODWARD AV...	BEA - MI, ECHO, FRS, LWF - MI, RCRA_NONGEN	Lower	SSW / 0.147 mi.
G32	VILLAGE AMC/JEEP INC	666 S OLD WOODWARD AVE	ECHO, FRS, HWG - MI, RCRA_NONGEN	Higher	W / 0.152 mi.
E33	BARRICK OIL CO	1531 S WOODWARD AVE	LWF - MI	Lower	SSW / 0.152 mi.
E34	Mobil SS #03-kpv	1991 S Woodward Ave	LUST - MI	Lower	S / 0.161 mi.
E35	OHM OF BIRMINGHAM	33989 S. WOODWARD	DRYCLEANERS - MI	Lower	S / 0.184 mi.
E36	RDM MANAGEMENT INC MARTINIZIN...	33989 WOODWARD AVE	ECHO, FRS, HWG - MI, LWF - MI, RCRA_VSQG	Lower	S / 0.185 mi.
37	FRED LAVERY CO	34602 WOODWARD AVE	ECHO, FRS, HWG - MI, RCRA_VSQG, UST - MI	Higher	WNW / 0.186 mi.
I38	FRANKLIN SAVINGS BANK	479 S OLD WOODWARD AVE	UST - MI	Higher	WNW / 0.230 mi.

Executive Summary by Distance

2021

MAP ID	SITE NAME	ADDRESS	DATABASE(S)	RELATIVE ELEVATION	DIRECTION / DISTANCE
I39	WOODWARD DETROIT CVS LLC SYS...	444 S OLD WOODWARD AVE	ECHO, FRS, HWG - MI, MANIFEST - IN, RCRA_VSQG	Higher	WNW / 0.231 mi.
J40	WOODWARD DETROIT CVS LLC CVS...	33877 WOODWARD AV	ECHO, FRS, HWG - MI, LWF - MI, RCRA_VSQG	Lower	S / 0.236 mi.
I41	BIRMINGHAM MOTORS	479 S WOODWARD AVE	LWF - MI	Higher	WNW / 0.238 mi.
J42	NEIGHBORHOOD HARDWARE	33855 WOODWARD AVE	LWF - MI	Lower	S / 0.245 mi.
I43	ESTATE MOTORS LTD	464 S OLD WOODWARD AVE ...	ECHO, FRS, HWG - MI, LUST - MI, RCRA_NONGE...	Higher	WNW / 0.246 mi.
K44	SPEEDWAY LLC SPEEDWAY 8721	34750 WOODWARD AVE	ECHO, FRS, HWG - MI, LWF - MI, RCRA_VSQG	Higher	NW / 0.250 mi.
K45	SPEEDWAY #8721	34750 WOODWARD 347 BLVD	LUST - MI, SHWS - MI, UST - MI	Higher	NW / 0.260 mi.
J46	BIRMINGHAM CLEANERS INC	33866 WOODWARD AVE	ECHO, FRS, HWG - MI, LUST - MI, RCRA_NONGE...	Lower	SSE / 0.262 mi.
J47	FORMER GASOLINE STATION Neighb...	33801 WOODWARD AVE	BEA - MI, LUST - MI, SHWS - MI, UST - MI	Lower	S / 0.266 mi.
I48	GREEN'S ART SUPPLY FORMER GASO...	400 SOUTH OLD WOODWARD...	FED BROWNFIELDS, FRS, UST - MI	Higher	WNW / 0.269 mi.
I49	Green's Art Supply	400 South Old Woodward	BEA - MI	Higher	WNW / 0.276 mi.
L50	JAX KAR WASH #048 WASH DEPOT ...	34745 WOODWARD AVE	BEA - MI, LUST - MI, LWF - MI, SHWS - MI, UST...	Higher	NW / 0.285 mi.
M51	BUDGET RENT-A-CAR	1000 E MAPLE RD	LUST - MI, LWF - MI, SHWS - MI, UST - MI	Higher	N / 0.303 mi.
N52	AMOCO OIL CO Birmingham Standar...	1088 E MAPLE RD	ECHO, FRS, HWG - MI, LUST - MI, RCRA_NONGE...	Higher	N / 0.304 mi.
N53	MOBIL OIL CORP Maple Gas Property...	1065 E MAPLE RD 1065 Ea...	BEA - MI, ECHO, FRS, HWG - MI, RCRA_NONGEN	Higher	N / 0.308 mi.
M54	Parking Lot (dietz Corp) BSP REALTY...	985 E MAPLE RD	BEA - MI, LUST - MI, SHWS - MI, UST - MI	Higher	N / 0.309 mi.
M55	ELMWOOD PROPERTIES I, LLC	920-970 EAST MAPLE ROAD	BEA - MI	Higher	NNW / 0.309 mi.
M56	920-970 E. Maple	920-970 East Maple	BROWNFIELDS - MI	Higher	NNW / 0.310 mi.
L57	WEISS SAMONA	34901 WOODWARD AVENUE	FED BROWNFIELDS, FRS	Higher	NW / 0.311 mi.
N58	MOBIL #03-K9Q MAPLE GAS INC Mo...	1065 W MAPLE RD 1065 Ma...	AUL - MI, BEA - MI, LUST - MI, SHWS - MI, UST ...	N/R	N / 0.315 mi.
M59	All Seasons of Birmingham Hamilton...	820 E MAPLE RD 820 East...	AST - MI, BEA - MI	Higher	NNW / 0.316 mi.
L60	Woodward Brown Assoc LLC Woodwa...	34901 Woodward	BEA - MI, BROWNFIELDS - MI	Higher	NW / 0.322 mi.
L61	Alden Development Group, LLC Pea...	34965 Woodward Avenue	BEA - MI, BROWNFIELDS - MI	Higher	NW / 0.349 mi.
L62	986-00 CATALYST DEVELOPMENT C...	34977 WOODWARD 34977 Wo...	BEA - MI, HIST PEAS - MI, HWG - MI, PEAS - MI,...	Higher	NW / 0.364 mi.
L63	CATALYST DEVELOPMENT CO 8 LLC ...	34977 WOODWARD AVE 3497...	BEA - MI, ECHO, FRS, LUST - MI, SHWS - MI, U...	Higher	NW / 0.371 mi.
O64	33633 Woodward WESCH CLEANERS...	33633 WOODWARD	BROWNFIELDS - MI, DRYCLEANERS - MI	Lower	SSE / 0.375 mi.
O65	33633 WOODWARD LLC WESCH CL...	33633 WOODWARD AVE	BEA - MI, ECHO, FRS, HWG - MI, LWF - MI, RCR...	Lower	SSE / 0.376 mi.
66	Brown Street Office Building	200 East Brown	BEA - MI	Higher	WNW / 0.387 mi.
67	SUNOCO SERVICE STATION 84178 S...	35001 WOODWARD AVE	BEA - MI, BRS, ECHO, FRS, HWG - MI, LUST - M...	Higher	NW / 0.420 mi.
68	Wesley Drugs	1000 W. 14 MILE @ PIERCE	BROWNFIELDS - MI	Higher	WSW / 0.423 mi.
P69	CITGO BIRMINGHAM	33588 WOODWARD AVE 153...	LUST - MI, SHWS - MI, UST - MI	Lower	SSE / 0.432 mi.
P70	SHELL STATION 33588 WOODWARD...	33588 WOODWARD AVE 3358...	BEA - MI, FED BROWNFIELDS, FRS, LUST - MI, ...	Lower	SSE / 0.447 mi.
71	MI0040090 MI0040357 MI2047280	217 PIERCE SUITE 209 16...	BEA - MI	Higher	WNW / 0.478 mi.
72	BIRMINGHAM PUBLIC SCHOOLS	550 W MERRILL ST	LUST - MI, SHWS - MI, UST - MI	Higher	WNW / 0.674 mi.
73	Iveco Engine Product Development ...	1333 COOLIDGE HWY	AUL - MI, LUST - MI, SHWS - MI, UST - MI	N/R	E / 0.737 mi.
74	DERBY MIDDLE SCHOOL	1100 DERBY RD	LUST - MI, SHWS - MI, UST - MI	Higher	N / 0.743 mi.
75	MOBILE GAS MARATHON	101 EAST 14 MILE RD 101...	AUL - MI, LUST - MI, SHWS - MI, UST - MI	N/R	SW / 0.749 mi.
Q76	QUICK DRY CLEANING FORMER GAS...	32701 WOODWARD AVE	ECHO, FRS, HWG - MI, LUST - MI, RCRA_VSQG,...	Lower	SE / 0.922 mi.

<u>MAP ID</u>	<u>SITE NAME</u>	<u>ADDRESS</u>	<u>DATABASE(S)</u>	<u>RELATIVE ELEVATION</u>	<u>DIRECTION / DISTANCE</u>
Q77	FORMER GAS STATION C & S QUICK ...	32701-32737 WOODWARD A...	BEA - MI, DRYCLEANERS - MI, LUST - MI, SHWS...	Lower	SE / 0.936 mi.
78	A & G AUTO CARE Simon Land Deve...	35975 WOODWARD AVE 3597...	BEA - MI, BROWNFIELDS - MI, ECHO, FRS, HW...	Higher	NW / 0.981 mi.

SUBJECT PROPERTY SEARCH RESULTS:

The subject property was not listed in any of the databases searched by Envirosite Corporation.

SEARCH RESULTS:**FEDERAL RCRA GENERATORS LIST**

RCRA_NONGEN: Resource Conservation and Recovery Act listing of licensed non-generators **8 SITES FOUND WITHIN .25 MILE**

EQUAL/HIGHER ELEVATION

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
5	WEISMAN CLEANERS II - ID: MID016755902	875 S WORTH ST Status: No Violation/Inspections	S / 0.034 mi. Date: N/A	36
C19	US POSTAL SERVICE - ID: MIR000020446	1221 BOWERS ST Status: No Violation/Inspections	NE / 0.120 mi. Date: N/A	78
G23	VIRGINIA C CLOHSET TRUST 772-784 S OLD WOODWARD AVE - ID: MIK322432543	784 S OLD WOODWARD AVE Status: No Violation/Inspections	W / 0.130 mi. Date: N/A	89
G32	VILLAGE AMC/JEEP INC - ID: MID058819707	666 S OLD WOODWARD AVE Status: No Violation/Inspections	W / 0.152 mi. Date: N/A	102
I43	ESTATE MOTORS LTD - ID: MID040571135	464 S OLD WOODWARD AVE 464 S WOODWARD AVE Status: No Violation/Inspections	WNW / 0.246 mi. Date: N/A	135

LOWER ELEVATION

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
A4	BIRMINGHAM GROUP INC - ID: MIK105492408	770 S ADAMS RD Status: No Violation/Inspections	ESE / 0.028 mi. Date: N/A	32
E16	DEN-AIR AUTO SERVICE CO BIRMINGHAM CLEANERS INC SILK AND MORGAN, INC. - ID: MID000715672	1775 S WOODWARD AVE 1253 S WOODWARD Status: No Violation/Inspections	SW / 0.116 mi. Date: N/A	66
E31	PERIMETER PROPERTIES LLC 1000 BUILDING Office Building & Parling Lot - ID: MIK212640328	1000 S OLD WOODWARD AVE 1000 South Old Woodward Avenue Status: No Violation/Inspections	SSW / 0.147 mi. Date: N/A	97

RCRA_VSQG: Resource Conservation and Recovery Act listing of licensed very small quantity generators. **9 SITES FOUND WITHIN .25 MILE**

EQUAL/HIGHER ELEVATION

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
C6	ROSMAN CLEANERS - ID: MI0000079103	651 S ADAMS RD 651 SOUTH ADAMS Status: No Violation/Inspections	NE / 0.037 mi. Date: N/A	40
C8	PERRY DRUG STORES INC RITE AID #4303 597-725 South Adams Road - ID: MIK196218299	597 S ADAMS RD 597 S ADAMS RD ADAMS SQUARE 597 South Adams Road Status: No Violation/Inspections	NE / 0.065 mi. Date: N/A	45

FEDERAL RCRA GENERATORS LIST (cont.)

RCRA_VSQG: Resource Conservation and Recovery Act listing of licensed very small quantity generators. **9 SITES FOUND WITHIN .25 MILE**

EQUAL/HIGHER ELEVATION (cont.)

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
D9	HALBEISEN TOM INC Goodyear Tire Center 1685	835 HAYNES ST	W / 0.074 mi.	50
	- ID: MID985643790	Status: No Violation/Inspections	Date: N/A	
D10	WALGREENS CO #15391 WALGREENS DRUG STORE #15391	34300 WOODWARD AVE	WSW / 0.078 mi.	57
	- ID: MIK188372835	Status: No Violation/Inspections	Date: N/A	
37	FRED LAVERY CO	34602 WOODWARD AVE	WNW / 0.186 mi.	115
	- ID: MID985613389	Status: LDR - General	Date: Violation 10/19/2009 - Achieved Compliance 11/09/2009	
	- ID: MID985613389	Status: State Statute or Regulation	Date: Violation 10/19/2009 - Achieved Compliance 11/09/2009	
I39	WOODWARD DETROIT CVS LLC SYSTEM CREATED CVS PHARMACY #8136	444 S OLD WOODWARD AVE	WNW / 0.231 mi.	121
	- ID: MIK166505639	Status: No Violation/Inspections	Date: N/A	
K44	SPEEDWAY LLC SPEEDWAY 8721	34750 WOODWARD AVE	NW / 0.250 mi.	143
	- ID: MID985666387	Status: No Violation/Inspections	Date: N/A	

LOWER ELEVATION

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
E36	RDM MANAGEMENT INC MARTINIZING DRY CLEANING OF BIRMINGHAM DBA MARTINIZING 941504	33989 WOODWARD AVE	S / 0.185 mi.	107
	- ID: MID981803182	Status: No Violation/Inspections	Date: N/A	
J40	WOODWARD DETROIT CVS LLC CVS PHARMACY #111244	33877 WOODWARD AV	S / 0.236 mi.	130
	- ID: MIK185003922	Status: No Violation/Inspections	Date: N/A	

STATE AND TRIBAL REGISTERED STORAGE TANK LISTS

UST - MI: Underground storage tank listing **10 SITES FOUND WITHIN .25 MILE**

EQUAL/HIGHER ELEVATION

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
D9	HALBEISEN TOM INC Goodyear Tire Center 1685	835 HAYNES ST	W / 0.074 mi.	50
	- ID: Facility ID 00021777	Status: N/A	Date: N/A	
	- ID: Tank ID UTK-001817-15	Status: Removed from Ground	Date: 06/04/1993	
F14	AMERICAR AMERICAR RENTAL SYSTEM	860 S OLD WOODWARD AVE	SW / 0.107 mi.	63
	- ID: Facility ID 00034958	Status: N/A	Date: N/A	
	- ID: Tank ID UTK-009930-15	Status: Removed from Ground	Date: 02/15/1991	

STATE AND TRIBAL REGISTERED STORAGE TANK LISTS (cont.)UST - MI: Underground storage tank listing **10 SITES FOUND WITHIN .25 MILE****EQUAL/HIGHER ELEVATION (cont.)**

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
G22	- ID: Tank ID UTK-012888-15	Status: Removed from Ground	Date: 02/15/1991	86
	TIFFANY FLORIST	772 S OLD WOODWARD AVE	W / 0.128 mi.	
	- ID: Facility ID 00042132	Status: N/A	Date: N/A	
	- ID: Tank ID UTK-124009-15	Status: Closed in Ground	Date: 07/07/2008	
	- ID: Tank ID UTK-124022-15	Status: Removed from Ground	Date: 07/10/2008	
G27	- ID: Tank ID UTK-124023-15	Status: Removed from Ground	Date: 07/10/2008	95
	VILLAGE JEEP EAGLE	666 S WOODWARD	W / 0.139 mi.	
	- ID: Facility ID 00005612	Status: N/A	Date: N/A	
	- ID: Tank ID UTK-005255-15	Status: Removed from Ground	Date: 08/30/1990	
	37	FRED LAVERY CO	34602 WOODWARD AVE	
I38	- ID: Facility ID 00014864	Status: N/A	Date: N/A	121
	- ID: Tank ID UTK-099226-15	Status: Removed from Ground	Date: 07/19/1990	
	FRANKLIN SAVINGS BANK	479 S OLD WOODWARD AVE	WNW / 0.230 mi.	
	- ID: Facility ID 00013244	Status: N/A	Date: N/A	
	- ID: Tank ID UTK-001044-15	Status: Removed from Ground	Date: 09/28/1988	
I43	ESTATE MOTORS LTD	464 S OLD WOODWARD AVE 464 S WOODWARD AVE	WNW / 0.246 mi.	135
	- ID: Facility ID 00015180	Status: N/A	Date: N/A	
	- ID: Tank ID UTK-011057-15	Status: Removed from Ground	Date: 01/01/1992	
	- ID: Tank ID UTK-013217-15	Status: Removed from Ground	Date: 09/13/1991	
	- ID: Tank ID UTK-022981-15	Status: Removed from Ground	Date: 09/13/1991	
	- ID: Tank ID UTK-030692-15	Status: Removed from Ground	Date: 09/13/1991	
	There are an additional 6 status records, see site details.			

LOWER ELEVATION

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
A2	THE PLANT STATION PLANT STATION	720 S ADAMS RD	ENE / 0.010 mi.	28
E20	- ID: Facility ID 00018613	Status: N/A	Date: N/A	82
	- ID: Tank ID UTK-027193-15	Status: Removed from Ground	Date: 07/01/1987	
	- ID: Tank ID UTK-041161-15	Status: Removed from Ground	Date: 07/01/1987	
	- ID: Tank ID UTK-067985-15	Status: Removed from Ground	Date: 07/01/1987	
	- ID: Tank ID UTK-067987-15	Status: Removed from Ground	Date: 07/01/1987	
E21	CITGO	1531 S WOODWARD	SSW / 0.123 mi.	84
	- ID: Facility ID 00013409	Status: N/A	Date: N/A	
	- ID: Tank ID N/R	Status: Currently In Use	Date: N/R	
	WOODLINC/MICH LTD PARTNERSHIP	1050 S OLD WOODWARD AVE	SSW / 0.125 mi.	
	- ID: Facility ID 00039226	Status: N/A	Date: N/A	
	- ID: Tank ID N/R	Status: N/R	Date: N/R	

STATE AND TRIBAL BROWNFIELD SITESBROWNFIELDS - MI: Brownfield remediation sites **8 SITES FOUND WITHIN .5 MILE****EQUAL/HIGHER ELEVATION**

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
C8	PERRY DRUG STORES INC RITE AID #4303 597-725 South Adams Road	597 S ADAMS RD 597 S ADAMS RD ADAMS SQUARE 597 South Adams Road	NE / 0.065 mi.	45

STATE AND TRIBAL BROWNFIELD SITES (cont.)BROWNFIELDS - MI: Brownfield remediation sites **8 SITES FOUND WITHIN .5 MILE****EQUAL/HIGHER ELEVATION (cont.)**

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
H26	Golling Motors, Inc.	34500 Woodward	WNW / 0.134 mi.	95
M56	920-970 E. Maple	920-970 East Maple	NNW / 0.310 mi.	186
L60	Woodward Brown Assoc LLC Woodward Brown Associates, LLC	34901 Woodward	NW / 0.322 mi.	198
L61	Alden Development Group, LLC Peabody Owner, LLC 34965 Woodward Avenue	34965 Woodward Avenue	NW / 0.349 mi.	199
68	Wesley Drugs	1000 W. 14 MILE @ PIERCE	WSW / 0.423 mi.	231

LOWER ELEVATION

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
E18	912 Old Woodward, LLC	912 South Old Woodward Avenue	SW / 0.120 mi.	77
O64	33633 Woodward WESCH CLEANERS, INC.	33633 WOODWARD	SSE / 0.375 mi.	212

STATE- AND TRIBAL - EQUIVALENT CERCLISSHWS - MI: Listing of contaminated sites **19 SITES FOUND WITHIN 1 MILE****EQUAL/HIGHER ELEVATION**

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
G22	TIFFANY FLORIST	772 S OLD WOODWARD AVE	W / 0.128 mi.	86
G24	Tiffany Florist Woodward and George, LLC	772-784 S Old Woodward 772-784 South Old Woodward	W / 0.131 mi.	93
K45	SPEEDWAY #8721	34750 WOODWARD 347 BLVD	NW / 0.260 mi.	148
L50	JAX KAR WASH #048 WASH DEPOT JAX KAR WASH	34745 WOODWARD AVE	NW / 0.285 mi.	166
M51	BUDGET RENT-A-CAR	1000 E MAPLE RD	N / 0.303 mi.	169
M54	Parking Lot (dietz Corp) BSP REALTY DIETZ CORPORATION (PARKING LOT)	985 E MAPLE RD	N / 0.309 mi.	183
N58	MOBIL #03-K9Q MAPLE GAS INC Mobil Gasoline Station	1065 W MAPLE RD 1065 Maple Road 1065 WEST MAPLE ROAD	N / 0.315 mi.	190
L63	CATALYST DEVELOPMENT CO 8 LLC Shell - Hunter BOJI/WOODWARD PROPERTY	34977 WOODWARD AVE 34977 WOODWARD AVENUE (FORMERLY 120 S. HUNTER STREET)	NW / 0.371 mi.	205
72	BIRMINGHAM PUBLIC SCHOOLS	550 W MERRILL ST	WNW / 0.674 mi.	245
73	Iveco Engine Product Development FORD NEW HOLLAND INC - RESCINDED FORMER FORD NEW HOLLAND	1333 COOLIDGE HWY	E / 0.737 mi.	246
74	DERBY MIDDLE SCHOOL	1100 DERBY RD	N / 0.743 mi.	251
75	MOBILE GAS MARATHON	101 EAST 14 MILE RD 101 E 14 MILE RD 101 EAST FOURTEEN MILE ROAD	SW / 0.749 mi.	253
78	A & G AUTO CARE Simon Land Development Group LLC AMOCO STATION #5791 (former)	35975 WOODWARD AVE 35975 Woodward Avenue formerly 905 Hunter	NW / 0.981 mi.	270

STATE- AND TRIBAL - EQUIVALENT CERCLIS (cont.)SHWS - MI: Listing of contaminated sites **19 SITES FOUND WITHIN 1 MILE****LOWER ELEVATION**

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
E21	WOODLINC/MICH LTD PARTNERSHIP	1050 S OLD WOODWARD AVE	SSW / 0.125 mi.	84
J47	FORMER GASOLINE STATION Neighborhood Pro Hardware Property	33801 WOODWARD AVE	S / 0.266 mi.	159
P69	CITGO BIRMINGHAM	33588 WOODWARD AVE 1531 S WOODWARD (FORMERLY) 33588 Woodward Ave	SSE / 0.432 mi.	232
P70	SHELL STATION 33588 WOODWARD AVENUE BARRICK OIL CO	33588 WOODWARD AVE 33588 Woodward Avenue Formerly 1531 S. Woodward Avenue	SSE / 0.447 mi.	235
Q76	QUICK DRY CLEANING FORMER GAS STATION	32701 WOODWARD AVE	SE / 0.922 mi.	261
Q77	FORMER GAS STATION C & S QUICK CLEANERS Paramount Bank	32701-32737 WOODWARD AVE 4501 WOODWARD AVE (FORMERLY) 32701-32737 Woodward Avenue 32701 N WOODWARD	SE / 0.936 mi.	267

STATE RCRA GENERATORS LISTHWG - MI: Listing of permitted hazardous waste generators **14 SITES FOUND WITHIN .25 MILE****EQUAL/HIGHER ELEVATION**

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
5	WEISMAN CLEANERS II	875 S WORTH ST	S / 0.034 mi.	36
C6	ROSMAN CLEANERS	651 S ADAMS RD 651 SOUTH ADAMS	NE / 0.037 mi.	40
C8	PERRY DRUG STORES INC RITE AID #4303 597-725 South Adams Road	597 S ADAMS RD 597 S ADAMS RD ADAMS SQUARE 597 South Adams Road	NE / 0.065 mi.	45
D9	HALBEISEN TOM INC Goodyear Tire Center 1685	835 HAYNES ST	W / 0.074 mi.	50
D10	WALGREENS CO #15391 WALGREENS DRUG STORE #15391	34300 WOODWARD AVE	WSW / 0.078 mi.	57
C19	US POSTAL SERVICE	1221 BOWERS ST	NE / 0.120 mi.	78
G32	VILLAGE AMC/JEEP INC	666 S OLD WOODWARD AVE	W / 0.152 mi.	102
37	FRED LAVERY CO	34602 WOODWARD AVE	WNW / 0.186 mi.	115
I39	WOODWARD DETROIT CVS LLC SYSTEM CREATED CVS PHARMACY #8136	444 S OLD WOODWARD AVE	WNW / 0.231 mi.	121
I43	ESTATE MOTORS LTD	464 S OLD WOODWARD AVE 464 S WOODWARD AVE	WNW / 0.246 mi.	135
K44	SPEEDWAY LLC SPEEDWAY 8721	34750 WOODWARD AVE	NW / 0.250 mi.	143

LOWER ELEVATION

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
E16	DEN-AIR AUTO SERVICE CO BIRMINGHAM CLEANERS INC SILK AND MORGAN, INC.	1775 S WOODWARD AVE 1253 S WOODWARD	SW / 0.116 mi.	66
E36	RDM MANAGEMENT INC MARTINIZING DRY CLEANING OF BIRMINGHAM DBA MARTINIZING 941504	33989 WOODWARD AVE	S / 0.185 mi.	107

STATE RCRA GENERATORS LIST (cont.)HWG - MI: Listing of permitted hazardous waste generators **14 SITES FOUND WITHIN .25 MILE****LOWER ELEVATION (cont.)**

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
J40	WOODWARD DETROIT CVS LLC CVS PHARMACY #111244	33877 WOODWARD AV	S / 0.236 mi.	130

STATE AND TRIBAL LEAKING STORAGE TANK LISTSLUST - MI: Leaking underground storage tank site listing **23 SITES FOUND WITHIN .5 MILE****EQUAL/HIGHER ELEVATION**

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
D9	HALBEISEN TOM INC Goodyear Tire Center 1685 - ID: Facility ID 00021777 - ID: Leak Number C-0700-93	835 HAYNES ST Status: N/A Status: Closed	W / 0.074 mi. Date: N/A Date: Release Date 09/30/1994	50
F14	AMERICAR AMERICAR RENTAL SYSTEM - ID: Facility ID 00034958 - ID: Leak Number C-0468-89	860 S OLD WOODWARD AVE Status: N/A Status: Closed	SW / 0.107 mi. Date: N/A Date: Release Date 08/16/1990	63
F15	Americar - ID: Facility ID 00034958 - ID: Leak Number C-0468-89	860 S WOODWARD Status: N/A Status: Closed	WSW / 0.115 mi. Date: N/A Date: Release Date 08/16/1990	65
G22	TIFFANY FLORIST - ID: Facility ID 00042132 - ID: Leak Number C-0157-08	772 S OLD WOODWARD AVE Status: N/A Status: Open	W / 0.128 mi. Date: N/A Date: N/R	86
G24	Tiffany Florist Woodward and George, LLC - ID: Facility ID 00042132 - ID: Leak Number C-0157-08	772-784 S Old Woodward 772-784 South Old Woodward Status: N/A Status: Open	W / 0.131 mi. Date: N/A Date: N/R	93
I43	ESTATE MOTORS LTD - ID: Facility ID 00015180 - ID: Leak Number C-1669-91 - ID: Leak Number C-2071-92	464 S OLD WOODWARD AVE 464 S WOODWARD AVE Status: N/A Status: Closed Status: Closed	WNW / 0.246 mi. Date: N/A Date: Release Date 01/06/1993 Date: Release Date 06/30/1994	135
K45	SPEEDWAY #8721 - ID: Facility ID 00016370 - ID: Leak Number C-0161-14 - ID: Leak Number C-1633-91	34750 WOODWARD 347 BLVD Status: N/A Status: Open Status: Closed	NW / 0.260 mi. Date: N/A Date: N/R Date: Release Date 02/09/1996	148
L50	JAX KAR WASH #048 WASH DEPOT JAX KAR WASH - ID: Facility ID 00001952 - ID: Leak Number C-0859-00	34745 WOODWARD AVE Status: N/A Status: Open	NW / 0.285 mi. Date: N/A Date: N/R	166
M51	BUDGET RENT-A-CAR - ID: Facility ID 00007720 - ID: Leak Number C-0844-90	1000 E MAPLE RD Status: N/A Status: Open	N / 0.303 mi. Date: N/A Date: N/R	169

STATE AND TRIBAL LEAKING STORAGE TANK LISTS (cont.)LUST - MI: Leaking underground storage tank site listing **23 SITES FOUND WITHIN .5 MILE****EQUAL/HIGHER ELEVATION (cont.)**

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
N52	- ID: Leak Number C-0990-90	Status: Open	Date: N/R	172
	AMOCO OIL CO Birmingham Standard AMOCO OIL CO 5349 BIRMINGHAM	1088 E MAPLE RD	N / 0.304 mi.	
M54	- ID: Facility ID 00001897	Status: N/A	Date: N/A	183
	- ID: Leak Number C-0863-85	Status: Closed	Date: Release Date 05/21/1996	
N58	Parking Lot (dietz Corp) BSP REALTY DIETZ CORPORATION (PARKING LOT)	985 E MAPLE RD	N / 0.309 mi.	190
	- ID: Facility ID 50002129	Status: N/A	Date: N/A	
L63	- ID: Leak Number C-0999-97	Status: Open	Date: N/R	205
	MOBIL #03-K9Q MAPLE GAS INC Mobil Gasoline Station	1065 W MAPLE RD 1065 Maple Road 1065 WEST MAPLE ROAD	N / 0.315 mi.	
	- ID: Facility ID 00016689	Status: N/A	Date: N/A	
	- ID: Leak Number C-0322-04	Status: Closed	Date: Release Date 02/10/2016	
	- ID: Leak Number C-0571-93	Status: Closed	Date: Release Date 07/31/1996	
	- ID: Leak Number C-1693-91	Status: Closed	Date: Release Date 07/31/1996	
	- ID: Leak Number C-1748-91	Status: Closed	Date: Release Date 07/31/1996	
	CATALYST DEVELOPMENT CO 8 LLC Shell - Hunter BOJI/WOODWARD PROPERTY	34977 WOODWARD AVE 34977 WOODWARD AVENUE (FORMERLY 120 S. HUNTER STREET)	NW / 0.371 mi.	
	- ID: Facility ID 00002267	Status: N/A	Date: N/A	
	- ID: Leak Number C-0274-08	Status: Open	Date: N/R	
	- ID: Leak Number C-0480-89	Status: Closed	Date: Release Date 05/23/2000	
	- ID: Leak Number C-1061-89	Status: Closed	Date: Release Date 05/23/2000	
67	- ID: Leak Number C-1336-98	Status: Closed	Date: Release Date 08/04/1999	221
	SUNOCO SERVICE STATION 84178 SUNOCO #0008-4178 HORTONS BIRMINGHAM SUNOCO NUMBER 84178	35001 WOODWARD AVE	NW / 0.420 mi.	
	- ID: Facility ID 00005935	Status: N/A	Date: N/A	
	- ID: Leak Number C-0924-96	Status: Closed	Date: Release Date 06/08/2010	

LOWER ELEVATION

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
A1	The Plant Station	720 ADAMS	ENE / 0.007 mi.	28
	- ID: Facility ID 00018613	Status: N/A	Date: N/A	
	- ID: Leak Number C-0922-97	Status: Closed	Date: Release Date 11/24/1998	

STATE AND TRIBAL LEAKING STORAGE TANK LISTS (cont.)LUST - MI: Leaking underground storage tank site listing **23 SITES FOUND WITHIN .5 MILE****LOWER ELEVATION (cont.)**

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
A2	THE PLANT STATION PLANT STATION - ID: Facility ID 00018613 - ID: Leak Number C-0922-97	720 S ADAMS RD Status: N/A Status: Closed	ENE / 0.010 mi. Date: N/A Date: Release Date 11/24/1998	28
E12	Birmingham Cleaners - ID: Facility ID 00018874 - ID: Leak Number C-1373-93	1253 S WOODWARD Status: N/A Status: Closed	SW / 0.104 mi. Date: N/A Date: Release Date 05/17/1994	62
E21	WOODLINC/MICH LTD PARTNERSHIP - ID: Facility ID 00039226 - ID: Leak Number C-1071-96	1050 S OLD WOODWARD AVE Status: N/A Status: Open	SSW / 0.125 mi. Date: N/A Date: N/R	84
E34	Mobil SS #03-kpv - ID: Facility ID 00016687 - ID: Leak Number C-2008-90	1991 S Woodward Ave Status: N/A Status: Closed	S / 0.161 mi. Date: N/A Date: Release Date 11/30/1995	106
J46	BIRMINGHAM CLEANERS INC - ID: Facility ID 00018874 - ID: Leak Number C-1373-93	33866 WOODWARD AVE Status: N/A Status: Closed	SSE / 0.262 mi. Date: N/A Date: Release Date 05/17/1994	152
J47	FORMER GASOLINE STATION Neighborhood Pro Hardware Property - ID: Facility ID 50005898 - ID: Leak Number C-0158-13	33801 WOODWARD AVE Status: N/A Status: Open	S / 0.266 mi. Date: N/A Date: N/R	159
P69	CITGO BIRMINGHAM - ID: Facility ID 00013409 - ID: Leak Number C-0005-15	33588 WOODWARD AVE 1531 S WOODWARD (FORMERLY) 33588 Woodward Ave Status: N/A Status: Open	SSE / 0.432 mi. Date: N/A Date: N/R	232
P70	SHELL STATION 33588 WOODWARD AVENUE BARRICK OIL CO - ID: Facility ID 00013409 - ID: Leak Number C-0005-15	33588 WOODWARD AVE 33588 Woodward Avenue Formerly 1531 S. Woodward Avenue Status: N/A Status: Open	SSE / 0.447 mi. Date: N/A Date: N/R	235

LOCAL BROWNFIELD LISTSFED BROWNFIELDS: Federal brownfield remediation sites **4 SITES FOUND WITHIN .5 MILE****EQUAL/HIGHER ELEVATION**

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
I48	GREEN'S ART SUPPLY FORMER GASOLINE DISPENSING STATION - ID: 170095	400 SOUTH OLD WOODWARD AVENUE 400 S OLD WOODWARD AVE Status: N/A	WNW / 0.269 mi. Date: Cleanup Completion Date N/R	161

LOCAL BROWNFIELD LISTS (cont.)FED BROWNFIELDS: Federal brownfield remediation sites **4 SITES FOUND WITHIN .5 MILE****EQUAL/HIGHER ELEVATION (cont.)**

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
L57	WEISS SAMONA - ID: 115761	34901 WOODWARD AVENUE Status: N/A	NW / 0.311 mi. Date: Cleanup Completion Date N/R	186

LOWER ELEVATION

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
E17	912 SOUTH OLD WOODWARD - ID: 171161	912 SOUTH OLD WOODWARD Status: N/A	SW / 0.118 mi. Date: Cleanup Completion Date N/R	74
P70	SHELL STATION 33588 WOODWARD AVENUE BARRICK OIL CO - ID: 169261	33588 WOODWARD AVE 33588 Woodward Avenue Formerly 1531 S. Woodward Avenue Status: N/A	SSE / 0.447 mi. Date: Cleanup Completion Date N/R	235

OTHER ASCERTAINABLE RECORDSAUL - MI: Sites with controls (Engineering and Institutional) **1 SITE FOUND WITHIN .5 MILE****EQUAL/HIGHER ELEVATION**

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
N58	MOBIL #03-K9Q MAPLE GAS INC Mobil Gasoline Station	1065 W MAPLE RD 1065 Maple Road 1065 WEST MAPLE ROAD	N / 0.315 mi.	190

BEA - MI: Baseline Environmental Assessment Database **26 SITES FOUND WITHIN .5 MILE****EQUAL/HIGHER ELEVATION**

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
B3	Fred Lavery Company Lavery MI Dealership Properties No.1, LLC	907 and 911 Haynes Street	WNW / 0.026 mi.	31
G24	Tiffany Florist Woodward and George, LLC	772-784 S Old Woodward 772-784 South Old Woodward	W / 0.131 mi.	93
H28	Golling Motors, Inc.	34500 Woodward Avenue	WNW / 0.142 mi.	96
G30	Jimmies Rustics	690 South Old Woodward	W / 0.146 mi.	97
I49	Green's Art Supply	400 South Old Woodward	WNW / 0.276 mi.	165
L50	JAX KAR WASH #048 WASH DEPOT JAX KAR WASH	34745 WOODWARD AVE	NW / 0.285 mi.	166
N53	MOBIL OIL CORP Maple Gas Property, LLC	1065 E MAPLE RD 1065 East Maple Road	N / 0.308 mi.	179
M54	Parking Lot (dietz Corp) BSP REALTY DIETZ CORPORATION (PARKING LOT)	985 E MAPLE RD	N / 0.309 mi.	183
M55	ELMWOOD PROPERTIES I, LLC	920-970 EAST MAPLE ROAD	NNW / 0.309 mi.	185
N58	MOBIL #03-K9Q MAPLE GAS INC Mobil Gasoline Station	1065 W MAPLE RD 1065 Maple Road 1065 WEST MAPLE ROAD	N / 0.315 mi.	190
M59	All Seasons of Birmingham Hamilton Funeral Home Property	820 E MAPLE RD 820 East Maple Road	NNW / 0.316 mi.	197
L60	Woodward Brown Assoc LLC Woodward Brown Associates, LLC	34901 Woodward	NW / 0.322 mi.	198

OTHER ASCERTAINABLE RECORDS (cont.)BEA - MI: Baseline Environmental Assessment Database **26 SITES FOUND WITHIN .5 MILE****EQUAL/HIGHER ELEVATION (cont.)**

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
L61	Alden Development Group, LLC Peabody Owner, LLC 34965 Woodward Avenue	34965 Woodward Avenue	NW / 0.349 mi.	199
L62	986-00 CATALYST DEVELOPMENT CO 8 LLC Former Gasoline Station	34977 WOODWARD 34977 Woodward (Formerly 120 Hunter)	NW / 0.364 mi.	200
L63	CATALYST DEVELOPMENT CO 8 LLC Shell - Hunter BOJI/WOODWARD PROPERTY	34977 WOODWARD AVE 34977 WOODWARD AVENUE (FORMERLY 120 S. HUNTER STREET)	NW / 0.371 mi.	205
66	Brown Street Office Building	200 East Brown	WNW / 0.387 mi.	220
67	SUNOCO SERVICE STATION 84178 SUNOCO #0008-4178 HORTONS BIRMINGHAM	35001 WOODWARD AVE	NW / 0.420 mi.	221
71	SUNOCO NUMBER 84178 MI0040090 MI0040357 MI2047280	217 PIERCE SUITE 209 165 - 217 Pierce Street	WNW / 0.478 mi.	244

LOWER ELEVATION

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
11	908 S. Adams, LLC	908 South Adams Road	SSE / 0.081 mi.	61
E16	DEN-AIR AUTO SERVICE CO BIRMINGHAM CLEANERS INC SILK AND MORGAN, INC.	1775 S WOODWARD AVE 1253 S WOODWARD	SW / 0.116 mi.	66
E18	912 Old Woodward, LLC	912 South Old Woodward Avenue	SW / 0.120 mi.	77
E25	FORMER BIRMINGHAM CLEANERS	1253 S. WOODWARD AVENUE	SSW / 0.133 mi.	94
E31	PERIMETER PROPERTIES LLC 1000 BUILDING Office Building & Parling Lot	1000 S OLD WOODWARD AVE 1000 South Old Woodward Avenue	SSW / 0.147 mi.	97
J47	FORMER GASOLINE STATION Neighborhood Pro Hardware Property	33801 WOODWARD AVE	S / 0.266 mi.	159
O65	33633 WOODWARD LLC WESCH CLEANERS INC CIH REAL ESTATE HOLDINGS, L.L.C.	33633 WOODWARD AVE	SSE / 0.376 mi.	213
P70	SHELL STATION 33588 WOODWARD AVENUE BARRICK OIL CO	33588 WOODWARD AVE 33588 Woodward Avenue Formerly 1531 S. Woodward Avenue	SSE / 0.447 mi.	235

DRYCLEANERS - MI: Registered Drycleaning Facilities **2 SITES FOUND WITHIN .25 MILE****EQUAL/HIGHER ELEVATION**

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
C6	ROSMAN CLEANERS	651 S ADAMS RD 651 SOUTH ADAMS	NE / 0.037 mi.	40
	- ID: 6300141	Status: N/R	Date: N/R	

LOWER ELEVATION

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
E35	OHM OF BIRMINGHAM	33989 S. WOODWARD	S / 0.184 mi.	107
	- ID: 6300266	Status: N/R	Date: N/R	

OTHER ASCERTAINABLE RECORDS (cont.)LWF - MI: List of Hazard and Liquid Industrial Generators, Transporters and Designated Facilities. **16 SITES FOUND WITHIN .25 MILE****EQUAL/HIGHER ELEVATION**

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
C6	ROSMAN CLEANERS	651 S ADAMS RD 651 SOUTH ADAMS	NE / 0.037 mi.	40
B7	PARMLEYS COLLISION	880 BOWERS ST	NW / 0.057 mi.	45
13	JAN LEITAO	1020 HAZEL ST	N / 0.104 mi.	62
F14	AMERICAR AMERICAR RENTAL SYSTEM	860 S OLD WOODWARD AVE	SW / 0.107 mi.	63
G23	VIRGINIA C CLOHSET TRUST 772-784 S OLD WOODWARD AVE	784 S OLD WOODWARD AVE	W / 0.130 mi.	89
I41	BIRMINGHAM MOTORS	479 S WOODWARD AVE	WNW / 0.238 mi.	134
K44	SPEEDWAY LLC SPEEDWAY 8721	34750 WOODWARD AVE	NW / 0.250 mi.	143

LOWER ELEVATION

<u>MAP ID</u>	<u>SITE NAME</u>	<u>SITE ADDRESS</u>	<u>DIRECTION/DISTANCE</u>	<u>PAGE</u>
A2	THE PLANT STATION PLANT STATION	720 S ADAMS RD	ENE / 0.010 mi.	28
A4	BIRMINGHAM GROUP INC	770 S ADAMS RD	ESE / 0.028 mi.	32
E16	DEN-AIR AUTO SERVICE CO BIRMINGHAM CLEANERS INC SILK AND MORGAN, INC.	1775 S WOODWARD AVE 1253 S WOODWARD	SW / 0.116 mi.	66
E29	CRISSMAN CADILLAC	1350 S WOODWARD AVE	SSW / 0.142 mi.	96
E31	PERIMETER PROPERTIES LLC 1000 BUILDING Office Building & Parling Lot	1000 S OLD WOODWARD AVE 1000 South Old Woodward Avenue	SSW / 0.147 mi.	97
E33	BARRICK OIL CO	1531 S WOODWARD AVE	SSW / 0.152 mi.	106
E36	RDM MANAGEMENT INC MARTINIZING DRY CLEANING OF BIRMINGHAM DBA MARTINIZING 941504	33989 WOODWARD AVE	S / 0.185 mi.	107
J40	WOODWARD DETROIT CVS LLC CVS PHARMACY #111244	33877 WOODWARD AV	S / 0.236 mi.	130
J42	NEIGHBORHOOD HARDWARE	33855 WOODWARD AVE	S / 0.245 mi.	135

Following sites were unable to be mapped.

<u>SITE NAME:</u>	<u>ADDRESS, CITY, ZIP:</u>	<u>DATABASE(S):</u>
.07 Acre Parcel E Frank & S Old Woodward	.07 Acre Parcel E Fr..., Birmingham 48009	BEA - MI
BIG BOY	1337 S WOODWARD AVE, ROYAL OAK 48067	UST - MI
Commercial Shopping Center	32701 32713 32725 ..., Royal Oak 48073	BEA - MI
CVS Pharmacy #1150	30908 and 30964 Woodw..., Royal Oak 48073	BEA - MI
EOP South, LLC	563 and 575 S. Eton ..., Birmingham 48009	BEA - MI
Erb Family Foundation Property	Cole Street Vacant P..., Birmingham 48009	BEA - MI
Eton Road Property	563 thru 635 South Eton S..., Birmingham	BEA - MI
GRAND TRUNK WESTERN RAILROAD YARD	N. OF LINCOLN ST. S..., Birmingham 48009	BEA - MI
MALLY, C. LANE PROPERTY	575 SOUTH HUNTER BLVD., Birmingham	BEA - MI
NATIONAL BANK OF ROYAL OAK	316 N WOODWARD AVE, ROYAL OAK 48067	LWF - MI
Proposed Royal Oak Office Bldg	SE Corner W. 11 Mile ..., Royal Oak 48067	BEA - MI
Standard Federal Bank	6117 Woodrow Avenue, Royal Oak 48067	BEA - MI
Timothy Patrick Homes Property	East Harrison Ave. & ..., Royal Oak 48067	BEA - MI
Webster/Crooks	Webster/Crooks, Royal Oak 48073	BROWNFIELDS - MI

DATABASE(S) WITH NO MAPPED SITES:**FEDERAL RCRA NON-CORRACTS TSD FACILITIES LIST**

ARCHIVED RCRA TSDF	Archived Resource Conservation and Recovery Act: Treatment Storage and Disposal Facilities
RCRA_TSDF	Resource Conservation and Recovery Act: Treatment Storage and Disposal Facilities

FEDERAL CERCLIS LIST

CERCLIS NFRAP	Comprehensive Environmental Response Compensation and Liability Act No Further Remedial Action Planned
CERCLIS-HIST	Comprehensive Environmental Response Compensation and Liability Act
FEDERAL FACILITY	Federal Facility sites
SEMS_8R_ACTIVE SITES	Sites on SEMS Active Site Inventory
SEMS_8R_ARCHIVED SITES	Sites on SEMS Archived Site Inventory

FEDERAL RCRA CORRACTS FACILITIES LIST

CORRACTS	Hazardous Waste Corrective Action
HIST CORRACTS 2	Historical Hazardous Waste Corrective Action

FEDERAL DELISTED NPL SITE LIST

DELISTED NPL	Delisted National Priority List
DELISTED PROPOSED NPL	Delisted proposed National Priority List
SEMS_DELETED NPL	Sites Deleted from National Priorities List

FEDERAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS

EPA LF MOP	EPA Landfill Methane Outreach Project Database

FEDERAL ERNS LIST

ERNS	Emergency Response Notification System

FEDERAL INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES

FED E C	Engineering Controls
FED I C	Institutional Controls
RCRA IC_EC	RCRA sites with Institutional and Engineering Controls

FEDERAL RCRA GENERATORS LIST

HIST RCRA_CESQG	Historical Resource Conservation and Recovery Act_Conditionally Exempt Small Quantity Generators
HIST RCRA_LQG	Historical Resource Conservation and Recovery Act_Large Quantity Generators
HIST RCRA_NONGEN	Historical Resource Conservation and Recovery Act_Non Generators
HIST RCRA_SQG	Historical Resource Conservation and Recovery Act_Small Quantity Generators
RCRA_LQG	Resource Conservation and Recovery Act_Large Quantity Generators
RCRA_SQG	Resource Conservation and Recovery Act_Small Quantity Generators

FEDERAL NPL SITE LIST

NPL	National Priority List
NPL EPA R1 GIS	GIS for EPA Region 1 NPL
NPL EPA R3 GIS	GIS for EPA Region 3 NPL
NPL EPA R6 GIS	GIS for EPA Region 6 NPL
NPL EPA R8 GIS	GIS for EPA Region 8 NPL
NPL EPA R9 GIS	GIS for EPA Region 9 NPL
PART NPL	Part National Priority List
PROPOSED NPL	Proposed National Priority List
SEMS_FINAL NPL	Sites included on the Final National Priorities List
SEMS_PROPOSED NPL	Sites Proposed to be Added to the National Priorities List

STATE AND TRIBAL REGISTERED STORAGE TANK LISTS

FEMA UST	FEMA Underground Storage Tanks

STATE AND TRIBAL REGISTERED STORAGE TANK LISTS (cont.)

INDIAN UST R1	Underground Storage Tanks on Indian Land in EPA Region 1
INDIAN UST R10	Underground Storage Tanks on Indian Land in EPA Region 10
INDIAN UST R2	Underground Storage Tanks on Indian Land in EPA Region 2
INDIAN UST R4	Underground Storage Tanks on Indian Land in EPA Region 4
INDIAN UST R5	Underground Storage Tanks on Indian Land in EPA Region 5
INDIAN UST R6	Underground Storage Tanks on Indian Land in EPA Region 6
INDIAN UST R7	Underground Storage Tanks on Indian Land in EPA Region 7
INDIAN UST R8	Underground Storage Tanks on Indian Land in EPA Region 8
INDIAN UST R9	Underground Storage Tanks on Indian Land in EPA Region 9
AST - MI	Aboveground Storage Tanks
HIST AST - MI	Historical Aboveground Storage Tanks

STATE AND TRIBAL BROWNFIELD SITES

TRIBAL BROWNFIELDS	Tribal Brownfields
BROWNFIELDS 2 - MI	Brownfields

STATE- AND TRIBAL - EQUIVALENT CERCLIS

DEL SHWS - MI	Delisted State Hazardous Waste Sites

STATE AND TRIBAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS

HIST LF - MI	Inactive Solid Waste Facilities
SWF/LF - MI	Solid Waste Facilities and Landfills

STATE AND TRIBAL LEAKING STORAGE TANK LISTS

INDIAN LUST R1	Leaking Underground Storage Tanks on Indian Land in EPA Region 1
INDIAN LUST R10	Leaking Underground Storage Tanks on Indian Land in EPA Region 10
INDIAN LUST R2	Leaking Underground Storage Tanks on Indian Land in EPA Region 2
INDIAN LUST R4	Leaking Underground Storage Tanks on Indian Land in EPA Region 4
INDIAN LUST R5	Leaking Underground Storage Tanks on Indian Land in EPA Region 5
INDIAN LUST R6	Leaking Underground Storage Tanks on Indian Land in EPA Region 6
INDIAN LUST R7	Leaking Underground Storage Tanks on Indian Land in EPA Region 7
INDIAN LUST R8	Leaking Underground Storage Tanks on Indian Land in EPA Region 8
INDIAN LUST R9	Leaking Underground Storage Tanks on Indian Land in EPA Region 9

LOCAL BROWNFIELD LISTS

BROWNFIELDS-ACRES	EPA ACRES Brownfields

LOCAL LISTS OF HAZARDOUS WASTE / CONTAMINATED SITES

FED CDL	DOJ Clandestine Drug Labs
US HIST CDL	Historical Clandestine Drug Labs

LOCAL LISTS OF LANDFILL / SOLID WASTE DISPOSAL SITES

HIST INDIAN ODI R8	Historical Open Dump Inventory
INDIAN ODI R8	Open Dump Inventory
ODI	Open Dump Inventory
TRIBAL ODI	Indian Open Dump Inventory Sites
SWRCY - MI	Recycling Facilities
SWTIRE - MI	Scrap Tire Facilities
WDS - MI	Waste Disposal Sites

RECORDS OF EMERGENCY RELEASE REPORTS

HMIRS (DOT)	Hazardous Materials Information Reporting Systems
HIST PEAS - MI	Historical Pollution Emergency Alerting System
PEAS - MI	Pollution Emergency Alerting System

LOCAL LAND RECORDS

LIENS 2	CERCLA Lien Information
LIENS - MI	Remediation Division Liens

OTHER ASCERTAINABLE RECORDS

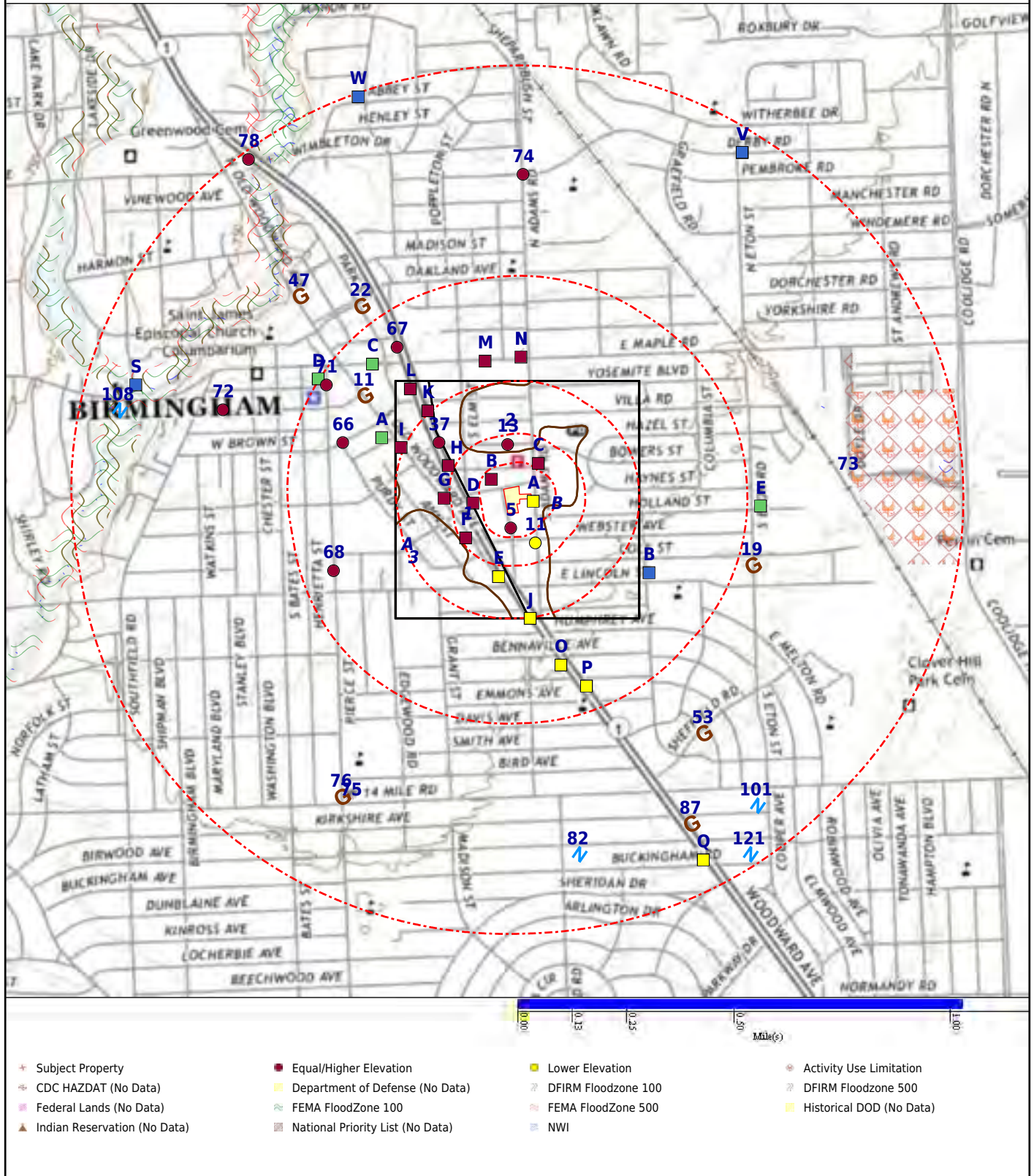
AFS	Air Facility Systems
ALT FUELING	Alternative Fueling Stations
AST PBS	ASTs at Bulk Petroleum Terminals
BRS	Biennial Reporting Systems
CDC HAZDAT	Hazardous Substance Release and Health Effects Information
COAL ASH DOE	Coal Ash: Department of Energy
COAL ASH EPA	Coal Ash: Environmental Protection Agency
COAL GAS	Coal Gas Plants
CONSENT (DECREEES)	Superfund Consent Decree
CORRECTIVE ACTIONS_2020	Wastes - Hazardous Waste - Corrective Action
DEBRIS R5 LF	Disaster Debris Landfill Data
DEBRIS R5 SWRCY	Disaster Debris Recovery Data
DOD	Department of Defense
DOT OPS	Department of Transportation Office of Pipeline Safety
ECHO	EPA Enforcement and Compliance History Online
ENOI	Electronic Notice of Intent
EPA FUELS	EPA Fuels Registration, Reporting, and Compliance List
EPA OSC	EPA On-Site Coordinator
EPA WATCH	EPA Watch List
FA HWF	Financial Assurance for Hazardous Waste Facilities
FEDLAND	Federal Lands
FRS	Facility Index Systems
FTTS	FIFRA/TSCA Tracking System
FTTS INSP	FIFRA/TSCA Tracking System: Inspections
FUDS	Formerly Used Defense Sites
HIST AFS	Historical Air Facility Systems
HIST AFS 2	Historical Air Facility Systems
HIST DOD	Department of Defense historical sites
HIST LEAD_SMELTER	Historical Lead Smelter Sites
HIST MLTS	Historical Material Licensing Tracking Systems
HIST PCB TRANS	Historical Polychlorinated Biphenyl (PCB) Facilities
HIST PCS ENF	Historical Enforced Permit Compliance Facilities
HIST PCS FACILITY	Historical Permit Compliance Facilities
HIST SSTS	Historical Section 7 Tracking Systems
HWC DOCKET	Hazardous Waste Compliance Docket
ICIS	Integrated Compliance Information System
INACTIVE PCS	Inactive Permit Compliance Facilities
INDIAN RESERVATION	Indian Reservations
LUCIS	Land Use Control Information Systems
LUCIS 2	Land Use Control Information Systems 2
MINES	Mines
MINES USGS	Mines list from USGS
MLTS	Material Licensing Tracking Systems
NPL AOC	Areas related to NPL remediation sites
NPL LIENS	National Priority List Liens
OSHA	Occupational Safety & Health Administration
PADS	PCB Activity Database Systems
PCB TRANSFORMER	Polychlorinated Biphenyl (PCB) Waste
PCS ENF	Enforced Permit Compliance Facilities
PCS FACILITY	Permit Compliance Facilities
RAATS	RCRA Administrative Action Tracking Systems
RADINFO	Radiation Information Systems
RMP	Risk Management Plans
ROD	Record of Decision
SCRD DRYCLEANERS	SCRD Drycleaners
SEMS_SMELTER	Sites on SEMS Potential Smelter Activity
SSTS	Section 7 Tracking Systems
STORMWATER	Storm Water Permits

OTHER ASCERTAINABLE RECORDS (cont.)

TOSCA-PLANT	Toxic Substance Control Act: Plants
TRIS	Toxic Release Inventory Systems
UMTRA	Uranium Mill Tailing Sites
VAPOR	EPA Vapor Intrusion
AIRS - MI	AIRS
COAL ASH - MI	Coal Ash Sites
DAYCARE - MI	Daycare facilities
GW RELEASE - MI	Ground Water Release Sites
HIST AIRS - MI	Historical AIRS
HIST NPDES - MI	Historical Wastewater Permits
HIST UIC - MI	Historical Underground Injection Control
NPDES - MI	State Wastewater and NPDES Permits
UIC - MI	Underground Injection Control
UIC 2 - MI	Underground Injection Control

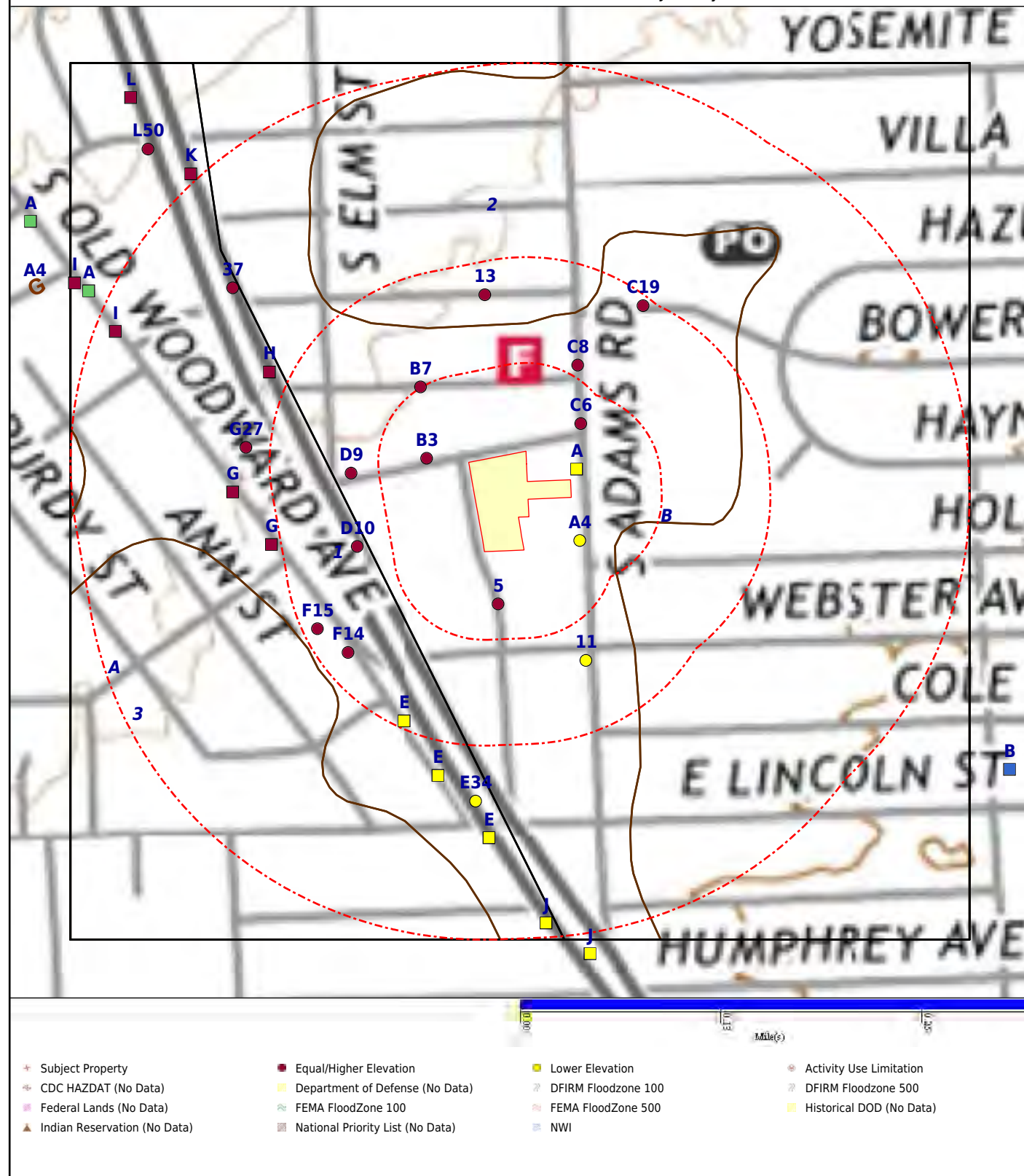
SUBJECT NAME: Commercial Property
 ADDRESS: 1000 Haynes St, Birmingham, MI, 48009
 LAT/LONG: 42.542049 / -83.206414

PREPARED FOR: Darcy Environmental Consultants LLC
 ORDER #: 49822
 REPORT DATE: January 22, 2021



SUBJECT NAME: Commercial Property
 ADDRESS: 1000 Haynes St, Birmingham, MI, 48009
 LAT/LONG: 42.542049 / -83.206414

PREPARED FOR: Darcy Environmental Consultants LLC
 ORDER #: 49822
 REPORT DATE: January 22, 2021



<u>DATABASE</u>	<u>SUBJECT PROPERTY</u>	<u>SEARCH DISTANCE (MILES)</u>	<u><1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>>1</u>	<u>TOTAL MAPPED</u>

FEDERAL RCRA NON-CORRACTS TSD FACILITIES LIST

ARCHIVED RCRA TSDF		0.500	0	0	0	--	--	0
RCRA_TSDF		0.500	0	0	0	--	--	0

FEDERAL CERCLIS LIST

CERCLIS NFRAP		0.500	0	0	0	--	--	0
CERCLIS-HIST		0.500	0	0	0	--	--	0
FEDERAL FACILITY		1.000	0	0	0	0	--	0
SEMS_8R_ACTIVE SITES		0.500	0	0	0	--	--	0
SEMS_8R_ARCHIVED SITES		0.500	0	0	0	--	--	0

FEDERAL RCRA CORRACTS FACILITIES LIST

CORRACTS		1.000	0	0	0	0	--	0
HIST CORRACTS 2		1.000	0	0	0	0	--	0

FEDERAL DELISTED NPL SITE LIST

DELISTED NPL		1.000	0	0	0	0	--	0
DELISTED PROPOSED NPL		1.000	0	0	0	0	--	0
SEMS_DELETED NPL		1.000	0	0	0	0	--	0

FEDERAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS

EPA LF MOP		0.500	0	0	0	--	--	0

FEDERAL ERNS LIST

ERNS		SP	0	--	--	--	--	0

FEDERAL INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES

FED E C		0.500	0	0	0	--	--	0
FED I C		0.500	0	0	0	--	--	0
RCRA IC_EC		0.250	0	0	--	--	--	0

FEDERAL RCRA GENERATORS LIST

HIST RCRA_CESQG		0.250	0	0	--	--	--	0
HIST RCRA_LQG		0.250	0	0	--	--	--	0
HIST RCRA_NONGEN		0.250	0	0	--	--	--	0
HIST RCRA_SQG		0.250	0	0	--	--	--	0
RCRA_LQG		0.250	0	0	--	--	--	0
RCRA_NONGEN		0.250	4	4	--	--	--	8
RCRA_SQG		0.250	0	0	--	--	--	0
RCRA_VSQG		0.250	4	5	--	--	--	9

<u>DATABASE</u>	<u>SUBJECT PROPERTY</u>	<u>SEARCH DISTANCE (MILES)</u>	<u><1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>>1</u>	<u>TOTAL MAPPED</u>

FEDERAL NPL SITE LIST

NPL		1.000	0	0	0	0	--	0
NPL EPA R1 GIS		1.000	0	0	0	0	--	0
NPL EPA R3 GIS		1.000	0	0	0	0	--	0
NPL EPA R6 GIS		1.000	0	0	0	0	--	0
NPL EPA R8 GIS		1.000	0	0	0	0	--	0
NPL EPA R9 GIS		1.000	0	0	0	0	--	0
PART NPL		1.000	0	0	0	0	--	0
PROPOSED NPL		1.000	0	0	0	0	--	0
SEMS_FINAL NPL		1.000	0	0	0	0	--	0
SEMS_PROPOSED NPL		1.000	0	0	0	0	--	0

STATE AND TRIBAL REGISTERED STORAGE TANK LISTS

FEMA UST		0.250	0	0	--	--	--	0
INDIAN UST R1		0.250	0	0	--	--	--	0
INDIAN UST R10		0.250	0	0	--	--	--	0
INDIAN UST R2		0.250	0	0	--	--	--	0
INDIAN UST R4		0.250	0	0	--	--	--	0
INDIAN UST R5		0.250	0	0	--	--	--	0
INDIAN UST R6		0.250	0	0	--	--	--	0
INDIAN UST R7		0.250	0	0	--	--	--	0
INDIAN UST R8		0.250	0	0	--	--	--	0
INDIAN UST R9		0.250	0	0	--	--	--	0
AST - MI		0.250	0	0	--	--	--	0
HIST AST - MI		0.250	0	0	--	--	--	0
UST - MI		0.250	4	6	--	--	--	10

STATE AND TRIBAL BROWNFIELD SITES

TRIBAL BROWNFIELDS		0.500	0	0	0	--	--	0
BROWNFIELDS - MI		0.500	2	1	5	--	--	8
BROWNFIELDS 2 - MI		0.500	0	0	0	--	--	0

STATE- AND TRIBAL - EQUIVALENT CERCLIS

DEL SHWS - MI		1.000	0	0	0	0	--	0
SHWS - MI		1.000	0	3	9	7	--	19

STATE AND TRIBAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS

HIST LF - MI		0.500	0	0	0	--	--	0
SWF/LF - MI		0.500	0	0	0	--	--	0

<u>DATABASE</u>	<u>SUBJECT PROPERTY</u>	<u>SEARCH DISTANCE (MILES)</u>	<u><1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>>1</u>	<u>TOTAL MAPPED</u>

STATE RCRA GENERATORS LIST

HWG - MI		0.250	7	7	--	--	--	14

STATE AND TRIBAL LEAKING STORAGE TANK LISTS

INDIAN LUST R1		0.500	0	0	0	--	--	0
INDIAN LUST R10		0.500	0	0	0	--	--	0
INDIAN LUST R2		0.500	0	0	0	--	--	0
INDIAN LUST R4		0.500	0	0	0	--	--	0
INDIAN LUST R5		0.500	0	0	0	--	--	0
INDIAN LUST R6		0.500	0	0	0	--	--	0
INDIAN LUST R7		0.500	0	0	0	--	--	0
INDIAN LUST R8		0.500	0	0	0	--	--	0
INDIAN LUST R9		0.500	0	0	0	--	--	0
LUST - MI		0.500	6	5	12	--	--	23

LOCAL BROWNFIELD LISTS

BROWNFIELDS-ACRES		0.500	0	0	0	--	--	0
FED BROWNFIELDS		0.500	1	0	3	--	--	4

LOCAL LISTS OF HAZARDOUS WASTE / CONTAMINATED SITES

FED CDL		SP	0	--	--	--	--	0
US HIST CDL		SP	0	--	--	--	--	0

LOCAL LISTS OF LANDFILL / SOLID WASTE DISPOSAL SITES

HIST INDIAN ODI R8		0.500	0	0	0	--	--	0
INDIAN ODI R8		0.500	0	0	0	--	--	0
ODI		0.500	0	0	0	--	--	0
TRIBAL ODI		0.500	0	0	0	--	--	0
SWRCY - MI		0.500	0	0	0	--	--	0
SWTIRE - MI		0.500	0	0	0	--	--	0
WDS - MI		0.500	0	0	0	--	--	0

RECORDS OF EMERGENCY RELEASE REPORTS

HMIRS (DOT)		SP	0	--	--	--	--	0
HIST PEAS - MI		0.125	0	--	--	--	--	0
PEAS - MI		0.125	0	--	--	--	--	0

LOCAL LAND RECORDS

LIENS 2		SP	0	--	--	--	--	0
LIENS - MI		SP	0	--	--	--	--	0

<u>DATABASE</u>	<u>SUBJECT PROPERTY</u>	<u>SEARCH DISTANCE (MILES)</u>	<u><1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>>1</u>	<u>TOTAL MAPPED</u>

OTHER ASCERTAINABLE RECORDS

AFS		SP	0	--	--	--	--	0
ALT FUELING		0.250	0	0	--	--	--	0
AST PBS		0.250	0	0	--	--	--	0
BRS		SP	0	--	--	--	--	0
CDC HAZDAT		1.000	0	0	0	0	--	0
COAL ASH DOE		0.500	0	0	0	--	--	0
COAL ASH EPA		0.500	0	0	0	--	--	0
COAL GAS		1.000	0	0	0	0	--	0
CONSENT (DECREEES)		1.000	0	0	0	0	--	0
CORRECTIVE ACTIONS_2020		0.500	0	0	0	--	--	0
DEBRIS R5 LF		0.500	0	0	0	--	--	0
DEBRIS R5 SWRCY		0.500	0	0	0	--	--	0
DOD		1.000	0	0	0	0	--	0
DOT OPS		SP	0	--	--	--	--	0
ECHO		SP	0	--	--	--	--	0
ENOI		SP	0	--	--	--	--	0
EPA FUELS		SP	0	--	--	--	--	0
EPA OSC		0.125	0	--	--	--	--	0
EPA WATCH		SP	0	--	--	--	--	0
FA HWF		SP	0	--	--	--	--	0
FEDLAND		1.000	0	0	0	0	--	0
FRS		SP	0	--	--	--	--	0
FTTS		SP	0	--	--	--	--	0
FTTS INSP		SP	0	--	--	--	--	0
FUDS		1.000	0	0	0	0	--	0
HIST AFS		SP	0	--	--	--	--	0
HIST AFS 2		SP	0	--	--	--	--	0
HIST DOD		1.000	0	0	0	0	--	0
HIST LEAD_SMELTER		SP	0	--	--	--	--	0
HIST MLTS		SP	0	--	--	--	--	0
HIST PCB TRANS		SP	0	--	--	--	--	0
HIST PCS ENF		SP	0	--	--	--	--	0
HIST PCS FACILITY		SP	0	--	--	--	--	0
HIST SSTS		SP	0	--	--	--	--	0
HWC DOCKET		SP	0	--	--	--	--	0
ICIS		SP	0	--	--	--	--	0

<u>DATABASE</u>	<u>SUBJECT PROPERTY</u>	<u>SEARCH DISTANCE (MILES)</u>	<u><1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>>1</u>	<u>TOTAL MAPPED</u>

OTHER ASCERTAINABLE RECORDS (cont.)

INACTIVE PCS		SP	0	--	--	--	--	0
INDIAN RESERVATION		1.000	0	0	0	0	--	0
LUCIS		0.500	0	0	0	--	--	0
LUCIS 2		0.500	0	0	0	--	--	0
MINES		0.250	0	0	--	--	--	0
MINES USGS		0.250	0	0	--	--	--	0
MLTS		SP	0	--	--	--	--	0
NPL AOC		1.000	0	0	0	0	--	0
NPL LIENS		SP	0	--	--	--	--	0
OSHA		SP	0	--	--	--	--	0
PADS		SP	0	--	--	--	--	0
PCB TRANSFORMER		SP	0	--	--	--	--	0
PCS ENF		SP	0	--	--	--	--	0
PCS FACILITY		SP	0	--	--	--	--	0
RAATS		SP	0	--	--	--	--	0
RADINFO		SP	0	--	--	--	--	0
RMP		0.500	0	0	0	--	--	0
ROD		1.000	0	0	0	0	--	0
SCRD DRYCLEANERS		0.250	0	0	--	--	--	0
SEMS_SMELTER		SP	0	--	--	--	--	0
SSTS		SP	0	--	--	--	--	0
STORMWATER		SP	0	--	--	--	--	0
TOSCA-PLANT		SP	0	--	--	--	--	0
TRIS		SP	0	--	--	--	--	0
UMTRA		0.500	0	0	0	--	--	0
VAPOR		0.500	0	0	0	--	--	0
AIRS - MI		SP	0	--	--	--	--	0
AUL - MI		0.500	0	0	1	--	--	1
BEA - MI		0.500	4	5	17	--	--	26
COAL ASH - MI		0.500	0	0	0	--	--	0
DAYCARE - MI		SP	0	--	--	--	--	0
DRYCLEANERS - MI		0.250	1	1	--	--	--	2
GW RELEASE - MI		0.500	0	0	0	--	--	0
HIST AIRS - MI		SP	0	--	--	--	--	0
HIST NPDES - MI		SP	0	--	--	--	--	0
HIST UIC - MI		SP	0	--	--	--	--	0

<u>DATABASE</u>	<u>SUBJECT PROPERTY</u>	<u>SEARCH DISTANCE (MILES)</u>	<u><1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>>1</u>	<u>TOTAL MAPPED</u>

OTHER ASCERTAINABLE RECORDS (cont.)

LWF - MI		0.250	7	9	--	--	--	16
NPDES - MI		SP	0	--	--	--	--	0
UIC - MI		SP	0	--	--	--	--	0
UIC 2 - MI		SP	0	--	--	--	--	0

Map Id: A1
 Direction: ENE
 Distance: 0.007 mi.
 Actual: 35.568 ft.
 Elevation: 0.143 mi. / 754.636 ft.
 Relative: Lower

Site Name : The Plant Station
 720 ADAMS
 BIRMINGHAM, MI 48011
Database(s) : [LUST - MI]

EnviroSite ID: 3277316
EPA ID: N/R

LUST - MI

Facility Name : The Plant Station
 Facility Address : 720 ADAMS, BIRMINGHAM, 48011
 County : Oakland

Site Details

Date of Collection : 10/05/2004
 Facility ID : 00018613
 Accuracy : 100
 Accuracy Value Unit : FEET
 Horizontal Datum : NAD83
 Source : STATE OF MICHIGAN
 Point/Line/Area : POINT
 Description Category : Plant Entrance (Freight)
 Method of Collection : Address Matching-House Number
 District : Southeast MI
 Latitude : 42.542155
 Longitude : -83.205579
 Last Date in Agency List : 06/26/2019

Owner Summary

Owner Name : Lynn E. Arft
 Owner Address : 720 ADAMS, BIRMINGHAM, MI 48011
 Owner Country : USA
 Owner Contact Person : N/R
 Owner Phone Number : (313) 642-8900

Release Information

Release Date : 10/13/1997
 Release Status : Closed
 Substance Released : Gasoline,Unknown
 Release Closed Date : 11/24/1998
 Leak Number : C-0922-97
 LUST Site Name : The Plant Station

Map Id: A2
 Direction: ENE
 Distance: 0.010 mi.
 Actual: 54.395 ft.
 Elevation: 0.143 mi. / 754.918 ft.
 Relative: Lower

Site Name : THE PLANT STATION | PLANT STATION
 720 S ADAMS RD
 BIRMINGHAM, MI 48009
Database(s) : [LUST - MI, LWF - MI, UST - MI]

EnviroSite ID: 3410018
EPA ID: N/R

LUST - MI

Facility Name : The Plant Station
 Facility Address : 720 S ADAMS RD, BIRMINGHAM, 48009-
 County : Oakland

Map Id: A2
 Direction: ENE
 Distance: 0.010 mi.
 Actual: 54.395 ft.
 Elevation: 0.143 mi. / 754.918 ft.
 Relative: Lower

Site Name : THE PLANT STATION | PLANT STATION
 720 S ADAMS RD
 BIRMINGHAM, MI 48009
Database(s) : [LUST - MI, LWF - MI, UST - MI] **(cont.)**

EnviroSite ID: 3410018
EPA ID: N/R

LUST - MI **(cont.)**

Site Details

Date of Collection :	10/05/2004
Facility ID :	00018613
Accuracy :	100
Accuracy Value Unit :	FEET
Horizontal Datum :	NAD83
Source :	STATE OF MICHIGAN
Point/Line/Area :	POINT
Description Category :	Plant Entrance (Freight)
Method of Collection :	Address Matching-House Number
District :	Warren
Latitude :	42.542155
Longitude :	-83.205579
Last Date in Agency List :	09/21/2020

Owner Summary

Owner Name :	LynnE. Arft
Owner Address :	UNKNOWN, MI
Owner Country :	USA
Owner Contact Person :	N/R
Owner Phone Number :	N/R

Release Information

Release Date :	10/13/1997
Release Status :	Closed
Substance Released :	Gasoline,Unknown
Release Closed Date :	11/24/1998
Leak Number :	C-0922-97
LUST Site Name :	The Plant Station

LWF - MI

Facility Name :	PLANT STATION
Facility Address :	720 S ADAMS RD, BIRMINGHAM, MI 48009
County :	OAKLAND

WDS ID :	440575
Site ID :	MIG000045936
Site Legal Name :	PLANT STATION
Contact Name :	N/R
Contact Phone :	N/R
Contact Email :	N/R
Agency Hyperlink :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	08/19/2020

UST - MI

Facility Name :	The Plant Station
Facility Address :	720 S ADAMS RD, BIRMINGHAM, MI 48009-6930
County :	OAKLAND

Map Id: A2
 Direction: ENE
 Distance: 0.010 mi.
 Actual: 54.395 ft.
 Elevation: 0.143 mi. / 754.918 ft.
 Relative: Lower

Site Name : THE PLANT STATION | PLANT STATION
 720 S ADAMS RD
 BIRMINGHAM, MI 48009
Database(s) : [LUST - MI, LWF - MI, UST - MI] **(cont.)**

EnviroSite ID: 3410018
EPA ID: N/R

UST - MI **(cont.)**

Site Details

Facility Number : 00018613
 Region : 1
 Facility Contact : N/R
 Latitude : 42.5421550000
 Longitude : -83.2055790000
 Last Date in Agency List : 03/20/2020

Owner Summary

Owner Name : Lynn E. Arft
 Owner Address : 720 ADAMS, BIRMINGHAM, MI 48011
 Owner Country : N/R
 Owner Phone : 3136428900

Tank Information

Installation Date : 04/11/1985
 New Tank Number : UTK-067985-15
 Old Tank Number : 1
 Tank Status : Removed from Ground
 Tank Content : Gasoline
 Capacity (in gallons) : 4000
 Removed/Closed Date : 07/01/1987
 Number of Compartments : N/R
 Piping Material : Galvanized Steel
 Piping Type : N/R
 Tank Material : Asphalt Coated or Bare Steel, Cathodically Protected Steel
 Impressed Current Installed : N/R

Installation Date : 04/11/1969
 New Tank Number : UTK-027193-15
 Old Tank Number : 4
 Tank Status : Removed from Ground
 Tank Content : Gasoline
 Capacity (in gallons) : 6000
 Removed/Closed Date : 07/01/1987
 Number of Compartments : N/R
 Piping Material : Galvanized Steel
 Piping Type : N/R
 Tank Material : Asphalt Coated or Bare Steel
 Impressed Current Installed : N/R

Installation Date : 04/11/1958
 New Tank Number : UTK-041161-15
 Old Tank Number : 3
 Tank Status : Removed from Ground
 Tank Content : Gasoline
 Capacity (in gallons) : 6000
 Removed/Closed Date : 07/01/1987
 Number of Compartments : N/R
 Piping Material : Galvanized Steel
 Piping Type : N/R

Map Id: A2
 Direction: ENE
 Distance: 0.010 mi.
 Actual: 54.395 ft.
 Elevation: 0.143 mi. / 754.918 ft.
 Relative: Lower

Site Name : THE PLANT STATION | PLANT STATION
 720 S ADAMS RD
 BIRMINGHAM, MI 48009
Database(s) : [LUST - MI, LWF - MI, UST - MI] **(cont.)**

EnviroSite ID: 3410018
EPA ID: N/R

UST - MI **(cont.)**

Tank Material :	Asphalt Coated or Bare Steel
Impressed Current Installed :	N/R
Installation Date :	04/11/1958
New Tank Number :	UTK-067987-15
Old Tank Number :	2
Tank Status :	Removed from Ground
Tank Content :	Gasoline
Capacity (in gallons) :	6000
Removed/Closed Date :	07/01/1987
Number of Compartments :	N/R
Piping Material :	Galvanized Steel
Piping Type :	N/R
Tank Material :	Asphalt Coated or Bare Steel
Impressed Current Installed :	N/R

Map Id: B3
 Direction: WNW
 Distance: 0.026 mi.
 Actual: 138.295 ft.
 Elevation: 0.144 mi. / 757.68 ft.
 Relative: Higher

Site Name : Fred Lavery Company | Lavery MI
 Dealership Properties No.1,LLC
 907 and 911 Haynes Street
 Birmingham, MI 48009
Database(s) : [BEA - MI]

EnviroSite ID: 3343804
EPA ID: N/R

BEA - MI

Facility Name :	Fred Lavery Company
Facility Address :	907 and 911 Haynes Street, Birmingham, 48009
County :	Oakland

Facility ID :	N/R
BEA Number :	201406073LV
Data Source :	BEA
District :	Southeast MI
Township :	Birmingham
Latitude :	N/R
Longitude :	N/R
Last Date in Agency List :	2020-09-25

Facility Name :	Lavery MI Dealership Properties No.1,LLC
Facility Address :	907 and 911 Haynes Street, Birmingham, 48009
County :	Oakland

Facility ID :	N/R
BEA Number :	201406074LV
Data Source :	BEA
District :	Southeast MI
Township :	Birmingham

Map Id: B3
 Direction: WNW
 Distance: 0.026 mi.
 Actual: 138.295 ft.
 Elevation: 0.144 mi. / 757.68 ft.
 Relative: Higher

Site Name : Fred Lavery Company | Lavery MI
 Dealership Properties No.1,LLC
 907 and 911 Haynes Street
 Birmingham, MI 48009

Database(s) : [BEA - MI] **(cont.)**

EnviroSite ID: 3343804
EPA ID: N/R

BEA - MI **(cont.)**

Latitude : N/R
 Longitude : N/R
 Last Date in Agency List : 2020-09-25

Map Id: A4
 Direction: ESE
 Distance: 0.028 mi.
 Actual: 148.342 ft.
 Elevation: 0.143 mi. / 753.481 ft.
 Relative: Lower

Site Name : BIRMINGHAM GROUP INC
 770 S ADAMS RD
 BIRMINGHAM, MI 48009

Database(s) : [ECHO, FRS, LWF - MI, RCRA_NONGEN]

EnviroSite ID: 3389430
EPA ID: N/R

ECHO

Facility Name : BIRMINGHAM GROUP INC
 Facility Address : 770 S ADAMS RD, BIRMINGHAM, MI 48009
 County : OAKLAND

Last Inspection Date : N/R
 Registry ID : 110064380673
 FIPS Code : 26125
 EPA Region : 05
 Inspection Count : 0
 Last Inspection Days : N/R
 Informal Count : 0
 Last Informal Action Date : N/R
 Formal Action Count : 0
 Last Formal Action Date : N/R
 Total Penalties : 0
 Penalty Count : N/R
 Last Penalty Date : N/R
 Last Penalty Amount : N/R
 QTRS IN NC : 0
 Programs IN SNC : 0
 Current Compliance Status : No Violation Identified
 Three-Year Compliance Status :
 Collection Method : ADDRESS MATCHING-HOUSE NUMBER
 Reference Point : CENTER OF A FACILITY OR STATION
 Accuracy Meters : 30
 Derived Tribes : N/R
 Derived HUC : 04090003
 Derived WBD : 040900030202
 Derived STCTY FIPS : 26125
 Derived Zip : 48009
 Derived CD113 : 11
 Derived CB2010 : 261251529002025
 MYRTK Universe : NNN
 NPDES IDs : N/R
 CWA Permit Types : N/R
 CWA Compliance Tracking : N/R

Map Id: A4
 Direction: ESE
 Distance: 0.028 mi.
 Actual: 148.342 ft.
 Elevation: 0.143 mi. / 753.481 ft.
 Relative: Lower

Site Name : BIRMINGHAM GROUP INC
 770 S ADAMS RD
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, LWF - MI, RCRA_NONGEN]
(cont.)

EnviroSite ID: 3389430
EPA ID: N/R

ECHO (cont.)

CWA NAICS :	N/R
CWA SICS :	N/R
CWA Inspection Count :	N/R
CWA Last Inspection Days :	N/R
CWA Informal Count :	N/R
CWA Formal Action Count :	N/R
CWA Last Formal Action Date :	N/R
CWA Penalties :	N/R
CWA Last Penalty Date :	N/R
CWA Last Penalty Amount :	N/R
CWA Quarters IN NC :	N/R
CWA Current Compliance Status :	N/R
CWA Current SNC Flag :	N
CWA 13 Quarters Compliance Status :	N/R
CWA 13 Quarters Effluent Exceedances:	N/R
CWA Three-Year QNCR Codes :	N/R
DFR URL :	Click here for hyperlink provided by the agency.
Facility SIC :	N/R
Facility NAICS :	531120 - Lessors of Nonresidential Buildings (except Miniwarehouses)
Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	N/R
Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R
Facility Last Informal Act EPA Date :	N/R
Facility Last Informal Act State Date:	N/R
Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	N/R
Current SNC Flag :	N
Indian County Flag :	N
Federal Flag :	N/R
US Mexico Border Flag :	N/R
Chesapeake Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	N
SDWIS Flag :	N
RCRA Flag :	Y
TRI Flag :	N
GHG Flag :	N
Major Flag :	N/R
Active Flag :	N/R
NAA Flag :	Y
Latitude :	42.54167
Longitude :	-83.2055
Last Date in Agency List :	2020-12-31

FRS

Facility Name :	BIRMINGHAM GROUP INC
Facility Address :	770 S ADAMS RD, BIRMINGHAM, MI 48009
County :	OAKLAND
Registry ID :	110064380673
FRS Facility URL :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	08/31/2020

Map Id: A4
 Direction: ESE
 Distance: 0.028 mi.
 Actual: 148.342 ft.
 Elevation: 0.143 mi. / 753.481 ft.
 Relative: Lower

Site Name : BIRMINGHAM GROUP INC
 770 S ADAMS RD
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, LWF - MI, RCRA_NONGEN]
(cont.)

EnviroSite ID: 3389430
EPA ID: N/R

FRS (cont.)

Source Description :

RCRAInfo is EPA's comprehensive information system that supports the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984 through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA. RCRAInfo also supports generation of the National Hazardous Waste Biennial Report. All generators and treatment, storage, and disposal facilities who handle hazardous waste are required to report to the EPA Administrator at least once every two years to support creation of the Biennial Report.

FRS Environmental Interest

Source and System ID : RCRAINFO - MIK105492408

LWF - MI

Facility Name : BIRMINGHAM GROUP INC
 Facility Address : 770 S ADAMS RD, BIRMINGHAM, MI 48009
 County : OAKLAND

WDS ID : 494667
 Site ID : MIK105492408
 Site Legal Name : BIRMINGHAM GROUP INC
 Contact Name : N/R
 Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 08/19/2020

RCRA_NONGEN

Facility Name : BIRMINGHAM GROUP INC
 Facility Address : 770 S ADAMS RD, BIRMINGHAM, MI 48009
 County : OAKLAND

Date Form Received by Agency : 05/01/2015
 EPA ID : MIK105492408
 Mailing Address : 251 MERRILL ST, SUITE 200, BIRMINGHAM, MI 48009
 Contact : LAWRENCE C LENCHNER
 Contact Address : N/R
 Contact Country : N/R
 Contact Telephone : 248-568-9102
 Contact Email : ABINGTON1@AOL.COM
 EPA Region : 05
 Land Type : Private
 Source Type : Notification
 Classification : Not a generator, verified
 Description : Not a generator, verified
 Last Date in Agency List : 10/19/2020

Map Id: A4
 Direction: ESE
 Distance: 0.028 mi.
 Actual: 148.342 ft.
 Elevation: 0.143 mi. / 753.481 ft.
 Relative: Lower

Site Name : BIRMINGHAM GROUP INC
 770 S ADAMS RD
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, LWF - MI, RCRA_NONGEN]
(cont.)

EnviroSite ID: 3389430
EPA ID: N/R

RCRA_NONGEN (cont.)

Owner/Operator Summary

Owner/Operator Name : BIRMINGHAM GROUP INC
 Owner/Operator Address : N/R
 Owner/Operator Country : N/R
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Private
 Owner/Operator Type : Operator
 Owner/Operator Start Date : 06/01/1995
 Owner/Operator End Date : N/R

Owner/Operator Name : BIRMINGHAM GROUP INC
 Owner/Operator Address : N/R
 Owner/Operator Country : N/R
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Private
 Owner/Operator Type : Owner
 Owner/Operator Start Date : 06/01/1995
 Owner/Operator End Date : N/R

Owner/Operator Name : LAWRENCE C LENCHNER
 Owner/Operator Address : N/R
 Owner/Operator Country : N/R
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Private
 Owner/Operator Type : Operator
 Owner/Operator Start Date : 06/01/1995
 Owner/Operator End Date : N/R

Handler Activities Summary

U.S. Importer of Hazardous Waste : N
 Mixed Waste (Haz. and Radioactive) : N
 Recycler of Hazardous Waste : N
 Transporter of Hazardous Waste : N
 Treater, Storer or Disposer of HW : N
 Underground Injection Activity : N
 On-site Burner Exemption : N
 Furnace Exemption : N
 Used Oil Fuel Burner : N
 Used Oil Processor : N
 Used Oil Refiner : N
 Used Oil Fuel Marketer to Burner : N
 Used Oil Specification Marketer : N
 Used Oil Transfer Facility : N
 Used Oil Transporter : N

Map Id: A4
 Direction: ESE
 Distance: 0.028 mi.
 Actual: 148.342 ft.
 Elevation: 0.143 mi. / 753.481 ft.
 Relative: Lower

Site Name : BIRMINGHAM GROUP INC
 770 S ADAMS RD
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, LWF - MI, RCRA_NONGEN]
(cont.)

EnviroSite ID: 3389430
EPA ID: N/R

RCRA_NONGEN (cont.)

Hazardous Waste Summary
 Waste Code / Name : D001 - IGNITABLE WASTE

Notices of Violations Summary
 Regulation Violated : N

Map Id: 5
 Direction: S
 Distance: 0.034 mi.
 Actual: 177.525 ft.
 Elevation: 0.143 mi. / 755.394 ft.
 Relative: Higher

Site Name : WEISMAN CLEANERS II
 875 S WORTH ST
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, RCRA_NONGEN]

EnviroSite ID: 3422349
EPA ID: N/R

ECHO

Facility Name : WEISMAN CLEANERS II
 Facility Address : 875 S WORTH ST, BIRMINGHAM, MI 48009
 County : OAKLAND

Last Inspection Date : N/R
 Registry ID : 110003586478
 FIPS Code : 26125
 EPA Region : 05
 Inspection Count : 0
 Last Inspection Days : N/R
 Informal Count : 0
 Last Informal Action Date : N/R
 Formal Action Count : 0
 Last Formal Action Date : N/R
 Total Penalties : 0
 Penalty Count : N/R
 Last Penalty Date : N/R
 Last Penalty Amount : N/R
 QTRS IN NC : 0
 Programs IN SNC : 0
 Current Compliance Status : No Violation Identified
 Three-Year Compliance Status :
 Collection Method : ADDRESS MATCHING-HOUSE NUMBER
 Reference Point : CENTER OF A FACILITY OR STATION
 Accuracy Meters : 30
 Derived Tribes : N/R
 Derived HUC : 04090003
 Derived WBD : 040900030202
 Derived STCTY FIPS : 26125
 Derived Zip : 48009
 Derived CD113 : 11
 Derived CB2010 : 261251529002025

Map Id: 5
 Direction: S
 Distance: 0.034 mi.
 Actual: 177.525 ft.
 Elevation: 0.143 mi. / 755.394 ft.
 Relative: Higher

Site Name : WEISMAN CLEANERS II
 875 S WORTH ST
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, RCRA_NONGEN]
(cont.)

EnviroSite ID: 3422349
EPA ID: N/R

ECHO (cont.)

MYRTK Universe :	NNN
NPDES IDs :	N/R
CWA Permit Types :	N/R
CWA Compliance Tracking :	N/R
CWA NAICS :	N/R
CWA SICS :	N/R
CWA Inspection Count :	N/R
CWA Last Inspection Days :	N/R
CWA Informal Count :	N/R
CWA Formal Action Count :	N/R
CWA Last Formal Action Date :	N/R
CWA Penalties :	N/R
CWA Last Penalty Date :	N/R
CWA Last Penalty Amount :	N/R
CWA Quarters IN NC :	N/R
CWA Current Compliance Status :	N/R
CWA Current SNC Flag :	N
CWA 13 Quarters Compliance Status :	N/R
CWA 13 Quarters Effluent Exceedances:	N/R
CWA Three-Year QNCR Codes :	N/R
DFR URL :	Click here for hyperlink provided by the agency.
Facility SIC :	N/R
Facility NAICS :	81232 - Drycleaning and Laundry Services (except Coin-Operated)
Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	N/R
Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R
Facility Last Informal Act EPA Date :	N/R
Facility Last Informal Act State Date:	N/R
Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	N/R
Current SNC Flag :	N
Indian County Flag :	N
Federal Flag :	N/R
US Mexico Border Flag :	N/R
Chesapeake Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	N
SDWIS Flag :	N
RCRA Flag :	Y
TRI Flag :	N
GHG Flag :	N
Major Flag :	N/R
Active Flag :	N/R
NAA Flag :	Y
Latitude :	42.54101
Longitude :	-83.20656
Last Date in Agency List :	2020-12-31

FRS

Facility Name :	WEISMAN CLEANERS II
Facility Address :	875 S WORTH ST, BIRMINGHAM, MI 48009
County :	OAKLAND

Map Id: 5
 Direction: S
 Distance: 0.034 mi.
 Actual: 177.525 ft.
 Elevation: 0.143 mi. / 755.394 ft.
 Relative: Higher

Site Name : WEISMAN CLEANERS II
 875 S WORTH ST
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, RCRA_NONGEN]
(cont.)

EnviroSite ID: 3422349
EPA ID: N/R

FRS (cont.)

Registry ID : 110003586478
 FRS Facility URL : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 08/31/2020

Source Description :

RCRAInfo is EPA's comprehensive information system that supports the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984 through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA. RCRAInfo also supports generation of the National Hazardous Waste Biennial Report. All generators and treatment, storage, and disposal facilities who handle hazardous waste are required to report to the EPA Administrator at least once every two years to support creation of the Biennial Report.

FRS Environmental Interest

Source and System ID : RCRAINFO - MID016755902

HWG - MI

Facility Name : WEISMAN CLEANERS II
 Facility Address : 875 S WORTH ST, BIRMINGHAM, MI 48009
 County : OAKLAND

WDS ID : 394538
 Site ID : MID016755902
 Generator Status : No longer generating, out of business
 Site Legal Name : WEISMAN CLEANERS II
 Contact Name : N/R
 Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 2021-01-04

RCRA_NONGEN

Facility Name : WEISMAN CLEANERS II
 Facility Address : 875 S WORTH ST, BIRMINGHAM, MI 48009
 County : OAKLAND

Date Form Received by Agency : 10/26/2006
 EPA ID : MID016755902
 Mailing Address : 875 S WORTH ST, BIRMINGHAM, MI 48009
 Contact : JEFFERY CARTER
 Contact Address : 875 S WORTH ST, BIRMINGHAM, MI 48009
 Contact Country : US
 Contact Telephone : 313-644-0222
 Contact Email : N/R
 EPA Region : 05
 Land Type : Other land type
 Source Type : Implementer

Map Id: 5
 Direction: S
 Distance: 0.034 mi.
 Actual: 177.525 ft.
 Elevation: 0.143 mi. / 755.394 ft.
 Relative: Higher

Site Name : WEISMAN CLEANERS II
 875 S WORTH ST
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, RCRA_NONGEN]
(cont.)

EnviroSite ID: 3422349
EPA ID: N/R

RCRA_NONGEN (cont.)

Classification : Not a generator, verified
 Description : Not a generator, verified
 Last Date in Agency List : 10/19/2020

Owner/Operator Summary

Owner/Operator Name : NO ACTIVE O/OP AS NOT GENERATING WASTE
 Owner/Operator Address : N/R
 Owner/Operator Country : N/R
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Private
 Owner/Operator Type : Operator
 Owner/Operator Start Date : 01/02/1990
 Owner/Operator End Date : N/R

Owner/Operator Name : NO ACTIVE O/OP AS NOT GENERATING WASTE
 Owner/Operator Address : N/R
 Owner/Operator Country : N/R
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Private
 Owner/Operator Type : Owner
 Owner/Operator Start Date : 01/02/1990
 Owner/Operator End Date : N/R

Handler Activities Summary

U.S. Importer of Hazardous Waste : N
 Mixed Waste (Haz. and Radioactive) : N
 Recycler of Hazardous Waste : N
 Transporter of Hazardous Waste : N
 Treater, Storer or Disposer of HW : N
 Underground Injection Activity : N
 On-site Burner Exemption : N
 Furnace Exemption : N
 Used Oil Fuel Burner : N
 Used Oil Processor : N
 Used Oil Refiner : N
 Used Oil Fuel Marketer to Burner : N
 Used Oil Specification Marketer : N
 Used Oil Transfer Facility : N
 Used Oil Transporter : N

Historical Generators

Date Form Received by Agency : 09/17/1998
 Facility Name : WEISMAN CLEANERS II
 Classification : Not a generator, verified

Map Id: 5
 Direction: S
 Distance: 0.034 mi.
 Actual: 177.525 ft.
 Elevation: 0.143 mi. / 755.394 ft.
 Relative: Higher

Site Name : WEISMAN CLEANERS II
 875 S WORTH ST
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, RCRA_NONGEN]
(cont.)

EnviroSite ID: 3422349
EPA ID: N/R

RCRA_NONGEN (cont.)

Date Form Received by Agency : 10/06/1986
 Facility Name : WEISMAN CLEANERS II
 Classification : Small Quantity Generator

Hazardous Waste Summary
 Waste Code / Name : D001 - IGNITABLE WASTE

Notices of Violations Summary
 Regulation Violated : N

Map Id: C6
 Direction: NE
 Distance: 0.037 mi.
 Actual: 197.690 ft.
 Elevation: 0.143 mi. / 756.237 ft.
 Relative: Higher

Site Name : ROSMAN CLEANERS
 651 S ADAMS RD | 651 SOUTH ADAMS
 BIRMINGHAM, MI 48009
Database(s) : [DRYCLEANERS - MI, ECHO, FRS, HWG - MI, LWF - MI, RCRA_VSQG]

EnviroSite ID: 3289166
EPA ID: N/R

DRYCLEANERS - MI

Facility Name : ROSMAN CLEANERS INC
 Facility Address : 651 SOUTH ADAMS, BIRMINGHAM, MI 48009
 County : OAKLAND

Last Inspection Date : N/R
 Establishment Number : 6300141
 Status : N/R
 DCM Type : Petro
 Number of DCM : 1
 Total Pounds : 40
 Inspector : N/R
 Last Date in Agency List : 2019-12-12

ECHO

Facility Name : ROSMAN CLEANERS
 Facility Address : 651 S ADAMS RD, BIRMINGHAM, MI 48009
 County : OAKLAND

Last Inspection Date : N/R
 Registry ID : 110003561155
 FIPS Code : 26125
 EPA Region : 05
 Inspection Count : 0
 Last Inspection Days : N/R

Map Id: C6
 Direction: NE
 Distance: 0.037 mi.
 Actual: 197.690 ft.
 Elevation: 0.143 mi. / 756.237 ft.
 Relative: Higher

Site Name : ROSMAN CLEANERS
 651 S ADAMS RD | 651 SOUTH ADAMS
 BIRMINGHAM, MI 48009
Database(s) : [DRYCLEANERS - MI, ECHO, FRS, HWG -
 MI, LWF - MI, RCRA_VSQG] **(cont.)**

EnviroSite ID: 3289166
EPA ID: N/R

ECHO (cont.)

Informal Count :	0
Last Informal Action Date :	N/R
Formal Action Count :	0
Last Formal Action Date :	N/R
Total Penalties :	0
Penalty Count :	N/R
Last Penalty Date :	N/R
Last Penalty Amount :	N/R
QTRS IN NC :	0
Programs IN SNC :	0
Current Compliance Status :	No Violation Identified
Three-Year Compliance Status :	
Collection Method :	ADDRESS MATCHING-HOUSE NUMBER
Reference Point :	ENTRANCE POINT OF A FACILITY OR STATION
Accuracy Meters :	50
Derived Tribes :	N/R
Derived HUC :	04090003
Derived WBD :	040900030202
Derived STCTY FIPS :	26125
Derived Zip :	48009
Derived CD113 :	11
Derived CB2010 :	261251529002021
MYRTK Universe :	NNN
NPDES IDs :	N/R
CWA Permit Types :	N/R
CWA Compliance Tracking :	N/R
CWA NAICS :	N/R
CWA SICS :	N/R
CWA Inspection Count :	N/R
CWA Last Inspection Days :	N/R
CWA Informal Count :	N/R
CWA Formal Action Count :	N/R
CWA Last Formal Action Date :	N/R
CWA Penalties :	N/R
CWA Last Penalty Date :	N/R
CWA Last Penalty Amount :	N/R
CWA Quarters IN NC :	N/R
CWA Current Compliance Status :	N/R
CWA Current SNC Flag :	N
CWA 13 Quarters Compliance Status :	N/R
CWA 13 Quarters Effluent Exceedances:	N/R
CWA Three-Year QNCR Codes :	N/R
DFR URL :	Click here for hyperlink provided by the agency.
Facility SIC :	N/R
Facility NAICS :	812320 - Drycleaning and Laundry Services (except Coin-Operated)
Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	N/R
Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R
Facility Last Informal Act EPA Date :	N/R
Facility Last Informal Act State Date:	N/R
Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	N/R
Current SNC Flag :	N
Indian County Flag :	N

Map Id: C6
 Direction: NE
 Distance: 0.037 mi.
 Actual: 197.690 ft.
 Elevation: 0.143 mi. / 756.237 ft.
 Relative: Higher

Site Name : ROSMAN CLEANERS
 651 S ADAMS RD | 651 SOUTH ADAMS
 BIRMINGHAM, MI 48009
Database(s) : [DRYCLEANERS - MI, ECHO, FRS, HWG -
 MI, LWF - MI, RCRA_VSQG] **(cont.)**

EnviroSite ID: 3289166
EPA ID: N/R

ECHO (cont.)

Federal Flag :	N/R
US Mexico Border Flag :	N/R
Chesapeake Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	N
SDWIS Flag :	N
RCRA Flag :	Y
TRI Flag :	N
GHG Flag :	N
Major Flag :	N/R
Active Flag :	Y
NAA Flag :	Y
Latitude :	42.542795
Longitude :	-83.205568
Last Date in Agency List :	2020-12-31

FRS

Facility Name :	ROSMAN CLEANERS
Facility Address :	651 S ADAMS RD, BIRMINGHAM, MI 48009
County :	OAKLAND
Registry ID :	110003561155
FRS Facility URL :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	08/31/2020

Source Description :

RCRAInfo is EPA's comprehensive information system that supports the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984 through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA. RCRAInfo also supports generation of the National Hazardous Waste Biennial Report. All generators and treatment, storage, and disposal facilities who handle hazardous waste are required to report to the EPA Administrator at least once every two years to support creation of the Biennial Report.

FRS Environmental Interest

Source and System ID :	RCRAINFO - MI0000079103

HWG - MI

Facility Name :	ROSMAN CLEANERS
Facility Address :	651 S ADAMS RD, BIRMINGHAM, MI 48009
County :	OAKLAND
WDS ID :	390418
Site ID :	MI0000079103
Generator Status :	CESQG
Site Legal Name :	ROSMAN CLEANERS
Contact Name :	N/R

Map Id: C6
 Direction: NE
 Distance: 0.037 mi.
 Actual: 197.690 ft.
 Elevation: 0.143 mi. / 756.237 ft.
 Relative: Higher

Site Name : ROSMAN CLEANERS
 651 S ADAMS RD | 651 SOUTH ADAMS
 BIRMINGHAM, MI 48009
Database(s) : [DRYCLEANERS - MI, ECHO, FRS, HWG -
 MI, LWF - MI, RCRA_VSQG] **(cont.)**

EnviroSite ID: 3289166
EPA ID: N/R

HWG - MI (cont.)

Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 2021-01-04

LWF - MI

Facility Name : ROSMAN CLEANERS
 Facility Address : 651 S ADAMS RD, BIRMINGHAM, MI 48009
 County : OAKLAND

WDS ID : 390418
 Site ID : MI0000079103
 Site Legal Name : ROSMAN CLEANERS
 Contact Name : N/R
 Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 08/19/2020

RCRA_VSQG

Facility Name : ROSMAN CLEANERS
 Facility Address : 651 S ADAMS RD, BIRMINGHAM, MI 48009
 County : OAKLAND

Date Form Received by Agency : 07/14/2016
 EPA ID : MI0000079103
 Mailing Address : 651 S ADAMS RD, BIRMINGHAM, MI 48009
 Contact : POM YI
 Contact Address : N/R
 Contact Country : N/R
 Contact Telephone : 248-646-9549
 Contact Email : N/R
 EPA Region : 05
 Land Type : Private
 Source Type : Implementer
 Classification : Very Small Quantity Generator

Description :

Handlers that generate 100 kilograms or less of hazardous waste per calendar month, and accumulate 1000 kg or less of hazardous waste at any time; or generate one kilogram or less of acutely hazardous waste per calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generate 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste.

Last Date in Agency List : 10/19/2020

Map Id: C6
 Direction: NE
 Distance: 0.037 mi.
 Actual: 197.690 ft.
 Elevation: 0.143 mi. / 756.237 ft.
 Relative: Higher

Site Name : ROSMAN CLEANERS
 651 S ADAMS RD | 651 SOUTH ADAMS
 BIRMINGHAM, MI 48009
Database(s) : [DRYCLEANERS - MI, ECHO, FRS, HWG -
 MI, LWF - MI, RCRA_VSQG] **(cont.)**

Envirosite ID: 3289166
EPA ID: N/R

RCRA_VSQG (cont.)

Owner/Operator Summary

Owner/Operator Name : POM YI
 Owner/Operator Address : N/R
 Owner/Operator Country : N/R
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Private
 Owner/Operator Type : Operator
 Owner/Operator Start Date : 03/04/1998
 Owner/Operator End Date : N/R

Owner/Operator Name : POM YI
 Owner/Operator Address : N/R
 Owner/Operator Country : N/R
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Private
 Owner/Operator Type : Owner
 Owner/Operator Start Date : 03/04/1998
 Owner/Operator End Date : N/R

Handler Activities Summary

U.S. Importer of Hazardous Waste : N
 Mixed Waste (Haz. and Radioactive) : N
 Recycler of Hazardous Waste : N
 Transporter of Hazardous Waste : N
 Treater, Storer or Disposer of HW : N
 Underground Injection Activity : N
 On-site Burner Exemption : N
 Furnace Exemption : N
 Used Oil Fuel Burner : N
 Used Oil Processor : N
 Used Oil Refiner : N
 Used Oil Fuel Marketer to Burner : N
 Used Oil Specification Marketer : N
 Used Oil Transfer Facility : N
 Used Oil Transporter : N

Historical Generators

Date Form Received by Agency : 09/17/1998
 Facility Name : ROSMAN CLEANERS
 Classification : Not a generator, verified

Date Form Received by Agency : 12/14/1993
 Facility Name : ROSMAN CLEANERS
 Classification : Small Quantity Generator

Map Id: C6
 Direction: NE
 Distance: 0.037 mi.
 Actual: 197.690 ft.
 Elevation: 0.143 mi. / 756.237 ft.
 Relative: Higher

Site Name : ROSMAN CLEANERS
 651 S ADAMS RD | 651 SOUTH ADAMS
 BIRMINGHAM, MI 48009
Database(s) : [DRYCLEANERS - MI, ECHO, FRS, HWG -
 MI, LWF - MI, RCRA_VSQG] **(cont.)**

EnviroSite ID: 3289166
EPA ID: N/R

RCRA_VSQG **(cont.)**

Hazardous Waste Summary
 Waste Code / Name : D001 - IGNITABLE WASTE

Notices of Violations Summary
 Regulation Violated : N

Map Id: B7
 Direction: NW
 Distance: 0.057 mi.
 Actual: 303.314 ft.
 Elevation: 0.144 mi. / 758.95 ft.
 Relative: Higher

Site Name : PARMLEYS COLLISION
 880 BOWERS ST
 BIRMINGHAM, MI 48009
Database(s) : [LWF - MI]

EnviroSite ID: 3404093
EPA ID: N/R

LWF - MI

Facility Name : PARMLEYS COLLISION
 Facility Address : 880 BOWERS ST, BIRMINGHAM, MI 48009
 County : OAKLAND

WDS ID : 457751
 Site ID : MIG000008079
 Site Legal Name : PARMLEYS COLLISION
 Contact Name : N/R
 Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 08/19/2020

Map Id: C8
 Direction: NE
 Distance: 0.065 mi.
 Actual: 340.617 ft.
 Elevation: 0.143 mi. / 756.181 ft.
 Relative: Higher

Site Name : PERRY DRUG STORES INC | RITE AID
 #4303 | 597-725 South Adams Road
 597 S ADAMS RD | 597 S ADAMS RD
 ADAMS SQUARE | 597 South Adams Road
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BROWNFIELDS - MI, ECHO, FRS, HWG -
 MI, RCRA_VSQG]

EnviroSite ID: 3384851
EPA ID: N/R

BROWNFIELDS - MI

Facility Name : 597-725 South Adams Road
 Facility Address : 597 South Adams Road, Birmingham
 County : Oakland

Map Id: C8
 Direction: NE
 Distance: 0.065 mi.
 Actual: 340.617 ft.
 Elevation: 0.143 mi. / 756.181 ft.
 Relative: Higher

Site Name : PERRY DRUG STORES INC | RITE AID
 #4303 | 597-725 South Adams Road
 597 S ADAMS RD | 597 S ADAMS RD
 ADAMS SQUARE | 597 South Adams Road
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BROWNFIELDS - MI, ECHO, FRS, HWG -
 MI, RCRA_VSQG] **(cont.)**

EnviroSite ID: 3384851
EPA ID: N/R

BROWNFIELDS - MI (cont.)

Facility ID : 63501342
 Data Source : Part 201
 District : Southeast MI
 Township : N/R
 Latitude : 42.54285
 Longitude : -83.20396
 Last Date in Agency List : 2020-09-25

ECHO

Facility Name : PERRY DRUG STORES INC
 Facility Address : 597 S ADAMS RD, BIRMINGHAM, MI 48009
 County : OAKLAND

Last Inspection Date : N/R
 Registry ID : 110054840099
 FIPS Code : 26125
 EPA Region : 05
 Inspection Count : 0
 Last Inspection Days : N/R
 Informal Count : 0
 Last Informal Action Date : N/R
 Formal Action Count : 0
 Last Formal Action Date : N/R
 Total Penalties : 0
 Penalty Count : N/R
 Last Penalty Date : N/R
 Last Penalty Amount : N/R
 QTRS IN NC : 0
 Programs IN SNC : 0
 Current Compliance Status : No Violation Identified
 Three-Year Compliance Status :
 Collection Method : ADDRESS MATCHING-HOUSE NUMBER
 Reference Point : ENTRANCE POINT OF A FACILITY OR STATION
 Accuracy Meters : 150
 Derived Tribes : N/R
 Derived HUC : 04090003
 Derived WBD : 040900030202
 Derived STCTY FIPS : 26125
 Derived Zip : 48009
 Derived CD113 : 11
 Derived CB2010 : 261251529002017
 MYRTK Universe : NNN
 NPDES IDs : N/R
 CWA Permit Types : N/R
 CWA Compliance Tracking : N/R
 CWA NAICS : N/R
 CWA SICS : N/R
 CWA Inspection Count : N/R
 CWA Last Inspection Days : N/R
 CWA Informal Count : N/R
 CWA Formal Action Count : N/R
 CWA Last Formal Action Date : N/R

Map Id: C8
 Direction: NE
 Distance: 0.065 mi.
 Actual: 340.617 ft.
 Elevation: 0.143 mi. / 756.181 ft.
 Relative: Higher

Site Name : PERRY DRUG STORES INC | RITE AID
 #4303 | 597-725 South Adams Road
 597 S ADAMS RD | 597 S ADAMS RD
 ADAMS SQUARE | 597 South Adams Road
 BIRMINGHAM | Birmingham, MI 48009

Database(s) : [BROWNFIELDS - MI, ECHO, FRS, HWG - MI, RCRA_VSQG] **(cont.)**

EnviroSite ID: 3384851
EPA ID: N/R

ECHO (cont.)

CWA Penalties :	N/R
CWA Last Penalty Date :	N/R
CWA Last Penalty Amount :	N/R
CWA Quarters IN NC :	N/R
CWA Current Compliance Status :	N/R
CWA Current SNC Flag :	N
CWA 13 Quarters Compliance Status :	N/R
CWA 13 Quarters Effluent Exceedances:	N/R
CWA Three-Year QNCR Codes :	N/R
DFR URL :	Click here for hyperlink provided by the agency.
Facility SIC :	N/R
Facility NAICS :	44611 - Pharmacies and Drug Stores
Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	N/R
Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R
Facility Last Informal Act EPA Date :	N/R
Facility Last Informal Act State Date:	N/R
Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	N/R
Current SNC Flag :	N
Indian County Flag :	N
Federal Flag :	N/R
US Mexico Border Flag :	N/R
Chesapeake Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	N
SDWIS Flag :	N
RCRA Flag :	Y
TRI Flag :	N
GHG Flag :	N
Major Flag :	N/R
Active Flag :	Y
NAA Flag :	Y
Latitude :	42.543226
Longitude :	-83.205601
Last Date in Agency List :	2020-12-31

FRS

Facility Name :	PERRY DRUG STORES INC
Facility Address :	597 S ADAMS RD, ADAMS SQUARE, BIRMINGHAM, MI 48009
County :	OAKLAND
Registry ID :	110054840099
FRS Facility URL :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	08/31/2020

Map Id: C8
 Direction: NE
 Distance: 0.065 mi.
 Actual: 340.617 ft.
 Elevation: 0.143 mi. / 756.181 ft.
 Relative: Higher

Site Name : PERRY DRUG STORES INC | RITE AID
 #4303 | 597-725 South Adams Road
 597 S ADAMS RD | 597 S ADAMS RD
 ADAMS SQUARE | 597 South Adams Road
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BROWNFIELDS - MI, ECHO, FRS, HWG -
 MI, RCRA_VSQQ] **(cont.)**

EnviroSite ID: 3384851
EPA ID: N/R

FRS (cont.)

Source Description :

RCRAInfo is EPA's comprehensive information system that supports the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984 through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA. RCRAInfo also supports generation of the National Hazardous Waste Biennial Report. All generators and treatment, storage, and disposal facilities who handle hazardous waste are required to report to the EPA Administrator at least once every two years to support creation of the Biennial Report.

FRS Environmental Interest

Source and System ID :

RCRAINFO - MIK196218299

HWG - MI

Facility Name :
 Facility Address :
 County :

RITE AID #4303
 597 S ADAMS RD, BIRMINGHAM, MI 48009
 OAKLAND

WDS ID :
 Site ID :
 Generator Status :
 Site Legal Name :
 Contact Name :
 Contact Phone :
 Contact Email :
 Agency Hyperlink :
 Last Date in Agency List :

491808
 MIK196218299
 CESQG
 PERRY DRUG STORES INC
 N/R
 N/R
 N/R
[Click here for hyperlink provided by the agency.](#)
 2021-01-04

RCRA_VSQQ

Facility Name :
 Facility Address :
 County :

PERRY DRUG STORES INC
 597 S ADAMS RD, ADAMS SQUARE, BIRMINGHAM, MI 48009
 OAKLAND

Date Form Received by Agency :
 EPA ID :
 Mailing Address :
 Contact :
 Contact Address :
 Contact Country :
 Contact Telephone :
 Contact Email :
 EPA Region :
 Land Type :
 Source Type :
 Classification :

04/11/2019
 MIK196218299
 30 HUNTER LN, ATTN: ENV HEALTH & SAFETY, CAMP HILL, PA 17011
 JOSEPH A CHEST
 N/R
 N/R
 717-975-8643
 EHS@RITEAID.COM
 05
 Private
 Notification
 Very Small Quantity Generator

Map Id: C8
 Direction: NE
 Distance: 0.065 mi.
 Actual: 340.617 ft.
 Elevation: 0.143 mi. / 756.181 ft.
 Relative: Higher

Site Name : PERRY DRUG STORES INC | RITE AID
 #4303 | 597-725 South Adams Road
 597 S ADAMS RD | 597 S ADAMS RD
 ADAMS SQUARE | 597 South Adams Road
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BROWNFIELDS - MI, ECHO, FRS, HWG -
 MI, RCRA_VSQG] **(cont.)**

EnviroSite ID: 3384851
EPA ID: N/R

RCRA_VSQG (cont.)

Description :

Handlers that generate 100 kilograms or less of hazardous waste per calendar month, and accumulate 1000 kg or less of hazardous waste at any time; or generate one kilogram or less of acutely hazardous waste per calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generate 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste.

Last Date in Agency List : 10/19/2020

Owner/Operator Summary

Owner/Operator Name : PERRY DRUG STORES INC
 Owner/Operator Address : 30 HUNTER LN, CAMP HILL, PA 17011-2400
 Owner/Operator Country : US
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Private
 Owner/Operator Type : Operator
 Owner/Operator Start Date : 03/23/1995
 Owner/Operator End Date : N/R

Owner/Operator Name : RITE AID CORPORATION
 Owner/Operator Address : 30 HUNTER LN, CAMP HILL, PA 17011-2400
 Owner/Operator Country : US
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Private
 Owner/Operator Type : Owner
 Owner/Operator Start Date : 03/23/1995
 Owner/Operator End Date : N/R

Handler Activities Summary

U.S. Importer of Hazardous Waste : N
 Mixed Waste (Haz. and Radioactive) : N
 Recycler of Hazardous Waste : N
 Transporter of Hazardous Waste : N
 Treater, Storer or Disposer of HW : N
 Underground Injection Activity : N
 On-site Burner Exemption : N
 Furnace Exemption : N
 Used Oil Fuel Burner : N
 Used Oil Processor : N
 Used Oil Refiner : N

Map Id: C8
 Direction: NE
 Distance: 0.065 mi.
 Actual: 340.617 ft.
 Elevation: 0.143 mi. / 756.181 ft.
 Relative: Higher

Site Name : PERRY DRUG STORES INC | RITE AID
 #4303 | 597-725 South Adams Road
 597 S ADAMS RD | 597 S ADAMS RD
 ADAMS SQUARE | 597 South Adams Road
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BROWNFIELDS - MI, ECHO, FRS, HWG - MI, RCRA_VSQG] **(cont.)**

EnviroSite ID: 3384851
EPA ID: N/R

RCRA_VSQG (cont.)

Used Oil Fuel Marketer to Burner :	N
Used Oil Specification Marketer :	N
Used Oil Transfer Facility :	N
Used Oil Transporter :	N

Historical Generators

Date Form Received by Agency :	09/01/2015
Facility Name :	PERRY DRUG STORES INC
Classification :	Very Small Quantity Generator

Date Form Received by Agency :	11/13/2012
Facility Name :	PERRY DRUG STORES INC
Classification :	Very Small Quantity Generator

Hazardous Waste Summary

Waste Code / Name :	D001 - IGNITABLE WASTE

Notices of Violations Summary

Regulation Violated :	N

Map Id: D9
 Direction: W
 Distance: 0.074 mi.
 Actual: 389.829 ft.
 Elevation: 0.144 mi. / 758.845 ft.
 Relative: Higher

Site Name : HALBEISEN TOM INC | Goodyear Tire
 Center 1685
 835 HAYNES ST
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI, RCRA_VSQG, UST - MI]

EnviroSite ID: 3276433
EPA ID: N/R

ECHO

Facility Name :	HALBEISEN TOM INC
Facility Address :	835 HAYNES ST, BIRMINGHAM, MI 48009
County :	OAKLAND

Last Inspection Date :	N/R
Registry ID :	110003671893
FIPS Code :	26125
EPA Region :	05
Inspection Count :	0

Map Id: D9
 Direction: W
 Distance: 0.074 mi.
 Actual: 389.829 ft.
 Elevation: 0.144 mi. / 758.845 ft.
 Relative: Higher

Site Name : HALBEISEN TOM INC | Goodyear Tire
 Center 1685
 835 HAYNES ST
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI,
 RCRA_VSQG, UST - MI] **(cont.)**

Envirosite ID: 3276433
EPA ID: N/R

ECHO (cont.)

Last Inspection Days :	N/R
Informal Count :	0
Last Informal Action Date :	N/R
Formal Action Count :	0
Last Formal Action Date :	N/R
Total Penalties :	0
Penalty Count :	N/R
Last Penalty Date :	N/R
Last Penalty Amount :	N/R
QTRS IN NC :	0
Programs IN SNC :	0
Current Compliance Status :	No Violation Identified
Three-Year Compliance Status :	
Collection Method :	ADDRESS MATCHING-HOUSE NUMBER
Reference Point :	CENTER OF A FACILITY OR STATION
Accuracy Meters :	30
Derived Tribes :	N/R
Derived HUC :	04090003
Derived WBD :	040900030202
Derived STCTY FIPS :	26125
Derived Zip :	48009
Derived CD113 :	11
Derived CB2010 :	261251529002021
MYRTK Universe :	NNN
NPDES IDs :	N/R
CWA Permit Types :	N/R
CWA Compliance Tracking :	N/R
CWA NAICS :	N/R
CWA SICS :	N/R
CWA Inspection Count :	N/R
CWA Last Inspection Days :	N/R
CWA Informal Count :	N/R
CWA Formal Action Count :	N/R
CWA Last Formal Action Date :	N/R
CWA Penalties :	N/R
CWA Last Penalty Date :	N/R
CWA Last Penalty Amount :	N/R
CWA Quarters IN NC :	N/R
CWA Current Compliance Status :	N/R
CWA Current SNC Flag :	N
CWA 13 Quarters Compliance Status :	N/R
CWA 13 Quarters Effluent Exceedances:	N/R
CWA Three-Year QNCR Codes :	N/R
DFR URL :	Click here for hyperlink provided by the agency.
Facility SIC :	N/R
Facility NAICS :	44131 - Automotive Parts and Accessories Stores
Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	N/R
Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R
Facility Last Informal Act EPA Date :	N/R
Facility Last Informal Act State Date:	N/R
Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	N/R

Map Id: D9
 Direction: W
 Distance: 0.074 mi.
 Actual: 389.829 ft.
 Elevation: 0.144 mi. / 758.845 ft.
 Relative: Higher

Site Name : HALBEISEN TOM INC | Goodyear Tire
 Center 1685
 835 HAYNES ST
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI,
 RCRA_VSQG, UST - MI] **(cont.)**

EnviroSite ID: 3276433
EPA ID: N/R

ECHO (cont.)

Current SNC Flag :	N
Indian County Flag :	N
Federal Flag :	N/R
US Mexico Border Flag :	N/R
Chesapeake Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	N
SDWIS Flag :	N
RCRA Flag :	Y
TRI Flag :	N
GHG Flag :	N
Major Flag :	N/R
Active Flag :	Y
NAA Flag :	Y
Latitude :	42.54228
Longitude :	-83.20836
Last Date in Agency List :	2020-12-31

FRS

Facility Name :	HALBEISEN TOM INC
Facility Address :	835 HAYNES ST, BIRMINGHAM, MI 48009
County :	OAKLAND
Registry ID :	110003671893
FRS Facility URL :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	08/31/2020

Source Description :

RCRAInfo is EPA's comprehensive information system that supports the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984 through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA. RCRAInfo also supports generation of the National Hazardous Waste Biennial Report. All generators and treatment, storage, and disposal facilities who handle hazardous waste are required to report to the EPA Administrator at least once every two years to support creation of the Biennial Report.

FRS Environmental Interest	
Source and System ID :	RCRAINFO - MID985643790

HWG - MI

Facility Name :	HALBEISEN TOM INC
Facility Address :	835 HAYNES ST, BIRMINGHAM, MI 48009
County :	OAKLAND

Map Id: D9
 Direction: W
 Distance: 0.074 mi.
 Actual: 389.829 ft.
 Elevation: 0.144 mi. / 758.845 ft.
 Relative: Higher

Site Name : HALBEISEN TOM INC | Goodyear Tire Center 1685
 835 HAYNES ST
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI, RCRA_VSQG, UST - MI] **(cont.)**

EnviroSite ID: 3276433
EPA ID: N/R

HWG - MI (cont.)

WDS ID : 407279
 Site ID : MID985643790
 Generator Status : CESQG
 Site Legal Name : HALBEISEN TOM INC
 Contact Name : N/R
 Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 2021-01-04

LUST - MI

Facility Name : Goodyear Tire Center 1685
 Facility Address : 835 HAYNES ST, BIRMINGHAM, 48009-
 County : Oakland

Site Details

Date of Collection : 01/11/2001
 Facility ID : 00021777
 Accuracy : 100
 Accuracy Value Unit : FEET
 Horizontal Datum : NAD83
 Source : STATE OF MICHIGAN
 Point/Line/Area : POINT
 Description Category : Plant Entrance (Freight)
 Method of Collection : Address Matching-House Number
 District : Warren
 Latitude : 42.541961
 Longitude : -83.209497
 Last Date in Agency List : 09/21/2020

Owner Summary

Owner Name : GoodyearTire Center
 Owner Address : UNKNOWN, MI
 Owner Country : USA
 Owner Contact Person : N/R
 Owner Phone Number : N/R

Release Information

Release Date : 06/04/1993
 Release Status : Closed
 Substance Released : Used Oil
 Release Closed Date : 09/30/1994
 Leak Number : C-0700-93
 LUST Site Name : Goodyear Tire & Rubber Co

RCRA_VSQG

Facility Name : HALBEISEN TOM INC

Map Id: D9
 Direction: W
 Distance: 0.074 mi.
 Actual: 389.829 ft.
 Elevation: 0.144 mi. / 758.845 ft.
 Relative: Higher

Site Name : HALBEISEN TOM INC | Goodyear Tire
 Center 1685
 835 HAYNES ST
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI,
 RCRA_VSQG, UST - MI] **(cont.)**

Envirosite ID: 3276433
EPA ID: N/R

RCRA_VSQG (cont.)

Facility Address : 835 HAYNES ST, BIRMINGHAM, MI 48009
 County : OAKLAND

Date Form Received by Agency : 04/19/2004
 EPA ID : MID985643790
 Mailing Address : 835 HAYNES ST, BIRMINGHAM, MI 48009
 Contact : THOMAS HALBEISEN
 Contact Address : 835 HAYNES ST, BIRMINGHAM, MI 48009
 Contact Country : US
 Contact Telephone : 248-647-3370
 Contact Email : N/R
 EPA Region : 05
 Land Type : Private
 Source Type : Notification
 Classification : Very Small Quantity Generator

Description :

Handlers that generate 100 kilograms or less of hazardous waste per calendar month, and accumulate 1000 kg or less of hazardous waste at any time; or generate one kilogram or less of acutely hazardous waste per calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generate 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste.

Last Date in Agency List : 10/19/2020

Owner/Operator Summary

Owner/Operator Name : HALBEISEN TOM INC
 Owner/Operator Address : N/R
 Owner/Operator Country : N/R
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Private
 Owner/Operator Type : Operator
 Owner/Operator Start Date : 06/05/1992
 Owner/Operator End Date : N/R

Owner/Operator Name : HALBEISEN TOM INC
 Owner/Operator Address : N/R
 Owner/Operator Country : N/R
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Private
 Owner/Operator Type : Owner
 Owner/Operator Start Date : 06/05/1992

Map Id: D9
 Direction: W
 Distance: 0.074 mi.
 Actual: 389.829 ft.
 Elevation: 0.144 mi. / 758.845 ft.
 Relative: Higher

Site Name : HALBEISEN TOM INC | Goodyear Tire Center 1685
 835 HAYNES ST
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI, RCRA_VSQG, UST - MI] **(cont.)**

EnviroSite ID: 3276433
EPA ID: N/R

RCRA_VSQG (cont.)

Owner/Operator End Date : N/R

Handler Activities Summary

U.S. Importer of Hazardous Waste :	N
Mixed Waste (Haz. and Radioactive) :	N
Recycler of Hazardous Waste :	N
Transporter of Hazardous Waste :	N
Treater, Storer or Disposer of HW :	N
Underground Injection Activity :	N
On-site Burner Exemption :	N
Furnace Exemption :	N
Used Oil Fuel Burner :	N
Used Oil Processor :	N
Used Oil Refiner :	N
Used Oil Fuel Marketer to Burner :	N
Used Oil Specification Marketer :	N
Used Oil Transfer Facility :	N
Used Oil Transporter :	N

Historical Generators

Date Form Received by Agency :	07/22/2003
Facility Name :	HALBEISEN TOM INC
Classification :	Very Small Quantity Generator

Date Form Received by Agency :	06/23/2003
Facility Name :	HALBEISEN TOM INC
Classification :	Small Quantity Generator

Date Form Received by Agency :	11/16/1998
Facility Name :	HALBEISEN TOM INC
Classification :	Not a generator, verified

Date Form Received by Agency :	06/05/1992
Facility Name :	HALBEISEN TOM INC
Classification :	Small Quantity Generator

Hazardous Waste Summary

Waste Code / Name :	D001 - IGNITABLE WASTE

Notices of Violations Summary

Regulation Violated :	N

Map Id: D9
 Direction: W
 Distance: 0.074 mi.
 Actual: 389.829 ft.
 Elevation: 0.144 mi. / 758.845 ft.
 Relative: Higher

Site Name : HALBEISEN TOM INC | Goodyear Tire Center 1685
 835 HAYNES ST
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI, RCRA_VSQG, UST - MI] **(cont.)**

EnviroSite ID: 3276433
EPA ID: N/R

RCRA_VSQG (cont.)

Evaluation Action Summary

Evaluation Date :	06/05/2018
Evaluation :	COMPLIANCE ASSISTANCE VISIT
Area of Violation :	N/R
Date Achieved Compliance :	N/R
Evaluation Lead Agency :	State

UST - MI

Facility Name :	Goodyear Tire Center 1685
Facility Address :	835 HAYNES ST, BIRMINGHAM, MI 48009-6771
County :	OAKLAND

Site Details

Facility Number :	00021777
Region :	1
Facility Contact :	N/R
Latitude :	42.5419610000
Longitude :	-83.2094970000
Last Date in Agency List :	03/20/2020

Owner Summary

Owner Name :	Goodyear Tire Center
Owner Address :	Po Box 5099, Southfield, MI 48086-5099
Owner Country :	N/R
Owner Phone :	7346473370

Tank Information

Installation Date :	04/16/1975
New Tank Number :	UTK-001817-15
Old Tank Number :	1
Tank Status :	Removed from Ground
Tank Content :	Used Oil
Capacity (in gallons) :	500
Removed/Closed Date :	06/04/1993
Number of Compartments :	N/R
Piping Material :	Bare Steel
Piping Type :	N/R
Tank Material :	Asphalt Coated or Bare Steel
Impressed Current Installed :	N/R

Map Id: D10
 Direction: WSW
 Distance: 0.078 mi.
 Actual: 409.908 ft.
 Elevation: 0.143 mi. / 757.28 ft.
 Relative: Higher

Site Name : WALGREENS CO #15391 | WALGREENS
 DRUG STORE #15391
 34300 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, MANIFEST - IN,
 RCRA_VSQG]

Envirosite ID: 3397318
EPA ID: N/R

ECHO

Facility Name : WALGREENS CO #15391
 Facility Address : 34300 WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

Last Inspection Date : N/R
 Registry ID : 110059668239
 FIPS Code : 26125
 EPA Region : 05
 Inspection Count : 0
 Last Inspection Days : N/R
 Informal Count : 0
 Last Informal Action Date : N/R
 Formal Action Count : 0
 Last Formal Action Date : N/R
 Total Penalties : 0
 Penalty Count : N/R
 Last Penalty Date : N/R
 Last Penalty Amount : N/R
 QTRS IN NC : 0
 Programs IN SNC : 0
 Current Compliance Status : No Violation Identified
 Three-Year Compliance Status :
 Collection Method : ADDRESS MATCHING-HOUSE NUMBER
 Reference Point : CENTER OF A FACILITY OR STATION
 Accuracy Meters : 30
 Derived Tribes : N/R
 Derived HUC : 04090003
 Derived WBD : 040900030202
 Derived STCTY FIPS : 26125
 Derived Zip : 48009
 Derived CD113 : 11
 Derived CB2010 : 261251529002027
 MYRTK Universe : NNN
 NPDES IDs : N/R
 CWA Permit Types : N/R
 CWA Compliance Tracking : N/R
 CWA NAICS : N/R
 CWA SICS : N/R
 CWA Inspection Count : N/R
 CWA Last Inspection Days : N/R
 CWA Informal Count : N/R
 CWA Formal Action Count : N/R
 CWA Last Formal Action Date : N/R
 CWA Penalties : N/R
 CWA Last Penalty Date : N/R
 CWA Last Penalty Amount : N/R
 CWA Quarters IN NC : N/R
 CWA Current Compliance Status : N/R
 CWA Current SNC Flag : N
 CWA 13 Quarters Compliance Status : N/R
 CWA 13 Quarters Effluent Exceedances: N/R
 CWA Three-Year QNCR Codes : N/R
 DFR URL : [Click here for hyperlink provided by the agency.](#)
 Facility SIC : N/R

Map Id: D10
 Direction: WSW
 Distance: 0.078 mi.
 Actual: 409.908 ft.
 Elevation: 0.143 mi. / 757.28 ft.
 Relative: Higher

Site Name : WALGREENS CO #15391 | WALGREENS
 DRUG STORE #15391
 34300 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, MANIFEST - IN,
 RCRA_VSQG] **(cont.)**

EnviroSite ID: 3397318
EPA ID: N/R

ECHO (cont.)

Facility NAICS :	44611 - Pharmacies and Drug Stores
Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	N/R
Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R
Facility Last Informal Act EPA Date :	N/R
Facility Last Informal Act State Date:	N/R
Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	N/R
Current SNC Flag :	N
Indian County Flag :	N
Federal Flag :	N/R
US Mexico Border Flag :	N/R
Chesapeake Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	N
SDWIS Flag :	N
RCRA Flag :	Y
TRI Flag :	N
GHG Flag :	N
Major Flag :	N/R
Active Flag :	Y
NAA Flag :	Y
Latitude :	42.54192
Longitude :	-83.20854
Last Date in Agency List :	2020-12-31

FRS

Facility Name :	WALGREENS CO #15391
Facility Address :	34300 WOODWARD AVE, BIRMINGHAM, MI 48009
County :	OAKLAND
Registry ID :	110059668239
FRS Facility URL :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	08/31/2020

Source Description :

RCRAInfo is EPA's comprehensive information system that supports the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984 through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA. RCRAInfo also supports generation of the National Hazardous Waste Biennial Report. All generators and treatment, storage, and disposal facilities who handle hazardous waste are required to report to the EPA Administrator at least once every two years to support creation of the Biennial Report.

Map Id: D10
 Direction: WSW
 Distance: 0.078 mi.
 Actual: 409.908 ft.
 Elevation: 0.143 mi. / 757.28 ft.
 Relative: Higher

Site Name : WALGREENS CO #15391 | WALGREENS
 DRUG STORE #15391
 34300 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, MANIFEST - IN,
 RCRA_VSQG] (**cont.**)

EnviroSite ID: 3397318
EPA ID: N/R

FRS (**cont.**)

FRS Environmental Interest
 Source and System ID : RCRAINFO - MIK188372835

HWG - MI

Facility Name : WALGREENS DRUG STORE #15391
 Facility Address : 34300 WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

WDS ID : 493548
 Site ID : MIK188372835
 Generator Status : CESQG
 Site Legal Name : WALGREENS CO #15391
 Contact Name : N/R
 Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 2021-01-04

MANIFEST - IN

TSDF EPA ID : INR000110197
 TSDF Name : Stericycle Incorporated
 Report Type : Annual
 Last Date in Agency List : 09/04/2020

Waste Received Details

Report Year : 2018
 Page Number : 18407
 Waste Number : 1
 RCRA ID : MIK188372835
 Generator Name : N/R
 Generator County : N/R
 Waste management type : H141

Waste management type description : The site receiving this waste stored/bulked and transferred the waste with no treatment or recovery, fuel blending , or disposal at that receiving site.

Waste Received Quantity : 1
 Waste Received Unit Code : Pounds

RCRA_VSQG

Facility Name : WALGREENS CO #15391
 Facility Address : 34300 WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

Date Form Received by Agency : 04/10/2014
 EPA ID : MIK188372835

Map Id: D10
 Direction: WSW
 Distance: 0.078 mi.
 Actual: 409.908 ft.
 Elevation: 0.143 mi. / 757.28 ft.
 Relative: Higher

Site Name : WALGREENS CO #15391 | WALGREENS
 DRUG STORE #15391
 34300 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, MANIFEST - IN,
 RCRA_VSQG] (**cont.**)

EnviroSite ID: 3397318
EPA ID: N/R

RCRA_VSQG (**cont.**)

Mailing Address : 200 WILMOT RD, DEERFIELD, IL 60015
 Contact : KIMBERLY DASCOLI
 Contact Address : N/R
 Contact Country : US
 Contact Telephone : 847-315-2812
 Contact Email : KIM.DASCOLI@WALGREENS.COM
 EPA Region : 05
 Land Type : Private
 Source Type : Notification
 Classification : Very Small Quantity Generator

Description :

Handlers that generate 100 kilograms or less of hazardous waste per calendar month, and accumulate 1000 kg or less of hazardous waste at any time; or generate one kilogram or less of acutely hazardous waste per calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generate 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste.

Last Date in Agency List : 10/19/2020

Owner/Operator Summary

Owner/Operator Name : WALGREEN CO
 Owner/Operator Address : N/R
 Owner/Operator Country : N/R
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Private
 Owner/Operator Type : Operator
 Owner/Operator Start Date : 09/03/2012
 Owner/Operator End Date : N/R

Owner/Operator Name : WALGREEN CO
 Owner/Operator Address : N/R
 Owner/Operator Country : N/R
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Private
 Owner/Operator Type : Owner
 Owner/Operator Start Date : 09/03/2012
 Owner/Operator End Date : N/R

Map Id: D10
 Direction: WSW
 Distance: 0.078 mi.
 Actual: 409.908 ft.
 Elevation: 0.143 mi. / 757.28 ft.
 Relative: Higher

Site Name : WALGREENS CO #15391 | WALGREENS
 DRUG STORE #15391
 34300 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, MANIFEST - IN,
 RCRA_VSQG] **(cont.)**

EnviroSite ID: 3397318
EPA ID: N/R

RCRA_VSQG (cont.)

Handler Activities Summary

U.S. Importer of Hazardous Waste :	N
Mixed Waste (Haz. and Radioactive) :	N
Recycler of Hazardous Waste :	N
Transporter of Hazardous Waste :	N
Treater, Storer or Disposer of HW :	N
Underground Injection Activity :	N
On-site Burner Exemption :	N
Furnace Exemption :	N
Used Oil Fuel Burner :	N
Used Oil Processor :	N
Used Oil Refiner :	N
Used Oil Fuel Marketer to Burner :	N
Used Oil Specification Marketer :	N
Used Oil Transfer Facility :	N
Used Oil Transporter :	N

Hazardous Waste Summary

Waste Code / Name :	D001 - IGNITABLE WASTE

Notices of Violations Summary

Regulation Violated :	N

Map Id: 11
 Direction: SSE
 Distance: 0.081 mi.
 Actual: 427.034 ft.
 Elevation: 0.142 mi. / 752.041 ft.
 Relative: Lower

Site Name : 908 S. Adams, LLC
 908 South Adams Road
 Birmingham, MI
Database(s) : [BEA - MI]

EnviroSite ID: 3346861
EPA ID: N/R

BEA - MI

Facility Name :	908 S. Adams, LLC
Facility Address :	908 South Adams Road, Birmingham, 480097038
County :	Oakland

Facility ID :	N/R
BEA Number :	201707813LV
Data Source :	BEA
District :	Southeast MI
Township :	Birmingham
Latitude :	N/R
Longitude :	N/R
Last Date in Agency List :	2020-09-25

Map Id: E12
 Direction: SW
 Distance: 0.104 mi.
 Actual: 549.803 ft.
 Elevation: 0.143 mi. / 754.547 ft.
 Relative: Lower

Site Name : Birmingham Cleaners
 1253 S WOODWARD
 BIRMINGHAM, MI 48011
Database(s) : [LUST - MI]

EnviroSite ID: 3271124
EPA ID: N/R

LUST - MI

Facility Name : Birmingham Cleaners
 Facility Address : 1253 S WOODWARD, BIRMINGHAM, 48011
 County : Oakland

Site Details

Date of Collection : 01/11/2001
 Facility ID : 00018874
 Accuracy : 100
 Accuracy Value Unit : FEET
 Horizontal Datum : NAD83
 Source : STATE OF MICHIGAN
 Point/Line/Area : POINT
 Description Category : Plant Entrance (Freight)
 Method of Collection : Address Matching-House Number
 District : Southeast MI
 Latitude : 42.540231
 Longitude : -83.207686
 Last Date in Agency List : 06/26/2019

Owner Summary

Owner Name : Birmingham Cleaners
 Owner Address : 1253 S Woodward, Birmingham, MI 48011
 Owner Country : USA
 Owner Contact Person : N/R
 Owner Phone Number : (248) 644-4620

Release Information

Release Date : 11/03/1993
 Release Status : Closed
 Substance Released : Other,Unknown
 Release Closed Date : 05/17/1994
 Leak Number : C-1373-93
 LUST Site Name : Birmingham Cleaners 1253

Map Id: 13
 Direction: N
 Distance: 0.104 mi.
 Actual: 550.361 ft.
 Elevation: 0.144 mi. / 759.58 ft.
 Relative: Higher

Site Name : JAN LEITAO
 1020 HAZEL ST
 BIRMINGHAM, MI 48009
Database(s) : [LWF - MI]

EnviroSite ID: 3402361
EPA ID: N/R

LWF - MI

Facility Name : JAN LEITAO
 Facility Address : 1020 HAZEL ST, BIRMINGHAM, MI 48009
 County : OAKLAND

Map Id: 13
 Direction: N
 Distance: 0.104 mi.
 Actual: 550.361 ft.
 Elevation: 0.144 mi. / 759.58 ft.
 Relative: Higher

Site Name : JAN LEITAO
 1020 HAZEL ST
 BIRMINGHAM, MI 48009
Database(s) : [LWF - MI] (**cont.**)

EnviroSite ID: 3402361
EPA ID: N/R

LWF - MI (**cont.**)

WDS ID : 453338
 Site ID : MIG000020051
 Site Legal Name : JAN LEITAO
 Contact Name : N/R
 Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 08/19/2020

Map Id: F14
 Direction: SW
 Distance: 0.107 mi.
 Actual: 565.912 ft.
 Elevation: 0.143 mi. / 755.023 ft.
 Relative: Higher

Site Name : AMERICAR | AMERICAR RENTAL SYSTEM
 860 S OLD WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [LUST - MI, LWF - MI, UST - MI]

EnviroSite ID: 3360210
EPA ID: N/R

LUST - MI

Facility Name : Americar
 Facility Address : 860 S OLD WOODWARD AVE, BIRMINGHAM, 48009-
 County : Oakland

Site Details

Date of Collection : 01/11/2001
 Facility ID : 00034958
 Accuracy : 100
 Accuracy Value Unit : FEET
 Horizontal Datum : NAD83
 Source : STATE OF MICHIGAN
 Point/Line/Area : POINT
 Description Category : Plant Entrance (Freight)
 Method of Collection : Address Matching-House Number
 District : Warren
 Latitude : 42.540845
 Longitude : -83.20877
 Last Date in Agency List : 09/21/2020

Owner Summary

Owner Name : BeierDean G % Robert R. Shuman
 Owner Address : UNKNOWN, MI
 Owner Country : USA
 Owner Contact Person : N/R
 Owner Phone Number : N/R

Map Id: F14
 Direction: SW
 Distance: 0.107 mi.
 Actual: 565.912 ft.
 Elevation: 0.143 mi. / 755.023 ft.
 Relative: Higher

Site Name : AMERICAR | AMERICAR RENTAL SYSTEM
 860 S OLD WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [LUST - MI, LWF - MI, UST - MI] **(cont.)**

EnviroSite ID: 3360210
EPA ID: N/R

LUST - MI **(cont.)**

Release Information

Release Date : 08/29/1989
 Release Status : Closed
 Substance Released : N/R
 Release Closed Date : 08/16/1990
 Leak Number : C-0468-89
 LUST Site Name : Americar Rental

LWF - MI

Facility Name : AMERICAR RENTAL SYSTEM
 Facility Address : 860 S OLD WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

WDS ID : 456124
 Site ID : MIG000012614
 Site Legal Name : AMERICAR RENTAL SYSTEM
 Contact Name : N/R
 Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 08/19/2020

UST - MI

Facility Name : Americar
 Facility Address : 860 S OLD WOODWARD AVE, BIRMINGHAM, MI 48009-6722
 County : OAKLAND

Site Details

Facility Number : 00034958
 Region : 1
 Facility Contact : N/R
 Latitude : 42.5408450000
 Longitude : -83.2087700000
 Last Date in Agency List : 03/20/2020

Owner Summary

Owner Name : Beier Dean G % Robert R. Shuman
 Owner Address : 200 E LONG LAKE RD SUITE110, BLOOMFIELD HILLS, MI 48304
 Owner Country : N/R
 Owner Phone : 3136459400

Tank Information

Installation Date : 01/01/1948
 New Tank Number : UTK-009930-15
 Old Tank Number : 2
 Tank Status : Removed from Ground
 Tank Content : Used Oil
 Capacity (in gallons) : 1000

Map Id: F14
 Direction: SW
 Distance: 0.107 mi.
 Actual: 565.912 ft.
 Elevation: 0.143 mi. / 755.023 ft.
 Relative: Higher

Site Name : AMERICAR | AMERICAR RENTAL SYSTEM
 860 S OLD WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [LUST - MI, LWF - MI, UST - MI] **(cont.)**

EnviroSite ID: 3360210
EPA ID: N/R

UST - MI **(cont.)**

Removed/Closed Date : 02/15/1991
 Number of Compartments : N/R
 Piping Material : Unknown
 Piping Type : N/R
 Tank Material : Asphalt Coated or Bare Steel,Unknown
 Impressed Current Installed : N/R

Installation Date : 01/01/1948
 New Tank Number : UTK-012888-15
 Old Tank Number : 1
 Tank Status : Removed from Ground
 Tank Content : Heating Oil
 Capacity (in gallons) : 1000
 Removed/Closed Date : 02/15/1991
 Number of Compartments : N/R
 Piping Material : Unknown
 Piping Type : N/R
 Tank Material : Asphalt Coated or Bare Steel,Unknown
 Impressed Current Installed : N/R

Map Id: F15
 Direction: WSW
 Distance: 0.115 mi.
 Actual: 609.383 ft.
 Elevation: 0.143 mi. / 756.332 ft.
 Relative: Higher

Site Name : Americar
 860 S WOODWARD
 BIRMINGHAM, MI 48304
Database(s) : [LUST - MI]

EnviroSite ID: 3271065
EPA ID: N/R

LUST - MI

Facility Name : Americar
 Facility Address : 860 S WOODWARD, BIRMINGHAM, 48304
 County : Oakland

Site Details

Date of Collection : 01/11/2001
 Facility ID : 00034958
 Accuracy : 100
 Accuracy Value Unit : FEET
 Horizontal Datum : NAD83
 Source : STATE OF MICHIGAN
 Point/Line/Area : POINT
 Description Category : Plant Entrance (Freight)
 Method of Collection : Address Matching-House Number
 District : Southeast MI
 Latitude : 42.540845
 Longitude : -83.20877
 Last Date in Agency List : 06/26/2019

Map Id: F15
 Direction: WSW
 Distance: 0.115 mi.
 Actual: 609.383 ft.
 Elevation: 0.143 mi. / 756.332 ft.
 Relative: Higher

Site Name : Americar
 860 S WOODWARD
 BIRMINGHAM, MI 48304
Database(s) : [LUST - MI] **(cont.)**

EnviroSite ID: 3271065
EPA ID: N/R

LUST - MI **(cont.)**

Owner Summary

Owner Name : Beier Dean G % Robert R. Shuman
 Owner Address : 200 E LONG LAKE RD SUITE110, BLOOMFIELD HILLS, MI 48304
 Owner Country : USA
 Owner Contact Person : N/R
 Owner Phone Number : (313) 645-9400

Release Information

Release Date : 08/29/1989
 Release Status : Closed
 Substance Released : N/R
 Release Closed Date : 08/16/1990
 Leak Number : C-0468-89
 LUST Site Name : Americar Rental

Map Id: E16
 Direction: SW
 Distance: 0.116 mi.
 Actual: 613.222 ft.
 Elevation: 0.143 mi. / 754.252 ft.
 Relative: Lower

Site Name : DEN-AIR AUTO SERVICE CO |
 BIRMINGHAM CLEANERS INC | SILK AND
 MORGAN, INC.
 1775 S WOODWARD AVE | 1253 S
 WOODWARD
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, ECHO, FRS, HIST AFS 2, HWG -
 MI, LWF - MI, RCRA_NONGEN]

EnviroSite ID: 3407544
EPA ID: N/R

BEA - MI

Facility Name : SILK AND MORGAN, INC.
 Facility Address : 1253 S. WOODWARD, Birmingham
 County : Oakland

Facility ID : N/R
 BEA Number : 199700363LV
 Data Source : BEA
 District : Southeast MI
 Township : Birmingham
 Latitude : N/R
 Longitude : N/R
 Last Date in Agency List : 2020-09-25

ECHO

Facility Name : DEN-AIR AUTO SERVICE CO
 Facility Address : 1775 S WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

Map Id: E16
 Direction: SW
 Distance: 0.116 mi.
 Actual: 613.222 ft.
 Elevation: 0.143 mi. / 754.252 ft.
 Relative: Lower

Site Name : DEN-AIR AUTO SERVICE CO |
 BIRMINGHAM CLEANERS INC | SILK AND
 MORGAN, INC.
 1775 S WOODWARD AVE | 1253 S
 WOODWARD
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, ECHO, FRS, HIST AFS 2, HWG -
 MI, LWF - MI, RCRA_NONGEN] **(cont.)**

EnviroSite ID: 3407544
EPA ID: N/R

ECHO (cont.)

Last Inspection Date :	N/R
Registry ID :	110003575578
FIPS Code :	26125
EPA Region :	05
Inspection Count :	0
Last Inspection Days :	N/R
Informal Count :	0
Last Informal Action Date :	N/R
Formal Action Count :	0
Last Formal Action Date :	N/R
Total Penalties :	0
Penalty Count :	N/R
Last Penalty Date :	N/R
Last Penalty Amount :	N/R
QTRS IN NC :	0
Programs IN SNC :	0
Current Compliance Status :	No Violation Identified
Three-Year Compliance Status :	
Collection Method :	Zip Code Centroid
Reference Point :	N/R
Accuracy Meters :	10000
Derived Tribes :	N/R
Derived HUC :	N/R
Derived WBD :	N/R
Derived STCTY FIPS :	N/R
Derived Zip :	N/R
Derived CD113 :	N/R
Derived CB2010 :	N/R
MYRTK Universe :	NNN
NPDES IDs :	N/R
CWA Permit Types :	N/R
CWA Compliance Tracking :	N/R
CWA NAICS :	N/R
CWA SICS :	N/R
CWA Inspection Count :	N/R
CWA Last Inspection Days :	N/R
CWA Informal Count :	N/R
CWA Formal Action Count :	N/R
CWA Last Formal Action Date :	N/R
CWA Penalties :	N/R
CWA Last Penalty Date :	N/R
CWA Last Penalty Amount :	N/R
CWA Quarters IN NC :	N/R
CWA Current Compliance Status :	N/R
CWA Current SNC Flag :	N
CWA 13 Quarters Compliance Status :	N/R
CWA 13 Quarters Effluent Exceedances:	N/R
CWA Three-Year QNCR Codes :	N/R
DFR URL :	Click here for hyperlink provided by the agency.
Facility SIC :	N/R
Facility NAICS :	11131 - Orange Groves
Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	N/R

Map Id: E16
 Direction: SW
 Distance: 0.116 mi.
 Actual: 613.222 ft.
 Elevation: 0.143 mi. / 754.252 ft.
 Relative: Lower

Site Name : DEN-AIR AUTO SERVICE CO |
 BIRMINGHAM CLEANERS INC | SILK AND
 MORGAN, INC.
 1775 S WOODWARD AVE | 1253 S
 WOODWARD
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, ECHO, FRS, HIST AFS 2, HWG -
 MI, LWF - MI, RCRA_NONGEN] **(cont.)**

EnviroSite ID: 3407544
EPA ID: N/R

ECHO (cont.)

Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R
Facility Last Informal Act EPA Date :	N/R
Facility Last Informal Act State Date:	N/R
Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	N/R
Current SNC Flag :	N
Indian County Flag :	N
Federal Flag :	N/R
US Mexico Border Flag :	N/R
Chesapeake Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	N
SDWIS Flag :	N
RCRA Flag :	Y
TRI Flag :	N
GHG Flag :	N
Major Flag :	N/R
Active Flag :	N/R
NAA Flag :	N
Latitude :	42.545156
Longitude :	-83.215915
Last Date in Agency List :	2020-12-31

FRS

Facility Name :	BIRMINGHAM CLEANERS INC
Facility Address :	1253 S WOODWARD, BIRMINGHAM, MI 48009
County :	OAKLAND

Registry ID :	110001853432
FRS Facility URL :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	08/31/2020

Source Description :

AFS contains compliance and permit data for stationary sources of air pollution regulated by the EPA, State, and Local air pollution agencies.

FRS Environmental Interest Source and System ID :

AIRS/AFS - 2612501023

Facility Name :	DEN-AIR AUTO SERVICE CO
Facility Address :	1775 S WOODWARD AVE, BIRMINGHAM, MI 48009
County :	OAKLAND

Map Id: E16
 Direction: SW
 Distance: 0.116 mi.
 Actual: 613.222 ft.
 Elevation: 0.143 mi. / 754.252 ft.
 Relative: Lower

Site Name : DEN-AIR AUTO SERVICE CO |
 BIRMINGHAM CLEANERS INC | SILK AND
 MORGAN, INC.
 1775 S WOODWARD AVE | 1253 S
 WOODWARD
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, ECHO, FRS, HIST AFS 2, HWG -
 MI, LWF - MI, RCRA_NONGEN] **(cont.)**

EnviroSite ID: 3407544
EPA ID: N/R

FRS (cont.)

Registry ID : 110003575578
 FRS Facility URL : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 08/31/2020

Source Description :

RCRAInfo is EPA's comprehensive information system that supports the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984 through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA. RCRAInfo also supports generation of the National Hazardous Waste Biennial Report. All generators and treatment, storage, and disposal facilities who handle hazardous waste are required to report to the EPA Administrator at least once every two years to support creation of the Biennial Report.

FRS Environmental Interest

Source and System ID : RCRAINFO - MID000715672

HIST AFS 2

Facility Name : BIRMINGHAM CLEANERS INC
 Facility Address : 1253 S WOODWARD, BIRMINGHAM, MI 48009
 County : OAKLAND

PEPA : 110001853432
 Region : 05
 STTE : 26
 County Code : 125
 PCDS : 01023
 DB Number : N/R
 AQCR : 123
 SIC Code : 7216
 NIC Code : 812320
 DCS : 3
 DCL : B
 Government : 0
 CMSC : N/R
 HP1F : N/R
 Last Date in Agency List : 01/14/2015

Air Pollutant Data

Region : 05
 STTE : 26
 County Code : 125
 PCDS : 01023
 APC : 0

Map Id: E16
 Direction: SW
 Distance: 0.116 mi.
 Actual: 613.222 ft.
 Elevation: 0.143 mi. / 754.252 ft.
 Relative: Lower

Site Name : DEN-AIR AUTO SERVICE CO |
 BIRMINGHAM CLEANERS INC | SILK AND
 MORGAN, INC.
 1775 S WOODWARD AVE | 1253 S
 WOODWARD
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, ECHO, FRS, HIST AFS 2, HWG -
 MI, LWF - MI, RCRA_NONGEN] **(cont.)**

Envirosite ID: 3407544
EPA ID: N/R

HIST AFS 2 **(cont.)**

PLAP :	OT
DCAP :	3
DCLP :	B
DATT :	N/R

Historical Quarterly Status 4-11

Details for this site have been truncated due to the large number of available details for this site within this dataset. For the complete details for this site, contact your Envirosearch account representative for a complimentary site report containing all of the details available.

Region :	05
STTE :	26
County Code :	125
PCDS :	01023
SCH :	3
HDT :	1104
APH :	0

Region :	05
STTE :	26
County Code :	125
PCDS :	01023
SCH :	3
HDT :	1201
APH :	0

Region :	05
STTE :	26
County Code :	125
PCDS :	01023
SCH :	3
HDT :	1202
APH :	0

Region :	05
STTE :	26
County Code :	125
PCDS :	01023
SCH :	3
HDT :	1203
APH :	0

Region :	05
STTE :	26
County Code :	125

Map Id: E16
 Direction: SW
 Distance: 0.116 mi.
 Actual: 613.222 ft.
 Elevation: 0.143 mi. / 754.252 ft.
 Relative: Lower

Site Name : DEN-AIR AUTO SERVICE CO |
 BIRMINGHAM CLEANERS INC | SILK AND
 MORGAN, INC.
 1775 S WOODWARD AVE | 1253 S
 WOODWARD
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, ECHO, FRS, HIST AFS 2, HWG -
 MI, LWF - MI, RCRA_NONGEN] **(cont.)**

EnviroSite ID: 3407544
EPA ID: N/R

HIST AFS 2 **(cont.)**

PCDS : 01023
 SCH : 3
 HDT : 1204
 APH : 0

Region : 05
 STTE : 26
 County Code : 125
 PCDS : 01023
 SCH : 3
 HDT : 1301
 APH : 0

Region : 05
 STTE : 26
 County Code : 125
 PCDS : 01023
 SCH : 3
 HDT : 1302
 APH : 0

Region : 05
 STTE : 26
 County Code : 125
 PCDS : 01023
 SCH : 3
 HDT : 1303
 APH : 0

Region : 05
 STTE : 26
 County Code : 125
 PCDS : 01023
 SCH : 3
 HDT : 1304
 APH : 0

Region : 05
 STTE : 26
 County Code : 125
 PCDS : 01023
 SCH : 3
 HDT : 1401
 APH : 0

Map Id: E16
 Direction: SW
 Distance: 0.116 mi.
 Actual: 613.222 ft.
 Elevation: 0.143 mi. / 754.252 ft.
 Relative: Lower

Site Name : DEN-AIR AUTO SERVICE CO |
 BIRMINGHAM CLEANERS INC | SILK AND
 MORGAN, INC.
 1775 S WOODWARD AVE | 1253 S
 WOODWARD
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, ECHO, FRS, HIST AFS 2, HWG -
 MI, LWF - MI, RCRA_NONGEN] **(cont.)**

EnviroSite ID: 3407544
EPA ID: N/R

HIST AFS 2 (cont.)

Non a Sources - Actions

Region : 05
 STTE : 26
 County Code : 125
 PCDS : 01023
 PEPA : 110001853432
 APC : 0
 ANT : 5C
 DTA : 970604
 PAM : 000000000

HWG - MI

Facility Name : DEN-AIR AUTO SERVICE CO
 Facility Address : 1775 S WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

WDS ID : 392454
 Site ID : MID000715672
 Generator Status : No longer generating, out of business
 Site Legal Name : DEN-AIR AUTO SERVICE CO
 Contact Name : N/R
 Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 2021-01-04

LWF - MI

Facility Name : SPARKS TUNE UP
 Facility Address : 1775 S WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

WDS ID : 454738
 Site ID : MIG000016932
 Site Legal Name : SPARKS TUNE UP
 Contact Name : N/R
 Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 08/19/2020

RCRA_NONGEN

Facility Name : DEN-AIR AUTO SERVICE CO
 Facility Address : 1775 S WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

Map Id: E16
 Direction: SW
 Distance: 0.116 mi.
 Actual: 613.222 ft.
 Elevation: 0.143 mi. / 754.252 ft.
 Relative: Lower

Site Name : DEN-AIR AUTO SERVICE CO |
 BIRMINGHAM CLEANERS INC | SILK AND
 MORGAN, INC.
 1775 S WOODWARD AVE | 1253 S
 WOODWARD
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, ECHO, FRS, HIST AFS 2, HWG -
 MI, LWF - MI, RCRA_NONGEN] **(cont.)**

EnviroSite ID: 3407544
EPA ID: N/R

RCRA_NONGEN (cont.)

Date Form Received by Agency :	08/18/1980
EPA ID :	MID000715672
Mailing Address :	1775 S WOODWARD AVE, BIRMINGHAM, MI 48009
Contact :	GIL LOVELL
Contact Address :	1775 S WOODWARD AVE, BIRMINGHAM, MI 48009
Contact Country :	US
Contact Telephone :	313-358-2540
Contact Email :	N/R
EPA Region :	05
Land Type :	Other land type
Source Type :	Notification
Classification :	Not a generator, verified
Description :	Not a generator, verified
Last Date in Agency List :	10/19/2020

Owner/Operator Summary

Owner/Operator Name :	NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/Operator Address :	N/R
Owner/Operator Country :	N/R
Owner/Operator Telephone :	N/R
Owner/Operator Email :	N/R
Owner/Operator Fax :	N/R
Legal Status :	Private
Owner/Operator Type :	Operator
Owner/Operator Start Date :	01/03/1970
Owner/Operator End Date :	N/R

Owner/Operator Name :	NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/Operator Address :	N/R
Owner/Operator Country :	N/R
Owner/Operator Telephone :	N/R
Owner/Operator Email :	N/R
Owner/Operator Fax :	N/R
Legal Status :	Private
Owner/Operator Type :	Owner
Owner/Operator Start Date :	01/03/1970
Owner/Operator End Date :	N/R

Handler Activities Summary

U.S. Importer of Hazardous Waste :	N
Mixed Waste (Haz. and Radioactive) :	N
Recycler of Hazardous Waste :	N
Transporter of Hazardous Waste :	N
Treater, Storer or Disposer of HW :	N
Underground Injection Activity :	N
On-site Burner Exemption :	N
Furnace Exemption :	N
Used Oil Fuel Burner :	N

Map Id: E16
 Direction: SW
 Distance: 0.116 mi.
 Actual: 613.222 ft.
 Elevation: 0.143 mi. / 754.252 ft.
 Relative: Lower

Site Name : DEN-AIR AUTO SERVICE CO |
 BIRMINGHAM CLEANERS INC | SILK AND
 MORGAN, INC.
 1775 S WOODWARD AVE | 1253 S
 WOODWARD
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, ECHO, FRS, HIST AFS 2, HWG -
 MI, LWF - MI, RCRA_NONGEN] **(cont.)**

EnviroSite ID: 3407544
EPA ID: N/R

RCRA_NONGEN (cont.)

Used Oil Processor :	N
Used Oil Refiner :	N
Used Oil Fuel Marketer to Burner :	N
Used Oil Specification Marketer :	N
Used Oil Transfer Facility :	N
Used Oil Transporter :	N

Hazardous Waste Summary	
Waste Code / Name :	D001 - IGNITABLE WASTE

Notices of Violations Summary	
Regulation Violated :	N

Map Id: E17
 Direction: SW
 Distance: 0.118 mi.
 Actual: 625.065 ft.
 Elevation: 0.143 mi. / 754.318 ft.
 Relative: Lower

Site Name : 912 SOUTH OLD WOODWARD
 912 SOUTH OLD WOODWARD
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [FED BROWNFIELDS, FRS]

EnviroSite ID: 3298444
EPA ID: N/R

FED BROWNFIELDS

Facility Name :	912 South Old Woodward
Facility Address :	912 South Old Woodward, Birmingham, MI 48009

Site Details

ACRES Property ID :	171161
Cooperative Agreement Number :	00E01208
Type of Brownfields Grant :	Assessment
Type of Funding :	Petroleum
Grant Recipient Name :	Oakland County Michigan
IC Data Address :	N/R
Redevelopment Completion Date :	N/R
Property Size (acres) :	.11
Local Property Number(s) :	08-19-36-279-004
Ownership Entity :	N/R
Current Owner :	N/R
Did Ownership Change :	N/R
SFLLP fact into the ownership :	N/R
Latitude :	42.539969
Longitude :	-83.20807000000002

Map Id: E17
 Direction: SW
 Distance: 0.118 mi.
 Actual: 625.065 ft.
 Elevation: 0.143 mi. / 754.318 ft.
 Relative: Lower

Site Name : 912 SOUTH OLD WOODWARD
 912 SOUTH OLD WOODWARD
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [FED BROWNFIELDS, FRS] **(cont.)**

EnviroSite ID: 3298444
EPA ID: N/R

FED BROWNFIELDS **(cont.)**

Horizontal Collection Method : Address Matching-House Number
 Source Map Scale : N/R
 Reference Point : Entrance Point of a Facility or Station
 Horizontal Reference Datum : North American Datum of 1983

Description/History : Standard and historical sources document the property was developed with the current building in 1927. Prior to that, the property was vacant land. The property was occupied by a plumber in at least 1931, a steel processing and heat treating company and a tool manufacturer in at least 1944, various automotive service garages from 1947 until 1967, and has been occupied by various offices since 1969.

Last Date in Agency List : 2020-12-18

Additional Details

Past Use: Greenspace (acres) : N/R
 Past Use: Residential (acres) : N/R
 Past Use: Commercial (acres) : .11
 Past Use: Industrial (acres) : N/R
 Past Use: Multistory (acres) : N/R
 Cleanup Required : N
 Contaminants Found: Controlled Substances: N/R
 Contaminants Found: Petroleum : N/R
 Contaminants Found: Asbestos : N/R
 Contaminants Found: Lead : N/R
 Contaminants Found: PAHs : N/R
 Contaminants Found: PCBs : N/R
 Contaminants Found: VOCs : Y
 Contaminants Found: Selenium : N/R
 Contaminants Found: Iron : N/R
 Contaminants Found: Arsenic : N/R
 Contaminants Found: Cadmium : N/R
 Contaminants Found: Chromium : N/R
 Contaminants Found: Copper : N/R
 Contaminants Found: Mercury : N/R
 Contaminants Found: Nickel : N/R
 Contaminants Found: Pesticides : N/R
 Contaminants Found: SVOCs : N/R
 Contaminants Found: Other Metals : N/R
 Contaminants Found: Other : N/R
 Contaminants Found: Other (Descr) : N/R
 Contaminants Found: Unknown : N/R
 Contaminants Found: None : N/R
 Contaminants Cleaned Up: Controlled Substances: N/R
 Contaminants Cleaned Up: Petroleum : N/R
 Contaminants Cleaned Up: Asbestos : N/R
 Contaminants Cleaned Up: Lead : N/R
 Contaminants Cleaned Up: PAHs : N/R
 Contaminants Cleaned Up: PCBs : N/R
 Contaminants Cleaned Up: VOCs : N/R
 Contaminants Cleaned Up: Selenium : N/R
 Contaminants Cleaned Up: Iron : N/R
 Contaminants Cleaned Up: Arsenic : N/R

Map Id: E17
 Direction: SW
 Distance: 0.118 mi.
 Actual: 625.065 ft.
 Elevation: 0.143 mi. / 754.318 ft.
 Relative: Lower

Site Name : 912 SOUTH OLD WOODWARD
 912 SOUTH OLD WOODWARD
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [FED BROWNFIELDS, FRS] **(cont.)**

EnviroSite ID: 3298444
EPA ID: N/R

FED BROWNFIELDS **(cont.)**

Contaminants Cleaned Up: Cadmium :	N/R
Contaminants Cleaned Up: Chromium :	N/R
Contaminants Cleaned Up: Copper :	N/R
Contaminants Cleaned Up: Mercury :	N/R
Contaminants Cleaned Up: Nickel :	N/R
Contaminants Cleaned Up: Pesticides :	N/R
Contaminants Cleaned Up: SVOCs :	N/R
Contaminants Cleaned Up: Other Metals:	N/R
Contaminants Cleaned Up: Other :	N/R
Contaminants Cleaned Up: Other	
(Descr):	N/R
Contaminants Cleaned Up: Unknown :	N/R
Contaminants Cleaned Up: None :	N/R
Media Affected: Air :	N/R
Media Affected: Sediments :	N/R
Media Affected: Soil :	Y
Media Affected: Drinking Water :	N/R
Media Affected: Ground Water :	N/R
Media Affected: Surface Water :	N/R
Media Affected: Bldg Materials :	N/R
Media Affected: Indoor Air :	N/R
Media Affected: Unknown :	N/R
Media Cleaned Up: Air :	N/R
Media Cleaned Up: Sediments :	N/R
Media Cleaned Up: Soil :	N/R
Media Cleaned Up: Drinking Water :	N/R
Media Cleaned Up: Ground Water :	N/R
Media Cleaned Up: Surface Water :	N/R
Media Cleaned Up: Bldg Materials :	N/R
Media Cleaned Up: Indoor Air :	N/R
Media Cleaned Up: Unknown :	N/R
ST/Tribal Prg ID Number :	N/R
Further Action/Cleanup :	N/R
Enrollment ST/Tribal Prg :	N/R
Institutional Ctrl (ICs) Req? :	N
IC Category: Proprietary Controls :	N/R
IC Category: Informational Devices :	N/R
IC Category: Governmental Controls :	N/R
IC Category: Enforcement/Permit Tools:	N/R
ICs in Place? :	N
Date ICs in Place :	N/R
Cleanup Start Date :	N/R
Cleanup Completion Date :	N/R
Redevelopment Start Date :	N/R
Future Use: Greenspace :	N/R
Future Use: Residential :	N/R
Future Use: Commercial :	.11
Future Use: Industrial :	N/R
Future Use: Multistory (acres) :	N/R
Number of Cleanup and Redev Jobs :	N/R
Acreage and Greenspace Created :	N/R
Photographs are Available :	Y
Video is Available :	N

Map Id: E17
 Direction: SW
 Distance: 0.118 mi.
 Actual: 625.065 ft.
 Elevation: 0.143 mi. / 754.318 ft.
 Relative: Lower

Site Name : 912 SOUTH OLD WOODWARD
 912 SOUTH OLD WOODWARD
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [FED BROWNFIELDS, FRS] **(cont.)**

EnviroSite ID: 3298444
EPA ID: N/R

FED BROWNFIELDS **(cont.)**

Assessment Details

Accomplishment Counted :	Y
Assessment Phase :	Phase II Environmental Assessment
Assessment Start Date :	2014-02-14
Assessment Completion Date :	2014-02-28
Amount of Assessment Funding :	4000
Source of Assessment Funding :	EPA
Entity Providing Assessment Funds :	US EPA - Brownfields Assessment Cooperative Agreement
Source of Cleanup Funding :	N/R
Entity Providing Cleanup Funds :	N/R
Amount of Cleanup Funding :	N/R
Source of Redevelopment Funding :	N/R
Entity Prvding Redevelopment Funds :	N/R
Amount of Redevelopment Funding :	N/R

FRS

Facility Name :	912 SOUTH OLD WOODWARD
Facility Address :	912 SOUTH OLD WOODWARD, BIRMINGHAM, MI 48009
County :	OAKLAND

Registry ID :	110059657697
FRS Facility URL :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	08/31/2020

Source Description :

ACRES stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions.

FRS Environmental Interest

Source and System ID :	ACRES - 171161

Map Id: E18
 Direction: SW
 Distance: 0.120 mi.
 Actual: 631.266 ft.
 Elevation: 0.143 mi. / 753.99 ft.
 Relative: Lower

Site Name : 912 Old Woodward, LLC
 912 South Old Woodward Avenue
 Birmingham, MI 48009
Database(s) : [BEA - MI, BROWNFIELDS - MI]

EnviroSite ID: 3281439
EPA ID: N/R

BEA - MI

Facility Name :	912 Old Woodward, LLC
Facility Address :	912 South Old Woodward Avenue, Birmingham, 48009
County :	Oakland

Map Id: E18
 Direction: SW
 Distance: 0.120 mi.
 Actual: 631.266 ft.
 Elevation: 0.143 mi. / 753.99 ft.
 Relative: Lower

Site Name : 912 Old Woodward, LLC
 912 South Old Woodward Avenue
 Birmingham, MI 48009
Database(s) : [BEA - MI, BROWNFIELDS - MI] **(cont.)**

Envirosite ID: 3281439
EPA ID: N/R

BEA - MI **(cont.)**

Facility ID : 63006025
 BEA Number : 201405920LV
 Data Source : BEA
 District : Southeast MI
 Township : Birmingham
 Latitude : 42.53990
 Longitude : -83.20821
 Last Date in Agency List : 2020-09-25

BROWNFIELDS - MI

Facility Name : 912 Old Woodward, LLC
 Facility Address : 912 South Old Woodward Avenue, Birmingham, 48009
 County : Oakland

Facility ID : 63006025
 Data Source : Part 201
 District : Southeast MI
 Township : Birmingham
 Latitude : 42.53990
 Longitude : -83.20821
 Last Date in Agency List : 2020-09-25

Map Id: C19
 Direction: NE
 Distance: 0.120 mi.
 Actual: 633.038 ft.
 Elevation: 0.143 mi. / 756.155 ft.
 Relative: Higher

Site Name : US POSTAL SERVICE
 1221 BOWERS ST
 BIRMINGHAM, MI 48012
Database(s) : [ECHO, FRS, HWG - MI, RCRA_NONGEN]

Envirosite ID: 3388776
EPA ID: N/R

ECHO

Facility Name : US POSTAL SERVICE
 Facility Address : 1221 BOWERS ST, BIRMINGHAM, MI 48012
 County : OAKLAND

Last Inspection Date : N/R
 Registry ID : 110003699016
 FIPS Code : 26125
 EPA Region : 05
 Inspection Count : 0
 Last Inspection Days : N/R
 Informal Count : 0
 Last Informal Action Date : N/R
 Formal Action Count : 0
 Last Formal Action Date : N/R
 Total Penalties : 0
 Penalty Count : N/R
 Last Penalty Date : N/R

Map Id: C19
 Direction: NE
 Distance: 0.120 mi.
 Actual: 633.038 ft.
 Elevation: 0.143 mi. / 756.155 ft.
 Relative: Higher

Site Name : US POSTAL SERVICE
 1221 BOWERS ST
 BIRMINGHAM, MI 48012
Database(s) : [ECHO, FRS, HWG - MI, RCRA_NONGEN]
(cont.)

EnviroSite ID: 3388776
EPA ID: N/R

ECHO (cont.)

Last Penalty Amount :	N/R
QTRS IN NC :	0
Programs IN SNC :	0
Current Compliance Status :	No Violation Identified
Three-Year Compliance Status :	
Collection Method :	ADDRESS MATCHING-HOUSE NUMBER
Reference Point :	CENTER OF A FACILITY OR STATION
Accuracy Meters :	30
Derived Tribes :	N/R
Derived HUC :	04090003
Derived WBD :	040900030202
Derived STCTY FIPS :	26125
Derived Zip :	48012
Derived CD113 :	11
Derived CB2010 :	261251529002015
MYRTK Universe :	NNN
NPDES IDs :	N/R
CWA Permit Types :	N/R
CWA Compliance Tracking :	N/R
CWA NAICS :	N/R
CWA SICS :	N/R
CWA Inspection Count :	N/R
CWA Last Inspection Days :	N/R
CWA Informal Count :	N/R
CWA Formal Action Count :	N/R
CWA Last Formal Action Date :	N/R
CWA Penalties :	N/R
CWA Last Penalty Date :	N/R
CWA Last Penalty Amount :	N/R
CWA Quarters IN NC :	N/R
CWA Current Compliance Status :	N/R
CWA Current SNC Flag :	N
CWA 13 Quarters Compliance Status :	N/R
CWA 13 Quarters Effluent Exceedances:	N/R
CWA Three-Year QNCR Codes :	N/R
DFR URL :	Click here for hyperlink provided by the agency.
Facility SIC :	N/R
Facility NAICS :	49111 - Postal Service
Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	N/R
Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R
Facility Last Informal Act EPA Date :	N/R
Facility Last Informal Act State Date:	N/R
Facility Federal Agency :	Postal Service
TRI Reporter :	N/R
Facility Imp Water Flag :	N/R
Current SNC Flag :	N
Indian County Flag :	N
Federal Flag :	Y
US Mexico Border Flag :	N/R
Chesapeake Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	N
SDWIS Flag :	N
RCRA Flag :	Y

Map Id: C19
 Direction: NE
 Distance: 0.120 mi.
 Actual: 633.038 ft.
 Elevation: 0.143 mi. / 756.155 ft.
 Relative: Higher

Site Name : US POSTAL SERVICE
 1221 BOWERS ST
 BIRMINGHAM, MI 48012
Database(s) : [ECHO, FRS, HWG - MI, RCRA_NONGEN]
(cont.)

EnviroSite ID: 3388776
EPA ID: N/R

ECHO (cont.)

TRI Flag : N
 GHG Flag : N
 Major Flag : N/R
 Active Flag : N/R
 NAA Flag : Y
 Latitude : 42.54384
 Longitude : -83.20475
 Last Date in Agency List : 2020-12-31

FRS

Facility Name : US POSTAL SERVICE
 Facility Address : 1221 BOWERS ST, BIRMINGHAM, MI 48012
 County : OAKLAND
 Registry ID : 110003699016
 FRS Facility URL : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 08/31/2020

Source Description :

RCRAInfo is EPA's comprehensive information system that supports the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984 through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA. RCRAInfo also supports generation of the National Hazardous Waste Biennial Report. All generators and treatment, storage, and disposal facilities who handle hazardous waste are required to report to the EPA Administrator at least once every two years to support creation of the Biennial Report.

FRS Environmental Interest

Source and System ID : RCRAINFO - MIR000020446

HWG - MI

Facility Name : US POSTAL SERVICE
 Facility Address : 1221 BOWERS ST, BIRMINGHAM, MI 48012
 County : OAKLAND
 WDS ID : 411220
 Site ID : MIR000020446
 Generator Status : No longer generating, still in business
 Site Legal Name : US POSTAL SERVICE
 Contact Name : N/R
 Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 2021-01-04

Map Id: C19
 Direction: NE
 Distance: 0.120 mi.
 Actual: 633.038 ft.
 Elevation: 0.143 mi. / 756.155 ft.
 Relative: Higher

Site Name : US POSTAL SERVICE
 1221 BOWERS ST
 BIRMINGHAM, MI 48012
Database(s) : [ECHO, FRS, HWG - MI, RCRA_NONGEN]
(cont.)

Envirosite ID: 3388776
EPA ID: N/R

RCRA_NONGEN

Facility Name : US POSTAL SERVICE
 Facility Address : 1221 BOWERS ST, BIRMINGHAM, MI 48012
 County : OAKLAND

Date Form Received by Agency : 12/09/1996
 EPA ID : MIR000020446
 Mailing Address : 1221 BOWERS ST, BIRMINGHAM, MI 48012
 Contact : ARNOLD OSGEN
 Contact Address : 1221 BOWERS ST, BIRMINGHAM, MI 48012
 Contact Country : US
 Contact Telephone : 248-646-4431
 Contact Email : N/R
 EPA Region : 05
 Land Type : Federal
 Source Type : Notification
 Classification : Not a generator, verified
 Description : Not a generator, verified
 Last Date in Agency List : 10/19/2020

Owner/Operator Summary

Owner/Operator Name : US POSTAL SERVICE
 Owner/Operator Address : N/R
 Owner/Operator Country : N/R
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Federal
 Owner/Operator Type : Operator
 Owner/Operator Start Date : 01/01/1970
 Owner/Operator End Date : N/R

Owner/Operator Name : US POSTAL SERVICE
 Owner/Operator Address : N/R
 Owner/Operator Country : N/R
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Federal
 Owner/Operator Type : Owner
 Owner/Operator Start Date : 01/01/1970
 Owner/Operator End Date : N/R

Handler Activities Summary

U.S. Importer of Hazardous Waste : N
 Mixed Waste (Haz. and Radioactive) : N
 Recycler of Hazardous Waste : N
 Transporter of Hazardous Waste : N
 Treater, Storer or Disposer of HW : N
 Underground Injection Activity : N
 On-site Burner Exemption : N

Map Id: C19
 Direction: NE
 Distance: 0.120 mi.
 Actual: 633.038 ft.
 Elevation: 0.143 mi. / 756.155 ft.
 Relative: Higher

Site Name : US POSTAL SERVICE
 1221 BOWERS ST
 BIRMINGHAM, MI 48012
Database(s) : [ECHO, FRS, HWG - MI, RCRA_NONGEN]
(cont.)

EnviroSite ID: 3388776
EPA ID: N/R

RCRA_NONGEN (cont.)

Furnace Exemption :	N
Used Oil Fuel Burner :	N
Used Oil Processor :	N
Used Oil Refiner :	N
Used Oil Fuel Marketer to Burner :	N
Used Oil Specification Marketer :	N
Used Oil Transfer Facility :	N
Used Oil Transporter :	N

Hazardous Waste Summary
 Waste Code / Name : D001 - IGNITABLE WASTE

Notices of Violations Summary
 Regulation Violated : N

Map Id: E20
 Direction: SSW
 Distance: 0.123 mi.
 Actual: 647.408 ft.
 Elevation: 0.143 mi. / 753.825 ft.
 Relative: Lower

Site Name : CITGO
 1531 S WOODWARD
 BIRMINGHAM, MI 48009
Database(s) : [UST - MI]

EnviroSite ID: 3415374
EPA ID: N/R

UST - MI

Facility Name :	Citgo
Facility Address :	1531 S Woodward, Birmingham, MI 48009
County :	Oakland

Site Details

Facility Number :	00013409
Region :	N/R
Facility Contact :	Mohammed Hammoud
Latitude :	42.5398500000
Longitude :	-83.2073660000
Last Date in Agency List :	12/19/2014

Owner Summary

Owner Name :	Birmingham Citgo
Owner Address :	33588 Woodward Ave, Birmingham, MI 48009-0908
Owner Country :	USA
Owner Phone :	(248) 646-9913

Map Id: E20
 Direction: SSW
 Distance: 0.123 mi.
 Actual: 647,408 ft.
 Elevation: 0.143 mi. / 753.825 ft.
 Relative: Lower

Site Name : CITGO
 1531 S WOODWARD
 BIRMINGHAM, MI 48009
Database(s) : [UST - MI] (**cont.**)

Envirosite ID: 3415374
EPA ID: N/R

UST - MI (**cont.**)

Tank Information

Installation Date : 05/06/1976
 New Tank Number : N/R
 Old Tank Number : 4
 Tank Status : Currently In Use
 Tank Content : Gasoline
 Capacity (in gallons) : 10000
 Removed/Closed Date : N/R
 Number of Compartments : N/R
 Piping Material : Double Walled
 Piping Type : Pressure
 Tank Material : Asphalt Coated or Bare Steel,Cathodically Protected Steel
 Impressed Current Installed : Yes

Installation Date : 05/06/1976
 New Tank Number : N/R
 Old Tank Number : 5
 Tank Status : Currently In Use
 Tank Content : Kerosene,RACING-FUEL
 Capacity (in gallons) : 6000
 Removed/Closed Date : N/R
 Number of Compartments : N/R
 Piping Material : Double Walled
 Piping Type : Pressure
 Tank Material : Asphalt Coated or Bare Steel,Cathodically Protected Steel
 Impressed Current Installed : Yes

Installation Date : 05/06/1976
 New Tank Number : N/R
 Old Tank Number : 6
 Tank Status : Currently In Use
 Tank Content : Diesel
 Capacity (in gallons) : 6000
 Removed/Closed Date : N/R
 Number of Compartments : N/R
 Piping Material : Double Walled
 Piping Type : Suction: Valve at Tank
 Tank Material : Asphalt Coated or Bare Steel,Cathodically Protected Steel
 Impressed Current Installed : Yes

Installation Date : 05/06/1974
 New Tank Number : N/R
 Old Tank Number : 1
 Tank Status : Currently In Use
 Tank Content : Gasoline
 Capacity (in gallons) : 12000
 Removed/Closed Date : N/R
 Number of Compartments : N/R
 Piping Material : Double Walled
 Piping Type : Pressure
 Tank Material : Asphalt Coated or Bare Steel,Cathodically Protected Steel
 Impressed Current Installed : Yes

Map Id: E20
 Direction: SSW
 Distance: 0.123 mi.
 Actual: 647,408 ft.
 Elevation: 0.143 mi. / 753.825 ft.
 Relative: Lower

Site Name : CITGO
 1531 S WOODWARD
 BIRMINGHAM, MI 48009
Database(s) : [UST - MI] (*cont.*)

Envirosite ID: 3415374
EPA ID: N/R

UST - MI (*cont.*)

Installation Date : 05/06/1974
 New Tank Number : N/R
 Old Tank Number : 2
 Tank Status : Currently In Use
 Tank Content : Gasoline
 Capacity (in gallons) : 12000
 Removed/Closed Date : N/R
 Number of Compartments : N/R
 Piping Material : Double Walled
 Piping Type : Pressure
 Tank Material : Asphalt Coated or Bare Steel,Cathodically Protected Steel
 Impressed Current Installed : Yes

Installation Date : 05/06/1974
 New Tank Number : N/R
 Old Tank Number : 3
 Tank Status : Currently In Use
 Tank Content : Gasoline
 Capacity (in gallons) : 10000
 Removed/Closed Date : N/R
 Number of Compartments : N/R
 Piping Material : Double Walled
 Piping Type : Pressure
 Tank Material : Asphalt Coated or Bare Steel,Cathodically Protected Steel
 Impressed Current Installed : Yes

Map Id: E21
 Direction: SSW
 Distance: 0.125 mi.
 Actual: 660,597 ft.
 Elevation: 0.143 mi. / 753.937 ft.
 Relative: Lower

Site Name : WOODLINC/MICH LTD PARTNERSHIP
 1050 S OLD WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [LUST - MI, SHWS - MI, UST - MI]

Envirosite ID: 3280405
EPA ID: N/R

LUST - MI

Facility Name : Woodlinc/mich Ltd Partnership
 Facility Address : 1050 S OLD WOODWARD AVE, BIRMINGHAM, 48009-
 County : Oakland

Site Details

Date of Collection : 01/11/2001
 Facility ID : 00039226
 Accuracy : 100
 Accuracy Value Unit : FEET
 Horizontal Datum : NAD83
 Source : STATE OF MICHIGAN
 Point/Line/Area : POINT
 Description Category : Plant Entrance (Freight)
 Method of Collection : Address Matching-House Number

Map Id: E21
 Direction: SSW
 Distance: 0.125 mi.
 Actual: 660.597 ft.
 Elevation: 0.143 mi. / 753.937 ft.
 Relative: Lower

Site Name : WOODLINC/MICH LTD PARTNERSHIP
 1050 S OLD WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [LUST - MI, SHWS - MI, UST - MI] **(cont.)**

EnviroSite ID: 3280405
EPA ID: N/R

LUST - MI **(cont.)**

District : Warren
 Latitude : 42.540576
 Longitude : -83.208483
 Last Date in Agency List : 09/21/2020

Owner Summary

Owner Name : Woodlinc/MichLtd Partnership
 Owner Address : UNKNOWN, MI
 Owner Country : USA
 Owner Contact Person : N/R
 Owner Phone Number : N/R

Release Information

Release Date : 12/20/1996
 Release Status : Open
 Substance Released : Gasoline
 Release Closed Date : N/R
 Leak Number : C-1071-96
 LUST Site Name : Woodlinc/mich Ltd Partnership

SHWS - MI

Facility Name : Woodlinc/mich Ltd Partnership
 Facility Address : 1050 S OLD WOODWARD AVE, BIRMINGHAM, 48009
 County : Oakland

Facility ID : 00039226
 Data Source : Part 213
 District : Southeast MI
 Township : N/R
 Latitude : 42.54058
 Longitude : -83.20848
 Last Date in Agency List : 2020-09-26

UST - MI

Facility Name : Woodlinc/mich Ltd Partnership
 Facility Address : 1050 S Old Woodward Ave, Birmingham, 48009
 County : N/R

Site Details

Facility Number : 00039226
 Region : N/R
 Facility Contact : N/R
 Latitude : N/R
 Longitude : N/R
 Last Date in Agency List : 09/22/2017

Map Id: E21
 Direction: SSW
 Distance: 0.125 mi.
 Actual: 660.597 ft.
 Elevation: 0.143 mi. / 753.937 ft.
 Relative: Lower

Site Name : WOODLINC/MICH LTD PARTNERSHIP
 1050 S OLD WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [LUST - MI, SHWS - MI, UST - MI] **(cont.)**

Envirosite ID: 3280405
EPA ID: N/R

UST - MI **(cont.)**

Owner Summary

Owner Name : Woodlinc/Mich Ltd Partnership
 Owner Address : 1000 S Old Woodward Ave Ste 201, Birmingham, MI 48009
 Owner Country : N/R
 Owner Phone : (248) 647-3250

Tank Information

Installation Date : N/R
 New Tank Number : N/R
 Old Tank Number : N/R
 Tank Status : N/R
 Tank Content : N/R
 Capacity (in gallons) : N/R
 Removed/Closed Date : N/R
 Number of Compartments : N/R
 Piping Material : N/R
 Piping Type : N/R
 Tank Material : N/R
 Impressed Current Installed : N/R

Map Id: G22
 Direction: W
 Distance: 0.128 mi.
 Actual: 676.345 ft.
 Elevation: 0.144 mi. / 758.301 ft.
 Relative: Higher

Site Name : TIFFANY FLORIST
 772 S OLD WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [LUST - MI, SHWS - MI, UST - MI]

Envirosite ID: 3364615
EPA ID: N/R

LUST - MI

Facility Name : Tiffany Florist
 Facility Address : 772 S OLD WOODWARD AVE, BIRMINGHAM, 48009-
 County : Oakland

Site Details

Date of Collection : 14-03-2014
 Facility ID : 00042132
 Accuracy : 10
 Accuracy Value Unit : FEET
 Horizontal Datum : NAD83
 Source : STATE OF MICHIGAN
 Point/Line/Area : POINT
 Description Category : Plant Entrance (Freight)
 Method of Collection : Interpolation-Photo
 District : Warren
 Latitude : 42.54149104
 Longitude : -83.20967541
 Last Date in Agency List : 09/21/2020

Map Id: G22
 Direction: W
 Distance: 0.128 mi.
 Actual: 676.345 ft.
 Elevation: 0.144 mi. / 758.301 ft.
 Relative: Higher

Site Name : TIFFANY FLORIST
 772 S OLD WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [LUST - MI, SHWS - MI, UST - MI] **(cont.)**

EnviroSite ID: 3364615
EPA ID: N/R

LUST - MI **(cont.)**

Owner Summary

Owner Name : VirginiaC Clohset Trust
 Owner Address : UNKNOWN, MI
 Owner Country : USA
 Owner Contact Person : N/R
 Owner Phone Number : N/R

Release Information

Release Date : 07/21/2008
 Release Status : Open
 Substance Released : Gasoline,Gasoline
 Release Closed Date : N/R
 Leak Number : C-0157-08
 LUST Site Name : Tiffany Florist

SHWS - MI

Facility Name : Tiffany Florist
 Facility Address : 772 S OLD WOODWARD AVE, BIRMINGHAM, 48009
 County : Oakland

Facility ID : 00042132
 Data Source : Part 213
 District : Southeast MI
 Township : N/R
 Latitude : 42.54149
 Longitude : -83.20968
 Last Date in Agency List : 2020-09-26

UST - MI

Facility Name : Tiffany Florist
 Facility Address : 772 S OLD WOODWARD AVE, BIRMINGHAM, MI 48009-6600
 County : OAKLAND

Site Details

Facility Number : 00042132
 Region : 1
 Facility Contact : N/R
 Latitude : 42.5414910400
 Longitude : -83.2096754100
 Last Date in Agency List : 03/20/2020

Owner Summary

Owner Name : Virginia C Clohset Trust
 Owner Address : c/o Phil Clohset 1595 Northlawn, Birmingham, MI 48009
 Owner Country : N/R
 Owner Phone : 2486466534

Map Id: G22
 Direction: W
 Distance: 0.128 mi.
 Actual: 676.345 ft.
 Elevation: 0.144 mi. / 758.301 ft.
 Relative: Higher

Site Name : TIFFANY FLORIST
 772 S OLD WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [LUST - MI, SHWS - MI, UST - MI] **(cont.)**

EnviroSite ID: 3364615
EPA ID: N/R

UST - MI **(cont.)**

Tank Information

Installation Date :	01/01/1947
New Tank Number :	UTK-124009-15
Old Tank Number :	1
Tank Status :	Closed in Ground
Tank Content :	Gasoline
Capacity (in gallons) :	1000
Removed/Closed Date :	07/07/2008
Number of Compartments :	N/R
Piping Material :	Unknown
Piping Type :	N/R
Tank Material :	Asphalt Coated or Bare Steel,Other
Impressed Current Installed :	N/R

Installation Date :	01/01/1947
New Tank Number :	UTK-124022-15
Old Tank Number :	2
Tank Status :	Removed from Ground
Tank Content :	Gasoline
Capacity (in gallons) :	500
Removed/Closed Date :	07/10/2008
Number of Compartments :	N/R
Piping Material :	N/R
Piping Type :	N/R
Tank Material :	Asphalt Coated or Bare Steel,Other
Impressed Current Installed :	N/R

Installation Date :	01/01/1947
New Tank Number :	UTK-124023-15
Old Tank Number :	3
Tank Status :	Removed from Ground
Tank Content :	Gasoline
Capacity (in gallons) :	500
Removed/Closed Date :	07/10/2008
Number of Compartments :	N/R
Piping Material :	N/R
Piping Type :	N/R
Tank Material :	Asphalt Coated or Bare Steel,Other
Impressed Current Installed :	N/R

Map Id: G23
 Direction: W
 Distance: 0.130 mi.
 Actual: 688.156 ft.
 Elevation: 0.144 mi. / 758.301 ft.
 Relative: Higher

Site Name : VIRGINIA C CLOHSET TRUST | 772-784 S
 OLD WOODWARD AVE
 784 S OLD WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, LWF - MI, RCRA_NONGEN]

Envirosite ID: 3390257
EPA ID: N/R

ECHO

Facility Name : VIRGINIA C CLOHSET TRUST
 Facility Address : 784 S OLD WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

Last Inspection Date : N/R
 Registry ID : 110037401255
 FIPS Code : 26125
 EPA Region : 05
 Inspection Count : 0
 Last Inspection Days : N/R
 Informal Count : 0
 Last Informal Action Date : N/R
 Formal Action Count : 0
 Last Formal Action Date : N/R
 Total Penalties : 0
 Penalty Count : N/R
 Last Penalty Date : N/R
 Last Penalty Amount : N/R
 QTRS IN NC : 0
 Programs IN SNC : 0
 Current Compliance Status : No Violation Identified
 Three-Year Compliance Status :
 Collection Method : ADDRESS MATCHING-HOUSE NUMBER
 Reference Point : ENTRANCE POINT OF A FACILITY OR STATION
 Accuracy Meters : 50
 Derived Tribes : N/R
 Derived HUC : 04090003
 Derived WBD : 040900030202
 Derived STCTY FIPS : 26125
 Derived Zip : 48009
 Derived CD113 : 11
 Derived CB2010 : 261251529002029
 MYRTK Universe : NNN
 NPDES IDs : N/R
 CWA Permit Types : N/R
 CWA Compliance Tracking : N/R
 CWA NAICS : N/R
 CWA SICS : N/R
 CWA Inspection Count : N/R
 CWA Last Inspection Days : N/R
 CWA Informal Count : N/R
 CWA Formal Action Count : N/R
 CWA Last Formal Action Date : N/R
 CWA Penalties : N/R
 CWA Last Penalty Date : N/R
 CWA Last Penalty Amount : N/R
 CWA Quarters IN NC : N/R
 CWA Current Compliance Status : N/R
 CWA Current SNC Flag : N
 CWA 13 Quarters Compliance Status : N/R
 CWA 13 Quarters Effluent Exceedances: N/R
 CWA Three-Year QNCR Codes : N/R
 DFR URL : [Click here for hyperlink provided by the agency.](#)
 Facility SIC : N/R

Map Id: G23
 Direction: W
 Distance: 0.130 mi.
 Actual: 688.156 ft.
 Elevation: 0.144 mi. / 758.301 ft.
 Relative: Higher

Site Name : VIRGINIA C CLOHSET TRUST | 772-784 S
 OLD WOODWARD AVE
 784 S OLD WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, LWF - MI, RCRA_NONGEN]
(cont.)

EnviroSite ID: 3390257
EPA ID: N/R

ECHO (cont.)

Facility NAICS :	45311 - Florists
Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	N/R
Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R
Facility Last Informal Act EPA Date :	N/R
Facility Last Informal Act State Date:	N/R
Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	N/R
Current SNC Flag :	N
Indian County Flag :	N
Federal Flag :	N/R
US Mexico Border Flag :	N/R
Chesapeake Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	N
SDWIS Flag :	N
RCRA Flag :	Y
TRI Flag :	N
GHG Flag :	N
Major Flag :	N/R
Active Flag :	N/R
NAA Flag :	Y
Latitude :	42.541606
Longitude :	-83.209256
Last Date in Agency List :	2020-12-31

FRS

Facility Name :	VIRGINIA C CLOHSET TRUST
Facility Address :	784 S OLD WOODWARD AVE, BIRMINGHAM, MI 48009
County :	OAKLAND

Registry ID :	110037401255
FRS Facility URL :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	08/31/2020

Source Description :

RCRAInfo is EPA's comprehensive information system that supports the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984 through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA. RCRAInfo also supports generation of the National Hazardous Waste Biennial Report. All generators and treatment, storage, and disposal facilities who handle hazardous waste are required to report to the EPA Administrator at least once every two years to support creation of the Biennial Report.

Map Id: G23
 Direction: W
 Distance: 0.130 mi.
 Actual: 688.156 ft.
 Elevation: 0.144 mi. / 758.301 ft.
 Relative: Higher

Site Name : VIRGINIA C CLOHSET TRUST | 772-784 S
 OLD WOODWARD AVE
 784 S OLD WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, LWF - MI, RCRA_NONGEN]
(cont.)

EnviroSite ID: 3390257
EPA ID: N/R

FRS (cont.)

FRS Environmental Interest
 Source and System ID : RCRAINFO - MIK322432543

LWF - MI

Facility Name : 772-784 S OLD WOODWARD AVE
 Facility Address : 784 S OLD WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

WDS ID : 484622
 Site ID : MIK322432543
 Site Legal Name : VIRGINIA C CLOHSET TRUST
 Contact Name : N/R
 Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 08/19/2020

RCRA_NONGEN

Facility Name : VIRGINIA C CLOHSET TRUST
 Facility Address : 784 S OLD WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

Date Form Received by Agency : 06/27/2008
 EPA ID : MIK322432543
 Mailing Address : 1595 NORTHLAWN BLVD, BIRMINGHAM, MI 48009
 Contact : PHIL CLOHSET
 Contact Address : 784 S OLD WOODWARD AVE, BIRMINGHAM, MI 48009
 Contact Country : US
 Contact Telephone : 248-646-6534
 Contact Email : N/R
 EPA Region : 05
 Land Type : Private
 Source Type : Notification
 Classification : Not a generator, verified
 Description : Not a generator, verified
 Last Date in Agency List : 10/19/2020

Owner/Operator Summary

Owner/Operator Name : VIRGINIA C CLOHSET TRUST
 Owner/Operator Address : N/R
 Owner/Operator Country : N/R
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Private
 Owner/Operator Type : Operator
 Owner/Operator Start Date : 01/02/2005
 Owner/Operator End Date : N/R

Map Id: G23
 Direction: W
 Distance: 0.130 mi.
 Actual: 688.156 ft.
 Elevation: 0.144 mi. / 758.301 ft.
 Relative: Higher

Site Name : VIRGINIA C CLOHSET TRUST | 772-784 S
 OLD WOODWARD AVE
 784 S OLD WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, LWF - MI, RCRA_NONGEN]
(cont.)

EnviroSite ID: 3390257
EPA ID: N/R

RCRA_NONGEN (cont.)

Owner/Operator Name :	VIRGINIA C CLOHSET TRUST
Owner/Operator Address :	N/R
Owner/Operator Country :	N/R
Owner/Operator Telephone :	N/R
Owner/Operator Email :	N/R
Owner/Operator Fax :	N/R
Legal Status :	Private
Owner/Operator Type :	Owner
Owner/Operator Start Date :	01/02/2005
Owner/Operator End Date :	N/R

Handler Activities Summary

U.S. Importer of Hazardous Waste :	N
Mixed Waste (Haz. and Radioactive) :	N
Recycler of Hazardous Waste :	N
Transporter of Hazardous Waste :	N
Treater, Storer or Disposer of HW :	N
Underground Injection Activity :	N
On-site Burner Exemption :	N
Furnace Exemption :	N
Used Oil Fuel Burner :	N
Used Oil Processor :	N
Used Oil Refiner :	N
Used Oil Fuel Marketer to Burner :	N
Used Oil Specification Marketer :	N
Used Oil Transfer Facility :	N
Used Oil Transporter :	N

Hazardous Waste Summary

Waste Code / Name :	D001 - IGNITABLE WASTE

Notices of Violations Summary

Regulation Violated :	N

Map Id: G24
 Direction: W
 Distance: 0.131 mi.
 Actual: 694.193 ft.
 Elevation: 0.144 mi. / 758.54 ft.
 Relative: Higher

Site Name : Tiffany Florist | Woodward and George, LLC
 772-784 S Old Woodward | 772-784 South Old Woodward
 Birmingham, MI 48009
Database(s) : [BEA - MI, LUST - MI, SHWS - MI]

Envirosite ID: 3275781
EPA ID: N/R

BEA - MI

Facility Name : Woodward and George, LLC
 Facility Address : 772-784 South Old Woodward, Birmingham, 48009
 County : Oakland

Facility ID : N/R
 BEA Number : 200804025LV
 Data Source : BEA
 District : Southeast MI
 Township : Birmingham
 Latitude : N/R
 Longitude : N/R
 Last Date in Agency List : 2020-09-25

LUST - MI

Facility Name : Tiffany Florist
 Facility Address : 772-784 S Old Woodward, Birmingham, 48009
 County : Oakland

Site Details

Date of Collection : 03/14/2014
 Facility ID : 00042132
 Accuracy : 10
 Accuracy Value Unit : FEET
 Horizontal Datum : NAD83
 Source : STATE OF MICHIGAN
 Point/Line/Area : POINT
 Description Category : Plant Entrance (Freight)
 Method of Collection : Interpolation-Photo
 District : Southeast MI
 Latitude : 42.54149104
 Longitude : -83.20967541
 Last Date in Agency List : 06/26/2019

Owner Summary

Owner Name : Virginia C Clohset Trust
 Owner Address : c/o Phil Clohset 1595 Northlawn, Birmingham, MI 48009
 Owner Country : USA
 Owner Contact Person : N/R
 Owner Phone Number : (248) 646-6534

Release Information

Release Date : 07/21/2008
 Release Status : Open
 Substance Released : Gasoline, Gasoline
 Release Closed Date : N/R
 Leak Number : C-0157-08
 LUST Site Name : Tiffany Florist

Map Id: G24
 Direction: W
 Distance: 0.131 mi.
 Actual: 694.193 ft.
 Elevation: 0.144 mi. / 758.54 ft.
 Relative: Higher

Site Name : Tiffany Florist | Woodward and George, LLC
 772-784 S Old Woodward | 772-784 South Old Woodward
 Birmingham, MI 48009
Database(s) : [BEA - MI, LUST - MI, SHWS - MI] **(cont.)**

EnviroSite ID: 3275781
EPA ID: N/R

SHWS - MI

Facility Name : Tiffany Florist
 Facility Address : 772-784 S Old Woodward, Birmingham, 48009
 County : Oakland

Facility ID : 00042132
 Data Source : Part 213
 District : Southeast MI
 Township : N/R
 Latitude : 42.54149
 Longitude : -83.20968
 Last Date in Agency List : 2019-06-28

Map Id: E25
 Direction: SSW
 Distance: 0.133 mi.
 Actual: 704.330 ft.
 Elevation: 0.143 mi. / 753.465 ft.
 Relative: Lower

Site Name : FORMER BIRMINGHAM CLEANERS
 1253 S. WOODWARD AVENUE
 Birmingham, MI
Database(s) : [BEA - MI]

EnviroSite ID: 3378166
EPA ID: N/R

BEA - MI

Facility Name : FORMER BIRMINGHAM CLEANERS
 Facility Address : 1253 S. WOODWARD AVENUE, Birmingham
 County : Oakland

Facility ID : N/R
 BEA Number : 199700381LV
 Data Source : BEA
 District : Southeast MI
 Township : Birmingham
 Latitude : N/R
 Longitude : N/R
 Last Date in Agency List : 2020-09-25

Map Id: H26
 Direction: WNW
 Distance: 0.134 mi.
 Actual: 706.660 ft.
 Elevation: 0.144 mi. / 760.797 ft.
 Relative: Higher

Site Name : Golling Motors, Inc.
 34500 Woodward
 Birmingham, MI 48009
Database(s) : [BROWNFIELDS - MI]

EnviroSite ID: 3283089
EPA ID: N/R

BROWNFIELDS - MI

Facility Name : Golling Motors, Inc.
 Facility Address : 34500 Woodward, Birmingham, 48009
 County : Oakland

Facility ID : 63005949
 Data Source : Part 21
 District : Southeast MI
 Township : Birmingham
 Latitude : 42.54345
 Longitude : -83.20896
 Last Date in Agency List : 2020-09-25

Map Id: G27
 Direction: W
 Distance: 0.139 mi.
 Actual: 736.056 ft.
 Elevation: 0.144 mi. / 759.997 ft.
 Relative: Higher

Site Name : VILLAGE JEEP EAGLE
 666 S WOODWARD
 BIRMINGHAM, MI 48011
Database(s) : [UST - MI]

EnviroSite ID: 3362958
EPA ID: N/R

UST - MI

Facility Name : Village Jeep Eagle
 Facility Address : 666 S WOODWARD, BIRMINGHAM, MI 48011
 County : 63

Site Details

Facility Number : 00005612
 Region : N/R
 Facility Contact : N/R
 Latitude : 42.5425370000
 Longitude : -83.2096430000
 Last Date in Agency List : 03/20/2020

Owner Summary

Owner Name : Chrysler Realty Corp
 Owner Address : 1450 W LONG LAKE RD STE 280, TROY, MI 48098
 Owner Country : N/R
 Owner Phone : 3137370299

Tank Information

Installation Date : 05/07/1966
 New Tank Number : UTK-005255-15
 Old Tank Number : 1
 Tank Status : Removed from Ground
 Tank Content : N/R

Map Id: G27
 Direction: W
 Distance: 0.139 mi.
 Actual: 736.056 ft.
 Elevation: 0.144 mi. / 759.997 ft.
 Relative: Higher

Site Name : VILLAGE JEEP EAGLE
 666 S WOODWARD
 BIRMINGHAM, MI 48011
Database(s) : [UST - MI] (**cont.**)

EnviroSite ID: 3362958
EPA ID: N/R

UST - MI (**cont.**)

Capacity (in gallons) :	250
Removed/Closed Date :	08/30/1990
Number of Compartments :	N/R
Piping Material :	Unknown
Piping Type :	N/R
Tank Material :	Unknown
Impressed Current Installed :	N/R

Map Id: H28
 Direction: WNW
 Distance: 0.142 mi.
 Actual: 748.162 ft.
 Elevation: 0.144 mi. / 761.257 ft.
 Relative: Higher

Site Name : Golling Motors, Inc.
 34500 Woodward Avenue
 Birmingham, MI 48009
Database(s) : [BEA - MI]

EnviroSite ID: 3343927
EPA ID: N/R

BEA - MI

Facility Name :	Golling Motors, Inc.
Facility Address :	34500 Woodward Avenue, Birmingham, 48009
County :	Oakland
Facility ID :	63005949
BEA Number :	201104941LV
Data Source :	BEA
District :	Southeast MI
Township :	Birmingham
Latitude :	42.54345
Longitude :	-83.20896
Last Date in Agency List :	2020-09-25

Map Id: E29
 Direction: SSW
 Distance: 0.142 mi.
 Actual: 752.362 ft.
 Elevation: 0.143 mi. / 753.376 ft.
 Relative: Lower

Site Name : CRISSMAN CADILLAC
 1350 S WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [LWF - MI]

EnviroSite ID: 3432747
EPA ID: N/R

LWF - MI

Facility Name :	CRISSMAN CADILLAC
Facility Address :	1350 S WOODWARD AVE, BIRMINGHAM, MI 48009
County :	OAKLAND
WDS ID :	420508
Site ID :	MIG000024503

Map Id: E29
 Direction: SSW
 Distance: 0.142 mi.
 Actual: 752.362 ft.
 Elevation: 0.143 mi. / 753.376 ft.
 Relative: Lower

Site Name : CRISSMAN CADILLAC
 1350 S WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [LWF - MI] (**cont.**)

EnviroSite ID: 3432747
EPA ID: N/R

LWF - MI (**cont.**)

Site Legal Name :	CRISSMAN CADILLAC
Contact Name :	N/R
Contact Phone :	N/R
Contact Email :	N/R
Agency Hyperlink :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	08/19/2020

Map Id: G30
 Direction: W
 Distance: 0.146 mi.
 Actual: 770.308 ft.
 Elevation: 0.144 mi. / 759.675 ft.
 Relative: Higher

Site Name : Jimmies Rustics
 690 South Old Woodward
 Birmingham, MI
Database(s) : [BEA - MI]

EnviroSite ID: 3344327
EPA ID: N/R

BEA - MI

Facility Name :	Jimmies Rustics
Facility Address :	690 South Old Woodward, Birmingham
County :	Oakland
Facility ID :	N/R
BEA Number :	200603058LV
Data Source :	BEA
District :	Southeast MI
Township :	Birmingham
Latitude :	N/R
Longitude :	N/R
Last Date in Agency List :	2020-09-25

Map Id: E31
 Direction: SSW
 Distance: 0.147 mi.
 Actual: 777.198 ft.
 Elevation: 0.143 mi. / 753.127 ft.
 Relative: Lower

Site Name : PERIMETER PROPERTIES LLC | 1000
 BUILDING | Office Building & Parling Lot
 1000 S OLD WOODWARD AVE | 1000
 South Old Woodward Avenue
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, ECHO, FRS, LWF - MI,
 RCRA_NONGEN]

EnviroSite ID: 3345242
EPA ID: N/R

BEA - MI

Facility Name :	Office Building & Parling Lot
Facility Address :	1000 South Old Woodward Avenue, Birmingham
County :	Oakland

Map Id: E31
 Direction: SSW
 Distance: 0.147 mi.
 Actual: 777.198 ft.
 Elevation: 0.143 mi. / 753.127 ft.
 Relative: Lower

Site Name : PERIMETER PROPERTIES LLC | 1000
 BUILDING | Office Building & Parling Lot
 1000 S OLD WOODWARD AVE | 1000
 South Old Woodward Avenue
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, ECHO, FRS, LWF - MI,
 RCRA_NONGEN] **(cont.)**

Envirosite ID: 3345242
EPA ID: N/R

BEA - MI (cont.)

Facility ID : N/R
 BEA Number : 201004565LV
 Data Source : BEA
 District : Southeast MI
 Township : Birmingham
 Latitude : N/R
 Longitude : N/R
 Last Date in Agency List : 2020-09-25

ECHO

Facility Name : PERIMETER PROPERTIES LLC
 Facility Address : 1000 S OLD WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

Last Inspection Date : N/R
 Registry ID : 110066970022
 FIPS Code : 26125
 EPA Region : 05
 Inspection Count : 0
 Last Inspection Days : N/R
 Informal Count : 0
 Last Informal Action Date : N/R
 Formal Action Count : 0
 Last Formal Action Date : N/R
 Total Penalties : 0
 Penalty Count : N/R
 Last Penalty Date : N/R
 Last Penalty Amount : N/R
 QTRS IN NC : 0
 Programs IN SNC : 0
 Current Compliance Status : No Violation Identified
 Three-Year Compliance Status :
 Collection Method : ADDRESS MATCHING-HOUSE NUMBER
 Reference Point : CENTER OF A FACILITY OR STATION
 Accuracy Meters : 30
 Derived Tribes : N/R
 Derived HUC : 04090003
 Derived WBD : 040900030202
 Derived STCTY FIPS : 26125
 Derived Zip : 48009
 Derived CD113 : 11
 Derived CB2010 : 261251532002033
 MYRTK Universe : NNN
 NPDES IDs : N/R
 CWA Permit Types : N/R
 CWA Compliance Tracking : N/R
 CWA NAICS : N/R
 CWA SICS : N/R
 CWA Inspection Count : N/R
 CWA Last Inspection Days : N/R
 CWA Informal Count : N/R
 CWA Formal Action Count : N/R

Map Id: E31
 Direction: SSW
 Distance: 0.147 mi.
 Actual: 777.198 ft.
 Elevation: 0.143 mi. / 753.127 ft.
 Relative: Lower

Site Name : PERIMETER PROPERTIES LLC | 1000 BUILDING | Office Building & Parling Lot
 1000 S OLD WOODWARD AVE | 1000 South Old Woodward Avenue
 BIRMINGHAM | Birmingham, MI 48009

Database(s) : [BEA - MI, ECHO, FRS, LWF - MI, RCRA_NONGEN] **(cont.)**

Envirosite ID: 3345242
EPA ID: N/R

ECHO (cont.)

CWA Last Formal Action Date :	N/R
CWA Penalties :	N/R
CWA Last Penalty Date :	N/R
CWA Last Penalty Amount :	N/R
CWA Quarters IN NC :	N/R
CWA Current Compliance Status :	N/R
CWA Current SNC Flag :	N
CWA 13 Quarters Compliance Status :	N/R
CWA 13 Quarters Effluent Exceedances:	N/R
CWA Three-Year QNCR Codes :	N/R
DFR URL :	Click here for hyperlink provided by the agency.
Facility SIC :	N/R
Facility NAICS :	531120 - Lessors of Nonresidential Buildings (except Miniwarehouses)
Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	N/R
Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R
Facility Last Informal Act EPA Date :	N/R
Facility Last Informal Act State Date:	N/R
Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	N/R
Current SNC Flag :	N
Indian County Flag :	N
Federal Flag :	N/R
US Mexico Border Flag :	N/R
Chesapeake Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	N
SDWIS Flag :	N
RCRA Flag :	Y
TRI Flag :	N
GHG Flag :	N
Major Flag :	N/R
Active Flag :	N/R
NAA Flag :	Y
Latitude :	42.53981
Longitude :	-83.2076
Last Date in Agency List :	2020-12-31

FRS

Facility Name :	PERIMETER PROPERTIES LLC
Facility Address :	1000 S OLD WOODWARD AVE, BIRMINGHAM, MI 48009
County :	OAKLAND
Registry ID :	110066970022
FRS Facility URL :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	08/31/2020

Map Id: E31
 Direction: SSW
 Distance: 0.147 mi.
 Actual: 777.198 ft.
 Elevation: 0.143 mi. / 753.127 ft.
 Relative: Lower

Site Name : PERIMETER PROPERTIES LLC | 1000 BUILDING | Office Building & Parling Lot
 1000 S OLD WOODWARD AVE | 1000 South Old Woodward Avenue
 BIRMINGHAM | Birmingham, MI 48009

Database(s) : [BEA - MI, ECHO, FRS, LWF - MI, RCRA_NONGEN] **(cont.)**

Envirosite ID: 3345242
EPA ID: N/R

FRS (cont.)

Source Description :

RCRAInfo is EPA's comprehensive information system that supports the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984 through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA. RCRAInfo also supports generation of the National Hazardous Waste Biennial Report. All generators and treatment, storage, and disposal facilities who handle hazardous waste are required to report to the EPA Administrator at least once every two years to support creation of the Biennial Report.

FRS Environmental Interest

Source and System ID :

RCRAINFO - MIK212640328

LWF - MI

Facility Name :
 Facility Address :
 County :

1000 BUILDING
 1000 S OLD WOODWARD AVE, BIRMINGHAM, MI 48009
 OAKLAND

WDS ID :
 Site ID :
 Site Legal Name :
 Contact Name :
 Contact Phone :
 Contact Email :
 Agency Hyperlink :
 Last Date in Agency List :

495445
 MIK212640328
 PERIMETER PROPERTIES LLC
 N/R
 N/R
 N/R
[Click here for hyperlink provided by the agency.](#)
 08/19/2020

RCRA_NONGEN

Facility Name :
 Facility Address :
 County :

PERIMETER PROPERTIES LLC
 1000 S OLD WOODWARD AVE, BIRMINGHAM, MI 48009
 OAKLAND

Date Form Received by Agency :
 EPA ID :
 Mailing Address :
 Contact :
 Contact Address :
 Contact Country :
 Contact Telephone :
 Contact Email :
 EPA Region :
 Land Type :
 Source Type :
 Classification :
 Description :
 Last Date in Agency List :

09/29/2015
 MIK212640328
 112 PEABODY ST, BIRMINGHAM, MI 48009
 STEVEN G QUINTAL
 N/R
 N/R
 248-642-0024
 STEVE@FULLERCENTRALPARK.COM
 05
 Private
 Notification
 Not a generator, verified
 Not a generator, verified
 10/19/2020

Map Id: E31
 Direction: SSW
 Distance: 0.147 mi.
 Actual: 777.198 ft.
 Elevation: 0.143 mi. / 753.127 ft.
 Relative: Lower

Site Name : PERIMETER PROPERTIES LLC | 1000
 BUILDING | Office Building & Parling Lot
 1000 S OLD WOODWARD AVE | 1000
 South Old Woodward Avenue
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, ECHO, FRS, LWF - MI,
 RCRA_NONGEN] **(cont.)**

EnviroSite ID: 3345242
EPA ID: N/R

RCRA_NONGEN (cont.)

Owner/Operator Summary

Owner/Operator Name :	PERIMETER PROPERTIES LLC
Owner/Operator Address :	N/R
Owner/Operator Country :	N/R
Owner/Operator Telephone :	N/R
Owner/Operator Email :	N/R
Owner/Operator Fax :	N/R
Legal Status :	Private
Owner/Operator Type :	Operator
Owner/Operator Start Date :	01/02/2010
Owner/Operator End Date :	N/R

Owner/Operator Name :	PERIMETER PROPERTIES LLC
Owner/Operator Address :	N/R
Owner/Operator Country :	N/R
Owner/Operator Telephone :	N/R
Owner/Operator Email :	N/R
Owner/Operator Fax :	N/R
Legal Status :	Private
Owner/Operator Type :	Owner
Owner/Operator Start Date :	01/02/2010
Owner/Operator End Date :	N/R

Handler Activities Summary

U.S. Importer of Hazardous Waste :	N
Mixed Waste (Haz. and Radioactive) :	N
Recycler of Hazardous Waste :	N
Transporter of Hazardous Waste :	N
Treater, Storer or Disposer of HW :	N
Underground Injection Activity :	N
On-site Burner Exemption :	N
Furnace Exemption :	N
Used Oil Fuel Burner :	N
Used Oil Processor :	N
Used Oil Refiner :	N
Used Oil Fuel Marketer to Burner :	N
Used Oil Specification Marketer :	N
Used Oil Transfer Facility :	N
Used Oil Transporter :	N

Hazardous Waste Summary

Waste Code / Name :	D001 - IGNITABLE WASTE

Notices of Violations Summary

Regulation Violated :	N

Map Id: G32
 Direction: W
 Distance: 0.152 mi.
 Actual: 803.609 ft.
 Elevation: 0.144 mi. / 759.99 ft.
 Relative: Higher

Site Name : VILLAGE AMC/JEEP INC
 666 S OLD WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, RCRA_NONGEN]

EnviroSite ID: 3425480
EPA ID: N/R

ECHO

Facility Name : VILLAGE AMC/JEEP INC
 Facility Address : 666 S OLD WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

Last Inspection Date : N/R
 Registry ID : 110003599428
 FIPS Code : 26125
 EPA Region : 05
 Inspection Count : 0
 Last Inspection Days : N/R
 Informal Count : 0
 Last Informal Action Date : N/R
 Formal Action Count : 0
 Last Formal Action Date : N/R
 Total Penalties : 0
 Penalty Count : N/R
 Last Penalty Date : N/R
 Last Penalty Amount : N/R
 QTRS IN NC : 0
 Programs IN SNC : 0
 Current Compliance Status : No Violation Identified
 Three-Year Compliance Status :
 Collection Method : ADDRESS MATCHING-HOUSE NUMBER
 Reference Point : ENTRANCE POINT OF A FACILITY OR STATION
 Accuracy Meters : 50
 Derived Tribes : N/R
 Derived HUC : 04090003
 Derived WBD : 040900030202
 Derived STCTY FIPS : 26125
 Derived Zip : 48009
 Derived CD113 : 11
 Derived CB2010 : 261251529002018
 MYRTK Universe : NNN
 NPDES IDs : N/R
 CWA Permit Types : N/R
 CWA Compliance Tracking : N/R
 CWA NAICS : N/R
 CWA SICS : N/R
 CWA Inspection Count : N/R
 CWA Last Inspection Days : N/R
 CWA Informal Count : N/R
 CWA Formal Action Count : N/R
 CWA Last Formal Action Date : N/R
 CWA Penalties : N/R
 CWA Last Penalty Date : N/R
 CWA Last Penalty Amount : N/R
 CWA Quarters IN NC : N/R
 CWA Current Compliance Status : N/R
 CWA Current SNC Flag : N
 CWA 13 Quarters Compliance Status : N/R
 CWA 13 Quarters Effluent Exceedances: N/R
 CWA Three-Year QNCR Codes : N/R
 DFR URL : [Click here for hyperlink provided by the agency.](#)
 Facility SIC : N/R
 Facility NAICS : 11131 - Orange Groves

Map Id: G32
 Direction: W
 Distance: 0.152 mi.
 Actual: 803.609 ft.
 Elevation: 0.144 mi. / 759.99 ft.
 Relative: Higher

Site Name : VILLAGE AMC/JEEP INC
 666 S OLD WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, RCRA_NONGEN]
(cont.)

Envirosite ID: 3425480
EPA ID: N/R

ECHO (cont.)

Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	N/R
Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R
Facility Last Informal Act EPA Date :	N/R
Facility Last Informal Act State Date:	N/R
Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	N/R
Current SNC Flag :	N
Indian County Flag :	N
Federal Flag :	N/R
US Mexico Border Flag :	N/R
Chesapeake Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	N
SDWIS Flag :	N
RCRA Flag :	Y
TRI Flag :	N
GHG Flag :	N
Major Flag :	N/R
Active Flag :	N/R
NAA Flag :	Y
Latitude :	42.542191
Longitude :	-83.209838
Last Date in Agency List :	2020-12-31

FRS

Facility Name :	VILLAGE AMC/JEEP INC
Facility Address :	666 S OLD WOODWARD AVE, BIRMINGHAM, MI 48009
County :	OAKLAND

Registry ID :	110003599428
FRS Facility URL :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	08/31/2020

Source Description :

RCRAInfo is EPA's comprehensive information system that supports the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984 through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA. RCRAInfo also supports generation of the National Hazardous Waste Biennial Report. All generators and treatment, storage, and disposal facilities who handle hazardous waste are required to report to the EPA Administrator at least once every two years to support creation of the Biennial Report.

FRS Environmental Interest
 Source and System ID :

RCRAINFO - MID058819707

Map Id: G32
 Direction: W
 Distance: 0.152 mi.
 Actual: 803.609 ft.
 Elevation: 0.144 mi. / 759.99 ft.
 Relative: Higher

Site Name : VILLAGE AMC/JEEP INC
 666 S OLD WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, RCRA_NONGEN]
(cont.)

Envirosite ID: 3425480
EPA ID: N/R

HWG - MI

Facility Name : VILLAGE AMC/JEEP INC
 Facility Address : 666 S OLD WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

WDS ID : 396482
 Site ID : MID058819707
 Generator Status : No longer generating, still in business
 Site Legal Name : VILLAGE AMC/JEEP INC
 Contact Name : N/R
 Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 2021-01-04

RCRA_NONGEN

Facility Name : VILLAGE AMC/JEEP INC
 Facility Address : 666 S OLD WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

Date Form Received by Agency : 09/17/1998
 EPA ID : MID058819707
 Mailing Address : 666 S OLD WOODWARD AVE, BIRMINGHAM, MI 48009
 Contact : ROBERT CANN
 Contact Address : 666 S OLD WOODWARD AVE, BIRMINGHAM, MI 48009
 Contact Country : US
 Contact Telephone : 313-646-3900
 Contact Email : N/R
 EPA Region : 05
 Land Type : Private
 Source Type : Implementer
 Classification : Not a generator, verified
 Description : Not a generator, verified
 Last Date in Agency List : 10/19/2020

Owner/Operator Summary

Owner/Operator Name : VILLAGE AMC/JEEP INC
 Owner/Operator Address : N/R
 Owner/Operator Country : N/R
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Private
 Owner/Operator Type : Operator
 Owner/Operator Start Date : 01/01/1970
 Owner/Operator End Date : N/R

Owner/Operator Name : VILLAGE AMC/JEEP INC
 Owner/Operator Address : N/R
 Owner/Operator Country : N/R
 Owner/Operator Telephone : N/R

Map Id: G32
 Direction: W
 Distance: 0.152 mi.
 Actual: 803.609 ft.
 Elevation: 0.144 mi. / 759.99 ft.
 Relative: Higher

Site Name : VILLAGE AMC/JEEP INC
 666 S OLD WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, RCRA_NONGEN]
(cont.)

EnviroSite ID: 3425480
EPA ID: N/R

RCRA_NONGEN (cont.)

Owner/Operator Email :	N/R
Owner/Operator Fax :	N/R
Legal Status :	Private
Owner/Operator Type :	Owner
Owner/Operator Start Date :	01/01/1970
Owner/Operator End Date :	N/R

Handler Activities Summary

U.S. Importer of Hazardous Waste :	N
Mixed Waste (Haz. and Radioactive) :	N
Recycler of Hazardous Waste :	N
Transporter of Hazardous Waste :	N
Treater, Storer or Disposer of HW :	N
Underground Injection Activity :	N
On-site Burner Exemption :	N
Furnace Exemption :	N
Used Oil Fuel Burner :	N
Used Oil Processor :	N
Used Oil Refiner :	N
Used Oil Fuel Marketer to Burner :	N
Used Oil Specification Marketer :	N
Used Oil Transfer Facility :	N
Used Oil Transporter :	N

Historical Generators

Date Form Received by Agency :	09/09/1985
Facility Name :	VILLAGE AMC/JEEP INC
Classification :	Small Quantity Generator

Hazardous Waste Summary

Waste Code / Name :	D001 - IGNITABLE WASTE

Notices of Violations Summary

Regulation Violated :	N

Map Id: E33
 Direction: SSW
 Distance: 0.152 mi.
 Actual: 803.740 ft.
 Elevation: 0.143 mi. / 753.461 ft.
 Relative: Lower

Site Name : BARRICK OIL CO
 1531 S WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [LWF - MI]

Envirosite ID: 3431647
EPA ID: N/R

LWF - MI

Facility Name : BARRICK OIL CO
 Facility Address : 1531 S WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

WDS ID : 445621
 Site ID : MIG000035291
 Site Legal Name : BARRICK OIL CO
 Contact Name : N/R
 Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 08/19/2020

Map Id: E34
 Direction: S
 Distance: 0.161 mi.
 Actual: 848.162 ft.
 Elevation: 0.143 mi. / 753.245 ft.
 Relative: Lower

Site Name : Mobil SS #03-kpv
 1991 S Woodward Ave
 Birmingham, MI 48009
Database(s) : [LUST - MI]

Envirosite ID: 3277735
EPA ID: N/R

LUST - MI

Facility Name : Mobil SS #03-kpv
 Facility Address : 1991 S Woodward Ave, Birmingham, 48009-5159
 County : Oakland

Site Details

Date of Collection : 01/11/2001
 Facility ID : 00016687
 Accuracy : 100
 Accuracy Value Unit : FEET
 Horizontal Datum : NAD83
 Source : STATE OF MICHIGAN
 Point/Line/Area : POINT
 Description Category : Plant Entrance (Freight)
 Method of Collection : Address Matching-House Number
 District : Southeast MI
 Latitude : 42.539236
 Longitude : -83.20682
 Last Date in Agency List : 06/26/2019

Owner Summary

Owner Name : Mobil Oil Corp
 Owner Address : 19309 Carlisle Street, Dearborn, MI 48124-3802
 Owner Country : USA
 Owner Contact Person : N/R
 Owner Phone Number : (512) 380-7132

Map Id: E34
 Direction: S
 Distance: 0.161 mi.
 Actual: 848.162 ft.
 Elevation: 0.143 mi. / 753.245 ft.
 Relative: Lower

Site Name : Mobil SS #03-kpv
 1991 S Woodward Ave
 Birmingham, MI 48009
Database(s) : [LUST - MI] (**cont.**)

EnviroSite ID: 3277735
EPA ID: N/R

LUST - MI (**cont.**)

Release Information

Release Date :	10/10/1990
Release Status :	Closed
Substance Released :	N/R
Release Closed Date :	11/30/1995
Leak Number :	C-2008-90
LUST Site Name :	Mobil #03-kpv

Map Id: E35
 Direction: S
 Distance: 0.184 mi.
 Actual: 974.114 ft.
 Elevation: 0.143 mi. / 752.953 ft.
 Relative: Lower

Site Name : OHM OF BIRMINGHAM
 33989 S. WOODWARD
 BIRMINGHAM, MI 48009
Database(s) : [DRYCLEANERS - MI]

EnviroSite ID: 3392635
EPA ID: N/R

DRYCLEANERS - MI

Facility Name :	OHM OF BIRMINGHAM
Facility Address :	33989 S. WOODWARD, BIRMINGHAM, MI 48009
County :	OAKLAND

Last Inspection Date :	N/R
Establishment Number :	6300266
Status :	N/R
DCM Type :	Petro
Number of DCM :	1
Total Pounds :	60
Inspector :	N/R
Last Date in Agency List :	2019-12-12

Map Id: E36
 Direction: S
 Distance: 0.185 mi.
 Actual: 974.836 ft.
 Elevation: 0.143 mi. / 753.137 ft.
 Relative: Lower

Site Name : RDM MANAGEMENT INC | MARTINIZING
 DRY CLEANING OF BIRMINGHAM | DBA
 MARTINIZING 941504
 33989 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LWF - MI,
 RCRA_VSQG]

EnviroSite ID: 3295696
EPA ID: N/R

ECHO

Facility Name :	MARTINIZING DRY CLEANING OF BIRMINGHAM
Facility Address :	33989 WOODWARD AVE, BIRMINGHAM, MI 48009
County :	OAKLAND

Map Id: E36
 Direction: S
 Distance: 0.185 mi.
 Actual: 974.836 ft.
 Elevation: 0.143 mi. / 753.137 ft.
 Relative: Lower

Site Name : RDM MANAGEMENT INC | MARTINIZING
 DRY CLEANING OF BIRMINGHAM | DBA
 MARTINIZING 941504
 33989 WOODWARD AVE
 BIRMINGHAM, MI 48009

Database(s) : [ECHO, FRS, HWG - MI, LWF - MI,
 RCRA_VSQG] **(cont.)**

EnviroSite ID: 3295696
EPA ID: N/R

ECHO (cont.)

Last Inspection Date :	N/R
Registry ID :	110003624908
FIPS Code :	26125
EPA Region :	05
Inspection Count :	0
Last Inspection Days :	N/R
Informal Count :	0
Last Informal Action Date :	N/R
Formal Action Count :	0
Last Formal Action Date :	N/R
Total Penalties :	0
Penalty Count :	N/R
Last Penalty Date :	N/R
Last Penalty Amount :	N/R
QTRS IN NC :	0
Programs IN SNC :	0
Current Compliance Status :	No Violation
Three-Year Compliance Status :	
Collection Method :	ADDRESS MATCHING-HOUSE NUMBER
Reference Point :	CENTER OF A FACILITY OR STATION
Accuracy Meters :	30
Derived Tribes :	N/R
Derived HUC :	04090003
Derived WBD :	040900030202
Derived STCTY FIPS :	26125
Derived Zip :	48009
Derived CD113 :	11
Derived CB2010 :	261251533003000
MYRTK Universe :	NNN
NPDES IDs :	N/R
CWA Permit Types :	N/R
CWA Compliance Tracking :	N/R
CWA NAICS :	N/R
CWA SICS :	N/R
CWA Inspection Count :	N/R
CWA Last Inspection Days :	N/R
CWA Informal Count :	N/R
CWA Formal Action Count :	N/R
CWA Last Formal Action Date :	N/R
CWA Penalties :	N/R
CWA Last Penalty Date :	N/R
CWA Last Penalty Amount :	N/R
CWA Quarters IN NC :	N/R
CWA Current Compliance Status :	N/R
CWA Current SNC Flag :	N
CWA 13 Quarters Compliance Status :	N/R
CWA 13 Quarters Effluent Exceedances:	N/R
CWA Three-Year QNCR Codes :	N/R
DFR URL :	Click here for hyperlink provided by the agency.
Facility SIC :	N/R
Facility NAICS :	812320 - Drycleaning and Laundry Services (except Coin-Operated)
Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	N/R
Facility Last Formal Act EPA Date :	N/R

Map Id: E36
 Direction: S
 Distance: 0.185 mi.
 Actual: 974.836 ft.
 Elevation: 0.143 mi. / 753.137 ft.
 Relative: Lower

Site Name : RDM MANAGEMENT INC | MARTINIZING
 DRY CLEANING OF BIRMINGHAM | DBA
 MARTINIZING 941504
 33989 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LWF - MI,
 RCRA_VSQG] **(cont.)**

Envirosite ID: 3295696
EPA ID: N/R

ECHO (cont.)

Facility Last Formal Act State Date : N/R
 Facility Last Informal Act EPA Date : N/R
 Facility Last Informal Act State Date: N/R
 Facility Federal Agency : N/R
 TRI Reporter : N/R
 Facility Imp Water Flag : N/R
 Current SNC Flag : N
 Indian County Flag : N
 Federal Flag : N/R
 US Mexico Border Flag : N/R
 Chesapeake Bay Flag : N/R
 AIR Flag : N
 NPDES Flag : N
 SDWIS Flag : N
 RCRA Flag : Y
 TRI Flag : N
 GHG Flag : N
 Major Flag : N/R
 Active Flag : Y
 NAA Flag : Y
 Latitude : 42.53891
 Longitude : -83.20663
 Last Date in Agency List : 2018-07-30

Facility Name : RDM MANAGEMENT INC
 Facility Address : 33989 WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

Last Inspection Date : N/R
 Registry ID : 110003624908
 FIPS Code : 26125
 EPA Region : 05
 Inspection Count : 0
 Last Inspection Days : N/R
 Informal Count : 0
 Last Informal Action Date : N/R
 Formal Action Count : 0
 Last Formal Action Date : N/R
 Total Penalties : 0
 Penalty Count : N/R
 Last Penalty Date : N/R
 Last Penalty Amount : N/R
 QTRS IN NC : 0
 Programs IN SNC : 0
 Current Compliance Status : No Violation Identified
 Three-Year Compliance Status :
 Collection Method : ADDRESS MATCHING-HOUSE NUMBER
 Reference Point : CENTER OF A FACILITY OR STATION
 Accuracy Meters : 30
 Derived Tribes : N/R
 Derived HUC : 04090003
 Derived WBD : 040900030202

Map Id: E36
 Direction: S
 Distance: 0.185 mi.
 Actual: 974.836 ft.
 Elevation: 0.143 mi. / 753.137 ft.
 Relative: Lower

Site Name : RDM MANAGEMENT INC | MARTINIZING
 DRY CLEANING OF BIRMINGHAM | DBA
 MARTINIZING 941504
 33989 WOODWARD AVE
 BIRMINGHAM, MI 48009

Database(s) : [ECHO, FRS, HWG - MI, LWF - MI,
 RCRA_VSQG] **(cont.)**

EnviroSite ID: 3295696
EPA ID: N/R

ECHO (cont.)

Derived STCTY FIPS :	26125
Derived Zip :	48009
Derived CD113 :	11
Derived CB2010 :	261251533003000
MYRTK Universe :	NNN
NPDES IDs :	N/R
CWA Permit Types :	N/R
CWA Compliance Tracking :	N/R
CWA NAICS :	N/R
CWA SICS :	N/R
CWA Inspection Count :	N/R
CWA Last Inspection Days :	N/R
CWA Informal Count :	N/R
CWA Formal Action Count :	N/R
CWA Last Formal Action Date :	N/R
CWA Penalties :	N/R
CWA Last Penalty Date :	N/R
CWA Last Penalty Amount :	N/R
CWA Quarters IN NC :	N/R
CWA Current Compliance Status :	N/R
CWA Current SNC Flag :	N
CWA 13 Quarters Compliance Status :	N/R
CWA 13 Quarters Effluent Exceedances:	N/R
CWA Three-Year QNCR Codes :	N/R
DFR URL :	Click here for hyperlink provided by the agency.
Facility SIC :	N/R
Facility NAICS :	812320 - Drycleaning and Laundry Services (except Coin-Operated)
Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	N/R
Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R
Facility Last Informal Act EPA Date :	N/R
Facility Last Informal Act State Date:	N/R
Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	N/R
Current SNC Flag :	N
Indian County Flag :	N
Federal Flag :	N/R
US Mexico Border Flag :	N/R
Chesapeake Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	N
SDWIS Flag :	N
RCRA Flag :	Y
TRI Flag :	N
GHG Flag :	N
Major Flag :	N/R
Active Flag :	Y
NAA Flag :	Y
Latitude :	42.53891
Longitude :	-83.20663
Last Date in Agency List :	2020-12-31

Map Id: E36
 Direction: S
 Distance: 0.185 mi.
 Actual: 974.836 ft.
 Elevation: 0.143 mi. / 753.137 ft.
 Relative: Lower

Site Name : RDM MANAGEMENT INC | MARTINIZING
 DRY CLEANING OF BIRMINGHAM | DBA
 MARTINIZING 941504
 33989 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LWF - MI,
 RCRA_VSQG] (**cont.**)

EnviroSite ID: 3295696
EPA ID: N/R

FRS

Facility Name : MARTINIZING DRY CLEANING OF BIRMINGHAM
 Facility Address : 33989 WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

Registry ID : 110003624908
 FRS Facility URL : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 09/13/2018

Source Description :

RCRAInfo is EPA's comprehensive information system that supports the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984 through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA. RCRAInfo also supports generation of the National Hazardous Waste Biennial Report. All generators and treatment, storage, and disposal facilities who handle hazardous waste are required to report to the EPA Administrator at least once every two years to support creation of the Biennial Report.

FRS Environmental Interest

Source and System ID : RCRAINFO - MID981803182

Facility Name : RDM MANAGEMENT INC
 Facility Address : 33989 WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

Registry ID : 110003624908
 FRS Facility URL : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 08/31/2020

Source Description :

RCRAInfo is EPA's comprehensive information system that supports the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984 through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA. RCRAInfo also supports generation of the National Hazardous Waste Biennial Report. All generators and treatment, storage, and disposal facilities who handle hazardous waste are required to report to the EPA Administrator at least once every two years to support creation of the Biennial Report.

FRS Environmental Interest

Source and System ID : RCRAINFO - MID981803182

Map Id: E36
 Direction: S
 Distance: 0.185 mi.
 Actual: 974.836 ft.
 Elevation: 0.143 mi. / 753.137 ft.
 Relative: Lower

Site Name : RDM MANAGEMENT INC | MARTINIZING
 DRY CLEANING OF BIRMINGHAM | DBA
 MARTINIZING 941504
 33989 WOODWARD AVE
 BIRMINGHAM, MI 48009

Database(s) : [ECHO, FRS, HWG - MI, LWF - MI,
 RCRA_VSQG] (**cont.**)

EnviroSite ID: 3295696
EPA ID: N/R

HWG - MI

Facility Name : DBA MARTINIZING 941504
 Facility Address : 33989 WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

WDS ID : 400423
 Site ID : MID981803182
 Generator Status : CESQG
 Site Legal Name : RDM MANAGEMENT INC
 Contact Name : N/R
 Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 2021-01-04

LWF - MI

Facility Name : DBA MARTINIZING 941504
 Facility Address : 33989 WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

WDS ID : 400423
 Site ID : MID981803182
 Site Legal Name : RDM MANAGEMENT INC
 Contact Name : N/R
 Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 08/19/2020

RCRA_VSQG

Facility Name : RDM MANAGEMENT INC
 Facility Address : 33989 WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

Date Form Received by Agency : 05/29/2018
 EPA ID : MID981803182
 Mailing Address : 4737 MCMILLAN CT, ROCHESTER, MI 48306
 Contact : RICHARD D MACDONALD
 Contact Address : N/R
 Contact Country : N/R
 Contact Telephone : 313-770-8808
 Contact Email : RMACDONA54@GMAIL.COM
 EPA Region : 05
 Land Type : Private
 Source Type : Notification
 Classification : Very Small Quantity Generator

Map Id: E36
 Direction: S
 Distance: 0.185 mi.
 Actual: 974.836 ft.
 Elevation: 0.143 mi. / 753.137 ft.
 Relative: Lower

Site Name : RDM MANAGEMENT INC | MARTINIZING
 DRY CLEANING OF BIRMINGHAM | DBA
 MARTINIZING 941504
 33989 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LWF - MI,
 RCRA_VSQG] **(cont.)**

EnviroSite ID: 3295696
EPA ID: N/R

RCRA_VSQG (cont.)

Description :

Handlers that generate 100 kilograms or less of hazardous waste per calendar month, and accumulate 1000 kg or less of hazardous waste at any time; or generate one kilogram or less of acutely hazardous waste per calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generate 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste.

Last Date in Agency List : 10/19/2020

Owner/Operator Summary

Owner/Operator Name : RICHARD MACDONALD
 Owner/Operator Address : 4737 MCMILLAN CT, ROCHESTER, MI 48306-4735
 Owner/Operator Country : US
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Private
 Owner/Operator Type : Operator
 Owner/Operator Start Date : 05/07/2018
 Owner/Operator End Date : N/R

Owner/Operator Name : RICHARD MACDONALD
 Owner/Operator Address : 4737 MCMILLAN CT, ROCHESTER, MI 48306-4735
 Owner/Operator Country : US
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Private
 Owner/Operator Type : Owner
 Owner/Operator Start Date : 05/07/2018
 Owner/Operator End Date : N/R

Handler Activities Summary

U.S. Importer of Hazardous Waste : N
 Mixed Waste (Haz. and Radioactive) : N
 Recycler of Hazardous Waste : N
 Transporter of Hazardous Waste : N
 Treater, Storer or Disposer of HW : N
 Underground Injection Activity : N
 On-site Burner Exemption : N
 Furnace Exemption : N
 Used Oil Fuel Burner : N
 Used Oil Processor : N
 Used Oil Refiner : N

Map Id: E36
 Direction: S
 Distance: 0.185 mi.
 Actual: 974.836 ft.
 Elevation: 0.143 mi. / 753.137 ft.
 Relative: Lower

Site Name : RDM MANAGEMENT INC | MARTINIZING
 DRY CLEANING OF BIRMINGHAM | DBA
 MARTINIZING 941504
 33989 WOODWARD AVE
 BIRMINGHAM, MI 48009

Database(s) : [ECHO, FRS, HWG - MI, LWF - MI,
 RCRA_VSQG] **(cont.)**

EnviroSite ID: 3295696
EPA ID: N/R

RCRA_VSQG (cont.)

Used Oil Fuel Marketer to Burner :	N
Used Oil Specification Marketer :	N
Used Oil Transfer Facility :	N
Used Oil Transporter :	N

Historical Generators

Date Form Received by Agency :	03/22/2010
Facility Name :	MARTINIZING DRY CLEANING OF BIRMINGHAM
Classification :	Not a generator, verified

Date Form Received by Agency :	12/31/2003
Facility Name :	MARTINIZING DRY CLEANING OF BIRMINGHAM
Classification :	Not a generator, verified

Date Form Received by Agency :	01/30/2003
Facility Name :	MARTINIZING DRY CLEANING OF BIRMINGHAM
Classification :	Not a generator, verified

Date Form Received by Agency :	10/19/1998
Facility Name :	MARTINIZING DRY CLEANING OF BIRMINGHAM
Classification :	Small Quantity Generator

Date Form Received by Agency :	03/02/1987
Facility Name :	MARTINIZING DRY CLEANING OF BIRMINGHAM
Classification :	Small Quantity Generator

Hazardous Waste Summary

Waste Code / Name :	D001 - IGNITABLE WASTE

Notices of Violations Summary

Regulation Violated :	N

Map Id: 37
 Direction: WNW
 Distance: 0.186 mi.
 Actual: 981.233 ft.
 Elevation: 0.144 mi. / 762.74 ft.
 Relative: Higher

Site Name : FRED LAVERY CO
 34602 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, RCRA_VSQG, UST
 - MI]

EnviroSite ID: 3383727
EPA ID: N/R

ECHO

Facility Name : FRED LAVERY CO
 Facility Address : 34602 WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

Last Inspection Date : 2009-10-19
 Registry ID : 110003657757
 FIPS Code : 26125
 EPA Region : 05
 Inspection Count : 0
 Last Inspection Days : 4010
 Informal Count : 0
 Last Informal Action Date : 2009-10-20
 Formal Action Count : 0
 Last Formal Action Date : N/R
 Total Penalties : 0
 Penalty Count : N/R
 Last Penalty Date : N/R
 Last Penalty Amount : N/R
 QTRS IN NC : 0
 Programs IN SNC : 0
 Current Compliance Status : No Violation Identified
 Three-Year Compliance Status :
 Collection Method : ADDRESS MATCHING-HOUSE NUMBER
 Reference Point : CENTER OF A FACILITY OR STATION
 Accuracy Meters : 30
 Derived Tribes : N/R
 Derived HUC : 04090003
 Derived WBD : 040900030202
 Derived STCTY FIPS : 26125
 Derived Zip : 48009
 Derived CD113 : 11
 Derived CB2010 : 261251529002010
 MYRTK Universe : NNN
 NPDES IDs : N/R
 CWA Permit Types : N/R
 CWA Compliance Tracking : N/R
 CWA NAICS : N/R
 CWA SICS : N/R
 CWA Inspection Count : N/R
 CWA Last Inspection Days : N/R
 CWA Informal Count : N/R
 CWA Formal Action Count : N/R
 CWA Last Formal Action Date : N/R
 CWA Penalties : N/R
 CWA Last Penalty Date : N/R
 CWA Last Penalty Amount : N/R
 CWA Quarters IN NC : N/R
 CWA Current Compliance Status : N/R
 CWA Current SNC Flag : N
 CWA 13 Quarters Compliance Status : N/R
 CWA 13 Quarters Effluent Exceedances: N/R
 CWA Three-Year QNCR Codes : N/R
 DFR URL : [Click here for hyperlink provided by the agency.](#)
 Facility SIC : N/R
 Facility NAICS : 44112 - Used Car Dealers

Map Id: 37
 Direction: WNW
 Distance: 0.186 mi.
 Actual: 981.233 ft.
 Elevation: 0.144 mi. / 762.74 ft.
 Relative: Higher

Site Name : FRED LAVERY CO
 34602 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, RCRA_VSQG, UST
 - MI] **(cont.)**

EnviroSite ID: 3383727
EPA ID: N/R

ECHO (cont.)

Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	2009-10-19
Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R
Facility Last Informal Act EPA Date :	N/R
Facility Last Informal Act State Date:	2009-10-20
Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	N/R
Current SNC Flag :	N
Indian County Flag :	N
Federal Flag :	N/R
US Mexico Border Flag :	N/R
Chesapeake Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	N
SDWIS Flag :	N
RCRA Flag :	Y
TRI Flag :	N
GHG Flag :	N
Major Flag :	N/R
Active Flag :	Y
NAA Flag :	Y
Latitude :	42.54402
Longitude :	-83.20984
Last Date in Agency List :	2020-12-31

FRS

Facility Name :	FRED LAVERY CO
Facility Address :	34602 WOODWARD AVE, BIRMINGHAM, MI 48009
County :	OAKLAND

Registry ID :	110003657757
FRS Facility URL :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	08/31/2020

Source Description :

RCRAInfo is EPA's comprehensive information system that supports the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984 through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA. RCRAInfo also supports generation of the National Hazardous Waste Biennial Report. All generators and treatment, storage, and disposal facilities who handle hazardous waste are required to report to the EPA Administrator at least once every two years to support creation of the Biennial Report.

FRS Environmental Interest	
Source and System ID :	RCRAINFO - MID985613389

Map Id: 37
 Direction: WNW
 Distance: 0.186 mi.
 Actual: 981.233 ft.
 Elevation: 0.144 mi. / 762.74 ft.
 Relative: Higher

Site Name : FRED LAVERY CO
 34602 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, RCRA_VSQG, UST
 - MI] **(cont.)**

EnviroSite ID: 3383727
EPA ID: N/R

HWG - MI

Facility Name : FRED LAVERY CO
 Facility Address : 34602 WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

 WDS ID : 405225
 Site ID : MID985613389
 Generator Status : CESQG
 Site Legal Name : FRED LAVERY CO
 Contact Name : N/R
 Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 2021-01-04

RCRA_VSQG

Facility Name : FRED LAVERY CO
 Facility Address : 34602 WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

 Date Form Received by Agency : 03/23/2010
 EPA ID : MID985613389
 Mailing Address : PO BOX 3017, BIRMINGHAM, MI 48012
 Contact : ALI HAJI-SHETKH
 Contact Address : 34602 WOODWARD AVE, BIRMINGHAM, MI 48009
 Contact Country : US
 Contact Telephone : 248-645-5930
 Contact Email : N/R
 EPA Region : 05
 Land Type : Private
 Source Type : Notification
 Classification : Very Small Quantity Generator

Description :

Handlers that generate 100 kilograms or less of hazardous waste per calendar month, and accumulate 1000 kg or less of hazardous waste at any time; or generate one kilogram or less of acutely hazardous waste per calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generate 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste.

Last Date in Agency List : 10/19/2020

Owner/Operator Summary

Owner/Operator Name : LAVERY FRED
 Owner/Operator Address : N/R
 Owner/Operator Country : N/R
 Owner/Operator Telephone : N/R

Map Id: 37
 Direction: WNW
 Distance: 0.186 mi.
 Actual: 981.233 ft.
 Elevation: 0.144 mi. / 762.74 ft.
 Relative: Higher

Site Name : FRED LAVERY CO
 34602 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, RCRA_VSQG, UST
 - MI] **(cont.)**

EnviroSite ID: 3383727
EPA ID: N/R

RCRA_VSQG (cont.)

Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Private
 Owner/Operator Type : Operator
 Owner/Operator Start Date : 05/17/1991
 Owner/Operator End Date : N/R

Owner/Operator Name : LAVERY FRED
 Owner/Operator Address : N/R
 Owner/Operator Country : N/R
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Private
 Owner/Operator Type : Owner
 Owner/Operator Start Date : 05/17/1991
 Owner/Operator End Date : N/R

Handler Activities Summary

U.S. Importer of Hazardous Waste : N
 Mixed Waste (Haz. and Radioactive) : N
 Recycler of Hazardous Waste : N
 Transporter of Hazardous Waste : N
 Treater, Storer or Disposer of HW : N
 Underground Injection Activity : N
 On-site Burner Exemption : N
 Furnace Exemption : N
 Used Oil Fuel Burner : N
 Used Oil Processor : N
 Used Oil Refiner : N
 Used Oil Fuel Marketer to Burner : N
 Used Oil Specification Marketer : N
 Used Oil Transfer Facility : N
 Used Oil Transporter : N

Historical Generators

Date Form Received by Agency : 10/19/2009
 Facility Name : FRED LAVERY CO
 Classification : Very Small Quantity Generator

Date Form Received by Agency : 03/16/2009
 Facility Name : FRED LAVERY CO
 Classification : Small Quantity Generator

Date Form Received by Agency : 07/28/2008
 Facility Name : FRED LAVERY CO
 Classification : Small Quantity Generator

Map Id: 37
 Direction: WNW
 Distance: 0.186 mi.
 Actual: 981.233 ft.
 Elevation: 0.144 mi. / 762.74 ft.
 Relative: Higher

Site Name : FRED LAVERY CO
 34602 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, RCRA_VSQG, UST
 - MI] **(cont.)**

EnviroSite ID: 3383727
EPA ID: N/R

RCRA_VSQG (cont.)

Date Form Received by Agency : 08/13/2002
 Facility Name : FRED LAVERY CO
 Classification : Small Quantity Generator

Date Form Received by Agency : 10/14/1998
 Facility Name : FRED LAVERY CO
 Classification : Small Quantity Generator

Date Form Received by Agency : 05/17/1991
 Facility Name : FRED LAVERY CO
 Classification : Small Quantity Generator

Hazardous Waste Summary
 Waste Code / Name : D001 - IGNITABLE WASTE

Notices of Violations Summary
 Date of Violation : 10/19/2009
 Date Achieved Compliance : 11/09/2009
 Regulation Violated : Y
 Area of Violation : LDR - General
 Enforcement Action : WRITTEN INFORMAL
 Enforcement Action Date : 10/20/2009
 Enf. Disposition Status : N/R
 Enf. Disp. Status Date : N/R
 Violation Lead Agency : State
 Enforcement Lead Agency : State
 Proposed Penalty Amount : N/R
 Final Penalty Amount : N/R
 Paid Penalty Amount : N/R

Date of Violation : 10/19/2009
 Date Achieved Compliance : 11/09/2009
 Regulation Violated : Y
 Area of Violation : State Statute or Regulation
 Enforcement Action : WRITTEN INFORMAL
 Enforcement Action Date : 10/20/2009
 Enf. Disposition Status : N/R
 Enf. Disp. Status Date : N/R
 Violation Lead Agency : State
 Enforcement Lead Agency : State
 Proposed Penalty Amount : N/R
 Final Penalty Amount : N/R
 Paid Penalty Amount : N/R

Evaluation Action Summary
 Evaluation Date : 10/19/2009
 Evaluation : COMPLIANCE EVALUATION INSPECTION ON-SITE

Map Id: 37
 Direction: WNW
 Distance: 0.186 mi.
 Actual: 981.233 ft.
 Elevation: 0.144 mi. / 762.74 ft.
 Relative: Higher

Site Name : FRED LAVERY CO
 34602 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, RCRA_VSQG, UST
 - MI] **(cont.)**

EnviroSite ID: 3383727
EPA ID: N/R

RCRA_VSQG (cont.)

Area of Violation :	LDR - General
Date Achieved Compliance :	11/09/2009
Evaluation Lead Agency :	State
Evaluation Date :	10/19/2009
Evaluation :	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of Violation :	State Statute or Regulation
Date Achieved Compliance :	11/09/2009
Evaluation Lead Agency :	State

UST - MI

Facility Name :	Fred Lavery Co
Facility Address :	34602 WOODWARD AVE, BIRMINGHAM, MI 48009-0924
County :	OAKLAND

Site Details

Facility Number :	00014864
Region :	1
Facility Contact :	N/R
Latitude :	42.5430780000
Longitude :	-83.2098230000
Last Date in Agency List :	03/20/2020

Owner Summary

Owner Name :	Fred Lavery Co
Owner Address :	499 S Hunter Blvd, Birmingham, MI 48009-6706
Owner Country :	N/R
Owner Phone :	3136455930

Tank Information

Installation Date :	02/27/1971
New Tank Number :	UTK-099226-15
Old Tank Number :	1
Tank Status :	Removed from Ground
Tank Content :	Used Oil
Capacity (in gallons) :	550
Removed/Closed Date :	07/19/1990
Number of Compartments :	N/R
Piping Material :	Galvanized Steel
Piping Type :	N/R
Tank Material :	Asphalt Coated or Bare Steel
Impressed Current Installed :	N/R

Map Id: I38
 Direction: WNW
 Distance: 0.230 mi.
 Actual: 1216.240 ft.
 Elevation: 0.145 mi. / 764.295 ft.
 Relative: Higher

Site Name : FRANKLIN SAVINGS BANK
 479 S OLD WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [UST - MI]

EnviroSite ID: 3291850
EPA ID: N/R

UST - MI

Facility Name : Franklin Savings Bank
 Facility Address : 479 S OLD WOODWARD AVE, BIRMINGHAM, MI 48009-6652
 County : OAKLAND

Site Details

Facility Number : 00013244
 Region : 1
 Facility Contact : N/R
 Latitude : 42.5439230000
 Longitude : -83.2114350000
 Last Date in Agency List : 03/20/2020

Owner Summary

Owner Name : Franklin Bank
 Owner Address : PO Box 5006, Southfield, MI 48086-5006
 Owner Country : N/R
 Owner Phone : 2483589526

Tank Information

Installation Date : N/R
 New Tank Number : UTK-001044-15
 Old Tank Number : 1
 Tank Status : Removed from Ground
 Tank Content : Used Oil
 Capacity (in gallons) : 1000
 Removed/Closed Date : 09/28/1988
 Number of Compartments : N/R
 Piping Material : Unknown
 Piping Type : N/R
 Tank Material : Asphalt Coated or Bare Steel
 Impressed Current Installed : N/R

Map Id: I39
 Direction: WNW
 Distance: 0.231 mi.
 Actual: 1217.946 ft.
 Elevation: 0.145 mi. / 763.963 ft.
 Relative: Higher

Site Name : WOODWARD DETROIT CVS LLC | SYSTEM
 CREATED | CVS PHARMACY #8136
 444 S OLD WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, MANIFEST - IN,
 RCRA_VSQG]

EnviroSite ID: 3420010
EPA ID: N/R

ECHO

Facility Name : WOODWARD DETROIT CVS LLC
 Facility Address : 444 S OLD WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

Map Id: I39
 Direction: WNW
 Distance: 0.231 mi.
 Actual: 1217.946 ft.
 Elevation: 0.145 mi. / 763.963 ft.
 Relative: Higher

Site Name : WOODWARD DETROIT CVS LLC | SYSTEM
 CREATED | CVS PHARMACY #8136
 444 S OLD WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, MANIFEST - IN,
 RCRA_VSQG] **(cont.)**

EnviroSite ID: 3420010
EPA ID: N/R

ECHO (cont.)

Last Inspection Date :	N/R
Registry ID :	110045978750
FIPS Code :	26125
EPA Region :	05
Inspection Count :	0
Last Inspection Days :	N/R
Informal Count :	0
Last Informal Action Date :	N/R
Formal Action Count :	0
Last Formal Action Date :	N/R
Total Penalties :	0
Penalty Count :	N/R
Last Penalty Date :	N/R
Last Penalty Amount :	N/R
QTRS IN NC :	0
Programs IN SNC :	0
Current Compliance Status :	No Violation Identified
Three-Year Compliance Status :	
Collection Method :	ADDRESS MATCHING-HOUSE NUMBER
Reference Point :	CENTER OF A FACILITY OR STATION
Accuracy Meters :	30
Derived Tribes :	N/R
Derived HUC :	04090004
Derived WBD :	040900030202
Derived STCTY FIPS :	26125
Derived Zip :	48009
Derived CD113 :	11
Derived CB2010 :	261251529002006
MYRTK Universe :	NNN
NPDES IDs :	N/R
CWA Permit Types :	N/R
CWA Compliance Tracking :	N/R
CWA NAICS :	N/R
CWA SICs :	N/R
CWA Inspection Count :	N/R
CWA Last Inspection Days :	N/R
CWA Informal Count :	N/R
CWA Formal Action Count :	N/R
CWA Last Formal Action Date :	N/R
CWA Penalties :	N/R
CWA Last Penalty Date :	N/R
CWA Last Penalty Amount :	N/R
CWA Quarters IN NC :	N/R
CWA Current Compliance Status :	N/R
CWA Current SNC Flag :	N
CWA 13 Quarters Compliance Status :	N/R
CWA 13 Quarters Effluent Exceedances:	N/R
CWA Three-Year QNCR Codes :	N/R
DFR URL :	Click here for hyperlink provided by the agency.
Facility SIC :	N/R
Facility NAICS :	812922 - One-Hour Photofinishing, 44611 - Pharmacies and Drug Stores
Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	N/R
Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R

Map Id: I39
 Direction: WNW
 Distance: 0.231 mi.
 Actual: 1217.946 ft.
 Elevation: 0.145 mi. / 763.963 ft.
 Relative: Higher

Site Name : WOODWARD DETROIT CVS LLC | SYSTEM
 CREATED | CVS PHARMACY #8136
 444 S OLD WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, MANIFEST - IN,
 RCRA_VSQG] (**cont.**)

EnviroSite ID: 3420010
EPA ID: N/R

ECHO (**cont.**)

Facility Last Informal Act EPA Date :	N/R
Facility Last Informal Act State Date:	N/R
Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	N/R
Current SNC Flag :	N
Indian County Flag :	N
Federal Flag :	N/R
US Mexico Border Flag :	N/R
Chesapeake Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	N
SDWIS Flag :	N
RCRA Flag :	Y
TRI Flag :	N
GHG Flag :	N
Major Flag :	N/R
Active Flag :	Y
NAA Flag :	Y
Latitude :	42.54373
Longitude :	-83.21136
Last Date in Agency List :	2020-12-31

FRS

Facility Name :	WOODWARD DETROIT CVS LLC
Facility Address :	444 S OLD WOODWARD AVE, BIRMINGHAM, MI 48009
County :	OAKLAND

Registry ID :	110045978750
FRS Facility URL :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	08/31/2020

Source Description :

All generators and treatment, storage, and disposal (TSD) facilities who handle hazardous waste are required to report to the EPA Administrator at least once every two years. The data collected is used to create the National Biennial Resource Conservation and Recovery Act (RCRA) Hazardous Waste Report. This data is processed within the RCRA Information (RCRAInfo) database.

Source Description :

RCRAInfo is EPA's comprehensive information system that supports the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984 through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA. RCRAInfo also supports generation of the National Hazardous Waste Biennial Report. All generators and treatment, storage, and disposal facilities who handle hazardous waste are required to report to the EPA Administrator at least once every two years to support creation of the Biennial Report.

Map Id: I39
 Direction: WNW
 Distance: 0.231 mi.
 Actual: 1217.946 ft.
 Elevation: 0.145 mi. / 763.963 ft.
 Relative: Higher

Site Name : WOODWARD DETROIT CVS LLC | SYSTEM
 CREATED | CVS PHARMACY #8136
 444 S OLD WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, MANIFEST - IN,
 RCRA_VSQG] **(cont.)**

EnviroSite ID: 3420010
EPA ID: N/R

FRS (cont.)

FRS Environmental Interest
 Source and System ID : RCRAINFO - MIK166505639

HWG - MI

Facility Name : CVS PHARMACY #8136
 Facility Address : 444 S OLD WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

WDS ID : 491184
 Site ID : MIK166505639
 Generator Status : CESQG
 Site Legal Name : WOODWARD DETROIT CVS LLC
 Contact Name : N/R
 Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 2021-01-04

MANIFEST - IN

TSDF EPA ID : N/R
 TSDF Name : N/R
 Report Type : N/R
 Last Date in Agency List : 10/02/2018

Waste Received Details

Report Year : N/R
 Page Number : 1243
 Waste Number : N/R
 RCRA ID : INR000110197
 Generator Name : N/R
 Generator County : N/R
 Waste management type : H141

Waste management type description : The site receiving this waste stored/bulked and transferred the waste with no treatment or recovery, fuel blending , or disposal at that receiving site.

Waste Received Quantity : N/R
 Waste Received Unit Code : N/R

Report Year : N/R
 Page Number : 1383
 Waste Number : N/R
 RCRA ID : INR000110197
 Generator Name : N/R
 Generator County : N/R
 Waste management type : H141

Map Id: I39
 Direction: WNW
 Distance: 0.231 mi.
 Actual: 1217.946 ft.
 Elevation: 0.145 mi. / 763.963 ft.
 Relative: Higher

Site Name : WOODWARD DETROIT CVS LLC | SYSTEM
 CREATED | CVS PHARMACY #8136
 444 S OLD WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, MANIFEST - IN,
 RCRA_VSQG] **(cont.)**

EnviroSite ID: 3420010
EPA ID: N/R

MANIFEST - IN **(cont.)**

Waste management type description : The site receiving this waste stored/bulked and transferred the waste with no treatment or recovery, fuel blending , or disposal at that receiving site.

Waste Received Quantity : N/R
 Waste Received Unit Code : N/R

Report Year : N/R
 Page Number : 1457
 Waste Number : N/R
 RCRA ID : INR000110197
 Generator Name : N/R
 Generator County : N/R
 Waste management type : H141

Waste management type description : The site receiving this waste stored/bulked and transferred the waste with no treatment or recovery, fuel blending , or disposal at that receiving site.

Waste Received Quantity : N/R
 Waste Received Unit Code : N/R

Report Year : N/R
 Page Number : 2151
 Waste Number : N/R
 RCRA ID : INR000110197
 Generator Name : N/R
 Generator County : N/R
 Waste management type : H141

Waste management type description : The site receiving this waste stored/bulked and transferred the waste with no treatment or recovery, fuel blending , or disposal at that receiving site.

Waste Received Quantity : N/R
 Waste Received Unit Code : N/R

Report Year : N/R
 Page Number : 2723
 Waste Number : N/R
 RCRA ID : INR000110197
 Generator Name : N/R
 Generator County : N/R
 Waste management type : H141

Waste management type description : The site receiving this waste stored/bulked and transferred the waste with no treatment or recovery, fuel blending , or disposal at that receiving site.

Waste Received Quantity : N/R
 Waste Received Unit Code : N/R

Map Id: I39
 Direction: WNW
 Distance: 0.231 mi.
 Actual: 1217.946 ft.
 Elevation: 0.145 mi. / 763.963 ft.
 Relative: Higher

Site Name : WOODWARD DETROIT CVS LLC | SYSTEM
 CREATED | CVS PHARMACY #8136
 444 S OLD WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, MANIFEST - IN,
 RCRA_VSQG] **(cont.)**

Envirosite ID: 3420010
EPA ID: N/R

MANIFEST - IN **(cont.)**

Report Year : N/R
 Page Number : 4084
 Waste Number : N/R
 RCRA ID : INR000110197
 Generator Name : N/R
 Generator County : N/R
 Waste management type : H141

Waste management type description : The site receiving this waste stored/bulked and transferred the waste with no treatment or recovery, fuel blending , or disposal at that receiving site.

Waste Received Quantity : N/R
 Waste Received Unit Code : N/R

Report Year : N/R
 Page Number : 4853
 Waste Number : N/R
 RCRA ID : INR000110197
 Generator Name : N/R
 Generator County : N/R
 Waste management type : H141

Waste management type description : The site receiving this waste stored/bulked and transferred the waste with no treatment or recovery, fuel blending , or disposal at that receiving site.

Waste Received Quantity : N/R
 Waste Received Unit Code : N/R

Report Year : N/R
 Page Number : 517
 Waste Number : N/R
 RCRA ID : INR000110197
 Generator Name : N/R
 Generator County : N/R
 Waste management type : H141

Waste management type description : The site receiving this waste stored/bulked and transferred the waste with no treatment or recovery, fuel blending , or disposal at that receiving site.

Waste Received Quantity : N/R
 Waste Received Unit Code : N/R

Report Year : N/R
 Page Number : 6268
 Waste Number : N/R
 RCRA ID : INR000110197
 Generator Name : N/R
 Generator County : N/R
 Waste management type : H141

Map Id: I39
 Direction: WNW
 Distance: 0.231 mi.
 Actual: 1217.946 ft.
 Elevation: 0.145 mi. / 763.963 ft.
 Relative: Higher

Site Name : WOODWARD DETROIT CVS LLC | SYSTEM
 CREATED | CVS PHARMACY #8136
 444 S OLD WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, MANIFEST - IN,
 RCRA_VSQG] **(cont.)**

Envirosite ID: 3420010
EPA ID: N/R

MANIFEST - IN **(cont.)**

Waste management type description : The site receiving this waste stored/bulked and transferred the waste with no treatment or recovery, fuel blending , or disposal at that receiving site.

Waste Received Quantity : N/R
 Waste Received Unit Code : N/R

Report Year : N/R
 Page Number : 711
 Waste Number : N/R
 RCRA ID : INR000110197
 Generator Name : N/R
 Generator County : N/R
 Waste management type : H141

Waste management type description : The site receiving this waste stored/bulked and transferred the waste with no treatment or recovery, fuel blending , or disposal at that receiving site.

Waste Received Quantity : N/R
 Waste Received Unit Code : N/R

Report Year : N/R
 Page Number : 8163
 Waste Number : N/R
 RCRA ID : INR000110197
 Generator Name : N/R
 Generator County : N/R
 Waste management type : H141

Waste management type description : The site receiving this waste stored/bulked and transferred the waste with no treatment or recovery, fuel blending , or disposal at that receiving site.

Waste Received Quantity : N/R
 Waste Received Unit Code : N/R

RCRA_VSQG

Facility Name : WOODWARD DETROIT CVS LLC
 Facility Address : 444 S OLD WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

Date Form Received by Agency : 05/06/2016
 EPA ID : MIK166505639
 Mailing Address : ONE CVS DR, CVS PHARMACY #8136, WOONSOCKET, RI 02895
 Contact : NICOLE WILKINSON
 Contact Address : N/R
 Contact Country : N/R
 Contact Telephone : 401-770-7132
 Contact Email : NICOLE.WILKINSON@CVSHEALTH.COM
 EPA Region : 05

Map Id: I39
 Direction: WNW
 Distance: 0.231 mi.
 Actual: 1217.946 ft.
 Elevation: 0.145 mi. / 763.963 ft.
 Relative: Higher

Site Name : WOODWARD DETROIT CVS LLC | SYSTEM
 CREATED | CVS PHARMACY #8136
 444 S OLD WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, MANIFEST - IN,
 RCRA_VSQG] (**cont.**)

Envirosite ID: 3420010
EPA ID: N/R

RCRA_VSQG (**cont.**)

Land Type : Private
 Source Type : Notification
 Classification : Very Small Quantity Generator

Description :

Handlers that generate 100 kilograms or less of hazardous waste per calendar month, and accumulate 1000 kg or less of hazardous waste at any time; or generate one kilogram or less of acutely hazardous waste per calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generate 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste.

Last Date in Agency List : 10/19/2020

Owner/Operator Summary

Owner/Operator Name : WOODWARD DETROIT CVS LLC
 Owner/Operator Address : N/R
 Owner/Operator Country : N/R
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Private
 Owner/Operator Type : Operator
 Owner/Operator Start Date : 03/31/1998
 Owner/Operator End Date : N/R

Owner/Operator Name : WOODWARD DETROIT CVS LLC
 Owner/Operator Address : N/R
 Owner/Operator Country : N/R
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Private
 Owner/Operator Type : Owner
 Owner/Operator Start Date : 03/31/1998
 Owner/Operator End Date : N/R

Handler Activities Summary

U.S. Importer of Hazardous Waste : N
 Mixed Waste (Haz. and Radioactive) : N
 Recycler of Hazardous Waste : N
 Transporter of Hazardous Waste : N
 Treater, Storer or Disposer of HW : N
 Underground Injection Activity : N
 On-site Burner Exemption : N
 Furnace Exemption : N

Map Id: I39
 Direction: WNW
 Distance: 0.231 mi.
 Actual: 1217.946 ft.
 Elevation: 0.145 mi. / 763.963 ft.
 Relative: Higher

Site Name : WOODWARD DETROIT CVS LLC | SYSTEM
 CREATED | CVS PHARMACY #8136
 444 S OLD WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, MANIFEST - IN,
 RCRA_VSQG] **(cont.)**

EnviroSite ID: 3420010
EPA ID: N/R

RCRA_VSQG (cont.)

Used Oil Fuel Burner :	N
Used Oil Processor :	N
Used Oil Refiner :	N
Used Oil Fuel Marketer to Burner :	N
Used Oil Specification Marketer :	N
Used Oil Transfer Facility :	N
Used Oil Transporter :	N

Historical Generators

Date Form Received by Agency :	10/26/2015
Facility Name :	WOODWARD DETROIT CVS LLC
Classification :	Very Small Quantity Generator

Date Form Received by Agency :	06/22/2015
Facility Name :	WOODWARD DETROIT CVS LLC
Classification :	Small Quantity Generator

Date Form Received by Agency :	04/24/2015
Facility Name :	WOODWARD DETROIT CVS LLC
Classification :	Very Small Quantity Generator

Date Form Received by Agency :	01/21/2015
Facility Name :	WOODWARD DETROIT CVS LLC
Classification :	Large Quantity Generator

Date Form Received by Agency :	10/22/2014
Facility Name :	WOODWARD DETROIT CVS LLC
Classification :	Small Quantity Generator

Date Form Received by Agency :	05/16/2014
Facility Name :	WOODWARD DETROIT CVS LLC
Classification :	Large Quantity Generator

Date Form Received by Agency :	02/28/2014
Facility Name :	CVS PHARMACY #8136
Classification :	Large Quantity Generator

Date Form Received by Agency :	07/29/2013
Facility Name :	WOODWARD DETROIT CVS LLC
Classification :	Small Quantity Generator

Date Form Received by Agency :	05/21/2012
Facility Name :	WOODWARD DETROIT CVS LLC
Classification :	Small Quantity Generator

Map Id: I39
 Direction: WNW
 Distance: 0.231 mi.
 Actual: 1217.946 ft.
 Elevation: 0.145 mi. / 763.963 ft.
 Relative: Higher

Site Name : WOODWARD DETROIT CVS LLC | SYSTEM
 CREATED | CVS PHARMACY #8136
 444 S OLD WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, MANIFEST - IN,
 RCRA_VSQG] (**cont.**)

Envirosite ID: 3420010
EPA ID: N/R

RCRA_VSQG (**cont.**)

Hazardous Waste Summary
 Waste Code / Name : D001 - IGNITABLE WASTE

Notices of Violations Summary
 Regulation Violated : N

Map Id: J40
 Direction: S
 Distance: 0.236 mi.
 Actual: 1248.523 ft.
 Elevation: 0.142 mi. / 752.366 ft.
 Relative: Lower

Site Name : WOODWARD DETROIT CVS LLC | CVS
 PHARMACY #111244
 33877 WOODWARD AV
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LWF - MI,
 RCRA_VSQG]

Envirosite ID: 3384418
EPA ID: N/R

ECHO

Facility Name : WOODWARD DETROIT CVS LLC
 Facility Address : 33877 WOODWARD AV, BIRMINGHAM, MI 48009
 County : OAKLAND

Last Inspection Date : N/R
 Registry ID : 110070260545
 FIPS Code : 26125
 EPA Region : 05
 Inspection Count : 0
 Last Inspection Days : N/R
 Informal Count : 0
 Last Informal Action Date : N/R
 Formal Action Count : 0
 Last Formal Action Date : N/R
 Total Penalties : 0
 Penalty Count : N/R
 Last Penalty Date : N/R
 Last Penalty Amount : N/R
 QTRS IN NC : 0
 Programs IN SNC : 0
 Current Compliance Status : No Violation Identified
 Three-Year Compliance Status :
 Collection Method : ADDRESS MATCHING-HOUSE NUMBER
 Reference Point : CENTER OF A FACILITY OR STATION
 Accuracy Meters : 30
 Derived Tribes : N/R
 Derived HUC : 04090003
 Derived WBD : 040900030202
 Derived STCTY FIPS : 26125
 Derived Zip : 48009

Map Id: J40
 Direction: S
 Distance: 0.236 mi.
 Actual: 1248.523 ft.
 Elevation: 0.142 mi. / 752.366 ft.
 Relative: Lower

Site Name : WOODWARD DETROIT CVS LLC | CVS
 PHARMACY #111244
 33877 WOODWARD AV
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LWF - MI,
 RCRA_VSQG] **(cont.)**

EnviroSite ID: 3384418
EPA ID: N/R

ECHO (cont.)

Derived CD113 :	11
Derived CB2010 :	261251533003007
MYRTK Universe :	NNN
NPDES IDs :	N/R
CWA Permit Types :	N/R
CWA Compliance Tracking :	N/R
CWA NAICS :	N/R
CWA SICS :	N/R
CWA Inspection Count :	N/R
CWA Last Inspection Days :	N/R
CWA Informal Count :	N/R
CWA Formal Action Count :	N/R
CWA Last Formal Action Date :	N/R
CWA Penalties :	N/R
CWA Last Penalty Date :	N/R
CWA Last Penalty Amount :	N/R
CWA Quarters IN NC :	N/R
CWA Current Compliance Status :	N/R
CWA Current SNC Flag :	N
CWA 13 Quarters Compliance Status :	N/R
CWA 13 Quarters Effluent Exceedances:	N/R
CWA Three-Year QNCR Codes :	N/R
DFR URL :	Click here for hyperlink provided by the agency.
Facility SIC :	N/R
Facility NAICS :	44611 - Pharmacies and Drug Stores
Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	N/R
Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R
Facility Last Informal Act EPA Date :	N/R
Facility Last Informal Act State Date:	N/R
Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	N/R
Current SNC Flag :	N
Indian County Flag :	N
Federal Flag :	N/R
US Mexico Border Flag :	N/R
Chesapeake Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	N
SDWIS Flag :	N
RCRA Flag :	Y
TRI Flag :	N
GHG Flag :	N
Major Flag :	N/R
Active Flag :	Y
NAA Flag :	Y
Latitude :	42.5381
Longitude :	-83.20591
Last Date in Agency List :	2020-12-31

FRS

Facility Name : WOODWARD DETROIT CVS LLC

Map Id: J40
 Direction: S
 Distance: 0.236 mi.
 Actual: 1248.523 ft.
 Elevation: 0.142 mi. / 752.366 ft.
 Relative: Lower

Site Name : WOODWARD DETROIT CVS LLC | CVS
 PHARMACY #111244
 33877 WOODWARD AV
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LWF - MI,
 RCRA_VSQG] **(cont.)**

EnviroSite ID: 3384418
EPA ID: N/R

FRS (cont.)

Facility Address : 33877 WOODWARD AV, BIRMINGHAM, MI 48009
 County : OAKLAND

Registry ID : 110070260545
 FRS Facility URL : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 08/31/2020

Source Description :

RCRAInfo is EPA's comprehensive information system that supports the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984 through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA. RCRAInfo also supports generation of the National Hazardous Waste Biennial Report. All generators and treatment, storage, and disposal facilities who handle hazardous waste are required to report to the EPA Administrator at least once every two years to support creation of the Biennial Report.

FRS Environmental Interest

Source and System ID : RCRAINFO - MIK185003922

HWG - MI

Facility Name : CVS PHARMACY #111244
 Facility Address : 33877 WOODWARD AV, BIRMINGHAM, MI 48009
 County : OAKLAND

WDS ID : 497272
 Site ID : MIK185003922
 Generator Status : CESQG
 Site Legal Name : WOODWARD DETROIT CVS LLC
 Contact Name : N/R
 Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 2021-01-04

LWF - MI

Facility Name : CVS PHARMACY #111244
 Facility Address : 33877 WOODWARD AV, BIRMINGHAM, MI 48009
 County : OAKLAND

WDS ID : 497272
 Site ID : MIK185003922
 Site Legal Name : WOODWARD DETROIT CVS LLC
 Contact Name : N/R
 Contact Phone : N/R

Map Id: J40
 Direction: S
 Distance: 0.236 mi.
 Actual: 1248.523 ft.
 Elevation: 0.142 mi. / 752.366 ft.
 Relative: Lower

Site Name : WOODWARD DETROIT CVS LLC | CVS
 PHARMACY #111244
 33877 WOODWARD AV
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LWF - MI,
 RCRA_VSQG] **(cont.)**

EnviroSite ID: 3384418
EPA ID: N/R

LWF - MI (cont.)

Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 08/19/2020

RCRA_VSQG

Facility Name : WOODWARD DETROIT CVS LLC
 Facility Address : 33877 WOODWARD AV, BIRMINGHAM, MI 48009
 County : OAKLAND

Date Form Received by Agency : 06/11/2018
 EPA ID : MIK185003922
 Mailing Address : ONE CVS DR, MAIL CODE 2340, WOONSOCKET, RI 02895
 Contact : NICOLE WILKINSON
 Contact Address : N/R
 Contact Country : N/R
 Contact Telephone : 401-770-7132
 Contact Email : NICOLE.WILKINSON@CVSHEALTH.COM
 EPA Region : 05
 Land Type : Private
 Source Type : Notification
 Classification : Very Small Quantity Generator

Description :

Handlers that generate 100 kilograms or less of hazardous waste per calendar month, and accumulate 1000 kg or less of hazardous waste at any time; or generate one kilogram or less of acutely hazardous waste per calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generate 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste.

Last Date in Agency List : 10/19/2020

Owner/Operator Summary

Owner/Operator Name : VIXTOR HOLDINGS
 Owner/Operator Address : ONE CVS DR, WOONSOCKET, RI 02895
 Owner/Operator Country : US
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Private
 Owner/Operator Type : Owner
 Owner/Operator Start Date : 01/05/2018
 Owner/Operator End Date : N/R

Owner/Operator Name : WOODWARD DETROIT CVS LLC
 Owner/Operator Address : ONE CVS DR, WOONSOCKET, RI 02895

Map Id: J40
 Direction: S
 Distance: 0.236 mi.
 Actual: 1248.523 ft.
 Elevation: 0.142 mi. / 752.366 ft.
 Relative: Lower

Site Name : WOODWARD DETROIT CVS LLC | CVS
 PHARMACY #111244
 33877 WOODWARD AV
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LWF - MI,
 RCRA_VSQG] **(cont.)**

EnviroSite ID: 3384418
EPA ID: N/R

RCRA_VSQG (cont.)

Owner/Operator Country :	US
Owner/Operator Telephone :	N/R
Owner/Operator Email :	N/R
Owner/Operator Fax :	N/R
Legal Status :	Private
Owner/Operator Type :	Operator
Owner/Operator Start Date :	01/06/2018
Owner/Operator End Date :	N/R

Handler Activities Summary

U.S. Importer of Hazardous Waste :	N
Mixed Waste (Haz. and Radioactive) :	N
Recycler of Hazardous Waste :	N
Transporter of Hazardous Waste :	N
Treater, Storer or Disposer of HW :	N
Underground Injection Activity :	N
On-site Burner Exemption :	N
Furnace Exemption :	N
Used Oil Fuel Burner :	N
Used Oil Processor :	N
Used Oil Refiner :	N
Used Oil Fuel Marketer to Burner :	N
Used Oil Specification Marketer :	N
Used Oil Transfer Facility :	N
Used Oil Transporter :	N

Hazardous Waste Summary

Waste Code / Name :	D001 - IGNITABLE WASTE

Notices of Violations Summary

Regulation Violated :	N

Map Id: I41
 Direction: WNW
 Distance: 0.238 mi.
 Actual: 1256.200 ft.
 Elevation: 0.145 mi. / 764.56 ft.
 Relative: Higher

Site Name : BIRMINGHAM MOTORS
 479 S WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [LWF - MI]

EnviroSite ID: 3399788
EPA ID: N/R

LWF - MI

Facility Name :	BIRMINGHAM MOTORS
Facility Address :	479 S WOODWARD AVE, BIRMINGHAM, MI 48009
County :	OAKLAND

Map Id: I41
 Direction: WNW
 Distance: 0.238 mi.
 Actual: 1256.200 ft.
 Elevation: 0.145 mi. / 764.56 ft.
 Relative: Higher

Site Name : BIRMINGHAM MOTORS
 479 S WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [LWF - MI] (**cont.**)

Envirosite ID: 3399788
EPA ID: N/R

LWF - MI (**cont.**)

WDS ID : 458119
 Site ID : MIG000006229
 Site Legal Name : BIRMINGHAM MOTORS
 Contact Name : N/R
 Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 08/19/2020

Map Id: J42
 Direction: S
 Distance: 0.245 mi.
 Actual: 1293.996 ft.
 Elevation: 0.142 mi. / 752.126 ft.
 Relative: Lower

Site Name : NEIGHBORHOOD HARDWARE
 33855 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [LWF - MI]

Envirosite ID: 3403788
EPA ID: N/R

LWF - MI

Facility Name : NEIGHBORHOOD HARDWARE
 Facility Address : 33855 WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

WDS ID : 453979
 Site ID : MIG000018366
 Site Legal Name : NEIGHBORHOOD HARDWARE
 Contact Name : N/R
 Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 08/19/2020

Map Id: I43
 Direction: WNW
 Distance: 0.246 mi.
 Actual: 1299.967 ft.
 Elevation: 0.145 mi. / 765.062 ft.
 Relative: Higher

Site Name : ESTATE MOTORS LTD
 464 S OLD WOODWARD AVE | 464 S
 WOODWARD AVE
 BIRMINGHAM, MI
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI,
 RCRA_NONGEN, UST - MI]

Envirosite ID: 3298992
EPA ID: N/R

ECHO

Facility Name : ESTATE MOTORS LTD
 Facility Address : 464 S OLD WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

Map Id: I43
 Direction: WNW
 Distance: 0.246 mi.
 Actual: 1299.967 ft.
 Elevation: 0.145 mi. / 765.062 ft.
 Relative: Higher

Site Name : ESTATE MOTORS LTD
 464 S OLD WOODWARD AVE | 464 S
 WOODWARD AVE
 BIRMINGHAM, MI
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI,
 RCRA_NONGEN, UST - MI] **(cont.)**

Envirosite ID: 3298992
EPA ID: N/R

ECHO (cont.)

Last Inspection Date :	N/R
Registry ID :	110003593111
FIPS Code :	26125
EPA Region :	05
Inspection Count :	0
Last Inspection Days :	N/R
Informal Count :	0
Last Informal Action Date :	N/R
Formal Action Count :	0
Last Formal Action Date :	N/R
Total Penalties :	0
Penalty Count :	N/R
Last Penalty Date :	N/R
Last Penalty Amount :	N/R
QTRS IN NC :	0
Programs IN SNC :	0
Current Compliance Status :	No Violation Identified
Three-Year Compliance Status :	
Collection Method :	ADDRESS MATCHING-HOUSE NUMBER
Reference Point :	ENTRANCE POINT OF A FACILITY OR STATION
Accuracy Meters :	50
Derived Tribes :	N/R
Derived HUC :	04090004
Derived WBD :	040900030202
Derived STCTY FIPS :	26125
Derived Zip :	48009
Derived CD113 :	11
Derived CB2010 :	261251529002006
MYRTK Universe :	NNN
NPDES IDs :	N/R
CWA Permit Types :	N/R
CWA Compliance Tracking :	N/R
CWA NAICS :	N/R
CWA SICs :	N/R
CWA Inspection Count :	N/R
CWA Last Inspection Days :	N/R
CWA Informal Count :	N/R
CWA Formal Action Count :	N/R
CWA Last Formal Action Date :	N/R
CWA Penalties :	N/R
CWA Last Penalty Date :	N/R
CWA Last Penalty Amount :	N/R
CWA Quarters IN NC :	N/R
CWA Current Compliance Status :	N/R
CWA Current SNC Flag :	N
CWA 13 Quarters Compliance Status :	N/R
CWA 13 Quarters Effluent Exceedances:	N/R
CWA Three-Year QNCR Codes :	N/R
DFR URL :	Click here for hyperlink provided by the agency.
Facility SIC :	N/R
Facility NAICS :	11131 - Orange Groves
Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	N/R
Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R

Map Id: I43
 Direction: WNW
 Distance: 0.246 mi.
 Actual: 1299.967 ft.
 Elevation: 0.145 mi. / 765.062 ft.
 Relative: Higher

Site Name : ESTATE MOTORS LTD
 464 S OLD WOODWARD AVE | 464 S
 WOODWARD AVE
 BIRMINGHAM, MI
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI,
 RCRA_NONGEN, UST - MI] **(cont.)**

EnviroSite ID: 3298992
EPA ID: N/R

ECHO (cont.)

Facility Last Informal Act EPA Date :	N/R
Facility Last Informal Act State Date:	N/R
Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	N/R
Current SNC Flag :	N
Indian County Flag :	N
Federal Flag :	N/R
US Mexico Border Flag :	N/R
Chesapeake Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	N
SDWIS Flag :	N
RCRA Flag :	Y
TRI Flag :	N
GHG Flag :	N
Major Flag :	N/R
Active Flag :	N/R
NAA Flag :	Y
Latitude :	42.54372
Longitude :	-83.211344
Last Date in Agency List :	2020-12-31

FRS

Facility Name :	ESTATE MOTORS LTD
Facility Address :	464 S OLD WOODWARD AVE, BIRMINGHAM, MI 48009
County :	OAKLAND

Registry ID :	110003593111
FRS Facility URL :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	08/31/2020

Source Description :

RCRAInfo is EPA's comprehensive information system that supports the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984 through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA. RCRAInfo also supports generation of the National Hazardous Waste Biennial Report. All generators and treatment, storage, and disposal facilities who handle hazardous waste are required to report to the EPA Administrator at least once every two years to support creation of the Biennial Report.

FRS Environmental Interest

Source and System ID :	RCRAINFO - MID040571135

HWG - MI

Facility Name :	ESTATE MOTORS LTD
Facility Address :	464 S OLD WOODWARD AVE, BIRMINGHAM, MI 48009

Map Id: I43
 Direction: WNW
 Distance: 0.246 mi.
 Actual: 1299.967 ft.
 Elevation: 0.145 mi. / 765.062 ft.
 Relative: Higher

Site Name : ESTATE MOTORS LTD
 464 S OLD WOODWARD AVE | 464 S
 WOODWARD AVE
 BIRMINGHAM, MI
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI,
 RCRA_NONGEN, UST - MI] **(cont.)**

EnviroSite ID: 3298992
EPA ID: N/R

HWG - MI **(cont.)**

County : OAKLAND

WDS ID : 395465
 Site ID : MID040571135
 Generator Status : No longer generating, still in business
 Site Legal Name : ESTATE MOTORS LTD
 Contact Name : N/R
 Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 2021-01-04

LUST - MI

Facility Name : Estate Motors
 Facility Address : 464 S WOODWARD AVE, BIRMINGHAM, 99999
 County : Oakland

Site Details

Date of Collection : 01/11/2001
 Facility ID : 00015180
 Accuracy : 100
 Accuracy Value Unit : FEET
 Horizontal Datum : NAD83
 Source : STATE OF MICHIGAN
 Point/Line/Area : POINT
 Description Category : Plant Entrance (Freight)
 Method of Collection : Address Matching-House Number
 District : Warren
 Latitude : 42.543841
 Longitude : -83.211814
 Last Date in Agency List : 09/21/2020

Owner Summary

Owner Name : OWNER ADDRESS UNKNOWN
 Owner Address : Not Recorded, Not Recorded, XX 99999
 Owner Country : USA
 Owner Contact Person : N/R
 Owner Phone Number : N/R

Release Information

Release Date : 11/20/1992
 Release Status : Closed
 Substance Released : Gasoline
 Release Closed Date : 06/30/1994
 Leak Number : C-2071-92
 LUST Site Name : Estate Motors

Map Id: I43
 Direction: WNW
 Distance: 0.246 mi.
 Actual: 1299.967 ft.
 Elevation: 0.145 mi. / 765.062 ft.
 Relative: Higher

Site Name : ESTATE MOTORS LTD
 464 S OLD WOODWARD AVE | 464 S
 WOODWARD AVE
 BIRMINGHAM, MI
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI,
 RCRA_NONGEN, UST - MI] **(cont.)**

EnviroSite ID: 3298992
EPA ID: N/R

LUST - MI **(cont.)**

Release Date : 08/09/1991
 Release Status : Closed
 Substance Released : Unknown
 Release Closed Date : 01/06/1993
 Leak Number : C-1669-91
 LUST Site Name : Estate Motors

RCRA_NONGEN

Facility Name : ESTATE MOTORS LTD
 Facility Address : 464 S OLD WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

Date Form Received by Agency : 11/02/1998
 EPA ID : MID040571135
 Mailing Address : 464 S OLD WOODWARD AVE, BIRMINGHAM, MI 48009
 Contact : JOHN POLK
 Contact Address : 464 S OLD WOODWARD AVE, BIRMINGHAM, MI 48009
 Contact Country : US
 Contact Telephone : 313-644-8400
 Contact Email : N/R
 EPA Region : 05
 Land Type : Private
 Source Type : Implementer
 Classification : Not a generator, verified
 Description : Not a generator, verified
 Last Date in Agency List : 10/19/2020

Owner/Operator Summary

Owner/Operator Name : HESQUIERE CHARLES G JR
 Owner/Operator Address : N/R
 Owner/Operator Country : N/R
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Private
 Owner/Operator Type : Owner
 Owner/Operator Start Date : 01/01/1970
 Owner/Operator End Date : N/R

Owner/Operator Name : NAME NOT REPORTED
 Owner/Operator Address : N/R
 Owner/Operator Country : N/R
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Private
 Owner/Operator Type : Operator
 Owner/Operator Start Date : 01/01/1970
 Owner/Operator End Date : N/R

Map Id: I43
 Direction: WNW
 Distance: 0.246 mi.
 Actual: 1299.967 ft.
 Elevation: 0.145 mi. / 765.062 ft.
 Relative: Higher

Site Name : ESTATE MOTORS LTD
 464 S OLD WOODWARD AVE | 464 S
 WOODWARD AVE
 BIRMINGHAM, MI
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI,
 RCRA_NONGEN, UST - MI] **(cont.)**

EnviroSite ID: 3298992
EPA ID: N/R

RCRA_NONGEN (cont.)

Handler Activities Summary

U.S. Importer of Hazardous Waste :	N
Mixed Waste (Haz. and Radioactive) :	N
Recycler of Hazardous Waste :	N
Transporter of Hazardous Waste :	N
Treater, Storer or Disposer of HW :	N
Underground Injection Activity :	N
On-site Burner Exemption :	N
Furnace Exemption :	N
Used Oil Fuel Burner :	N
Used Oil Processor :	N
Used Oil Refiner :	N
Used Oil Fuel Marketer to Burner :	N
Used Oil Specification Marketer :	N
Used Oil Transfer Facility :	N
Used Oil Transporter :	N

Historical Generators

Date Form Received by Agency :	10/06/1986
Facility Name :	ESTATE MOTORS LTD
Classification :	Small Quantity Generator

Hazardous Waste Summary

Waste Code / Name :	D001 - IGNITABLE WASTE

Notices of Violations Summary

Regulation Violated :	N

UST - MI

Facility Name :	Estate Motors
Facility Address :	464 S WOODWARD AVE, BIRMINGHAM, MI 48011
County :	63

Site Details

Facility Number :	00015180
Region :	N/R
Facility Contact :	N/R
Latitude :	N/R
Longitude :	N/R
Last Date in Agency List :	03/20/2020

Map Id: I43
 Direction: WNW
 Distance: 0.246 mi.
 Actual: 1299.967 ft.
 Elevation: 0.145 mi. / 765.062 ft.
 Relative: Higher

Site Name : ESTATE MOTORS LTD
 464 S OLD WOODWARD AVE | 464 S
 WOODWARD AVE
 BIRMINGHAM, MI
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI,
 RCRA_NONGEN, UST - MI] **(cont.)**

EnviroSite ID: 3298992
EPA ID: N/R

UST - MI **(cont.)**

Owner Summary

Owner Name :	OWNER ADDRESS UNKNOWN
Owner Address :	Not Recorded, Not Recorded, XX 99999
Owner Country :	N/R
Owner Phone :	N/R

Tank Information

Installation Date :	05/01/1986
New Tank Number :	UTK-022981-15
Old Tank Number :	9
Tank Status :	Removed from Ground
Tank Content :	Gasoline
Capacity (in gallons) :	6000
Removed/Closed Date :	09/13/1991
Number of Compartments :	N/R
Piping Material :	Galvanized Steel
Piping Type :	N/R
Tank Material :	Asphalt Coated or Bare Steel
Impressed Current Installed :	N/R

Installation Date :	04/05/1975
New Tank Number :	UTK-030692-15
Old Tank Number :	4
Tank Status :	Removed from Ground
Tank Content :	Diesel
Capacity (in gallons) :	10000
Removed/Closed Date :	09/13/1991
Number of Compartments :	N/R
Piping Material :	Galvanized Steel
Piping Type :	N/R
Tank Material :	Asphalt Coated or Bare Steel
Impressed Current Installed :	N/R

Installation Date :	04/04/1974
New Tank Number :	UTK-076407-15
Old Tank Number :	1
Tank Status :	Removed from Ground
Tank Content :	Gasoline
Capacity (in gallons) :	2000
Removed/Closed Date :	05/01/1986
Number of Compartments :	N/R
Piping Material :	Galvanized Steel
Piping Type :	N/R
Tank Material :	Asphalt Coated or Bare Steel
Impressed Current Installed :	N/R

Installation Date :	04/04/1974
New Tank Number :	UTK-076411-15
Old Tank Number :	2
Tank Status :	Removed from Ground

Map Id: I43
 Direction: WNW
 Distance: 0.246 mi.
 Actual: 1299.967 ft.
 Elevation: 0.145 mi. / 765.062 ft.
 Relative: Higher

Site Name : ESTATE MOTORS LTD
 464 S OLD WOODWARD AVE | 464 S
 WOODWARD AVE
 BIRMINGHAM, MI
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI,
 RCRA_NONGEN, UST - MI] **(cont.)**

EnviroSite ID: 3298992
EPA ID: N/R

UST - MI **(cont.)**

Tank Content :	Gasoline
Capacity (in gallons) :	2000
Removed/Closed Date :	05/01/1986
Number of Compartments :	N/R
Piping Material :	Galvanized Steel
Piping Type :	N/R
Tank Material :	Asphalt Coated or Bare Steel
Impressed Current Installed :	N/R

Installation Date :	04/04/1974
New Tank Number :	UTK-076416-15
Old Tank Number :	3
Tank Status :	Removed from Ground
Tank Content :	Used Oil
Capacity (in gallons) :	2000
Removed/Closed Date :	05/01/1986
Number of Compartments :	N/R
Piping Material :	Galvanized Steel
Piping Type :	N/R
Tank Material :	Asphalt Coated or Bare Steel
Impressed Current Installed :	N/R

Installation Date :	04/05/1971
New Tank Number :	UTK-013217-15
Old Tank Number :	5
Tank Status :	Removed from Ground
Tank Content :	Used Oil
Capacity (in gallons) :	3000
Removed/Closed Date :	09/13/1991
Number of Compartments :	N/R
Piping Material :	Galvanized Steel
Piping Type :	N/R
Tank Material :	Asphalt Coated or Bare Steel
Impressed Current Installed :	N/R

Installation Date :	N/R
New Tank Number :	UTK-011057-15
Old Tank Number :	12
Tank Status :	Removed from Ground
Tank Content :	Gasoline
Capacity (in gallons) :	1000
Removed/Closed Date :	01/01/1992
Number of Compartments :	N/R
Piping Material :	Bare Steel
Piping Type :	Suction: No Valve at Tank
Tank Material :	Asphalt Coated or Bare Steel,Other
Impressed Current Installed :	N/R

Installation Date :	N/R
New Tank Number :	UTK-086608-15
Old Tank Number :	10

Map Id: I43
 Direction: WNW
 Distance: 0.246 mi.
 Actual: 1299.967 ft.
 Elevation: 0.145 mi. / 765.062 ft.
 Relative: Higher

Site Name : ESTATE MOTORS LTD
 464 S OLD WOODWARD AVE | 464 S
 WOODWARD AVE
 BIRMINGHAM, MI
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI,
 RCRA_NONGEN, UST - MI] **(cont.)**

EnviroSite ID: 3298992
EPA ID: N/R

UST - MI **(cont.)**

Tank Status : Removed from Ground
 Tank Content : Gasoline
 Capacity (in gallons) : 1000
 Removed/Closed Date : 01/01/1992
 Number of Compartments : N/R
 Piping Material : Bare Steel
 Piping Type : Suction: No Valve at Tank
 Tank Material : Asphalt Coated or Bare Steel,Other
 Impressed Current Installed : N/R

Installation Date : N/R
 New Tank Number : UTK-086611-15
 Old Tank Number : 11
 Tank Status : Removed from Ground
 Tank Content : Gasoline
 Capacity (in gallons) : 1000
 Removed/Closed Date : 01/01/1992
 Number of Compartments : N/R
 Piping Material : Bare Steel
 Piping Type : Suction: No Valve at Tank
 Tank Material : Asphalt Coated or Bare Steel,Other
 Impressed Current Installed : N/R

Installation Date : N/R
 New Tank Number : UTK-086615-15
 Old Tank Number : 13
 Tank Status : Removed from Ground
 Tank Content : Gasoline
 Capacity (in gallons) : 1000
 Removed/Closed Date : 01/01/1992
 Number of Compartments : N/R
 Piping Material : Bare Steel
 Piping Type : Suction: No Valve at Tank
 Tank Material : Asphalt Coated or Bare Steel,Other
 Impressed Current Installed : N/R

Map Id: K44
 Direction: NW
 Distance: 0.250 mi.
 Actual: 1318.766 ft.
 Elevation: 0.145 mi. / 766.365 ft.
 Relative: Higher

Site Name : SPEEDWAY LLC | SPEEDWAY 8721
 34750 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LWF - MI,
 RCRA_VSQQ]

EnviroSite ID: 3384067
EPA ID: N/R

ECHO

Facility Name : SPEEDWAY LLC
 Facility Address : 34750 WOODWARD AVE, BIRMINGHAM, MI 48009

Map Id: K44
 Direction: NW
 Distance: 0.250 mi.
 Actual: 1318.766 ft.
 Elevation: 0.145 mi. / 766.365 ft.
 Relative: Higher

Site Name : SPEEDWAY LLC | SPEEDWAY 8721
 34750 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LWF - MI,
 RCRA_VSQG] (**cont.**)

EnviroSite ID: 3384067
EPA ID: N/R

ECHO (**cont.**)

County :	OAKLAND
Last Inspection Date :	N/R
Registry ID :	110003685968
FIPS Code :	26125
EPA Region :	05
Inspection Count :	0
Last Inspection Days :	N/R
Informal Count :	0
Last Informal Action Date :	N/R
Formal Action Count :	0
Last Formal Action Date :	N/R
Total Penalties :	0
Penalty Count :	N/R
Last Penalty Date :	N/R
Last Penalty Amount :	N/R
QTRS IN NC :	0
Programs IN SNC :	0
Current Compliance Status :	No Violation Identified
Three-Year Compliance Status :	
Collection Method :	ADDRESS MATCHING-HOUSE NUMBER
Reference Point :	CENTER OF A FACILITY OR STATION
Accuracy Meters :	30
Derived Tribes :	N/R
Derived HUC :	04090004
Derived WBD :	040900030202
Derived STCTY FIPS :	26125
Derived Zip :	48009
Derived CD113 :	11
Derived CB2010 :	261251529002011
MYRTK Universe :	NNN
NPDES IDs :	N/R
CWA Permit Types :	N/R
CWA Compliance Tracking :	N/R
CWA NAICS :	N/R
CWA SICS :	N/R
CWA Inspection Count :	N/R
CWA Last Inspection Days :	N/R
CWA Informal Count :	N/R
CWA Formal Action Count :	N/R
CWA Last Formal Action Date :	N/R
CWA Penalties :	N/R
CWA Last Penalty Date :	N/R
CWA Last Penalty Amount :	N/R
CWA Quarters IN NC :	N/R
CWA Current Compliance Status :	N/R
CWA Current SNC Flag :	N
CWA 13 Quarters Compliance Status :	N/R
CWA 13 Quarters Effluent Exceedances:	N/R
CWA Three-Year QNCR Codes :	N/R
DFR URL :	Click here for hyperlink provided by the agency.
Facility SIC :	N/R
Facility NAICS :	44711 - Gasoline Stations with Convenience Stores
Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	N/R

Map Id: K44
 Direction: NW
 Distance: 0.250 mi.
 Actual: 1318.766 ft.
 Elevation: 0.145 mi. / 766.365 ft.
 Relative: Higher

Site Name : SPEEDWAY LLC | SPEEDWAY 8721
 34750 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LWF - MI,
 RCRA_VSQG] (**cont.**)

EnviroSite ID: 3384067
EPA ID: N/R

ECHO (**cont.**)

Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R
Facility Last Informal Act EPA Date :	N/R
Facility Last Informal Act State Date:	N/R
Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	N/R
Current SNC Flag :	N
Indian County Flag :	N
Federal Flag :	N/R
US Mexico Border Flag :	N/R
Chesapeake Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	N
SDWIS Flag :	N
RCRA Flag :	Y
TRI Flag :	N
GHG Flag :	N
Major Flag :	N/R
Active Flag :	Y
NAA Flag :	Y
Latitude :	42.545
Longitude :	-83.21032
Last Date in Agency List :	2020-12-31

FRS

Facility Name :	SPEEDWAY LLC
Facility Address :	34750 WOODWARD AVE, BIRMINGHAM, MI 48009
County :	OAKLAND
Registry ID :	110003685968
FRS Facility URL :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	08/31/2020

Source Description :

RCRAInfo is EPA's comprehensive information system that supports the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984 through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA. RCRAInfo also supports generation of the National Hazardous Waste Biennial Report. All generators and treatment, storage, and disposal facilities who handle hazardous waste are required to report to the EPA Administrator at least once every two years to support creation of the Biennial Report.

FRS Environmental Interest

Source and System ID :	RCRAINFO - MID985666387

HWG - MI

Facility Name :	SPEEDWAY 8721

Map Id: K44
 Direction: NW
 Distance: 0.250 mi.
 Actual: 1318.766 ft.
 Elevation: 0.145 mi. / 766.365 ft.
 Relative: Higher

Site Name : SPEEDWAY LLC | SPEEDWAY 8721
 34750 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LWF - MI,
 RCRA_VSQG] **(cont.)**

Envirosite ID: 3384067
EPA ID: N/R

HWG - MI **(cont.)**

Facility Address : 34750 WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

 WDS ID : 409168
 Site ID : MID985666387
 Generator Status : CESQG
 Site Legal Name : SPEEDWAY LLC
 Contact Name : N/R
 Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 2021-01-04

LWF - MI

Facility Name : SPEEDWAY 8721
 Facility Address : 34750 WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

 WDS ID : 409168
 Site ID : MID985666387
 Site Legal Name : SPEEDWAY LLC
 Contact Name : N/R
 Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 08/19/2020

RCRA_VSQG

Facility Name : SPEEDWAY LLC
 Facility Address : 34750 WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

 Date Form Received by Agency : 08/20/2012
 EPA ID : MID985666387
 Mailing Address : PO BOX 1500, SPRINGFIELD, OH 45501
 Contact : CHARLES A BESSE
 Contact Address : N/R
 Contact Country : US
 Contact Telephone : 937-863-6272
 Contact Email : CABESSE@SPEEDWAY.COM
 EPA Region : 05
 Land Type : Private
 Source Type : Notification
 Classification : Very Small Quantity Generator

Map Id: K44
 Direction: NW
 Distance: 0.250 mi.
 Actual: 1318.766 ft.
 Elevation: 0.145 mi. / 766.365 ft.
 Relative: Higher

Site Name : SPEEDWAY LLC | SPEEDWAY 8721
 34750 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LWF - MI,
 RCRA_VSQG] (**cont.**)

EnviroSite ID: 3384067
EPA ID: N/R

RCRA_VSQG (**cont.**)

Description :

Handlers that generate 100 kilograms or less of hazardous waste per calendar month, and accumulate 1000 kg or less of hazardous waste at any time; or generate one kilogram or less of acutely hazardous waste per calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generate 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste.

Last Date in Agency List : 10/19/2020

Owner/Operator Summary

Owner/Operator Name : SPEEDWAY LLC
 Owner/Operator Address : N/R
 Owner/Operator Country : N/R
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Private
 Owner/Operator Type : Operator
 Owner/Operator Start Date : 06/10/1999
 Owner/Operator End Date : N/R

Owner/Operator Name : SPEEDWAY LLC
 Owner/Operator Address : N/R
 Owner/Operator Country : N/R
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Private
 Owner/Operator Type : Owner
 Owner/Operator Start Date : 06/10/1999
 Owner/Operator End Date : N/R

Handler Activities Summary

U.S. Importer of Hazardous Waste : N
 Mixed Waste (Haz. and Radioactive) : N
 Recycler of Hazardous Waste : N
 Transporter of Hazardous Waste : N
 Treater, Storer or Disposer of HW : N
 Underground Injection Activity : N
 On-site Burner Exemption : N
 Furnace Exemption : N
 Used Oil Fuel Burner : N
 Used Oil Processor : N
 Used Oil Refiner : N
 Used Oil Fuel Marketer to Burner : N
 Used Oil Specification Marketer : N

Map Id: K44
 Direction: NW
 Distance: 0.250 mi.
 Actual: 1318.766 ft.
 Elevation: 0.145 mi. / 766.365 ft.
 Relative: Higher

Site Name : SPEEDWAY LLC | SPEEDWAY 8721
 34750 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LWF - MI,
 RCRA_VSQG] (**cont.**)

EnviroSite ID: 3384067
EPA ID: N/R

RCRA_VSQG (**cont.**)

Used Oil Transfer Facility : N
 Used Oil Transporter : N

Historical Generators

Date Form Received by Agency : 06/03/2005
 Facility Name : SPEEDWAY SUPERAMERICA LLC
 Classification : Very Small Quantity Generator

Date Form Received by Agency : 09/17/1998
 Facility Name : SPEEDWAY SUPERAMERICA LLC
 Classification : Not a generator, verified

Date Form Received by Agency : 09/02/1993
 Facility Name : SPEEDWAY SUPERAMERICA LLC
 Classification : Very Small Quantity Generator

Hazardous Waste Summary

Waste Code / Name : D001 - IGNITABLE WASTE

Notices of Violations Summary

Regulation Violated : N

Map Id: K45
 Direction: NW
 Distance: 0.260 mi.
 Actual: 1371.063 ft.
 Elevation: 0.145 mi. / 767.074 ft.
 Relative: Higher

Site Name : SPEEDWAY #8721
 34750 WOODWARD 347 BLVD
 BIRMINGHAM, MI 48009
Database(s) : [LUST - MI, SHWS - MI, UST - MI]

EnviroSite ID: 3300641
EPA ID: N/R

LUST - MI

Facility Name : Speedway #8721
 Facility Address : 34750 WOODWARD 347 BLVD, BIRMINGHAM, 48009-
 County : Oakland

Site Details

Date of Collection : 04/06/2007
 Facility ID : 00016370
 Accuracy : 100
 Accuracy Value Unit : FEET
 Horizontal Datum : NAD83

Map Id: K45
 Direction: NW
 Distance: 0.260 mi.
 Actual: 1371.063 ft.
 Elevation: 0.145 mi. / 767.074 ft.
 Relative: Higher

Site Name : SPEEDWAY #8721
 34750 WOODWARD 347 BLVD
 BIRMINGHAM, MI 48009
Database(s) : [LUST - MI, SHWS - MI, UST - MI] **(cont.)**

Envirosite ID: 3300641
EPA ID: N/R

LUST - MI **(cont.)**

Source : STATE OF MICHIGAN
 Point/Line/Area : POINT
 Description Category : Plant Entrance (Freight)
 Method of Collection : GPS Code Meas. Standard Positioning Service SA Off
 District : Warren
 Latitude : 42.544888
 Longitude : -83.209773
 Last Date in Agency List : 09/21/2020

Owner Summary

Owner Name : SpeedwayLLC
 Owner Address : UNKNOWN, MI
 Owner Country : USA
 Owner Contact Person : N/R
 Owner Phone Number : N/R

Release Information

Release Date : 12/09/2014
 Release Status : Open
 Substance Released : Gasoline,Gasoline,Gasoline,Diesel
 Release Closed Date : N/R
 Leak Number : C-0161-14
 LUST Site Name : Speedway #8721

Release Date : 08/27/1991
 Release Status : Closed
 Substance Released : Unknown
 Release Closed Date : 02/09/1996
 Leak Number : C-1633-91
 LUST Site Name : Total #2528

SHWS - MI

Facility Name : Speedway #8721
 Facility Address : 34750 WOODWARD 347 BLVD, BIRMINGHAM, 48009
 County : Oakland

Facility ID : 00016370
 Data Source : Part 213
 District : Southeast MI
 Township : N/R
 Latitude : 42.54489
 Longitude : -83.20977
 Last Date in Agency List : 2020-09-26

UST - MI

Facility Name : Speedway #8721
 Facility Address : 34750 WOODWARD 347 BLVD, BIRMINGHAM, MI 48009
 County : OAKLAND

Map Id: K45
 Direction: NW
 Distance: 0.260 mi.
 Actual: 1371.063 ft.
 Elevation: 0.145 mi. / 767.074 ft.
 Relative: Higher

Site Name : SPEEDWAY #8721
 34750 WOODWARD 347 BLVD
 BIRMINGHAM, MI 48009
Database(s) : [LUST - MI, SHWS - MI, UST - MI] **(cont.)**

EnviroSite ID: 3300641
EPA ID: N/R

UST - MI **(cont.)**

Site Details

Facility Number : 00016370
 Region : 1
 Facility Contact : N/R
 Latitude : 42.5448880000
 Longitude : -83.2097730000
 Last Date in Agency List : 08/26/2020

Owner Summary

Owner Name : Speedway LLC
 Owner Address : PO Box 1500, Springfield, OH 45501
 Owner Country : N/R
 Owner Phone : 9378643000

Tank Information

Installation Date : 05/01/1992
 New Tank Number : UTK-018955-15
 Old Tank Number : 9
 Tank Status : Currently In Use
 Tank Content : Diesel
 Capacity (in gallons) : 8000
 Removed/Closed Date : N/R
 Number of Compartments : N/R
 Piping Material : Fiberglass Reinforced Plastic
 Piping Type : Pressure (Remote)
 Tank Material : Cathodically Protected Steel
 Impressed Current Installed : N/R

Installation Date : 05/01/1992
 New Tank Number : UTK-025147-15
 Old Tank Number : 6
 Tank Status : Currently In Use
 Tank Content : Gasoline
 Capacity (in gallons) : 12000
 Removed/Closed Date : N/R
 Number of Compartments : N/R
 Piping Material : Fiberglass Reinforced Plastic
 Piping Type : Pressure (Remote)
 Tank Material : Cathodically Protected Steel
 Impressed Current Installed : N/R

Installation Date : 05/01/1992
 New Tank Number : UTK-087832-15
 Old Tank Number : 8
 Tank Status : Currently In Use
 Tank Content : Gasoline
 Capacity (in gallons) : 10000
 Removed/Closed Date : N/R
 Number of Compartments : N/R
 Piping Material : Fiberglass Reinforced Plastic
 Piping Type : Pressure (Remote)

Map Id: K45
 Direction: NW
 Distance: 0.260 mi.
 Actual: 1371.063 ft.
 Elevation: 0.145 mi. / 767.074 ft.
 Relative: Higher

Site Name : SPEEDWAY #8721
 34750 WOODWARD 347 BLVD
 BIRMINGHAM, MI 48009
Database(s) : [LUST - MI, SHWS - MI, UST - MI] **(cont.)**

Envirosite ID: 3300641
EPA ID: N/R

UST - MI **(cont.)**

Tank Material : Cathodically Protected Steel
 Impressed Current Installed : N/R

Installation Date : 05/01/1992
 New Tank Number : UTK-088271-15
 Old Tank Number : 7
 Tank Status : Currently In Use
 Tank Content : Gasoline
 Capacity (in gallons) : 10000
 Removed/Closed Date : N/R
 Number of Compartments : N/R
 Piping Material : Fiberglass Reinforced Plastic
 Piping Type : Pressure (Remote)
 Tank Material : Cathodically Protected Steel
 Impressed Current Installed : N/R

Installation Date : 04/21/1974
 New Tank Number : UTK-035900-15
 Old Tank Number : 2
 Tank Status : Removed from Ground
 Tank Content : Gasoline
 Capacity (in gallons) : 12000
 Removed/Closed Date : 03/01/1992
 Number of Compartments : N/R
 Piping Material : Galvanized Steel
 Piping Type : N/R
 Tank Material : Asphalt Coated or Bare Steel
 Impressed Current Installed : N/R

Installation Date : 04/21/1974
 New Tank Number : UTK-035901-15
 Old Tank Number : 3
 Tank Status : Removed from Ground
 Tank Content : Diesel
 Capacity (in gallons) : 12000
 Removed/Closed Date : 03/01/1992
 Number of Compartments : N/R
 Piping Material : Galvanized Steel
 Piping Type : N/R
 Tank Material : Asphalt Coated or Bare Steel
 Impressed Current Installed : N/R

Installation Date : 04/21/1972
 New Tank Number : UTK-039018-15
 Old Tank Number : 1
 Tank Status : Removed from Ground
 Tank Content : Gasoline
 Capacity (in gallons) : 6000
 Removed/Closed Date : 03/02/1992
 Number of Compartments : N/R
 Piping Material : Galvanized Steel
 Piping Type : N/R
 Tank Material : Asphalt Coated or Bare Steel

Map Id: K45
 Direction: NW
 Distance: 0.260 mi.
 Actual: 1371.063 ft.
 Elevation: 0.145 mi. / 767.074 ft.
 Relative: Higher

Site Name : SPEEDWAY #8721
 34750 WOODWARD 347 BLVD
 BIRMINGHAM, MI 48009
Database(s) : [LUST - MI, SHWS - MI, UST - MI] **(cont.)**

EnviroSite ID: 3300641
EPA ID: N/R

UST - MI (cont.)

Impressed Current Installed :	N/R
Installation Date :	04/22/1959
New Tank Number :	UTK-088257-15
Old Tank Number :	4
Tank Status :	Removed from Ground
Tank Content :	Other(FUEL OIL)
Capacity (in gallons) :	1000
Removed/Closed Date :	03/01/1992
Number of Compartments :	N/R
Piping Material :	Galvanized Steel
Piping Type :	N/R
Tank Material :	Asphalt Coated or Bare Steel
Impressed Current Installed :	N/R

Installation Date :	04/22/1959
New Tank Number :	UTK-088262-15
Old Tank Number :	5
Tank Status :	Removed from Ground
Tank Content :	Used Oil
Capacity (in gallons) :	550
Removed/Closed Date :	03/01/1992
Number of Compartments :	N/R
Piping Material :	Galvanized Steel
Piping Type :	N/R
Tank Material :	Asphalt Coated or Bare Steel
Impressed Current Installed :	N/R

Map Id: J46
 Direction: SSE
 Distance: 0.262 mi.
 Actual: 1383.038 ft.
 Elevation: 0.142 mi. / 751.601 ft.
 Relative: Lower

Site Name : BIRMINGHAM CLEANERS INC
 33866 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI, RCRA_NONGEN, UST - MI]

EnviroSite ID: 3365337
EPA ID: N/R

ECHO

Facility Name :	BIRMINGHAM CLEANERS INC
Facility Address :	33866 WOODWARD AVE, BIRMINGHAM, MI 48009
County :	OAKLAND

Last Inspection Date :	N/R
Registry ID :	110003586432
FIPS Code :	26125
EPA Region :	05
Inspection Count :	0
Last Inspection Days :	N/R
Informal Count :	0

Map Id: J46
 Direction: SSE
 Distance: 0.262 mi.
 Actual: 1383.038 ft.
 Elevation: 0.142 mi. / 751.601 ft.
 Relative: Lower

Site Name : BIRMINGHAM CLEANERS INC
 33866 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI,
 RCRA_NONGEN, UST - MI] **(cont.)**

EnviroSite ID: 3365337
EPA ID: N/R

ECHO (cont.)

Last Informal Action Date :	N/R
Formal Action Count :	0
Last Formal Action Date :	N/R
Total Penalties :	0
Penalty Count :	N/R
Last Penalty Date :	N/R
Last Penalty Amount :	N/R
QTRS IN NC :	0
Programs IN SNC :	0
Current Compliance Status :	No Violation Identified
Three-Year Compliance Status :	
Collection Method :	ADDRESS MATCHING-HOUSE NUMBER
Reference Point :	CENTER OF A FACILITY OR STATION
Accuracy Meters :	30
Derived Tribes :	N/R
Derived HUC :	04090003
Derived WBD :	040900030202
Derived STCTY FIPS :	26125
Derived Zip :	48009
Derived CD113 :	11
Derived CB2010 :	261251533003000
MYRTK Universe :	NNN
NPDES IDs :	N/R
CWA Permit Types :	N/R
CWA Compliance Tracking :	N/R
CWA NAICS :	N/R
CWA SICS :	N/R
CWA Inspection Count :	N/R
CWA Last Inspection Days :	N/R
CWA Informal Count :	N/R
CWA Formal Action Count :	N/R
CWA Last Formal Action Date :	N/R
CWA Penalties :	N/R
CWA Last Penalty Date :	N/R
CWA Last Penalty Amount :	N/R
CWA Quarters IN NC :	N/R
CWA Current Compliance Status :	N/R
CWA Current SNC Flag :	N
CWA 13 Quarters Compliance Status :	N/R
CWA 13 Quarters Effluent Exceedances:	N/R
CWA Three-Year QNCR Codes :	N/R
DFR URL :	Click here for hyperlink provided by the agency.
Facility SIC :	N/R
Facility NAICS :	11131 - Orange Groves
Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	N/R
Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R
Facility Last Informal Act EPA Date :	N/R
Facility Last Informal Act State Date:	N/R
Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	N/R
Current SNC Flag :	N
Indian County Flag :	N
Federal Flag :	N/R

Map Id: J46
 Direction: SSE
 Distance: 0.262 mi.
 Actual: 1383.038 ft.
 Elevation: 0.142 mi. / 751.601 ft.
 Relative: Lower

Site Name : BIRMINGHAM CLEANERS INC
 33866 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI,
 RCRA_NONGEN, UST - MI] **(cont.)**

EnviroSite ID: 3365337
EPA ID: N/R

ECHO (cont.)

US Mexico Border Flag :	N/R
Chesapeake Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	N
SDWIS Flag :	N
RCRA Flag :	Y
TRI Flag :	N
GHG Flag :	N
Major Flag :	N/R
Active Flag :	N/R
NAA Flag :	Y
Latitude :	42.53788
Longitude :	-83.20526
Last Date in Agency List :	2020-12-31

FRS

Facility Name :	BIRMINGHAM CLEANERS INC
Facility Address :	33866 WOODWARD AVE, BIRMINGHAM, MI 48009
County :	OAKLAND
Registry ID :	110003586432
FRS Facility URL :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	08/31/2020

Source Description :

RCRAInfo is EPA's comprehensive information system that supports the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984 through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA. RCRAInfo also supports generation of the National Hazardous Waste Biennial Report. All generators and treatment, storage, and disposal facilities who handle hazardous waste are required to report to the EPA Administrator at least once every two years to support creation of the Biennial Report.

FRS Environmental Interest

Source and System ID :	RCRAINFO - MID016754004

HWG - MI

Facility Name :	BIRMINGHAM CLEANERS INC
Facility Address :	33866 WOODWARD AVE, BIRMINGHAM, MI 48009
County :	OAKLAND
WDS ID :	394534
Site ID :	MID016754004
Generator Status :	No longer generating, out of business
Site Legal Name :	BIRMINGHAM CLEANERS INC
Contact Name :	N/R
Contact Phone :	N/R

Map Id: J46
 Direction: SSE
 Distance: 0.262 mi.
 Actual: 1383.038 ft.
 Elevation: 0.142 mi. / 751.601 ft.
 Relative: Lower

Site Name : BIRMINGHAM CLEANERS INC
 33866 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI,
 RCRA_NONGEN, UST - MI] **(cont.)**

EnviroSite ID: 3365337
EPA ID: N/R

HWG - MI **(cont.)**

Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 2021-01-04

LUST - MI

Facility Name : Birmingham Cleaners
 Facility Address : 33866 WOODWARD AVE, BIRMINGHAM, 48009-
 County : Oakland

Site Details

Date of Collection : 01/11/2001
 Facility ID : 00018874
 Accuracy : 100
 Accuracy Value Unit : FEET
 Horizontal Datum : NAD83
 Source : STATE OF MICHIGAN
 Point/Line/Area : POINT
 Description Category : Plant Entrance (Freight)
 Method of Collection : Address Matching-House Number
 District : Warren
 Latitude : 42.540231
 Longitude : -83.207686
 Last Date in Agency List : 09/21/2020

Owner Summary

Owner Name : BirminghamCleaners
 Owner Address : UNKNOWN, MI
 Owner Country : USA
 Owner Contact Person : N/R
 Owner Phone Number : N/R

Release Information

Release Date : 11/03/1993
 Release Status : Closed
 Substance Released : Other,Unknown
 Release Closed Date : 05/17/1994
 Leak Number : C-1373-93
 LUST Site Name : Birmingham Cleaners 1253

RCRA_NONGEN

Facility Name : BIRMINGHAM CLEANERS INC
 Facility Address : 33866 WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

Date Form Received by Agency : 12/31/2002
 EPA ID : MID016754004
 Mailing Address : 33866 WOODWARD AVE, BIRMINGHAM, MI 48009

Map Id: J46
 Direction: SSE
 Distance: 0.262 mi.
 Actual: 1383.038 ft.
 Elevation: 0.142 mi. / 751.601 ft.
 Relative: Lower

Site Name : BIRMINGHAM CLEANERS INC
 33866 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI,
 RCRA_NONGEN, UST - MI] **(cont.)**

EnviroSite ID: 3365337
EPA ID: N/R

RCRA_NONGEN (cont.)

Contact :	S KALBFLEISCH
Contact Address :	33866 WOODWARD AVE, BIRMINGHAM, MI 48009
Contact Country :	US
Contact Telephone :	313-644-4620
Contact Email :	N/R
EPA Region :	05
Land Type :	Other land type
Source Type :	Implementer
Classification :	Not a generator, verified
Description :	Not a generator, verified
Last Date in Agency List :	10/19/2020

Owner/Operator Summary

Owner/Operator Name :	NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/Operator Address :	N/R
Owner/Operator Country :	N/R
Owner/Operator Telephone :	N/R
Owner/Operator Email :	N/R
Owner/Operator Fax :	N/R
Legal Status :	Private
Owner/Operator Type :	Operator
Owner/Operator Start Date :	01/01/2002
Owner/Operator End Date :	N/R

Owner/Operator Name :	NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/Operator Address :	N/R
Owner/Operator Country :	N/R
Owner/Operator Telephone :	N/R
Owner/Operator Email :	N/R
Owner/Operator Fax :	N/R
Legal Status :	Private
Owner/Operator Type :	Owner
Owner/Operator Start Date :	01/01/2002
Owner/Operator End Date :	N/R

Handler Activities Summary

U.S. Importer of Hazardous Waste :	N
Mixed Waste (Haz. and Radioactive) :	N
Recycler of Hazardous Waste :	N
Transporter of Hazardous Waste :	N
Treater, Storer or Disposer of HW :	N
Underground Injection Activity :	N
On-site Burner Exemption :	N
Furnace Exemption :	N
Used Oil Fuel Burner :	N
Used Oil Processor :	N
Used Oil Refiner :	N
Used Oil Fuel Marketer to Burner :	N
Used Oil Specification Marketer :	N
Used Oil Transfer Facility :	N
Used Oil Transporter :	N

Map Id: J46
 Direction: SSE
 Distance: 0.262 mi.
 Actual: 1383.038 ft.
 Elevation: 0.142 mi. / 751.601 ft.
 Relative: Lower

Site Name : BIRMINGHAM CLEANERS INC
 33866 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI,
 RCRA_NONGEN, UST - MI] **(cont.)**

EnviroSite ID: 3365337
EPA ID: N/R

RCRA_NONGEN (cont.)

Historical Generators

Date Form Received by Agency : 10/14/1998
 Facility Name : BIRMINGHAM CLEANERS INC
 Classification : Small Quantity Generator

Date Form Received by Agency : 09/25/1986
 Facility Name : BIRMINGHAM CLEANERS INC
 Classification : Small Quantity Generator

Hazardous Waste Summary

Waste Code / Name : D001 - IGNITABLE WASTE

Notices of Violations Summary

Regulation Violated : N

UST - MI

Facility Name : Birmingham Cleaners
 Facility Address : 33866 WOODWARD AVE, BIRMINGHAM, MI 48009-0914
 County : OAKLAND

Site Details

Facility Number : 00018874
 Region : 1
 Facility Contact : N/R
 Latitude : 42.5402310000
 Longitude : -83.2076860000
 Last Date in Agency List : 03/20/2020

Owner Summary

Owner Name : Birmingham Cleaners
 Owner Address : 1253 S Woodward, Birmingham, MI 48011
 Owner Country : N/R
 Owner Phone : 2486444620

Tank Information

Installation Date : 04/11/1979
 New Tank Number : UTK-048185-15
 Old Tank Number : 2
 Tank Status : Removed from Ground
 Tank Content : Hazardous Substance(NAPTHA,6)
 Capacity (in gallons) : 1000
 Removed/Closed Date : 11/23/1993
 Number of Compartments : N/R
 Piping Material : Galvanized Steel

Map Id: J46
 Direction: SSE
 Distance: 0.262 mi.
 Actual: 1383.038 ft.
 Elevation: 0.142 mi. / 751.601 ft.
 Relative: Lower

Site Name : BIRMINGHAM CLEANERS INC
 33866 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI,
 RCRA_NONGEN, UST - MI] **(cont.)**

EnviroSite ID: 3365337
EPA ID: N/R

UST - MI (cont.)

Piping Type :	Suction: No Valve at Tank
Tank Material :	Fiberglass Reinforced Plastic,Lined Interior
Impressed Current Installed :	N/R

Installation Date :	04/10/1960
New Tank Number :	UTK-018897-15
Old Tank Number :	1
Tank Status :	Removed from Ground
Tank Content :	Hazardous Substance(NAPTHA,6)
Capacity (in gallons) :	600
Removed/Closed Date :	11/23/1993
Number of Compartments :	N/R
Piping Material :	Galvanized Steel
Piping Type :	Suction: No Valve at Tank
Tank Material :	Asphalt Coated or Bare Steel
Impressed Current Installed :	N/R

Installation Date :	04/10/1950
New Tank Number :	UTK-035850-15
Old Tank Number :	3
Tank Status :	Removed from Ground
Tank Content :	Other(FUEL OIL #2)
Capacity (in gallons) :	500
Removed/Closed Date :	01/01/1960
Number of Compartments :	N/R
Piping Material :	Unknown
Piping Type :	N/R
Tank Material :	Unknown
Impressed Current Installed :	N/R

Installation Date :	04/10/1950
New Tank Number :	UTK-088815-15
Old Tank Number :	4
Tank Status :	Removed from Ground
Tank Content :	Other(#2 FUEL OIL)
Capacity (in gallons) :	500
Removed/Closed Date :	01/01/1960
Number of Compartments :	N/R
Piping Material :	Unknown
Piping Type :	N/R
Tank Material :	Unknown
Impressed Current Installed :	N/R

Map Id: J47
 Direction: S
 Distance: 0.266 mi.
 Actual: 1402.427 ft.
 Elevation: 0.142 mi. / 751.85 ft.
 Relative: Lower

Site Name : FORMER GASOLINE STATION |
 Neighborhood Pro Hardware Property
 33801 WOODWARD AVE
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, LUST - MI, SHWS - MI, UST - MI]

EnviroSite ID: 3345149
EPA ID: N/R

BEA - MI

Facility Name : Neighborhood Pro Hardware Property
 Facility Address : 33801 Woodward Avenue, Birmingham, 48009
 County : Oakland

Facility ID : N/R
 BEA Number : 201305655LV
 Data Source : BEA
 District : Southeast MI
 Township : Birmingham
 Latitude : N/R
 Longitude : N/R
 Last Date in Agency List : 2020-09-25

LUST - MI

Facility Name : Former Gasoline Station
 Facility Address : 33801 WOODWARD AVE, BIRMINGHAM, 48009-
 County : Oakland

Site Details

Date of Collection : 01/04/2014
 Facility ID : 50005898
 Accuracy : 10
 Accuracy Value Unit : FEET
 Horizontal Datum : NAD83
 Source : STATE OF MICHIGAN
 Point/Line/Area : POINT
 Description Category : Plant Entrance (Freight)
 Method of Collection : Interpolation-Photo
 District : Warren
 Latitude : 42.53762473
 Longitude : -83.20591787
 Last Date in Agency List : 09/21/2020

Owner Summary

Owner Name : NrtOwner
 Owner Address : UNKNOWN, MI
 Owner Country : USA
 Owner Contact Person : N/R
 Owner Phone Number : N/R

Release Information

Release Date : 07/31/2013
 Release Status : Open
 Substance Released : Unknown
 Release Closed Date : N/R
 Leak Number : C-0158-13
 LUST Site Name : Former Gasoline Station

Map Id: J47
 Direction: S
 Distance: 0.266 mi.
 Actual: 1402.427 ft.
 Elevation: 0.142 mi. / 751.85 ft.
 Relative: Lower

Site Name : FORMER GASOLINE STATION |
 Neighborhood Pro Hardware Property
 33801 WOODWARD AVE
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, LUST - MI, SHWS - MI, UST - MI]
(cont.)

EnviroSite ID: 3345149
EPA ID: N/R

SHWS - MI

Facility Name : Former Gasoline Station
 Facility Address : 33801 WOODWARD AVE, BIRMINGHAM, 48009
 County : Oakland

Facility ID : 50005898
 Data Source : Part 213
 District : Southeast MI
 Township : N/R
 Latitude : 42.53762
 Longitude : -83.20592
 Last Date in Agency List : 2020-09-26

UST - MI

Facility Name : Former Gasoline Station
 Facility Address : 33801 WOODWARD AVE, BIRMINGHAM, MI 48009-0915
 County : OAKLAND

Site Details

Facility Number : 50005898
 Region : 1
 Facility Contact : N/R
 Latitude : N/R
 Longitude : N/R
 Last Date in Agency List : 04/02/2019

Owner Summary

Owner Name : Nrt Owner
 Owner Address : Unknown, Unknown, MI 99999
 Owner Country : N/R
 Owner Phone : N/R

Tank Information

Installation Date : N/R
 New Tank Number : UTK-139255-15
 Old Tank Number : N/R
 Tank Status : Non-Registered Tank
 Tank Content : N/R
 Capacity (in gallons) : N/R
 Removed/Closed Date : N/R
 Number of Compartments : N/R
 Piping Material : Unknown
 Piping Type : N/R
 Tank Material : Other,Unknown
 Impressed Current Installed : N/R

Map Id: I48
 Direction: WNW
 Distance: 0.269 mi.
 Actual: 1419.192 ft.
 Elevation: 0.145 mi. / 766.109 ft.
 Relative: Higher

Site Name : GREEN'S ART SUPPLY | FORMER
 GASOLINE DISPENSING STATION
 400 SOUTH OLD WOODWARD AVENUE |
 400 S OLD WOODWARD AVE
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [FED BROWNFIELDS, FRS, UST - MI]

EnviroSite ID: 3298439
EPA ID: N/R

FED BROWNFIELDS

Facility Name : Green's Art Supply
 Facility Address : 400 South Old Woodward Avenue, Birmingham, MI 48009

Site Details

ACRES Property ID : 170095
 Cooperative Agreement Number : 00E01208
 Type of Brownfields Grant : Assessment
 Type of Funding : Petroleum
 Grant Recipient Name : Oakland County Michigan
 IC Data Address : N/R
 Redevelopment Completion Date : N/R
 Property Size (acres) : .58
 Local Property Number(s) : 19-36-205-042
 Ownership Entity : N/R
 Current Owner : N/R
 Did Ownership Change : N/R
 SLLP fact into the ownership : N/R
 Latitude : 42.543816
 Longitude : -83.21211
 Horizontal Collection Method : Address Matching-House Number
 Source Map Scale : N/R
 Reference Point : Entrance Point of a Facility or Station
 Horizontal Reference Datum : North American Datum of 1983

Description/History :

Original development of the subject property occurred prior to 1921 with four residential dwellings. The former northern dwelling was converted into a vulcanizing operation between 1921 and 1926, which operated at the property until the structure was demolished in 1930. The eastern dwelling was redeveloped as a plumbing supply company between 1921 and 1926, which operated (and included several additions) until the early 1950s when the building was demolished. The central dwelling was demolished in 1930, and the northern and central portions of the subject property were redeveloped with a gasoline filling station and automotive service garage in late 1930. The former western dwelling was demolished between 1931 and 1940, and the area was converted into a parking lot. The northern and central portions of the property were occupied by Sternal's Auto Supply/Service until 1957 and Standard Oil Company in at least 1945. The southern warehouse portion of the current building was constructed between 1949 and 1952, and was historically utilized as offices for an Edsel automotive dealership until approximately 1957. The building was redeveloped for retail use in 1958 and the northern portion of the building was expanded between 1963 and 1967 to include the current layout. The property has been occupied by Green's Art Supply since 1958.

Last Date in Agency List : 2020-12-18

Additional Details

Past Use: Greenspace (acres) : N/R
 Past Use: Residential (acres) : N/R
 Past Use: Commercial (acres) : .58
 Past Use: Industrial (acres) : N/R
 Past Use: Multistory (acres) : N/R
 Cleanup Required : N

Map Id: I48
 Direction: WNW
 Distance: 0.269 mi.
 Actual: 1419.192 ft.
 Elevation: 0.145 mi. / 766.109 ft.
 Relative: Higher

Site Name : GREEN'S ART SUPPLY | FORMER
 GASOLINE DISPENSING STATION
 400 SOUTH OLD WOODWARD AVENUE |
 400 S OLD WOODWARD AVE
 BIRMINGHAM | Birmingham, MI 48009

Database(s) : [FED BROWNFIELDS, FRS, UST - MI]
(cont.)

EnviroSite ID: 3298439
EPA ID: N/R

FED BROWNFIELDS (cont.)

Contaminants Found: Controlled Substances:	N/R
Contaminants Found: Petroleum :	N/R
Contaminants Found: Asbestos :	N/R
Contaminants Found: Lead :	Y
Contaminants Found: PAHs :	N/R
Contaminants Found: PCBs :	N/R
Contaminants Found: VOCs :	Y
Contaminants Found: Selenium :	N/R
Contaminants Found: Iron :	N/R
Contaminants Found: Arsenic :	N/R
Contaminants Found: Cadmium :	N/R
Contaminants Found: Chromium :	N/R
Contaminants Found: Copper :	N/R
Contaminants Found: Mercury :	N/R
Contaminants Found: Nickel :	N/R
Contaminants Found: Pesticides :	N/R
Contaminants Found: SVOCs :	N/R
Contaminants Found: Other Metals :	N/R
Contaminants Found: Other :	N/R
Contaminants Found: Other (Descr) :	N/R
Contaminants Found: Unknown :	N/R
Contaminants Found: None :	N/R
Contaminants Cleaned Up: Controlled Substances:	N/R
Contaminants Cleaned Up: Petroleum :	N/R
Contaminants Cleaned Up: Asbestos :	N/R
Contaminants Cleaned Up: Lead :	N/R
Contaminants Cleaned Up: PAHs :	N/R
Contaminants Cleaned Up: PCBs :	N/R
Contaminants Cleaned Up: VOCs :	N/R
Contaminants Cleaned Up: Selenium :	N/R
Contaminants Cleaned Up: Iron :	N/R
Contaminants Cleaned Up: Arsenic :	N/R
Contaminants Cleaned Up: Cadmium :	N/R
Contaminants Cleaned Up: Chromium :	N/R
Contaminants Cleaned Up: Copper :	N/R
Contaminants Cleaned Up: Mercury :	N/R
Contaminants Cleaned Up: Nickel :	N/R
Contaminants Cleaned Up: Pesticides :	N/R
Contaminants Cleaned Up: SVOCs :	N/R
Contaminants Cleaned Up: Other Metals:	N/R
Contaminants Cleaned Up: Other :	N/R
Contaminants Cleaned Up: Other (Descr):	N/R
Contaminants Cleaned Up: Unknown :	N/R
Contaminants Cleaned Up: None :	N/R
Media Affected: Air :	N/R
Media Affected: Sediments :	N/R
Media Affected: Soil :	Y
Media Affected: Drinking Water :	N/R
Media Affected: Ground Water :	N/R
Media Affected: Surface Water :	N/R
Media Affected: Bldg Materials :	N/R

Map Id: I48
 Direction: WNW
 Distance: 0.269 mi.
 Actual: 1419.192 ft.
 Elevation: 0.145 mi. / 766.109 ft.
 Relative: Higher

Site Name : GREEN'S ART SUPPLY | FORMER
 GASOLINE DISPENSING STATION
 400 SOUTH OLD WOODWARD AVENUE |
 400 S OLD WOODWARD AVE
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [FED BROWNFIELDS, FRS, UST - MI]
(cont.)

EnviroSite ID: 3298439
EPA ID: N/R

FED BROWNFIELDS (cont.)

Media Affected: Indoor Air :	N/R
Media Affected: Unknown :	N/R
Media Cleaned Up: Air :	N/R
Media Cleaned Up: Sediments :	N/R
Media Cleaned Up: Soil :	N/R
Media Cleaned Up: Drinking Water :	N/R
Media Cleaned Up: Ground Water :	N/R
Media Cleaned Up: Surface Water :	N/R
Media Cleaned Up: Bldg Materials :	N/R
Media Cleaned Up: Indoor Air :	N/R
Media Cleaned Up: Unknown :	N/R
ST/Tribal Prg ID Number :	N/R
Further Action/Cleanup :	N/R
Enrollment ST/Tribal Prg :	N/R
Institutional Ctrl (ICs) Req? :	N
IC Category: Proprietary Controls :	N/R
IC Category: Informational Devices :	N/R
IC Category: Governmental Controls :	N/R
IC Category: Enforcement/Permit Tools:	N/R
ICs in Place? :	N
Date ICs in Place :	N/R
Cleanup Start Date :	N/R
Cleanup Completion Date :	N/R
Redevelopment Start Date :	N/R
Future Use: Greenspace :	N/R
Future Use: Residential :	N/R
Future Use: Commercial :	N/R
Future Use: Industrial :	N/R
Future Use: Multistory (acres) :	0
Number of Cleanup and Redev Jobs :	N/R
Acreage and Greenspace Created :	N/R
Photographs are Available :	Y
Video is Available :	N

Assessment Details

Accomplishment Counted :	N
Assessment Phase :	Phase II Environmental Assessment
Assessment Start Date :	2013-12-20
Assessment Completion Date :	2014-02-07
Amount of Assessment Funding :	9900
Source of Assessment Funding :	EPA
Entity Providing Assessment Funds :	US EPA - Brownfields Assessment Cooperative Agreement
Source of Cleanup Funding :	N/R
Entity Providing Cleanup Funds :	N/R
Amount of Cleanup Funding :	N/R
Source of Redevelopment Funding :	N/R
Entity Prvding Redevelopment Funds :	N/R
Amount of Redevelopment Funding :	N/R

Accomplishment Counted :	Y
Assessment Phase :	Phase I Environmental Assessment

Map Id: I48
 Direction: WNW
 Distance: 0.269 mi.
 Actual: 1419.192 ft.
 Elevation: 0.145 mi. / 766.109 ft.
 Relative: Higher

Site Name : GREEN'S ART SUPPLY | FORMER
 GASOLINE DISPENSING STATION
 400 SOUTH OLD WOODWARD AVENUE |
 400 S OLD WOODWARD AVE
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [FED BROWNFIELDS, FRS, UST - MI]
(cont.)

EnviroSite ID: 3298439
EPA ID: N/R

FED BROWNFIELDS (cont.)

Assessment Start Date :	2013-12-20
Assessment Completion Date :	2014-02-07
Amount of Assessment Funding :	1200
Source of Assessment Funding :	EPA
Entity Providing Assessment Funds :	US EPA - Brownfields Assessment Cooperative Agreement
Source of Cleanup Funding :	N/R
Entity Providing Cleanup Funds :	N/R
Amount of Cleanup Funding :	N/R
Source of Redevelopment Funding :	N/R
Entity Prvdng Redevelopment Funds :	N/R
Amount of Redevelopment Funding :	N/R

FRS

Facility Name :	GREEN'S ART SUPPLY
Facility Address :	400 SOUTH OLD WOODWARD AVENUE, BIRMINGHAM, MI 48009
County :	OAKLAND

Registry ID :	110059657367
FRS Facility URL :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	08/31/2020

Source Description :

ACRES stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions.

FRS Environmental Interest	
Source and System ID :	ACRES - 170095

UST - MI

Facility Name :	Former Gasoline Dispensing Station
Facility Address :	400 S OLD WOODWARD AVE, BIRMINGHAM, MI 48009-6610
County :	OAKLAND

Site Details

Facility Number :	00042635
Region :	1
Facility Contact :	N/R
Latitude :	N/R
Longitude :	N/R
Last Date in Agency List :	03/20/2020

Map Id: I48
 Direction: WNW
 Distance: 0.269 mi.
 Actual: 1419.192 ft.
 Elevation: 0.145 mi. / 766.109 ft.
 Relative: Higher

Site Name : GREEN'S ART SUPPLY | FORMER
 GASOLINE DISPENSING STATION
 400 SOUTH OLD WOODWARD AVENUE |
 400 S OLD WOODWARD AVE
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [FED BROWNFIELDS, FRS, UST - MI]
(cont.)

EnviroSite ID: 3298439
EPA ID: N/R

UST - MI (cont.)

Owner Summary

Owner Name : 400 S Old Woodward LLC
 Owner Address : 640 N Old Woodward Suite 100, Birmingham, MI 48009
 Owner Country : N/R
 Owner Phone : 2483209995

Tank Information

Installation Date : 01/01/1930
 New Tank Number : UTK-140530-15
 Old Tank Number : 1
 Tank Status : Removed from Ground
 Tank Content : Diesel
 Capacity (in gallons) : 2000
 Removed/Closed Date : 10/16/2015
 Number of Compartments : N/R
 Piping Material : N/R
 Piping Type : N/R
 Tank Material : Asphalt Coated or Bare Steel,Other
 Impressed Current Installed : N/R

Installation Date : 01/01/1930
 New Tank Number : UTK-140531-15
 Old Tank Number : 2
 Tank Status : Removed from Ground
 Tank Content : Diesel
 Capacity (in gallons) : 2000
 Removed/Closed Date : 10/16/2015
 Number of Compartments : N/R
 Piping Material : N/R
 Piping Type : N/R
 Tank Material : Asphalt Coated or Bare Steel,Other
 Impressed Current Installed : N/R

Map Id: I49
 Direction: WNW
 Distance: 0.276 mi.
 Actual: 1457.152 ft.
 Elevation: 0.145 mi. / 766.46 ft.
 Relative: Higher

Site Name : Green's Art Supply
 400 South Old Woodward
 Birmingham, MI 48009
Database(s) : [BEA - MI]

EnviroSite ID: 3343999
EPA ID: N/R

BEA - MI

Facility Name : Green's Art Supply
 Facility Address : 400 South Old Woodward, Birmingham, 48009
 County : Oakland

Map Id: I49
 Direction: WNW
 Distance: 0.276 mi.
 Actual: 1457.152 ft.
 Elevation: 0.145 mi. / 766.46 ft.
 Relative: Higher

Site Name : Green's Art Supply
 400 South Old Woodward
 Birmingham, MI 48009
Database(s) : [BEA - MI] (**cont.**)

EnviroSite ID: 3343999
EPA ID: N/R

BEA - MI (**cont.**)

Facility ID : N/R
 BEA Number : 201406069LV
 Data Source : BEA
 District : Southeast MI
 Township : Birmingham
 Latitude : N/R
 Longitude : N/R
 Last Date in Agency List : 2020-09-25

Map Id: L50
 Direction: NW
 Distance: 0.285 mi.
 Actual: 1505.118 ft.
 Elevation: 0.146 mi. / 769.104 ft.
 Relative: Higher

Site Name : JAX KAR WASH #048 | WASH DEPOT | JAX
 KAR WASH
 34745 WOODWARD AVE
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, LUST - MI, LWF - MI, SHWS - MI,
 UST - MI]

EnviroSite ID: 3344307
EPA ID: N/R

BEA - MI

Facility Name : JAX KAR WASH
 Facility Address : 34745 WOODWARD AVENUE, Birmingham, 48009
 County : Oakland

Facility ID : N/R
 BEA Number : 200101459LV
 Data Source : BEA
 District : Southeast MI
 Township : Birmingham
 Latitude : N/R
 Longitude : N/R
 Last Date in Agency List : 2020-09-25

LUST - MI

Facility Name : Jax Kar Wash #048
 Facility Address : 34745 WOODWARD AVE, BIRMINGHAM, 48009-
 County : Oakland

Site Details

Date of Collection : 01/11/2001
 Facility ID : 00001952
 Accuracy : 100
 Accuracy Value Unit : FEET
 Horizontal Datum : NAD83
 Source : STATE OF MICHIGAN
 Point/Line/Area : POINT
 Description Category : Plant Entrance (Freight)
 Method of Collection : Address Matching-House Number

Map Id: L50
 Direction: NW
 Distance: 0.285 mi.
 Actual: 1505.118 ft.
 Elevation: 0.146 mi. / 769.104 ft.
 Relative: Higher

Site Name : JAX KAR WASH #048 | WASH DEPOT | JAX
 KAR WASH
 34745 WOODWARD AVE
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, LUST - MI, LWF - MI, SHWS - MI,
 UST - MI] **(cont.)**

EnviroSite ID: 3344307
EPA ID: N/R

LUST - MI **(cont.)**

District : Warren
 Latitude : 42.539494
 Longitude : -83.207062
 Last Date in Agency List : 09/21/2020

Owner Summary

Owner Name : JaxKar Wash #048
 Owner Address : UNKNOWN, MI
 Owner Country : USA
 Owner Contact Person : N/R
 Owner Phone Number : N/R

Release Information

Release Date : 10/27/2000
 Release Status : Open
 Substance Released : Unknown
 Release Closed Date : N/R
 Leak Number : C-0859-00
 LUST Site Name : Jax Kar Wash #048

LWF - MI

Facility Name : WASH DEPOT
 Facility Address : 34745 WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

WDS ID : 429618
 Site ID : MIG000026887
 Site Legal Name : WASH DEPOT
 Contact Name : N/R
 Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 08/19/2020

SHWS - MI

Facility Name : Jax Kar Wash #048
 Facility Address : 34745 WOODWARD AVE, BIRMINGHAM, 48009
 County : Oakland

Facility ID : 00001952
 Data Source : Part 213
 District : Southeast MI
 Township : N/R
 Latitude : 42.53949
 Longitude : -83.20706
 Last Date in Agency List : 2020-09-26

Map Id: L50
 Direction: NW
 Distance: 0.285 mi.
 Actual: 1505.118 ft.
 Elevation: 0.146 mi. / 769.104 ft.
 Relative: Higher

Site Name : JAX KAR WASH #048 | WASH DEPOT | JAX
 KAR WASH
 34745 WOODWARD AVE
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, LUST - MI, LWF - MI, SHWS - MI,
 UST - MI] **(cont.)**

EnviroSite ID: 3344307
EPA ID: N/R

UST - MI

Facility Name : Jax Kar Wash #048
 Facility Address : 34745 WOODWARD AVE, BIRMINGHAM, MI 48009-0927
 County : OAKLAND

Site Details

Facility Number : 00001952
 Region : 1
 Facility Contact : N/R
 Latitude : 42.5394940000
 Longitude : -83.2070620000
 Last Date in Agency List : 03/20/2020

Owner Summary

Owner Name : Jax Kar Wash #048
 Owner Address : 34745 Woodward, Birmingham, MI 48011
 Owner Country : N/R
 Owner Phone : N/R

Tank Information

Installation Date : 01/01/1966
 New Tank Number : UTK-091828-15
 Old Tank Number : 1
 Tank Status : Removed from Ground
 Tank Content : Gasoline
 Capacity (in gallons) : 10000
 Removed/Closed Date : 10/27/2000
 Number of Compartments : N/R
 Piping Material : Galvanized Steel
 Piping Type : N/R
 Tank Material : Asphalt Coated or Bare Steel
 Impressed Current Installed : N/R

Installation Date : 01/01/1966
 New Tank Number : UTK-091831-15
 Old Tank Number : 2
 Tank Status : Removed from Ground
 Tank Content : Gasoline
 Capacity (in gallons) : 10000
 Removed/Closed Date : 10/27/2000
 Number of Compartments : N/R
 Piping Material : Galvanized Steel
 Piping Type : N/R
 Tank Material : Asphalt Coated or Bare Steel
 Impressed Current Installed : N/R

Map Id: M51
 Direction: N
 Distance: 0.303 mi.
 Actual: 1600.984 ft.
 Elevation: 0.145 mi. / 766.234 ft.
 Relative: Higher

Site Name : BUDGET RENT-A-CAR
 1000 E MAPLE RD
 BIRMINGHAM, MI 48009
Database(s) : [LUST - MI, LWF - MI, SHWS - MI, UST - MI]

EnviroSite ID: 3361463
EPA ID: N/R

LUST - MI

Facility Name : Budget Rent-a-car
 Facility Address : 1000 E MAPLE RD, BIRMINGHAM, 48009-
 County : Oakland

Site Details

Date of Collection : 01/11/2001
 Facility ID : 00007720
 Accuracy : 100
 Accuracy Value Unit : FEET
 Horizontal Datum : NAD83
 Source : STATE OF MICHIGAN
 Point/Line/Area : POINT
 Description Category : Plant Entrance (Freight)
 Method of Collection : Address Matching-House Number
 District : Warren
 Latitude : 42.546703
 Longitude : -83.206539
 Last Date in Agency List : 09/21/2020

Owner Summary

Owner Name : ConineRentals, Inc
 Owner Address : UNKNOWN, MI
 Owner Country : USA
 Owner Contact Person : N/R
 Owner Phone Number : N/R

Release Information

Release Date : 06/01/1990
 Release Status : Open
 Substance Released : N/R
 Release Closed Date : N/R
 Leak Number : C-0990-90
 LUST Site Name : Budget Rent-a-car

Release Date : 05/11/1990
 Release Status : Open
 Substance Released : N/R
 Release Closed Date : N/R
 Leak Number : C-0844-90
 LUST Site Name : Budget Rent A Car

LWF - MI

Facility Name : BUDGET RENT A CAR
 Facility Address : 1000 E MAPLE RD, BIRMINGHAM, MI 48009
 County : OAKLAND

Map Id: M51
 Direction: N
 Distance: 0.303 mi.
 Actual: 1600.984 ft.
 Elevation: 0.145 mi. / 766.234 ft.
 Relative: Higher

Site Name : BUDGET RENT-A-CAR
 1000 E MAPLE RD
 BIRMINGHAM, MI 48009
Database(s) : [LUST - MI, LWF - MI, SHWS - MI, UST - MI]
(cont.)

Envirosite ID: 3361463
EPA ID: N/R

LWF - MI (cont.)

WDS ID : 453923
 Site ID : MIG000018867
 Site Legal Name : BUDGET RENT A CAR
 Contact Name : N/R
 Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 08/19/2020

SHWS - MI

Facility Name : Budget Rent-a-car
 Facility Address : 1000 E MAPLE RD, BIRMINGHAM, 48009
 County : Oakland

Facility ID : 00007720
 Data Source : Part 213
 District : Southeast MI
 Township : N/R
 Latitude : 42.54670
 Longitude : -83.20654
 Last Date in Agency List : 2020-09-26

UST - MI

Facility Name : Budget Rent-a-car
 Facility Address : 1000 E MAPLE RD, BIRMINGHAM, MI 48009-6423
 County : OAKLAND

Site Details

Facility Number : 00007720
 Region : 1
 Facility Contact : N/R
 Latitude : 42.5467030000
 Longitude : -83.2065390000
 Last Date in Agency List : 03/20/2020

Owner Summary

Owner Name : Conine Rentals, Inc
 Owner Address : 8715 Wickham Rd, Romulus, MI 48174-1915
 Owner Country : N/R
 Owner Phone : 7343266880

Tank Information

Installation Date : N/R
 New Tank Number : UTK-039364-15
 Old Tank Number : 4
 Tank Status : Removed from Ground
 Tank Content : Used Oil

Map Id: M51
 Direction: N
 Distance: 0.303 mi.
 Actual: 1600.984 ft.
 Elevation: 0.145 mi. / 766.234 ft.
 Relative: Higher

Site Name : BUDGET RENT-A-CAR
 1000 E MAPLE RD
 BIRMINGHAM, MI 48009
Database(s) : [LUST - MI, LWF - MI, SHWS - MI, UST - MI]
(cont.)

EnviroSite ID: 3361463
EPA ID: N/R

UST - MI (cont.)

Capacity (in gallons) :	550
Removed/Closed Date :	06/17/1991
Number of Compartments :	N/R
Piping Material :	Unknown
Piping Type :	N/R
Tank Material :	Unknown
Impressed Current Installed :	N/R
Installation Date :	N/R
New Tank Number :	UTK-089516-15
Old Tank Number :	1
Tank Status :	Removed from Ground
Tank Content :	Gasoline
Capacity (in gallons) :	10000
Removed/Closed Date :	06/17/1991
Number of Compartments :	N/R
Piping Material :	Unknown
Piping Type :	N/R
Tank Material :	Unknown
Impressed Current Installed :	N/R
Installation Date :	N/R
New Tank Number :	UTK-089519-15
Old Tank Number :	2
Tank Status :	Removed from Ground
Tank Content :	Gasoline
Capacity (in gallons) :	10000
Removed/Closed Date :	06/17/1991
Number of Compartments :	N/R
Piping Material :	Unknown
Piping Type :	N/R
Tank Material :	Unknown
Impressed Current Installed :	N/R
Installation Date :	N/R
New Tank Number :	UTK-089523-15
Old Tank Number :	3
Tank Status :	Removed from Ground
Tank Content :	Kerosene
Capacity (in gallons) :	1000
Removed/Closed Date :	06/17/1991
Number of Compartments :	N/R
Piping Material :	Unknown
Piping Type :	N/R
Tank Material :	Unknown
Impressed Current Installed :	N/R

Map Id: N52
 Direction: N
 Distance: 0.304 mi.
 Actual: 1603.641 ft.
 Elevation: 0.145 mi. / 764.616 ft.
 Relative: Higher

Site Name : AMOCO OIL CO | Birmingham Standard |
 AMOCO OIL CO 5349 BIRMINGHAM
 1088 E MAPLE RD
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI,
 RCRA_NONGEN, UST - MI]

Envirosite ID: 3271128
EPA ID: N/R

ECHO

Facility Name :	AMOCO OIL CO
Facility Address :	1088 E MAPLE RD, BIRMINGHAM, MI 48009
County :	OAKLAND
Last Inspection Date :	N/R
Registry ID :	110003660459
FIPS Code :	26125
EPA Region :	05
Inspection Count :	0
Last Inspection Days :	N/R
Informal Count :	0
Last Informal Action Date :	N/R
Formal Action Count :	0
Last Formal Action Date :	N/R
Total Penalties :	0
Penalty Count :	N/R
Last Penalty Date :	N/R
Last Penalty Amount :	N/R
QTRS IN NC :	0
Programs IN SNC :	0
Current Compliance Status :	No Violation Identified
Three-Year Compliance Status :	
Collection Method :	ADDRESS MATCHING-HOUSE NUMBER
Reference Point :	CENTER OF A FACILITY OR STATION
Accuracy Meters :	30
Derived Tribes :	N/R
Derived HUC :	04090003
Derived WBD :	040900030202
Derived STCTY FIPS :	26125
Derived Zip :	48009
Derived CD113 :	11
Derived CB2010 :	261251529002001
MYRTK Universe :	NNN
NPDES IDs :	N/R
CWA Permit Types :	N/R
CWA Compliance Tracking :	N/R
CWA NAICS :	N/R
CWA SICS :	N/R
CWA Inspection Count :	N/R
CWA Last Inspection Days :	N/R
CWA Informal Count :	N/R
CWA Formal Action Count :	N/R
CWA Last Formal Action Date :	N/R
CWA Penalties :	N/R
CWA Last Penalty Date :	N/R
CWA Last Penalty Amount :	N/R
CWA Quarters IN NC :	N/R
CWA Current Compliance Status :	N/R
CWA Current SNC Flag :	N
CWA 13 Quarters Compliance Status :	N/R
CWA 13 Quarters Effluent Exceedances:	N/R
CWA Three-Year QNCR Codes :	N/R
DFR URL :	Click here for hyperlink provided by the agency.
Facility SIC :	N/R

Map Id: N52
 Direction: N
 Distance: 0.304 mi.
 Actual: 1603.641 ft.
 Elevation: 0.145 mi. / 764.616 ft.
 Relative: Higher

Site Name : AMOCO OIL CO | Birmingham Standard |
 AMOCO OIL CO 5349 BIRMINGHAM
 1088 E MAPLE RD
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI,
 RCRA_NONGEN, UST - MI] **(cont.)**

EnviroSite ID: 3271128
EPA ID: N/R

ECHO (cont.)

Facility NAICS :	11131 - Orange Groves
Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	N/R
Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R
Facility Last Informal Act EPA Date :	N/R
Facility Last Informal Act State Date:	N/R
Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	N/R
Current SNC Flag :	N
Indian County Flag :	N
Federal Flag :	N/R
US Mexico Border Flag :	N/R
Chesapeake Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	N
SDWIS Flag :	N
RCRA Flag :	Y
TRI Flag :	N
GHG Flag :	N
Major Flag :	N/R
Active Flag :	N/R
NAA Flag :	Y
Latitude :	42.54691
Longitude :	-83.20612
Last Date in Agency List :	2020-12-31

FRS

Facility Name :	AMOCO OIL CO
Facility Address :	1088 E MAPLE RD, BIRMINGHAM, MI 48009
County :	OAKLAND
Registry ID :	110003660459
FRS Facility URL :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	08/31/2020

Source Description :

RCRAInfo is EPA's comprehensive information system that supports the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984 through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA. RCRAInfo also supports generation of the National Hazardous Waste Biennial Report. All generators and treatment, storage, and disposal facilities who handle hazardous waste are required to report to the EPA Administrator at least once every two years to support creation of the Biennial Report.

Map Id: N52
 Direction: N
 Distance: 0.304 mi.
 Actual: 1603.641 ft.
 Elevation: 0.145 mi. / 764.616 ft.
 Relative: Higher

Site Name : AMOCO OIL CO | Birmingham Standard |
 AMOCO OIL CO 5349 BIRMINGHAM
 1088 E MAPLE RD
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI,
 RCRA_NONGEN, UST - MI] **(cont.)**

Envirosite ID: 3271128
EPA ID: N/R

FRS (cont.)

FRS Environmental Interest
 Source and System ID : RCRAINFO - MID985618065

HWG - MI

Facility Name : AMOCO OIL CO 5349 BIRMINGHAM
 Facility Address : 1088 E MAPLE RD, BIRMINGHAM, MI 48009
 County : OAKLAND

WDS ID : 405686
 Site ID : MID985618065
 Generator Status : No longer generating, still in business
 Site Legal Name : AMOCO OIL CO
 Contact Name : N/R
 Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 2021-01-04

LUST - MI

Facility Name : Birmingham Standard
 Facility Address : 1088 E MAPLE RD, BIRMINGHAM, 48009-
 County : Oakland

Site Details

Date of Collection : 01/11/2001
 Facility ID : 00001897
 Accuracy : 100
 Accuracy Value Unit : FEET
 Horizontal Datum : NAD83
 Source : STATE OF MICHIGAN
 Point/Line/Area : POINT
 Description Category : Plant Entrance (Freight)
 Method of Collection : Address Matching-House Number
 District : Warren
 Latitude : 42.546714
 Longitude : -83.206115
 Last Date in Agency List : 09/21/2020

Owner Summary

Owner Name : BirminghamStandard
 Owner Address : UNKNOWN, MI
 Owner Country : USA
 Owner Contact Person : N/R
 Owner Phone Number : N/R

Map Id: N52
 Direction: N
 Distance: 0.304 mi.
 Actual: 1603.641 ft.
 Elevation: 0.145 mi. / 764.616 ft.
 Relative: Higher

Site Name : AMOCO OIL CO | Birmingham Standard |
 AMOCO OIL CO 5349 BIRMINGHAM
 1088 E MAPLE RD
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI,
 RCRA_NONGEN, UST - MI] **(cont.)**

Envirosite ID: 3271128
EPA ID: N/R

LUST - MI **(cont.)**

Release Information

Release Date :	N/R
Release Status :	Closed
Substance Released :	N/R
Release Closed Date :	05/21/1996
Leak Number :	C-0863-85
LUST Site Name :	Amoco #5349

RCRA_NONGEN

Facility Name :	AMOCO OIL CO
Facility Address :	1088 E MAPLE RD, BIRMINGHAM, MI 48009
County :	OAKLAND
Date Form Received by Agency :	09/17/1998
EPA ID :	MID985618065
Mailing Address :	30230 ORCHARD LAKE RD, FARMINGTON HILLS, MI 48334
Contact :	KAYE CLEGHORN
Contact Address :	1088 E MAPLE RD, BIRMINGHAM, MI 48009
Contact Country :	US
Contact Telephone :	313-855-1060
Contact Email :	N/R
EPA Region :	05
Land Type :	Private
Source Type :	Implementer
Classification :	Not a generator, verified
Description :	Not a generator, verified
Last Date in Agency List :	10/19/2020

Owner/Operator Summary

Owner/Operator Name :	AMOCO OIL CO
Owner/Operator Address :	N/R
Owner/Operator Country :	N/R
Owner/Operator Telephone :	N/R
Owner/Operator Email :	N/R
Owner/Operator Fax :	N/R
Legal Status :	Private
Owner/Operator Type :	Operator
Owner/Operator Start Date :	01/01/1970
Owner/Operator End Date :	N/R

Owner/Operator Name :	AMOCO OIL CO
Owner/Operator Address :	N/R
Owner/Operator Country :	N/R
Owner/Operator Telephone :	N/R
Owner/Operator Email :	N/R
Owner/Operator Fax :	N/R
Legal Status :	Private
Owner/Operator Type :	Owner
Owner/Operator Start Date :	01/01/1970
Owner/Operator End Date :	N/R

Map Id: N52
 Direction: N
 Distance: 0.304 mi.
 Actual: 1603.641 ft.
 Elevation: 0.145 mi. / 764.616 ft.
 Relative: Higher

Site Name : AMOCO OIL CO | Birmingham Standard |
 AMOCO OIL CO 5349 BIRMINGHAM
 1088 E MAPLE RD
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI,
 RCRA_NONGEN, UST - MI] **(cont.)**

EnviroSite ID: 3271128
EPA ID: N/R

RCRA_NONGEN (cont.)

Handler Activities Summary

U.S. Importer of Hazardous Waste :	N
Mixed Waste (Haz. and Radioactive) :	N
Recycler of Hazardous Waste :	N
Transporter of Hazardous Waste :	N
Treater, Storer or Disposer of HW :	N
Underground Injection Activity :	N
On-site Burner Exemption :	N
Furnace Exemption :	N
Used Oil Fuel Burner :	N
Used Oil Processor :	N
Used Oil Refiner :	N
Used Oil Fuel Marketer to Burner :	N
Used Oil Specification Marketer :	N
Used Oil Transfer Facility :	N
Used Oil Transporter :	N

Historical Generators

Date Form Received by Agency :	06/02/1991
Facility Name :	AMOCO OIL CO
Classification :	Small Quantity Generator

Hazardous Waste Summary

Waste Code / Name :	D001 - IGNITABLE WASTE

Notices of Violations Summary

Regulation Violated :	N

UST - MI

Facility Name :	Birmingham Standard
Facility Address :	1088 E MAPLE RD, BIRMINGHAM, MI 48009-6423
County :	OAKLAND

Site Details

Facility Number :	00001897
Region :	1
Facility Contact :	N/R
Latitude :	42.5467140000
Longitude :	-83.2061150000
Last Date in Agency List :	03/20/2020

Map Id: N52
 Direction: N
 Distance: 0.304 mi.
 Actual: 1603.641 ft.
 Elevation: 0.145 mi. / 764.616 ft.
 Relative: Higher

Site Name : AMOCO OIL CO | Birmingham Standard |
 AMOCO OIL CO 5349 BIRMINGHAM
 1088 E MAPLE RD
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI,
 RCRA_NONGEN, UST - MI] **(cont.)**

EnviroSite ID: 3271128
EPA ID: N/R

UST - MI **(cont.)**

Owner Summary

Owner Name : Birmingham Standard
 Owner Address : 4215 Yorba Linda Blvd, Royal Oak, MI 48073-6463
 Owner Country : N/R
 Owner Phone : 3136424888

Tank Information

Installation Date : 04/11/1986
 New Tank Number : UTK-027732-15
 Old Tank Number : 7
 Tank Status : Removed from Ground
 Tank Content : Used Oil
 Capacity (in gallons) : 560
 Removed/Closed Date : 11/22/1994
 Number of Compartments : N/R
 Piping Material : Unknown
 Piping Type : N/R
 Tank Material : Asphalt Coated or Bare Steel, Cathodically Protected Steel
 Impressed Current Installed : N/R

Installation Date : 04/11/1952
 New Tank Number : UTK-007192-15
 Old Tank Number : 6
 Tank Status : Removed from Ground
 Tank Content : Diesel
 Capacity (in gallons) : 560
 Removed/Closed Date : 01/31/1994
 Number of Compartments : N/R
 Piping Material : Unknown
 Piping Type : N/R
 Tank Material : Asphalt Coated or Bare Steel
 Impressed Current Installed : N/R

Installation Date : 04/11/1952
 New Tank Number : UTK-010360-15
 Old Tank Number : 3
 Tank Status : Removed from Ground
 Tank Content : Gasoline
 Capacity (in gallons) : 5500
 Removed/Closed Date : 11/22/1994
 Number of Compartments : N/R
 Piping Material : Unknown
 Piping Type : N/R
 Tank Material : Asphalt Coated or Bare Steel
 Impressed Current Installed : N/R

Installation Date : 04/11/1952
 New Tank Number : UTK-030847-15
 Old Tank Number : 1
 Tank Status : Removed from Ground

Map Id: N52
 Direction: N
 Distance: 0.304 mi.
 Actual: 1603.641 ft.
 Elevation: 0.145 mi. / 764.616 ft.
 Relative: Higher

Site Name : AMOCO OIL CO | Birmingham Standard |
 AMOCO OIL CO 5349 BIRMINGHAM
 1088 E MAPLE RD
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI,
 RCRA_NONGEN, UST - MI] **(cont.)**

EnviroSite ID: 3271128
EPA ID: N/R

UST - MI **(cont.)**

Tank Content :	Gasoline
Capacity (in gallons) :	4000
Removed/Closed Date :	11/22/1994
Number of Compartments :	N/R
Piping Material :	Unknown
Piping Type :	N/R
Tank Material :	Asphalt Coated or Bare Steel
Impressed Current Installed :	N/R

Installation Date :	04/11/1952
New Tank Number :	UTK-074029-15
Old Tank Number :	2
Tank Status :	Removed from Ground
Tank Content :	Gasoline
Capacity (in gallons) :	4000
Removed/Closed Date :	11/22/1994
Number of Compartments :	N/R
Piping Material :	Unknown
Piping Type :	N/R
Tank Material :	Asphalt Coated or Bare Steel
Impressed Current Installed :	N/R

Installation Date :	04/11/1952
New Tank Number :	UTK-074031-15
Old Tank Number :	4
Tank Status :	Removed from Ground
Tank Content :	Gasoline
Capacity (in gallons) :	5500
Removed/Closed Date :	11/22/1994
Number of Compartments :	N/R
Piping Material :	Unknown
Piping Type :	N/R
Tank Material :	Asphalt Coated or Bare Steel
Impressed Current Installed :	N/R

Installation Date :	04/11/1952
New Tank Number :	UTK-074034-15
Old Tank Number :	5
Tank Status :	Removed from Ground
Tank Content :	Gasoline
Capacity (in gallons) :	6000
Removed/Closed Date :	11/22/1994
Number of Compartments :	N/R
Piping Material :	Unknown
Piping Type :	N/R
Tank Material :	Asphalt Coated or Bare Steel
Impressed Current Installed :	N/R

Map Id: N53
 Direction: N
 Distance: 0.308 mi.
 Actual: 1623.654 ft.
 Elevation: 0.145 mi. / 764.344 ft.
 Relative: Higher

Site Name : MOBIL OIL CORP | Maple Gas Property, LLC
 1065 E MAPLE RD | 1065 East Maple Road
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, ECHO, FRS, HWG - MI, RCRA_NONGEN]

Envirosite ID: 3344815
EPA ID: N/R

BEA - MI

Facility Name : Maple Gas Property, LLC
 Facility Address : 1065 East Maple Road, Birmingham, 48009
 County : Oakland

Facility ID : N/R
 BEA Number : 201606876LV
 Data Source : BEA
 District : Southeast MI
 Township : Birmingham
 Latitude : N/R
 Longitude : N/R
 Last Date in Agency List : 2020-09-25

ECHO

Facility Name : MOBIL OIL CORP
 Facility Address : 1065 E MAPLE RD, BIRMINGHAM, MI 48009
 County : OAKLAND

Last Inspection Date : N/R
 Registry ID : 110003655688
 FIPS Code : 26125
 EPA Region : 05
 Inspection Count : 0
 Last Inspection Days : N/R
 Informal Count : 0
 Last Informal Action Date : N/R
 Formal Action Count : 0
 Last Formal Action Date : N/R
 Total Penalties : 0
 Penalty Count : N/R
 Last Penalty Date : N/R
 Last Penalty Amount : N/R
 QTRS IN NC : 0
 Programs IN SNC : 0
 Current Compliance Status : No Violation Identified
 Three-Year Compliance Status :
 Collection Method : ADDRESS MATCHING-HOUSE NUMBER
 Reference Point : CENTER OF A FACILITY OR STATION
 Accuracy Meters : 30
 Derived Tribes : N/R
 Derived HUC : 04090003
 Derived WBD : 040900030202
 Derived STCTY FIPS : 26125
 Derived Zip : 48009
 Derived CD113 : 11
 Derived CB2010 : 261251531002036
 MYRTK Universe : NNN
 NPDES IDs : N/R
 CWA Permit Types : N/R
 CWA Compliance Tracking : N/R
 CWA NAICS : N/R
 CWA SICs : N/R

Map Id: N53
 Direction: N
 Distance: 0.308 mi.
 Actual: 1623.654 ft.
 Elevation: 0.145 mi. / 764.344 ft.
 Relative: Higher

Site Name : MOBIL OIL CORP | Maple Gas Property, LLC
 1065 E MAPLE RD | 1065 East Maple Road
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, ECHO, FRS, HWG - MI, RCRA_NONGEN] **(cont.)**

Envirosite ID: 3344815
EPA ID: N/R

ECHO (cont.)

CWA Inspection Count :	N/R
CWA Last Inspection Days :	N/R
CWA Informal Count :	N/R
CWA Formal Action Count :	N/R
CWA Last Formal Action Date :	N/R
CWA Penalties :	N/R
CWA Last Penalty Date :	N/R
CWA Last Penalty Amount :	N/R
CWA Quarters IN NC :	N/R
CWA Current Compliance Status :	N/R
CWA Current SNC Flag :	N
CWA 13 Quarters Compliance Status :	N/R
CWA 13 Quarters Effluent Exceedances:	N/R
CWA Three-Year QNCR Codes :	N/R
DFR URL :	Click here for hyperlink provided by the agency.
Facility SIC :	N/R
Facility NAICS :	44719 - Other Gasoline Stations
Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	N/R
Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R
Facility Last Informal Act EPA Date :	N/R
Facility Last Informal Act State Date:	N/R
Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	N/R
Current SNC Flag :	N
Indian County Flag :	N
Federal Flag :	N/R
US Mexico Border Flag :	N/R
Chesapeake Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	N
SDWIS Flag :	N
RCRA Flag :	Y
TRI Flag :	N
GHG Flag :	N
Major Flag :	N/R
Active Flag :	N/R
NAA Flag :	Y
Latitude :	42.54692
Longitude :	-83.20603
Last Date in Agency List :	2020-12-31

FRS

Facility Name :	MOBIL OIL CORP
Facility Address :	1065 E MAPLE RD, BIRMINGHAM, MI 48009
County :	OAKLAND
Registry ID :	110003655688
FRS Facility URL :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	08/31/2020

Map Id: N53
 Direction: N
 Distance: 0.308 mi.
 Actual: 1623.654 ft.
 Elevation: 0.145 mi. / 764.344 ft.
 Relative: Higher

Site Name : MOBIL OIL CORP | Maple Gas Property, LLC
 1065 E MAPLE RD | 1065 East Maple Road
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, ECHO, FRS, HWG - MI, RCRA_NONGEN] **(cont.)**

EnviroSite ID: 3344815
EPA ID: N/R

FRS (cont.)

Source Description :

RCRAInfo is EPA's comprehensive information system that supports the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984 through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA. RCRAInfo also supports generation of the National Hazardous Waste Biennial Report. All generators and treatment, storage, and disposal facilities who handle hazardous waste are required to report to the EPA Administrator at least once every two years to support creation of the Biennial Report.

FRS Environmental Interest

Source and System ID : RCRAINFO - MID985610443

HWG - MI

Facility Name : MOBIL OIL CORP
 Facility Address : 1065 E MAPLE RD, BIRMINGHAM, MI 48009
 County : OAKLAND

WDS ID : 404936
 Site ID : MID985610443
 Generator Status : No longer generating, out of business
 Site Legal Name : MOBIL OIL CORP
 Contact Name : N/R
 Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 2021-01-04

RCRA_NONGEN

Facility Name : MOBIL OIL CORP
 Facility Address : 1065 E MAPLE RD, BIRMINGHAM, MI 48009
 County : OAKLAND

Date Form Received by Agency : 12/31/2002
 EPA ID : MID985610443
 Mailing Address : 30 OAK HOLLOW ST, SOUTHFIELD, MI
 Contact : DAVID WRIGHT
 Contact Address : 1065 E MAPLE RD, BIRMINGHAM, MI 48009
 Contact Country : US
 Contact Telephone : 313-948-5028
 Contact Email : N/R
 EPA Region : 05
 Land Type : Other land type
 Source Type : Implementer
 Classification : Not a generator, verified
 Description : Not a generator, verified
 Last Date in Agency List : 10/19/2020

Map Id: N53
 Direction: N
 Distance: 0.308 mi.
 Actual: 1623.654 ft.
 Elevation: 0.145 mi. / 764.344 ft.
 Relative: Higher

Site Name : MOBIL OIL CORP | Maple Gas Property, LLC
 1065 E MAPLE RD | 1065 East Maple Road
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, ECHO, FRS, HWG - MI, RCRA_NONGEN] **(cont.)**

EnviroSite ID: 3344815
EPA ID: N/R

RCRA_NONGEN (cont.)

Owner/Operator Summary

Owner/Operator Name :	NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/Operator Address :	N/R
Owner/Operator Country :	N/R
Owner/Operator Telephone :	N/R
Owner/Operator Email :	N/R
Owner/Operator Fax :	N/R
Legal Status :	Private
Owner/Operator Type :	Operator
Owner/Operator Start Date :	01/01/2002
Owner/Operator End Date :	N/R

Owner/Operator Name :	NO ACTIVE O/OP AS NOT GENERATING WASTE
Owner/Operator Address :	N/R
Owner/Operator Country :	N/R
Owner/Operator Telephone :	N/R
Owner/Operator Email :	N/R
Owner/Operator Fax :	N/R
Legal Status :	Private
Owner/Operator Type :	Owner
Owner/Operator Start Date :	01/01/2002
Owner/Operator End Date :	N/R

Handler Activities Summary

U.S. Importer of Hazardous Waste :	N
Mixed Waste (Haz. and Radioactive) :	N
Recycler of Hazardous Waste :	N
Transporter of Hazardous Waste :	N
Treater, Storer or Disposer of HW :	N
Underground Injection Activity :	N
On-site Burner Exemption :	N
Furnace Exemption :	N
Used Oil Fuel Burner :	N
Used Oil Processor :	N
Used Oil Refiner :	N
Used Oil Fuel Marketer to Burner :	N
Used Oil Specification Marketer :	N
Used Oil Transfer Facility :	N
Used Oil Transporter :	N

Historical Generators

Date Form Received by Agency :	04/09/1991
Facility Name :	MOBIL OIL CORP
Classification :	Small Quantity Generator

Hazardous Waste Summary

Waste Code / Name :	D001 - IGNITABLE WASTE

Map Id: N53
 Direction: N
 Distance: 0.308 mi.
 Actual: 1623.654 ft.
 Elevation: 0.145 mi. / 764.344 ft.
 Relative: Higher

Site Name : MOBIL OIL CORP | Maple Gas Property, LLC
 1065 E MAPLE RD | 1065 East Maple Road
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, ECHO, FRS, HWG - MI, RCRA_NONGEN] (**cont.**)

EnviroSite ID: 3344815
EPA ID: N/R

RCRA_NONGEN (**cont.**)

Notices of Violations Summary
 Regulation Violated : N

Map Id: M54
 Direction: N
 Distance: 0.309 mi.
 Actual: 1631.332 ft.
 Elevation: 0.145 mi. / 766.306 ft.
 Relative: Higher

Site Name : Parking Lot (dietz Corp) | BSP REALTY | DIETZ CORPORATION (PARKING LOT)
 985 E MAPLE RD
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, LUST - MI, SHWS - MI, UST - MI]

EnviroSite ID: 3284416
EPA ID: N/R

BEA - MI

Facility Name : BSP REALTY
 Facility Address : 985 E. MAPLE ROAD, Birmingham
 County : Oakland

Facility ID : N/R
 BEA Number : 199800566LV
 Data Source : BEA
 District : Southeast MI
 Township : Birmingham
 Latitude : N/R
 Longitude : N/R
 Last Date in Agency List : 2020-09-25

Facility Name : DIETZ CORPORATION (PARKING LOT)
 Facility Address : 985 E. MAPLE ROAD, Birmingham
 County : Oakland

Facility ID : N/R
 BEA Number : 199700430LV
 Data Source : BEA
 District : Southeast MI
 Township : Birmingham
 Latitude : N/R
 Longitude : N/R
 Last Date in Agency List : 2020-09-25

LUST - MI

Facility Name : Parking Lot (dietz Corp)
 Facility Address : 985 E MAPLE RD, BIRMINGHAM, 48009-
 County : Oakland

Map Id: M54
 Direction: N
 Distance: 0.309 mi.
 Actual: 1631.332 ft.
 Elevation: 0.145 mi. / 766.306 ft.
 Relative: Higher

Site Name : Parking Lot (dietz Corp) | BSP REALTY |
 DIETZ CORPORATION (PARKING LOT)
 985 E MAPLE RD
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, LUST - MI, SHWS - MI, UST - MI]
(cont.)

Envirosite ID: 3284416
EPA ID: N/R

LUST - MI (cont.)

Site Details

Date of Collection :	01/11/2001
Facility ID :	50002129
Accuracy :	100
Accuracy Value Unit :	FEET
Horizontal Datum :	NAD83
Source :	STATE OF MICHIGAN
Point/Line/Area :	POINT
Description Category :	Plant Entrance (Freight)
Method of Collection :	Address Matching-House Number
District :	Warren
Latitude :	42.546961
Longitude :	-83.207281
Last Date in Agency List :	09/21/2020

Owner Summary

Owner Name :	NrtOwner
Owner Address :	UNKNOWN, MI
Owner Country :	USA
Owner Contact Person :	N/R
Owner Phone Number :	N/R

Release Information

Release Date :	10/14/1997
Release Status :	Open
Substance Released :	Unknown
Release Closed Date :	N/R
Leak Number :	C-0999-97
LUST Site Name :	Parking Lot (dietz Corp)

SHWS - MI

Facility Name :	Parking Lot (dietz Corp)
Facility Address :	985 E MAPLE RD, BIRMINGHAM, 48009
County :	Oakland

Facility ID :	50002129
Data Source :	Part 213
District :	Southeast MI
Township :	N/R
Latitude :	42.54696
Longitude :	-83.20728
Last Date in Agency List :	2020-09-26

UST - MI

Facility Name :	Parking Lot (dietz Corp)
Facility Address :	985 E MAPLE RD, BIRMINGHAM, MI 48009-6410
County :	OAKLAND

Map Id: M54
 Direction: N
 Distance: 0.309 mi.
 Actual: 1631.332 ft.
 Elevation: 0.145 mi. / 766.306 ft.
 Relative: Higher

Site Name : Parking Lot (dietz Corp) | BSP REALTY |
 DIETZ CORPORATION (PARKING LOT)
 985 E MAPLE RD
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, LUST - MI, SHWS - MI, UST - MI]
(cont.)

EnviroSite ID: 3284416
EPA ID: N/R

UST - MI (cont.)

Site Details

Facility Number : 50002129
 Region : 1
 Facility Contact : N/R
 Latitude : N/R
 Longitude : N/R
 Last Date in Agency List : 04/02/2019

Owner Summary

Owner Name : Nrt Owner
 Owner Address : Unknown, Unknown, MI 99999
 Owner Country : N/R
 Owner Phone : N/R

Tank Information

Installation Date : N/R
 New Tank Number : UTK-009763-15
 Old Tank Number : N/R
 Tank Status : Removed from Ground
 Tank Content : N/R
 Capacity (in gallons) : N/R
 Removed/Closed Date : 10/14/1997
 Number of Compartments : N/R
 Piping Material : N/R
 Piping Type : N/R
 Tank Material : N/R
 Impressed Current Installed : N/R

Map Id: M55
 Direction: NNW
 Distance: 0.309 mi.
 Actual: 1633.005 ft.
 Elevation: 0.145 mi. / 767.339 ft.
 Relative: Higher

Site Name : ELMWOOD PROPERTIES I, LLC
 920-970 EAST MAPLE ROAD
 Birmingham, MI
Database(s) : [BEA - MI]

EnviroSite ID: 3343289
EPA ID: N/R

BEA - MI

Facility Name : ELMWOOD PROPERTIES I, LLC
 Facility Address : 920-970 EAST MAPLE ROAD, Birmingham
 County : Oakland

Facility ID : 63005779
 BEA Number : 200001133LV
 Data Source : BEA
 District : Southeast MI

Map Id: M55
 Direction: NNW
 Distance: 0.309 mi.
 Actual: 1633.005 ft.
 Elevation: 0.145 mi. / 767.339 ft.
 Relative: Higher

Site Name : ELMWOOD PROPERTIES I, LLC
 920-970 EAST MAPLE ROAD
 Birmingham, MI
Database(s) : [BEA - MI] (**cont.**)

EnviroSite ID: 3343289
EPA ID: N/R

BEA - MI (**cont.**)

Township :	Birmingham
Latitude :	42.53740
Longitude :	-83.58442
Last Date in Agency List :	2020-09-25

Map Id: M56
 Direction: NNW
 Distance: 0.310 mi.
 Actual: 1636.811 ft.
 Elevation: 0.145 mi. / 767.641 ft.
 Relative: Higher

Site Name : 920-970 E. Maple
 920-970 East Maple
 Birmingham, MI 48381
Database(s) : [BROWNFIELDS - MI]

EnviroSite ID: 3300549
EPA ID: N/R

BROWNFIELDS - MI

Facility Name :	920-970 E. Maple
Facility Address :	920-970 East Maple, Birmingham, 48381
County :	Oakland

Facility ID :	63005779
Data Source :	Part 201
District :	Southeast MI
Township :	Birmingham
Latitude :	42.53740
Longitude :	-83.58442
Last Date in Agency List :	2020-09-25

Map Id: L57
 Direction: NW
 Distance: 0.311 mi.
 Actual: 1644.717 ft.
 Elevation: 0.146 mi. / 771.375 ft.
 Relative: Higher

Site Name : WEISS SAMONA
 34901 WOODWARD AVENUE
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [FED BROWNFIELDS, FRS]

EnviroSite ID: 3297873
EPA ID: N/R

FED BROWNFIELDS

Facility Name :	Weiss Samona
Facility Address :	34901 Woodward Avenue, Birmingham, MI 48009

Site Details

ACRES Property ID :	115761
Cooperative Agreement Number :	00E92301
Type of Brownfields Grant :	Assessment
Type of Funding :	Hazardous
Grant Recipient Name :	Oakland County

Map Id: L57
 Direction: NW
 Distance: 0.311 mi.
 Actual: 1644.717 ft.
 Elevation: 0.146 mi. / 771.375 ft.
 Relative: Higher

Site Name : WEISS SAMONA
 34901 WOODWARD AVENUE
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [FED BROWNFIELDS, FRS] **(cont.)**

EnviroSite ID: 3297873
EPA ID: N/R

FED BROWNFIELDS **(cont.)**

IC Data Address : N/R
 Redevelopment Completion Date : N/R
 Property Size (acres) : .52
 Local Property Number(s) : N/R
 Ownership Entity : Private
 Current Owner : N/R
 Did Ownership Change : N/R
 SFLLP fact into the ownership : N/R
 Latitude : 42.545658
 Longitude : -83.2113339
 Horizontal Collection Method : N/R
 Source Map Scale : N/R
 Reference Point : N/R
 Horizontal Reference Datum : N/R

Description/History :

The Property was developed as a feed mill in 1915. From at least 1921 to at least 1931 the Property was used as a lumber and coal yard, with up to nine buildings and several areas labeled as lumber piles. By 1944 the northern portion of the Property was developed with a bowling alley and by 1949 the southwest corner of the Property was developed with a hand laundry building. The southern portion of the Property was occupied by a used car lot by 1960. The bowling alley reportedly operated until at least 1973 when it was occupied for retail uses. A commercial strip mall building was constructed by 1974 and occupied the southern portion of the Property until 2005. Since the demolition of the buildings in 2005, the Property has been used as a parking lot.

Last Date in Agency List : 2020-12-18

Additional Details

Past Use: Greenspace (acres) : N/R
 Past Use: Residential (acres) : N/R
 Past Use: Commercial (acres) : .52
 Past Use: Industrial (acres) : N/R
 Past Use: Multistory (acres) : N/R
 Cleanup Required : U
 Contaminants Found: Controlled Substances: N/R
 Contaminants Found: Petroleum : N/R
 Contaminants Found: Asbestos : N/R
 Contaminants Found: Lead : Y
 Contaminants Found: PAHs : N/R
 Contaminants Found: PCBs : N/R
 Contaminants Found: VOCs : Y
 Contaminants Found: Selenium : N/R
 Contaminants Found: Iron : N/R
 Contaminants Found: Arsenic : N/R
 Contaminants Found: Cadmium : N/R
 Contaminants Found: Chromium : N/R
 Contaminants Found: Copper : N/R
 Contaminants Found: Mercury : N/R
 Contaminants Found: Nickel : N/R
 Contaminants Found: Pesticides : N/R
 Contaminants Found: SVOCs : N/R
 Contaminants Found: Other Metals : Y
 Contaminants Found: Other : N/R
 Contaminants Found: Other (Descr) : N/R

Map Id: L57
 Direction: NW
 Distance: 0.311 mi.
 Actual: 1644.717 ft.
 Elevation: 0.146 mi. / 771.375 ft.
 Relative: Higher

Site Name : WEISS SAMONA
 34901 WOODWARD AVENUE
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [FED BROWNFIELDS, FRS] **(cont.)**

EnviroSite ID: 3297873
EPA ID: N/R

FED BROWNFIELDS **(cont.)**

Contaminants Found: Unknown :	N/R
Contaminants Found: None :	N/R
Contaminants Cleaned Up: Controlled Substances:	N/R
Contaminants Cleaned Up: Petroleum :	N/R
Contaminants Cleaned Up: Asbestos :	N/R
Contaminants Cleaned Up: Lead :	N/R
Contaminants Cleaned Up: PAHs :	N/R
Contaminants Cleaned Up: PCBs :	N/R
Contaminants Cleaned Up: VOCs :	N/R
Contaminants Cleaned Up: Selenium :	N/R
Contaminants Cleaned Up: Iron :	N/R
Contaminants Cleaned Up: Arsenic :	N/R
Contaminants Cleaned Up: Cadmium :	N/R
Contaminants Cleaned Up: Chromium :	N/R
Contaminants Cleaned Up: Copper :	N/R
Contaminants Cleaned Up: Mercury :	N/R
Contaminants Cleaned Up: Nickel :	N/R
Contaminants Cleaned Up: Pesticides :	N/R
Contaminants Cleaned Up: SVOCs :	N/R
Contaminants Cleaned Up: Other Metals:	N/R
Contaminants Cleaned Up: Other :	N/R
Contaminants Cleaned Up: Other (Descr):	N/R
Contaminants Cleaned Up: Unknown :	N/R
Contaminants Cleaned Up: None :	N/R
Media Affected: Air :	N/R
Media Affected: Sediments :	N/R
Media Affected: Soil :	Y
Media Affected: Drinking Water :	N/R
Media Affected: Ground Water :	Y
Media Affected: Surface Water :	N/R
Media Affected: Bldg Materials :	N/R
Media Affected: Indoor Air :	N/R
Media Affected: Unknown :	N/R
Media Cleaned Up: Air :	N/R
Media Cleaned Up: Sediments :	N/R
Media Cleaned Up: Soil :	N/R
Media Cleaned Up: Drinking Water :	N/R
Media Cleaned Up: Ground Water :	N/R
Media Cleaned Up: Surface Water :	N/R
Media Cleaned Up: Bldg Materials :	N/R
Media Cleaned Up: Indoor Air :	N/R
Media Cleaned Up: Unknown :	N/R
ST/Tribal Prg ID Number :	N/R
Further Action/Cleanup :	N/R
Enrollment ST/Tribal Prg :	N/R
Institutional Ctrl (ICs) Req? :	U
IC Category: Proprietary Controls :	N/R
IC Category: Informational Devices :	N/R
IC Category: Governmental Controls :	N/R
IC Category: Enforcement/Permit Tools:	N/R
ICs in Place? :	N/R
Date ICs in Place :	N/R
Cleanup Start Date :	N/R
Cleanup Completion Date :	N/R
Redevelopment Start Date :	N/R

Map Id: L57
 Direction: NW
 Distance: 0.311 mi.
 Actual: 1644.717 ft.
 Elevation: 0.146 mi. / 771.375 ft.
 Relative: Higher

Site Name : WEISS SAMONA
 34901 WOODWARD AVENUE
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [FED BROWNFIELDS, FRS] **(cont.)**

EnviroSite ID: 3297873
EPA ID: N/R

FED BROWNFIELDS **(cont.)**

Future Use: Greenspace : N/R
 Future Use: Residential : N/R
 Future Use: Commercial : N/R
 Future Use: Industrial : N/R
 Future Use: Multistory (acres) : N/R
 Number of Cleanup and Redev Jobs : N/R
 Acreage and Greenspace Created : N/R
 Photographs are Available : Y
 Video is Available : N/R

Assessment Details

Accomplishment Counted : N
 Assessment Phase : Phase I Environmental Assessment
 Assessment Start Date : 2010-04-27
 Assessment Completion Date : N/R
 Amount of Assessment Funding : 2800
 Source of Assessment Funding : EPA
 Entity Providing Assessment Funds : US EPA - Brownfields Assessment Cooperative Agreement
 Source of Cleanup Funding : N/R
 Entity Providing Cleanup Funds : N/R
 Amount of Cleanup Funding : N/R
 Source of Redevelopment Funding : N/R
 Entity Prvding Redevelopment Funds : N/R
 Amount of Redevelopment Funding : N/R

Accomplishment Counted : N
 Assessment Phase : Phase II Environmental Assessment
 Assessment Start Date : 2010-05-26
 Assessment Completion Date : N/R
 Amount of Assessment Funding : 5400
 Source of Assessment Funding : EPA
 Entity Providing Assessment Funds : US EPA - Brownfields Assessment Cooperative Agreement
 Source of Cleanup Funding : N/R
 Entity Providing Cleanup Funds : N/R
 Amount of Cleanup Funding : N/R
 Source of Redevelopment Funding : N/R
 Entity Prvding Redevelopment Funds : N/R
 Amount of Redevelopment Funding : N/R

FRS

Facility Name : WEISS SAMONA
 Facility Address : 34901 WOODWARD AVENUE, BIRMINGHAM, MI 48009
 County : OAKLAND

Registry ID : 110043085050
 FRS Facility URL : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 08/31/2020

Map Id: L57
 Direction: NW
 Distance: 0.311 mi.
 Actual: 1644.717 ft.
 Elevation: 0.146 mi. / 771.375 ft.
 Relative: Higher

Site Name : WEISS SAMONA
 34901 WOODWARD AVENUE
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [FED BROWNFIELDS, FRS] (**cont.**)

EnviroSite ID: 3297873
EPA ID: N/R

FRS (**cont.**)

Source Description :

ACRES stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions.

FRS Environmental Interest
 Source and System ID :

ACRES - 115761

Map Id: N58
 Direction: N
 Distance: 0.315 mi.
 Actual: 1660.916 ft.
 Elevation: N/R
 Relative: N/R

Site Name : MOBIL #03-K9Q | MAPLE GAS INC | Mobil
 Gasoline Station
 1065 W MAPLE RD | 1065 Maple Road |
 1065 WEST MAPLE ROAD
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [AUL - MI, BEA - MI, LUST - MI, SHWS - MI,
 UST - MI]

EnviroSite ID: 3311929
EPA ID: N/R

AUL - MI

Facility Name : Mobil #03-K9Q
 Facility Address : 1065 West Maple Road, Birmingham, 48009

Site Details

KERMIT ID : 11121314091
 Acreage : 0.35229994
 Mileage : 0.00055047
 ICO Map Attribute : Restriction was mapped using the legal description provided in the document
 LRUR Type : 1
 LRUR Status : 2
 DEQ Reference Number : RC-RRD-213-14-091

BEA - MI

Facility Name : Mobil Gasoline Station
 Facility Address : 1065 Maple Road, Birmingham
 County : Oakland

Facility ID : N/R
 BEA Number : 200402493LV
 Data Source : BEA
 District : Southeast MI
 Township : Birmingham
 Latitude : N/R
 Longitude : N/R

Map Id: N58
 Direction: N
 Distance: 0.315 mi.
 Actual: 1660.916 ft.
 Elevation: N/R
 Relative: N/R

Site Name : MOBIL #03-K9Q | MAPLE GAS INC | Mobil Gasoline Station
 1065 W MAPLE RD | 1065 Maple Road | 1065 WEST MAPLE ROAD
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [AUL - MI, BEA - MI, LUST - MI, SHWS - MI, UST - MI] **(cont.)**

Envirosite ID: 3311929
EPA ID: N/R

BEA - MI (cont.)

Last Date in Agency List : 2020-09-25

LUST - MI

Facility Name : Maple Gas Inc
 Facility Address : 1065 W MAPLE RD, BIRMINGHAM, 48009-
 County : Oakland

Site Details

Date of Collection : 10/04/2007
 Facility ID : 00016689
 Accuracy : 100
 Accuracy Value Unit : FEET
 Horizontal Datum : NAD83
 Source : STATE OF MICHIGAN
 Point/Line/Area : POINT
 Description Category : Plant Entrance (Freight)
 Method of Collection : GPS Code Meas. Standard Positioning Service SA Off
 District : Warren
 Latitude : 42.547587
 Longitude : -83.205808
 Last Date in Agency List : 09/21/2020

Owner Summary

Owner Name : MapleGas Inc
 Owner Address : UNKNOWN, MI
 Owner Country : USA
 Owner Contact Person : N/R
 Owner Phone Number : N/R

Release Information

Release Date : 07/15/2004
 Release Status : Closed
 Substance Released : Gasoline,Gasoline,Gasoline,Used Oil
 Release Closed Date : 02/10/2016
 Leak Number : C-0322-04
 LUST Site Name : Mobil SS #03-K9Q

Release Date : 05/12/1993
 Release Status : Closed
 Substance Released : Used Oil,Gasoline
 Release Closed Date : 07/31/1996
 Leak Number : C-0571-93
 LUST Site Name : Mobil #03-k9q

Map Id: N58
 Direction: N
 Distance: 0.315 mi.
 Actual: 1660.916 ft.
 Elevation: N/R
 Relative: N/R

Site Name : MOBIL #03-K9Q | MAPLE GAS INC | Mobil Gasoline Station
 1065 W MAPLE RD | 1065 Maple Road | 1065 WEST MAPLE ROAD
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [AUL - MI, BEA - MI, LUST - MI, SHWS - MI, UST - MI] **(cont.)**

EnviroSite ID: 3311929
EPA ID: N/R

LUST - MI (cont.)

Release Date : 08/26/1991
 Release Status : Closed
 Substance Released : Unknown
 Release Closed Date : 07/31/1996
 Leak Number : C-1748-91
 LUST Site Name : Mobil #03-k9q

Release Date : 08/19/1991
 Release Status : Closed
 Substance Released : Unknown
 Release Closed Date : 07/31/1996
 Leak Number : C-1693-91
 LUST Site Name : Mobil #03-k9q

Facility Name : Mobil #03-K9Q
 Facility Address : 1065 W Maple Rd, Birmingham, 48009
 County : Oakland

Site Details

Date of Collection : 04/10/2007
 Facility ID : 00016689
 Accuracy : 100
 Accuracy Value Unit : FEET
 Horizontal Datum : NAD83
 Source : STATE OF MICHIGAN
 Point/Line/Area : POINT
 Description Category : Plant Entrance (Freight)
 Method of Collection : GPS Code Meas. Standard Positioning Service SA Off
 District : Region 1 - SE Michigan District Office
 Latitude : 42.547587
 Longitude : -83.205808
 Last Date in Agency List : 03/21/2016

Owner Summary

Owner Name : Hannawa & Adams LLC
 Owner Address : 1065 E Maple Rd, Birmingham, MI 48009
 Owner Country : USA
 Owner Contact Person : Kyle Hannawa
 Owner Phone Number : N/R

Release Information

Release Date : 07/15/2004
 Release Status : Open
 Substance Released : Gasoline,Gasoline,Gasoline,Used Oil
 Release Closed Date : N/R
 Leak Number : C-0322-04

Map Id: N58
 Direction: N
 Distance: 0.315 mi.
 Actual: 1660.916 ft.
 Elevation: N/R
 Relative: N/R

Site Name : MOBIL #03-K9Q | MAPLE GAS INC | Mobil Gasoline Station
 1065 W MAPLE RD | 1065 Maple Road | 1065 WEST MAPLE ROAD
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [AUL - MI, BEA - MI, LUST - MI, SHWS - MI, UST - MI] **(cont.)**

EnviroSite ID: 3311929
EPA ID: N/R

LUST - MI (cont.)

LUST Site Name : Mobil SS #03-K9Q
 Release Date : 05/12/1993
 Release Status : Closed
 Substance Released : Used Oil,Gasoline
 Release Closed Date : 07/31/1996
 Leak Number : C-0571-93
 LUST Site Name : Mobil #03-k9q

Release Date : 08/26/1991
 Release Status : Closed
 Substance Released : Unknown
 Release Closed Date : 07/31/1996
 Leak Number : C-1748-91
 LUST Site Name : Mobil #03-k9q

Release Date : 08/19/1991
 Release Status : Closed
 Substance Released : Unknown
 Release Closed Date : 07/31/1996
 Leak Number : C-1693-91
 LUST Site Name : Mobil #03-k9q

SHWS - MI

Facility Name : Maple Gas Inc
 Facility Address : 1065 W MAPLE RD, BIRMINGHAM, 48009
 County : Oakland

Facility ID : 00016689
 Data Source : Part 213
 District : Southeast MI
 Township : N/R
 Latitude : 42.54759
 Longitude : -83.20581
 Last Date in Agency List : 2020-09-26

Facility Name : Mobil #03-K9Q
 Facility Address : 1065 W Maple Rd, Birmingham, 48009
 County : Oakland

Facility ID : 00016689
 Data Source : Part 213
 District : Southeast MI
 Township : N/R
 Latitude : 42.54759
 Longitude : -83.20581
 Last Date in Agency List : 2016-04-04

Map Id: N58
 Direction: N
 Distance: 0.315 mi.
 Actual: 1660.916 ft.
 Elevation: N/R
 Relative: N/R

Site Name : MOBIL #03-K9Q | MAPLE GAS INC | Mobil Gasoline Station
 1065 W MAPLE RD | 1065 Maple Road | 1065 WEST MAPLE ROAD
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [AUL - MI, BEA - MI, LUST - MI, SHWS - MI, UST - MI] **(cont.)**

EnviroSite ID: 3311929
EPA ID: N/R

UST - MI

Facility Name : Maple Gas Inc
 Facility Address : 1065 W MAPLE RD, BIRMINGHAM, MI 48009
 County : OAKLAND

Site Details

Facility Number : 00016689
 Region : 1
 Facility Contact : N/R
 Latitude : 42.5475870000
 Longitude : -83.2058080000
 Last Date in Agency List : 08/26/2020

Owner Summary

Owner Name : Maple Gas Inc
 Owner Address : 1065 E Maple Rd, Birmingham, MI 48009
 Owner Country : N/R
 Owner Phone : 2482582000

Tank Information

Installation Date : 06/01/1984
 New Tank Number : UTK-068335-15
 Old Tank Number : 4
 Tank Status : Removed from Ground
 Tank Content : Used Oil
 Capacity (in gallons) : 1000
 Removed/Closed Date : 06/01/2005
 Number of Compartments : N/R
 Piping Material : Fiberglass Reinforced Plastic
 Piping Type : N/R
 Tank Material : Composite (Steel With Fiberglass),Epoxy Coated Steel,Fiberglass Reinforced Plastic,Other
 Impressed Current Installed : N/R

Installation Date : 04/21/1984
 New Tank Number : UTK-009824-15
 Old Tank Number : 1
 Tank Status : Currently In Use
 Tank Content : Gasoline
 Capacity (in gallons) : 10000
 Removed/Closed Date : N/R
 Number of Compartments : N/R
 Piping Material : Fiberglass Reinforced Plastic
 Piping Type : Pressure (Remote)
 Tank Material : Fiberglass Reinforced Plastic

Map Id: N58
 Direction: N
 Distance: 0.315 mi.
 Actual: 1660.916 ft.
 Elevation: N/R
 Relative: N/R

Site Name : MOBIL #03-K9Q | MAPLE GAS INC | Mobil Gasoline Station
 1065 W MAPLE RD | 1065 Maple Road | 1065 WEST MAPLE ROAD
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [AUL - MI, BEA - MI, LUST - MI, SHWS - MI, UST - MI] **(cont.)**

Envirosite ID: 3311929
EPA ID: N/R

UST - MI **(cont.)**

Impressed Current Installed :	N/R
Installation Date :	04/21/1984
New Tank Number :	UTK-020894-15
Old Tank Number :	3
Tank Status :	Currently In Use
Tank Content :	Gasoline
Capacity (in gallons) :	6000
Removed/Closed Date :	N/R
Number of Compartments :	N/R
Piping Material :	Fiberglass Reinforced Plastic
Piping Type :	Pressure (Remote)
Tank Material :	Fiberglass Reinforced Plastic
Impressed Current Installed :	N/R
Installation Date :	04/21/1984
New Tank Number :	UTK-068331-15
Old Tank Number :	2
Tank Status :	Currently In Use
Tank Content :	Gasoline
Capacity (in gallons) :	8000
Removed/Closed Date :	N/R
Number of Compartments :	N/R
Piping Material :	Fiberglass Reinforced Plastic
Piping Type :	Pressure (Remote)
Tank Material :	Fiberglass Reinforced Plastic
Impressed Current Installed :	N/R
Facility Name :	Mobil #03-K9Q
Facility Address :	1065 W Maple Rd, Birmingham, MI 48009
County :	Oakland

Site Details

Facility Number :	00016689
Region :	N/R
Facility Contact :	Kyle Hannawa
Latitude :	42.5475870000
Longitude :	-83.2058080000
Last Date in Agency List :	10/03/2015

Owner Summary

Owner Name :	Hannawa & Adams LLC
Owner Address :	1065 E Maple Rd, Birmingham, MI 48009
Owner Country :	USA
Owner Phone :	N/R

Map Id: N58
 Direction: N
 Distance: 0.315 mi.
 Actual: 1660.916 ft.
 Elevation: N/R
 Relative: N/R

Site Name : MOBIL #03-K9Q | MAPLE GAS INC | Mobil Gasoline Station
 1065 W MAPLE RD | 1065 Maple Road | 1065 WEST MAPLE ROAD
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [AUL - MI, BEA - MI, LUST - MI, SHWS - MI, UST - MI] **(cont.)**

EnviroSite ID: 3311929
EPA ID: N/R

UST - MI **(cont.)**

Tank Information

Installation Date : 06/01/1984
 New Tank Number : N/R
 Old Tank Number : 4
 Tank Status : Removed from Ground
 Tank Content : Used Oil
 Capacity (in gallons) : 1000
 Removed/Closed Date : 06/01/2005
 Number of Compartments : N/R
 Piping Material : Fiberglass reinforced plastic
 Piping Type : Gravity Fed?
 Tank Material : Composite(Steel w/Fiberglass),Epoxy Coated Steel,Fiberglass Reinforced plastic

Impressed Current Installed : No

Installation Date : 04/21/1984
 New Tank Number : N/R
 Old Tank Number : 1
 Tank Status : Currently In Use
 Tank Content : Gasoline
 Capacity (in gallons) : 10000
 Removed/Closed Date : N/R
 Number of Compartments : N/R
 Piping Material : Fiberglass reinforced plastic
 Piping Type : Pressure
 Tank Material : Fiberglass Reinforced plastic
 Impressed Current Installed : No

Installation Date : 04/21/1984
 New Tank Number : N/R
 Old Tank Number : 2
 Tank Status : Currently In Use
 Tank Content : Gasoline
 Capacity (in gallons) : 8000
 Removed/Closed Date : N/R
 Number of Compartments : N/R
 Piping Material : Fiberglass reinforced plastic
 Piping Type : Pressure
 Tank Material : Fiberglass Reinforced plastic
 Impressed Current Installed : No

Installation Date : 04/21/1984
 New Tank Number : N/R
 Old Tank Number : 3
 Tank Status : Currently In Use
 Tank Content : Gasoline
 Capacity (in gallons) : 6000
 Removed/Closed Date : N/R
 Number of Compartments : N/R

Map Id: N58
 Direction: N
 Distance: 0.315 mi.
 Actual: 1660.916 ft.
 Elevation: N/R
 Relative: N/R

Site Name : MOBIL #03-K9Q | MAPLE GAS INC | Mobil Gasoline Station
 1065 W MAPLE RD | 1065 Maple Road | 1065 WEST MAPLE ROAD
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [AUL - MI, BEA - MI, LUST - MI, SHWS - MI, UST - MI] **(cont.)**

EnviroSite ID: 3311929
EPA ID: N/R

UST - MI **(cont.)**

Piping Material :	Fiberglass reinforced plastic
Piping Type :	Pressure
Tank Material :	Fiberglass Reinforced plastic
Impressed Current Installed :	No

Map Id: M59
 Direction: NNW
 Distance: 0.316 mi.
 Actual: 1667.978 ft.
 Elevation: 0.146 mi. / 768.848 ft.
 Relative: Higher

Site Name : All Seasons of Birmingham | Hamilton Funeral Home Property
 820 E MAPLE RD | 820 East Maple Road
 BIRMINGHAM | Birmingham, MI
Database(s) : [AST - MI, BEA - MI]

EnviroSite ID: 3344041
EPA ID: N/R

AST - MI

Facility Name :	All Seasons of Birmingham
Facility Address :	820 E MAPLE RD, BIRMINGHAM, MI 48009-6400
County :	OAKLAND

Site Details

Facility ID :	81084523
Business Name :	N/R
Region :	1
Facility Contact :	N/R
Latitude :	N/R
Longitude :	N/R
Last Date in Agency List :	2020-10-27

Owner Summary

Name :	All Seasons of Birmingham
Address :	111 Elm St, Birmingham, MI 48009
Country :	N/R
Phone :	2482373861

Tank Information

Installation Date :	N/R
Reg Date :	N/R
Date Last Used :	N/R
Tank Removal Date :	N/R
Tank Status :	Non-Registered Tank
Tank Number :	ATK-140348-15
Tank Billable :	N/R

Map Id: M59
 Direction: NNW
 Distance: 0.316 mi.
 Actual: 1667.978 ft.
 Elevation: 0.146 mi. / 768.848 ft.
 Relative: Higher

Site Name : All Seasons of Birmingham | Hamilton
 Funeral Home Property
 820 E MAPLE RD | 820 East Maple Road
 BIRMINGHAM | Birmingham, MI
Database(s) : [AST - MI, BEA - MI] **(cont.)**

EnviroSite ID: 3344041
EPA ID: N/R

AST - MI **(cont.)**

Substance Stored :	FL/CL
Capacity (in Gallons) :	500
Tank Compartments :	N/R
Tank Release Detection :	N/R
Piping Release Detection :	N/R
Piping Material :	N/R
Piping Type :	N/R
Tank Construction :	N/R
Impressed Current :	N/R
Substance (If Other) :	N/R

BEA - MI

Facility Name :	Hamilton Funeral Home Property
Facility Address :	820 East Maple Road, Birmingham, 48009
County :	Oakland

Facility ID :	N/R
BEA Number :	201205134LV
Data Source :	BEA
District :	Southeast MI
Township :	Birmingham
Latitude :	N/R
Longitude :	N/R
Last Date in Agency List :	2020-09-25

Map Id: L60
 Direction: NW
 Distance: 0.322 mi.
 Actual: 1699.343 ft.
 Elevation: 0.146 mi. / 772.503 ft.
 Relative: Higher

Site Name : Woodward Brown Assoc LLC | Woodward
 Brown Associates, LLC
 34901 Woodward
 Birmingham, MI
Database(s) : [BEA - MI, BROWNFIELDS - MI]

EnviroSite ID: 3285751
EPA ID: N/R

BEA - MI

Facility Name :	Woodward Brown Associates, LLC
Facility Address :	34901 Woodward Avenue, Birmingham, 48073
County :	Oakland

Facility ID :	63005920
BEA Number :	201004572LV
Data Source :	BEA
District :	Southeast MI
Township :	Birmingham
Latitude :	42.54567
Longitude :	-83.21134
Last Date in Agency List :	2020-09-25

Map Id: L60
 Direction: NW
 Distance: 0.322 mi.
 Actual: 1699.343 ft.
 Elevation: 0.146 mi. / 772.503 ft.
 Relative: Higher

Site Name : Woodward Brown Assoc LLC | Woodward Brown Associates, LLC
 34901 Woodward
 Birmingham, MI
Database(s) : [BEA - MI, BROWNFIELDS - MI] **(cont.)**

Envirosite ID: 3285751
EPA ID: N/R

BROWNFIELDS - MI

Facility Name : Woodward Brown Assoc LLC
 Facility Address : 34901 Woodward, Birmingham, 48009
 County : Oakland

Facility ID : 63005920
 Data Source : Part 201
 District : Southeast MI
 Township : Birmingham
 Latitude : 42.54567
 Longitude : -83.21134
 Last Date in Agency List : 2020-09-25

Map Id: L61
 Direction: NW
 Distance: 0.349 mi.
 Actual: 1840.255 ft.
 Elevation: 0.147 mi. / 774.862 ft.
 Relative: Higher

Site Name : Alden Development Group, LLC | Peabody Owner, LLC | 34965 Woodward Avenue
 34965 Woodward Avenue
 Birmingham, MI 48009
Database(s) : [BEA - MI, BROWNFIELDS - MI]

Envirosite ID: 3320365
EPA ID: N/R

BEA - MI

Facility Name : Alden Development Group, LLC
 Facility Address : 34965 Woodward Avenue, Birmingham, 48009
 County : Oakland

Facility ID : 63006065
 BEA Number : 201606862LV
 Data Source : BEA
 District : Southeast MI
 Township : Birmingham
 Latitude : 42.54618
 Longitude : -83.21161
 Last Date in Agency List : 2020-09-25

Facility Name : Peabody Owner, LLC
 Facility Address : 34965 Woodward Avenue, Birmingham, 48009
 County : Oakland

Facility ID : 63006065
 BEA Number : 201607216LV
 Data Source : BEA
 District : Southeast MI
 Township : Birmingham
 Latitude : 42.54618
 Longitude : -83.21161

Map Id: L61
 Direction: NW
 Distance: 0.349 mi.
 Actual: 1840.255 ft.
 Elevation: 0.147 mi. / 774.862 ft.
 Relative: Higher

Site Name : Alden Development Group, LLC |
 Peabody Owner, LLC | 34965 Woodward
 Avenue
 34965 Woodward Avenue
 Birmingham, MI 48009
Database(s) : [BEA - MI, BROWNFIELDS - MI] **(cont.)**

EnviroSite ID: 3320365
EPA ID: N/R

BEA - MI **(cont.)**

Last Date in Agency List : 2020-09-25

BROWNFIELDS - MI

Facility Name : 34965 Woodward Avenue
 Facility Address : 34965 Woodward Avenue, Birmingham, 48009
 County : Oakland

Facility ID : 63006065
 Data Source : Part 201
 District : Southeast MI
 Township : Birmingham
 Latitude : 42.54618
 Longitude : -83.21161
 Last Date in Agency List : 2020-09-25

Map Id: L62
 Direction: NW
 Distance: 0.364 mi.
 Actual: 1920.636 ft.
 Elevation: 0.147 mi. / 776.46 ft.
 Relative: Higher

Site Name : 986-00 | CATALYST DEVELOPMENT CO 8
 LLC | Former Gasoline Station
 34977 WOODWARD | 34977 Woodward
 (Formerly 120 Hunter)
 BIRMINGHAM | Birmingham, MI 48104
Database(s) : [BEA - MI, HIST PEAS - MI, HWG - MI,
 PEAS - MI, RCRA_VSQQ]

EnviroSite ID: 3343566
EPA ID: N/R

BEA - MI

Facility Name : Former Gasoline Station
 Facility Address : 34977 Woodward (Formerly 120 Hunter), Birmingham
 County : Oakland

Facility ID : N/R
 BEA Number : 200302187LV
 Data Source : BEA
 District : Southeast MI
 Township : Birmingham
 Latitude : N/R
 Longitude : N/R
 Last Date in Agency List : 2020-09-25

HIST PEAS - MI

Facility Address : 34977 Woodward, Birmingham
 County : Oakland

Map Id: L62
 Direction: NW
 Distance: 0.364 mi.
 Actual: 1920.636 ft.
 Elevation: 0.147 mi. / 776.46 ft.
 Relative: Higher

Site Name : 986-00 | CATALYST DEVELOPMENT CO 8
 LLC | Former Gasoline Station
 34977 WOODWARD | 34977 Woodward
 (Formerly 120 Hunter)
 BIRMINGHAM | Birmingham, MI 48104

Database(s) : [BEA - MI, HIST PEAS - MI, HWG - MI,
 PEAS - MI, RCRA_VSQG] **(cont.)**

EnviroSite ID: 3343566
EPA ID: N/R

HIST PEAS - MI **(cont.)**

Incident Number :	986-00
Incident Number(s) Related :	N/R
Occurred Date :	12/23/2000
Occurred Time :	05:45:00 PM
Observed Date :	N/R
Observed Time :	N/R
Material Released :	Gasoline/103 gallons
Pollutant Released to Water, Soil, Air, Pavement:	N/R
Amount Released to Air :	N/R
Amount Released to Ground :	N/R
Amount Released to Water :	N/R
Name of Water Body Involved :	Sewer drain
Release/Incident Controlled :	N/R
Release/Incident Controlled Detail :	N/R
Cleanup Completion Date/Time Estimate:	N/R
District :	SEMI (except AQD/Wayne)
Office Hours or After Hours :	N/R
Source :	N/R
Date Stamp :	12/23/2000
Time Stamp :	06:06:00 PM
PEAS Dispatcher :	MS - PEAS
Complainant Employer Name :	N/R
Complainant Address :	N/R
Complainant Type :	N/R
Party Involved - Contact Name :	N/R
Party Involved - Company :	N/R
Party Involved Street Address :	N/R
Party Involved Phone 1 :	N/R
Party Involved Phone 2 :	N/R
Party Involved Type :	N/R
Are Emergency Crews on Scene :	N/R
Weather or Wind :	N/R
Zip - Complainant :	N/R
Zip - Party Involved :	N/R
Township - Incident :	N/R
Date Discovered :	N/R
Observed Time keep :	N/R
Cleanup Contractor :	N/R
Lead Division :	SWQD/ State Police
Lead Division 2 :	N/R
Special Referral :	N/R
DEQ Primary :	Roy Schrameck/ Sgt. Henry
Date and Time Stamp :	N/R
Date Received by DEQ Staff :	N/R
Time Received by DEQ Staff :	N/R
Time DEQ Paged :	N/R
Ambs Intake Agent :	N/R
Time DEQ Took Call :	N/R
Number of Staff Contacts :	N/R
Post Review Initials :	N/R
Referral Notes :	N/R
Agencies Notified :	N/R
Cleanup Efforts So Far :	N/R

Map Id: L62
 Direction: NW
 Distance: 0.364 mi.
 Actual: 1920.636 ft.
 Elevation: 0.147 mi. / 776.46 ft.
 Relative: Higher

Site Name : 986-00 | CATALYST DEVELOPMENT CO 8
 LLC | Former Gasoline Station
 34977 WOODWARD | 34977 Woodward
 (Formerly 120 Hunter)
 BIRMINGHAM | Birmingham, MI 48104

Database(s) : [BEA - MI, HIST PEAS - MI, HWG - MI,
 PEAS - MI, RCRA_VSQG] **(cont.)**

EnviroSite ID: 3343566
EPA ID: N/R

HIST PEAS - MI **(cont.)**

Volume Recovered So Far :	N/R
Wind Direction :	N/R
Ongoing? :	N/R
Time Discovered (Original Entries) :	N/R
Amount Released :	N/R
Water Body Type :	N/R
District (Backup) :	N/R
Latitude :	N/R
Longitude :	N/R
Description :	N/R
Last Date in Agency List :	04/27/2018

HWG - MI

Facility Name :	CATALYST DEVELOPMENT CO 8 LLC
Facility Address :	34977 WOODWARD AVE, BIRMINGHAM, MI 48104
County :	OAKLAND
WDS ID :	413573
Site ID :	MIR000044230
Generator Status :	CESQG
Site Legal Name :	CATALYST DEVELOPMENT CO 8 LLC
Contact Name :	N/R
Contact Phone :	N/R
Contact Email :	N/R
Agency Hyperlink :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	2021-01-04

PEAS - MI

Facility Address :	34977 Woodward, Birmingham
County :	Oakland
Incident Number :	986-00
Incident Number(s) Related :	N/R
Occurred Date :	12/23/2000
Occurred Time :	5:45 PM
Name of Pollutant :	Gasoline/103 gallons
Name of Water Body Involved :	Sewer drain
Lead Division :	SWQD/ State Police
EGLE Primary :	Roy Schrameck/ Sgt. Henry
District :	SEMI (except AQD/Wayne)
Shift :	N/R
Dispatcher :	MS - PEAS
Source :	Ambs
Report Date :	12/23/2000
Time Stamp :	6:06 PM

RCRA_VSQG

Facility Name :	CATALYST DEVELOPMENT CO 8 LLC
Facility Address :	34977 WOODWARD AVE, BIRMINGHAM, MI 48104

Map Id: L62
 Direction: NW
 Distance: 0.364 mi.
 Actual: 1920.636 ft.
 Elevation: 0.147 mi. / 776.46 ft.
 Relative: Higher

Site Name : 986-00 | CATALYST DEVELOPMENT CO 8
 LLC | Former Gasoline Station
 34977 WOODWARD | 34977 Woodward
 (Formerly 120 Hunter)
 BIRMINGHAM | Birmingham, MI 48104
Database(s) : [BEA - MI, HIST PEAS - MI, HWG - MI,
 PEAS - MI, RCRA_VSQG] **(cont.)**

Envirosite ID: 3343566
EPA ID: N/R

RCRA_VSQG (cont.)

County : OAKLAND

Date Form Received by Agency : 01/20/2009
 EPA ID : MIR000044230
 Mailing Address : 34977 WOODWARD AVE, BIRMINGHAM, MI 48104
 Contact : MIKE BRYANT
 Contact Address : 34977 WOODWARD AVE, BIRMINGHAM, MI 48104
 Contact Country : US
 Contact Telephone : 269-217-5157
 Contact Email : N/R
 EPA Region : 05
 Land Type : Private
 Source Type : Notification
 Classification : Very Small Quantity Generator

Description :

Handlers that generate 100 kilograms or less of hazardous waste per calendar month, and accumulate 1000 kg or less of hazardous waste at any time; or generate one kilogram or less of acutely hazardous waste per calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generate 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste.

Last Date in Agency List : 10/19/2020

Owner/Operator Summary

Owner/Operator Name : CATALYST DEVELOPMENT CO & LLC
 Owner/Operator Address : N/R
 Owner/Operator Country : N/R
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Private
 Owner/Operator Type : Operator
 Owner/Operator Start Date : 07/02/2008
 Owner/Operator End Date : N/R

Owner/Operator Name : CATALYST DEVELOPMENT CO & LLC
 Owner/Operator Address : N/R
 Owner/Operator Country : N/R
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Private
 Owner/Operator Type : Owner
 Owner/Operator Start Date : 07/02/2008

Map Id: L62
 Direction: NW
 Distance: 0.364 mi.
 Actual: 1920.636 ft.
 Elevation: 0.147 mi. / 776.46 ft.
 Relative: Higher

Site Name : 986-00 | CATALYST DEVELOPMENT CO 8
 LLC | Former Gasoline Station
 34977 WOODWARD | 34977 Woodward
 (Formerly 120 Hunter)
 BIRMINGHAM | Birmingham, MI 48104
Database(s) : [BEA - MI, HIST PEAS - MI, HWG - MI,
 PEAS - MI, RCRA_VSQG] **(cont.)**

EnviroSite ID: 3343566
EPA ID: N/R

RCRA_VSQG (cont.)

Owner/Operator End Date : N/R

Handler Activities Summary

U.S. Importer of Hazardous Waste :	N
Mixed Waste (Haz. and Radioactive) :	N
Recycler of Hazardous Waste :	N
Transporter of Hazardous Waste :	N
Treater, Storer or Disposer of HW :	N
Underground Injection Activity :	N
On-site Burner Exemption :	N
Furnace Exemption :	N
Used Oil Fuel Burner :	N
Used Oil Processor :	N
Used Oil Refiner :	N
Used Oil Fuel Marketer to Burner :	N
Used Oil Specification Marketer :	N
Used Oil Transfer Facility :	N
Used Oil Transporter :	N

Historical Generators

Date Form Received by Agency :	06/10/2002
Facility Name :	CATALYST DEVELOPMENT CO 8 LLC
Classification :	Not a generator, verified

Date Form Received by Agency :	01/20/2000
Facility Name :	CATALYST DEVELOPMENT CO 8 LLC
Classification :	Small Quantity Generator

Hazardous Waste Summary

Waste Code / Name :	D001 - IGNITABLE WASTE

Notices of Violations Summary

Regulation Violated :	N

Map Id: L63
 Direction: NW
 Distance: 0.371 mi.
 Actual: 1960.564 ft.
 Elevation: 0.147 mi. / 777.185 ft.
 Relative: Higher

Site Name : CATALYST DEVELOPMENT CO 8 LLC |
 Shell - Hunter | BOJI/WOODWARD
 PROPERTY
 34977 WOODWARD AVE | 34977
 WOODWARD AVENUE (FORMERLY 120 S.
 HUNTER STREET)
 Birmingham | BIRMINGHAM, MI 48009
Database(s) : [BEA - MI, ECHO, FRS, LUST - MI, SHWS -
 MI, UST - MI]

EnviroSite ID: 3342476
EPA ID: N/R

BEA - MI

Facility Name : BOJI/WOODWARD PROPERTY
 Facility Address : 34977 WOODWARD AVENUE (FORMERLY 120 S. HUNTER STREET),
 Birmingham
 County : Oakland

Facility ID : N/R
 BEA Number : 200001071LV
 Data Source : BEA
 District : Southeast MI
 Township : Birmingham
 Latitude : N/R
 Longitude : N/R
 Last Date in Agency List : 2020-09-25

Facility Name : Catalyst Development Co. 8, LLC
 Facility Address : 34977 Woodward Avenue, Birmingham
 County : Oakland

Facility ID : 63005889
 BEA Number : 200804000LV
 Data Source : BEA
 District : Southeast MI
 Township : Birmingham
 Latitude : 42.54663
 Longitude : -83.21171
 Last Date in Agency List : 2020-09-25

ECHO

Facility Name : CATALYST DEVELOPMENT CO 8 LLC
 Facility Address : 34977 WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

Last Inspection Date : N/R
 Registry ID : 110006413087
 FIPS Code : 26125
 EPA Region : 05
 Inspection Count : 0
 Last Inspection Days : N/R
 Informal Count : 0
 Last Informal Action Date : N/R
 Formal Action Count : 0
 Last Formal Action Date : N/R
 Total Penalties : 0
 Penalty Count : N/R
 Last Penalty Date : N/R
 Last Penalty Amount : N/R

Map Id: L63
 Direction: NW
 Distance: 0.371 mi.
 Actual: 1960.564 ft.
 Elevation: 0.147 mi. / 777.185 ft.
 Relative: Higher

Site Name : CATALYST DEVELOPMENT CO 8 LLC |
 Shell - Hunter | BOJI/WOODWARD
 PROPERTY
 34977 WOODWARD AVE | 34977
 WOODWARD AVENUE (FORMERLY 120 S.
 HUNTER STREET)
 Birmingham | BIRMINGHAM, MI 48009
Database(s) : [BEA - MI, ECHO, FRS, LUST - MI, SHWS -
 MI, UST - MI] **(cont.)**

EnviroSite ID: 3342476
EPA ID: N/R

ECHO (cont.)

QTRS IN NC :	0
Programs IN SNC :	0
Current Compliance Status :	No Violation Identified
Three-Year Compliance Status :	
Collection Method :	ADDRESS MATCHING-HOUSE NUMBER
Reference Point :	CENTER OF A FACILITY OR STATION
Accuracy Meters :	30
Derived Tribes :	N/R
Derived HUC :	04090004
Derived WBD :	040900030202
Derived STCTY FIPS :	26125
Derived Zip :	48009
Derived CD113 :	11
Derived CB2010 :	261251529002004
MYRTK Universe :	NNN
NPDES IDs :	N/R
CWA Permit Types :	N/R
CWA Compliance Tracking :	N/R
CWA NAICS :	N/R
CWA SICS :	N/R
CWA Inspection Count :	N/R
CWA Last Inspection Days :	N/R
CWA Informal Count :	N/R
CWA Formal Action Count :	N/R
CWA Last Formal Action Date :	N/R
CWA Penalties :	N/R
CWA Last Penalty Date :	N/R
CWA Last Penalty Amount :	N/R
CWA Quarters IN NC :	N/R
CWA Current Compliance Status :	N/R
CWA Current SNC Flag :	N
CWA 13 Quarters Compliance Status :	N/R
CWA 13 Quarters Effluent Exceedances:	N/R
CWA Three-Year QNCR Codes :	N/R
DFR URL :	Click here for hyperlink provided by the agency.
Facility SIC :	N/R
Facility NAICS :	44719 - Other Gasoline Stations
Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	N/R
Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R
Facility Last Informal Act EPA Date :	N/R
Facility Last Informal Act State Date:	N/R
Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	N/R
Current SNC Flag :	N
Indian County Flag :	N
Federal Flag :	N/R
US Mexico Border Flag :	N/R
Chesapeake Bay Flag :	N/R
AIR Flag :	N

Map Id: L63
 Direction: NW
 Distance: 0.371 mi.
 Actual: 1960.564 ft.
 Elevation: 0.147 mi. / 777.185 ft.
 Relative: Higher

Site Name : CATALYST DEVELOPMENT CO 8 LLC |
 Shell - Hunter | BOJI/WOODWARD
 PROPERTY
 34977 WOODWARD AVE | 34977
 WOODWARD AVENUE (FORMERLY 120 S.
 HUNTER STREET)
 Birmingham | BIRMINGHAM, MI 48009
Database(s) : [BEA - MI, ECHO, FRS, LUST - MI, SHWS -
 MI, UST - MI] **(cont.)**

EnviroSite ID: 3342476
EPA ID: N/R

ECHO (cont.)

NPDES Flag : N
 SDWIS Flag : N
 RCRA Flag : Y
 TRI Flag : N
 GHG Flag : N
 Major Flag : N/R
 Active Flag : Y
 NAA Flag : Y
 Latitude : 42.54663
 Longitude : -83.21141
 Last Date in Agency List : 2020-12-31

FRS

Facility Name : CATALYST DEVELOPMENT CO 8 LLC
 Facility Address : 34977 WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND
 Registry ID : 110006413087
 FRS Facility URL : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 08/31/2020

Source Description :

RCRAInfo is EPA's comprehensive information system that supports the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984 through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA. RCRAInfo also supports generation of the National Hazardous Waste Biennial Report. All generators and treatment, storage, and disposal facilities who handle hazardous waste are required to report to the EPA Administrator at least once every two years to support creation of the Biennial Report.

FRS Environmental Interest

Source and System ID : RCRAINFO - MIR000044230

LUST - MI

Facility Name : Shell - Hunter
 Facility Address : 34977 WOODWARD AVE, BIRMINGHAM, 48009-
 County : Oakland

Site Details

Date of Collection : 01/11/2001
 Facility ID : 00002267

Map Id: L63
 Direction: NW
 Distance: 0.371 mi.
 Actual: 1960.564 ft.
 Elevation: 0.147 mi. / 777.185 ft.
 Relative: Higher

Site Name : CATALYST DEVELOPMENT CO 8 LLC |
 Shell - Hunter | BOJI/WOODWARD
 PROPERTY
 34977 WOODWARD AVE | 34977
 WOODWARD AVENUE (FORMERLY 120 S.
 HUNTER STREET)
 Birmingham | BIRMINGHAM, MI 48009
Database(s) : [BEA - MI, ECHO, FRS, LUST - MI, SHWS -
 MI, UST - MI] **(cont.)**

EnviroSite ID: 3342476
EPA ID: N/R

LUST - MI **(cont.)**

Accuracy :	100
Accuracy Value Unit :	FEET
Horizontal Datum :	NAD83
Source :	STATE OF MICHIGAN
Point/Line/Area :	POINT
Description Category :	Plant Entrance (Freight)
Method of Collection :	Address Matching-House Number
District :	Warren
Latitude :	42.53925
Longitude :	-83.206831
Last Date in Agency List :	09/21/2020

Owner Summary

Owner Name :	CatalystDevelopment Co LLC
Owner Address :	UNKNOWN, MI
Owner Country :	USA
Owner Contact Person :	N/R
Owner Phone Number :	N/R

Release Information

Release Date :	12/10/2008
Release Status :	Open
Substance Released :	Used Oil
Release Closed Date :	N/R
Leak Number :	C-0274-08
LUST Site Name :	Shell - Hunter

Release Date :	12/30/1998
Release Status :	Closed
Substance Released :	Unknown,Unknown
Release Closed Date :	08/04/1999
Leak Number :	C-1336-98
LUST Site Name :	Birmingham Services Inc

Release Date :	12/08/1989
Release Status :	Closed
Substance Released :	Gasoline
Release Closed Date :	05/23/2000
Leak Number :	C-1061-89
LUST Site Name :	Birmingham Services Inc

Release Date :	12/08/1989
Release Status :	Closed
Substance Released :	N/R

Map Id: L63
 Direction: NW
 Distance: 0.371 mi.
 Actual: 1960.564 ft.
 Elevation: 0.147 mi. / 777.185 ft.
 Relative: Higher

Site Name : CATALYST DEVELOPMENT CO 8 LLC |
 Shell - Hunter | BOJI/WOODWARD
 PROPERTY
 34977 WOODWARD AVE | 34977
 WOODWARD AVENUE (FORMERLY 120 S.
 HUNTER STREET)
 Birmingham | BIRMINGHAM, MI 48009
Database(s) : [BEA - MI, ECHO, FRS, LUST - MI, SHWS -
 MI, UST - MI] **(cont.)**

EnviroSite ID: 3342476
EPA ID: N/R

LUST - MI **(cont.)**

Release Closed Date : 05/23/2000
 Leak Number : C-0480-89
 LUST Site Name : Shell- Hunter

SHWS - MI

Facility Name : Shell - Hunter
 Facility Address : 34977 WOODWARD AVE, BIRMINGHAM, 48009
 County : Oakland

Facility ID : 00002267
 Data Source : Part 213
 District : Southeast MI
 Township : N/R
 Latitude : 42.53925
 Longitude : -83.20683
 Last Date in Agency List : 2020-09-26

UST - MI

Facility Name : Shell - Hunter
 Facility Address : 34977 WOODWARD AVE, BIRMINGHAM, MI 48009-0900
 County : OAKLAND

Site Details

Facility Number : 00002267
 Region : 1
 Facility Contact : N/R
 Latitude : 42.5392500000
 Longitude : -83.2068310000
 Last Date in Agency List : 03/20/2020

Owner Summary

Owner Name : Catalyst Development Co LLC
 Owner Address : 100 W Michigan Ave Ste 300, Kalamazoo, MI 49007
 Owner Country : N/R
 Owner Phone : 2694926811

Tank Information

Installation Date : 12/01/1999
 New Tank Number : UTK-003852-15
 Old Tank Number : 5
 Tank Status : Removed from Ground
 Tank Content : Gasoline

Map Id: L63
 Direction: NW
 Distance: 0.371 mi.
 Actual: 1960.564 ft.
 Elevation: 0.147 mi. / 777.185 ft.
 Relative: Higher

Site Name : CATALYST DEVELOPMENT CO 8 LLC |
 Shell - Hunter | BOJI/WOODWARD
 PROPERTY
 34977 WOODWARD AVE | 34977
 WOODWARD AVENUE (FORMERLY 120 S.
 HUNTER STREET)
 Birmingham | BIRMINGHAM, MI 48009
Database(s) : [BEA - MI, ECHO, FRS, LUST - MI, SHWS -
 MI, UST - MI] **(cont.)**

Envirosite ID: 3342476
EPA ID: N/R

UST - MI **(cont.)**

Capacity (in gallons) : 15000
 Removed/Closed Date : 10/29/2003
 Number of Compartments : N/R
 Piping Material : Double Walled,Flexible Piping
 Piping Type : Pressure (Remote)
 Tank Material : Fiberglass Reinforced Plastic
 Impressed Current Installed : N/R

Installation Date : 12/01/1999
 New Tank Number : UTK-070128-15
 Old Tank Number : 6
 Tank Status : Removed from Ground
 Tank Content : Diesel,Gasoline
 Capacity (in gallons) : 12000
 Removed/Closed Date : 10/29/2003
 Number of Compartments : N/R
 Piping Material : Double Walled,Flexible Piping
 Piping Type : Pressure (Remote)
 Tank Material : Fiberglass Reinforced Plastic
 Impressed Current Installed : N/R

Installation Date : 12/01/1989
 New Tank Number : UTK-016231-15
 Old Tank Number : 9
 Tank Status : Removed from Ground
 Tank Content : Used Oil
 Capacity (in gallons) : 1000
 Removed/Closed Date : 12/07/1999
 Number of Compartments : N/R
 Piping Material : Fiberglass Reinforced Plastic
 Piping Type : Pressure (Remote)
 Tank Material : Double Walled,Fiberglass Reinforced Plastic
 Impressed Current Installed : N/R

Installation Date : 12/01/1982
 New Tank Number : UTK-027540-15
 Old Tank Number : 2
 Tank Status : Removed from Ground
 Tank Content : Gasoline
 Capacity (in gallons) : 10000
 Removed/Closed Date : 12/07/1999
 Number of Compartments : N/R
 Piping Material : Fiberglass Reinforced Plastic
 Piping Type : Pressure (Remote)
 Tank Material : Fiberglass Reinforced Plastic
 Impressed Current Installed : N/R

Map Id: L63
 Direction: NW
 Distance: 0.371 mi.
 Actual: 1960.564 ft.
 Elevation: 0.147 mi. / 777.185 ft.
 Relative: Higher

Site Name : CATALYST DEVELOPMENT CO 8 LLC |
 Shell - Hunter | BOJI/WOODWARD
 PROPERTY
 34977 WOODWARD AVE | 34977
 WOODWARD AVENUE (FORMERLY 120 S.
 HUNTER STREET)
 Birmingham | BIRMINGHAM, MI 48009
Database(s) : [BEA - MI, ECHO, FRS, LUST - MI, SHWS -
 MI, UST - MI] **(cont.)**

Envirosite ID: 3342476
EPA ID: N/R

UST - MI **(cont.)**

Installation Date : 12/01/1982
 New Tank Number : UTK-070116-15
 Old Tank Number : 3
 Tank Status : Removed from Ground
 Tank Content : Gasoline
 Capacity (in gallons) : 10000
 Removed/Closed Date : 12/07/1999
 Number of Compartments : N/R
 Piping Material : Fiberglass Reinforced Plastic
 Piping Type : Pressure (Remote)
 Tank Material : Fiberglass Reinforced Plastic
 Impressed Current Installed : N/R

Installation Date : 09/01/1971
 New Tank Number : UTK-070109-15
 Old Tank Number : 1
 Tank Status : Removed from Ground
 Tank Content : Gasoline
 Capacity (in gallons) : 8000
 Removed/Closed Date : 12/07/1999
 Number of Compartments : N/R
 Piping Material : Fiberglass Reinforced Plastic
 Piping Type : Pressure (Remote)
 Tank Material : Fiberglass Reinforced Plastic
 Impressed Current Installed : N/R

Installation Date : 04/15/1949
 New Tank Number : UTK-070120-15
 Old Tank Number : 4
 Tank Status : Removed from Ground
 Tank Content : Used Oil
 Capacity (in gallons) : 550
 Removed/Closed Date : 10/13/1989
 Number of Compartments : N/R
 Piping Material : Galvanized Steel
 Piping Type : N/R
 Tank Material : Asphalt Coated or Bare Steel
 Impressed Current Installed : N/R

Installation Date : N/R
 New Tank Number : UTK-070381-15
 Old Tank Number : 10
 Tank Status : Removed from Ground
 Tank Content : Kerosene
 Capacity (in gallons) : N/R
 Removed/Closed Date : 12/01/1998
 Number of Compartments : N/R
 Piping Material : Bare Steel

Map Id: L63
 Direction: NW
 Distance: 0.371 mi.
 Actual: 1960.564 ft.
 Elevation: 0.147 mi. / 777.185 ft.
 Relative: Higher

Site Name : CATALYST DEVELOPMENT CO 8 LLC |
 Shell - Hunter | BOJI/WOODWARD
 PROPERTY
 34977 WOODWARD AVE | 34977
 WOODWARD AVENUE (FORMERLY 120 S.
 HUNTER STREET)
 Birmingham | BIRMINGHAM, MI 48009
Database(s) : [BEA - MI, ECHO, FRS, LUST - MI, SHWS -
 MI, UST - MI] **(cont.)**

EnviroSite ID: 3342476
EPA ID: N/R

UST - MI **(cont.)**

Piping Type :	Suction:Valve at Tank
Tank Material :	Asphalt Coated or Bare Steel
Impressed Current Installed :	N/R
Installation Date :	N/R
New Tank Number :	UTK-124418-15
Old Tank Number :	11
Tank Status :	Removed from Ground
Tank Content :	Used Oil
Capacity (in gallons) :	500
Removed/Closed Date :	02/09/2009
Number of Compartments :	N/R
Piping Material :	Unknown
Piping Type :	N/R
Tank Material :	Asphalt Coated or Bare Steel,Other
Impressed Current Installed :	N/R

Map Id: O64
 Direction: SSE
 Distance: 0.375 mi.
 Actual: 1979.625 ft.
 Elevation: 0.142 mi. / 750.043 ft.
 Relative: Lower

Site Name : 33633 Woodward | WESCH CLEANERS,
 INC.
 33633 WOODWARD
 BIRMINGHAM | Birmingham | Temp., MI
 48009
Database(s) : [BROWNFIELDS - MI, DRYCLEANERS - MI]

EnviroSite ID: 3281087
EPA ID: N/R

BROWNFIELDS - MI

Facility Name :	33633 Woodward
Facility Address :	33633 Woodward, Birmingham, 48009
County :	Oakland
Facility ID :	63005656
Data Source :	Part 201
District :	Southeast MI
Township :	Birmingham
Latitude :	42.53625
Longitude :	-83.20444
Last Date in Agency List :	2020-09-25
Facility Name :	33633 Woodward
Facility Address :	33633 Woodward, Temp., 48009

Map Id: O64
 Direction: SSE
 Distance: 0.375 mi.
 Actual: 1979.625 ft.
 Elevation: 0.142 mi. / 750.043 ft.
 Relative: Lower

Site Name : 33633 Woodward | WESCH CLEANERS, INC.
 33633 WOODWARD
 BIRMINGHAM | Birmingham | Temp., MI 48009
Database(s) : [BROWNFIELDS - MI, DRYCLEANERS - MI] **(cont.)**

EnviroSite ID: 3281087
EPA ID: N/R

BROWNFIELDS - MI (cont.)

County : Oakland
 Facility ID : 63005656
 Data Source : Part 201
 District : Southeast MI
 Township : temptownship
 Latitude : N/R
 Longitude : N/R
 Last Date in Agency List : 2014-02-12

DRYCLEANERS - MI

Facility Name : WESCH CLEANERS, INC.
 Facility Address : 33633 WOODWARD, BIRMINGHAM, MI 48009
 County : OAKLAND
 Last Inspection Date : N/R
 Establishment Number : 6300151
 Status : N/R
 DCM Type : Petro
 Number of DCM : 2
 Total Pounds : 130
 Inspector : N/R
 Last Date in Agency List : 2019-12-12

Map Id: O65
 Direction: SSE
 Distance: 0.376 mi.
 Actual: 1983.792 ft.
 Elevation: 0.142 mi. / 750.043 ft.
 Relative: Lower

Site Name : 33633 WOODWARD LLC | WESCH CLEANERS INC | CIH REAL ESTATE HOLDINGS, L.L.C.
 33633 WOODWARD AVE
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, ECHO, FRS, HWG - MI, LWF - MI, RCRA_NONGEN, UST - MI]

EnviroSite ID: 3342736
EPA ID: N/R

BEA - MI

Facility Name : CIH REAL ESTATE HOLDINGS, L.L.C.
 Facility Address : 33633 WOODWARD AVENUE, Birmingham, 48009
 County : Oakland
 Facility ID : 63005656
 BEA Number : 200101360LV
 Data Source : BEA
 District : Southeast MI

Map Id: O65
 Direction: SSE
 Distance: 0.376 mi.
 Actual: 1983.792 ft.
 Elevation: 0.142 mi. / 750.043 ft.
 Relative: Lower

Site Name : 33633 WOODWARD LLC | WESCH
 CLEANERS INC | CIH REAL ESTATE
 HOLDINGS, L.L.C.
 33633 WOODWARD AVE
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, ECHO, FRS, HWG - MI, LWF -
 MI, RCRA_NONGEN, UST - MI] **(cont.)**

Envirosite ID: 3342736
EPA ID: N/R

BEA - MI (cont.)

Township : Birmingham
 Latitude : 42.53625
 Longitude : -83.20444
 Last Date in Agency List : 2020-09-25

Facility Name : Dry Cleaner Property
 Facility Address : 33633 Woodward Avenue, Birmingham, 48009
 County : Oakland

Facility ID : 63005656
 BEA Number : 200904118LV
 Data Source : BEA
 District : Southeast MI
 Township : Birmingham
 Latitude : 42.53625
 Longitude : -83.20444
 Last Date in Agency List : 2020-09-25

Facility ID : 63005656
 BEA Number : 200904119LV
 Data Source : BEA
 District : Southeast MI
 Township : Birmingham
 Latitude : 42.53625
 Longitude : -83.20444
 Last Date in Agency List : 2020-09-25

Facility ID : 63005656
 BEA Number : 200904120LV
 Data Source : BEA
 District : Southeast MI
 Township : Birmingham
 Latitude : 42.53625
 Longitude : -83.20444
 Last Date in Agency List : 2020-09-25

ECHO

Facility Name : 33633 WOODWARD LLC
 Facility Address : 33633 WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

Last Inspection Date : 2009-04-07
 Registry ID : 110003592032
 FIPS Code : 26125
 EPA Region : 05
 Inspection Count : 0
 Last Inspection Days : 4205
 Informal Count : 0

Map Id: O65
 Direction: SSE
 Distance: 0.376 mi.
 Actual: 1983.792 ft.
 Elevation: 0.142 mi. / 750.043 ft.
 Relative: Lower

Site Name : 33633 WOODWARD LLC | WESCH
 CLEANERS INC | CIH REAL ESTATE
 HOLDINGS, L.L.C.
 33633 WOODWARD AVE
 BIRMINGHAM | Birmingham, MI 48009

Database(s) : [BEA - MI, ECHO, FRS, HWG - MI, LWF -
 MI, RCRA_NONGEN, UST - MI] **(cont.)**

Envirosite ID: 3342736
EPA ID: N/R

ECHO (cont.)

Last Informal Action Date :	N/R
Formal Action Count :	0
Last Formal Action Date :	N/R
Total Penalties :	0
Penalty Count :	N/R
Last Penalty Date :	N/R
Last Penalty Amount :	N/R
QTRS IN NC :	0
Programs IN SNC :	0
Current Compliance Status :	No Violation Identified
Three-Year Compliance Status :	
Collection Method :	ADDRESS MATCHING-HOUSE NUMBER
Reference Point :	CENTER OF A FACILITY OR STATION
Accuracy Meters :	30
Derived Tribes :	N/R
Derived HUC :	04090003
Derived WBD :	040900030202
Derived STCTY FIPS :	26125
Derived Zip :	48009
Derived CD113 :	11
Derived CB2010 :	261251533003003
MYRTK Universe :	NNN
NPDES IDs :	N/R
CWA Permit Types :	N/R
CWA Compliance Tracking :	N/R
CWA NAICS :	N/R
CWA SICS :	N/R
CWA Inspection Count :	N/R
CWA Last Inspection Days :	N/R
CWA Informal Count :	N/R
CWA Formal Action Count :	N/R
CWA Last Formal Action Date :	N/R
CWA Penalties :	N/R
CWA Last Penalty Date :	N/R
CWA Last Penalty Amount :	N/R
CWA Quarters IN NC :	N/R
CWA Current Compliance Status :	N/R
CWA Current SNC Flag :	N
CWA 13 Quarters Compliance Status :	N/R
CWA 13 Quarters Effluent Exceedances:	N/R
CWA Three-Year QNCR Codes :	N/R
DFR URL :	Click here for hyperlink provided by the agency.
Facility SIC :	N/R
Facility NAICS :	81232 - Drycleaning and Laundry Services (except Coin-Operated)
Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	2009-04-07
Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R
Facility Last Informal Act EPA Date :	N/R
Facility Last Informal Act State Date:	N/R
Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	N/R
Current SNC Flag :	N

Map Id: O65
 Direction: SSE
 Distance: 0.376 mi.
 Actual: 1983.792 ft.
 Elevation: 0.142 mi. / 750.043 ft.
 Relative: Lower

Site Name : 33633 WOODWARD LLC | WESCH
 CLEANERS INC | CIH REAL ESTATE
 HOLDINGS, L.L.C.
 33633 WOODWARD AVE
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, ECHO, FRS, HWG - MI, LWF -
 MI, RCRA_NONGEN, UST - MI] **(cont.)**

Envirosite ID: 3342736
EPA ID: N/R

ECHO (cont.)

Indian County Flag :	N
Federal Flag :	N/R
US Mexico Border Flag :	N/R
Chesapeake Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	N
SDWIS Flag :	N
RCRA Flag :	Y
TRI Flag :	N
GHG Flag :	N
Major Flag :	N/R
Active Flag :	N/R
NAA Flag :	Y
Latitude :	42.53656
Longitude :	-83.20441
Last Date in Agency List :	2020-12-31

FRS

Facility Name :	33633 WOODWARD LLC
Facility Address :	33633 WOODWARD AVE, BIRMINGHAM, MI 48009
County :	OAKLAND
Registry ID :	110003592032
FRS Facility URL :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	08/31/2020

Source Description :

RCRAInfo is EPA's comprehensive information system that supports the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984 through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA. RCRAInfo also supports generation of the National Hazardous Waste Biennial Report. All generators and treatment, storage, and disposal facilities who handle hazardous waste are required to report to the EPA Administrator at least once every two years to support creation of the Biennial Report.

FRS Environmental Interest

Source and System ID :	RCRAINFO - MID028318731

HWG - MI

Facility Name :	WESCH CLEANERS INC
Facility Address :	33633 WOODWARD AVE, BIRMINGHAM, MI 48009
County :	OAKLAND

Map Id: O65
 Direction: SSE
 Distance: 0.376 mi.
 Actual: 1983.792 ft.
 Elevation: 0.142 mi. / 750.043 ft.
 Relative: Lower

Site Name : 33633 WOODWARD LLC | WESCH
 CLEANERS INC | CIH REAL ESTATE
 HOLDINGS, L.L.C.
 33633 WOODWARD AVE
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, ECHO, FRS, HWG - MI, LWF -
 MI, RCRA_NONGEN, UST - MI] **(cont.)**

EnviroSite ID: 3342736
EPA ID: N/R

HWG - MI (cont.)

WDS ID : 395309
 Site ID : MID028318731
 Generator Status : No longer generating, still in business
 Site Legal Name : 33633 WOODWARD LLC
 Contact Name : N/R
 Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 2021-01-04

LWF - MI

Facility Name : WESCH CLEANERS INC
 Facility Address : 33633 WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

WDS ID : 395309
 Site ID : MID028318731
 Site Legal Name : 33633 WOODWARD LLC
 Contact Name : N/R
 Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 08/19/2020

RCRA_NONGEN

Facility Name : 33633 WOODWARD LLC
 Facility Address : 33633 WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

Date Form Received by Agency : 02/04/2009
 EPA ID : MID028318731
 Mailing Address : 33633 WOODWARD AVE, BIRMINGHAM, MI 48009
 Contact : EDWIN WUDYKA
 Contact Address : 33633 WOODWARD AVE, BIRMINGHAM, MI 48009
 Contact Country : US
 Contact Telephone : 248-763-9188
 Contact Email : N/R
 EPA Region : 05
 Land Type : Private
 Source Type : Notification
 Classification : Not a generator, verified
 Description : Not a generator, verified
 Last Date in Agency List : 10/19/2020

Owner/Operator Summary

Owner/Operator Name : EDWIN WUDYKA
 Owner/Operator Address : N/R
 Owner/Operator Country : N/R

Map Id: O65
 Direction: SSE
 Distance: 0.376 mi.
 Actual: 1983.792 ft.
 Elevation: 0.142 mi. / 750.043 ft.
 Relative: Lower

Site Name : 33633 WOODWARD LLC | WESCH
 CLEANERS INC | CIH REAL ESTATE
 HOLDINGS, L.L.C.
 33633 WOODWARD AVE
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, ECHO, FRS, HWG - MI, LWF -
 MI, RCRA_NONGEN, UST - MI] **(cont.)**

Envirosite ID: 3342736
EPA ID: N/R

RCRA_NONGEN (cont.)

Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Private
 Owner/Operator Type : Operator
 Owner/Operator Start Date : 02/03/2009
 Owner/Operator End Date : N/R

Owner/Operator Name : EDWIN WUDYKA
 Owner/Operator Address : N/R
 Owner/Operator Country : N/R
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Private
 Owner/Operator Type : Owner
 Owner/Operator Start Date : 02/03/2009
 Owner/Operator End Date : N/R

Handler Activities Summary

U.S. Importer of Hazardous Waste : N
 Mixed Waste (Haz. and Radioactive) : N
 Recycler of Hazardous Waste : N
 Transporter of Hazardous Waste : N
 Treater, Storer or Disposer of HW : N
 Underground Injection Activity : N
 On-site Burner Exemption : N
 Furnace Exemption : N
 Used Oil Fuel Burner : N
 Used Oil Processor : N
 Used Oil Refiner : N
 Used Oil Fuel Marketer to Burner : N
 Used Oil Specification Marketer : N
 Used Oil Transfer Facility : N
 Used Oil Transporter : N

Historical Generators

Date Form Received by Agency : 08/27/2002
 Facility Name : 33633 WOODWARD LLC
 Classification : Small Quantity Generator

Date Form Received by Agency : 10/19/1998
 Facility Name : 33633 WOODWARD LLC
 Classification : Small Quantity Generator

Date Form Received by Agency : 08/07/1985
 Facility Name : 33633 WOODWARD LLC

Map Id: O65
 Direction: SSE
 Distance: 0.376 mi.
 Actual: 1983.792 ft.
 Elevation: 0.142 mi. / 750.043 ft.
 Relative: Lower

Site Name : 33633 WOODWARD LLC | WESCH
 CLEANERS INC | CIH REAL ESTATE
 HOLDINGS, L.L.C.
 33633 WOODWARD AVE
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, ECHO, FRS, HWG - MI, LWF -
 MI, RCRA_NONGEN, UST - MI] **(cont.)**

EnviroSite ID: 3342736
EPA ID: N/R

RCRA_NONGEN (cont.)

Classification : Small Quantity Generator

Hazardous Waste Summary
 Waste Code / Name : D001 - IGNITABLE WASTE

Notices of Violations Summary
 Regulation Violated : N

Evaluation Action Summary
 Evaluation Date : 04/07/2009
 Evaluation : COMPLIANCE EVALUATION INSPECTION ON-SITE
 Area of Violation : N/R
 Date Achieved Compliance : N/R
 Evaluation Lead Agency : State

UST - MI

Facility Name : Wesch Cleaners, Inc
 Facility Address : 33633 WOODWARD AVE, BIRMINGHAM, MI 48009-0911
 County : OAKLAND

Site Details
 Facility Number : 00003418
 Region : 1
 Facility Contact : N/R
 Latitude : 42.5398070000
 Longitude : -83.2077680000
 Last Date in Agency List : 03/20/2020

Owner Summary
 Owner Name : James S. Munson
 Owner Address : 1130 Fairfax St, Birmingham, MI 48009-1033
 Owner Country : N/R
 Owner Phone : 3136460692

Tank Information
 Installation Date : 04/17/1978
 New Tank Number : UTK-044441-15
 Old Tank Number : 2
 Tank Status : Removed from Ground
 Tank Content : Hazardous Substance(STODDARD SOLVENT)

Map Id: O65
 Direction: SSE
 Distance: 0.376 mi.
 Actual: 1983.792 ft.
 Elevation: 0.142 mi. / 750.043 ft.
 Relative: Lower

Site Name : 33633 WOODWARD LLC | WESCH
 CLEANERS INC | CIH REAL ESTATE
 HOLDINGS, L.L.C.
 33633 WOODWARD AVE
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, ECHO, FRS, HWG - MI, LWF -
 MI, RCRA_NONGEN, UST - MI] **(cont.)**

EnviroSite ID: 3342736
EPA ID: N/R

UST - MI **(cont.)**

Capacity (in gallons) :	500
Removed/Closed Date :	08/01/1986
Number of Compartments :	N/R
Piping Material :	Unknown
Piping Type :	N/R
Tank Material :	Asphalt Coated or Bare Steel
Impressed Current Installed :	N/R
Installation Date :	04/17/1978
New Tank Number :	UTK-069150-15
Old Tank Number :	1
Tank Status :	Removed from Ground
Tank Content :	Hazardous Substance(STODDARD SOLVENT)
Capacity (in gallons) :	500
Removed/Closed Date :	08/01/1986
Number of Compartments :	N/R
Piping Material :	Unknown
Piping Type :	N/R
Tank Material :	Asphalt Coated or Bare Steel
Impressed Current Installed :	N/R

Map Id: 66
 Direction: WNW
 Distance: 0.387 mi.
 Actual: 2041.666 ft.
 Elevation: 0.146 mi. / 768.471 ft.
 Relative: Higher

Site Name : Brown Street Office Building
 200 East Brown
 Birmingham, MI
Database(s) : [BEA - MI]

EnviroSite ID: 3342535
EPA ID: N/R

BEA - MI

Facility Name :	Brown Street Office Building
Facility Address :	200 East Brown, Birmingham
County :	Oakland
Facility ID :	N/R
BEA Number :	200803891LV
Data Source :	BEA
District :	Southeast MI
Township :	Birmingham
Latitude :	N/R
Longitude :	N/R
Last Date in Agency List :	2020-09-25

Map Id: 67
 Direction: NW
 Distance: 0.420 mi.
 Actual: 2217.650 ft.
 Elevation: 0.148 mi. / 780.226 ft.
 Relative: Higher

Site Name : SUNOCO SERVICE STATION 84178 |
 SUNOCO #0008-4178 | HORTONS
 BIRMINGHAM SUNOCO NUMBER 84178
 35001 WOODWARD AVE
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, BRS, ECHO, FRS, HWG - MI,
 LUST - MI, RCRA_NONGEN, UST - MI]

Envirosite ID: 3290078
EPA ID: N/R

BEA - MI

Facility Name : Sunoco Gasoline Station (Former)
 Facility Address : 35001 Woodward Avenue, Birmingham, 48009
 County : Oakland

Facility ID : N/R
 BEA Number : 200402477LV
 Data Source : BEA
 District : Southeast MI
 Township : Birmingham
 Latitude : N/R
 Longitude : N/R
 Last Date in Agency List : 2020-09-25

BRS

Facility Name : SUNOCO SERVICE STATION 84178
 Facility Address : 35001 WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

Site Details

Date Form Received by Agency : 03/01/2004
 EPA ID : MID087750204
 Mailing Address : 1801 MARKET STREET, PHILADELPHIA, PA 19103
 Contact : LINDA HOFFMAN
 Contact Address : N/R
 Contact Country : US
 Contact Telephone : 215-977-6841
 Contact Email : N/R
 EPA Region : 05
 Land Type : Other land type
 Source Type : Annual/Biennial Report
 Classification : Not a generator, verified
 Description : Not a generator, verified
 Last Date in Agency List : 10/19/2020

Owner/Operator Summary

Owner/Operator Name : CURRENT OWNER-OPERATOR IS NOT REGULATED
 Owner/Operator Address : N/R
 Owner/Operator Country : US
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Other
 Owner/Operator Type : Operator
 Owner/Operator Start Date : 11/07/2003
 Owner/Operator End Date : N/R

Map Id: 67
 Direction: NW
 Distance: 0.420 mi.
 Actual: 2217.650 ft.
 Elevation: 0.148 mi. / 780.226 ft.
 Relative: Higher

Site Name : SUNOCO SERVICE STATION 84178 |
 SUNOCO #0008-4178 | HORTONS
 BIRMINGHAM SUNOCO NUMBER 84178
 35001 WOODWARD AVE
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, BRS, ECHO, FRS, HWG - MI,
 LUST - MI, RCRA_NONGEN, UST - MI]
(cont.)

Envirosite ID: 3290078
EPA ID: N/R

BRS (cont.)

Owner/Operator Name :	CURRENT OWNER-OPERATOR IS NOT REGULATED
Owner/Operator Address :	N/R
Owner/Operator Country :	US
Owner/Operator Telephone :	N/R
Owner/Operator Email :	N/R
Owner/Operator Fax :	N/R
Legal Status :	Other
Owner/Operator Type :	Owner
Owner/Operator Start Date :	11/07/2003
Owner/Operator End Date :	N/R

Waste Activity Monitoring

Report Cycle :	2003
Hazardous Waste Page Number :	1
Hazardous Waste Sub-Page Number :	1
BR Form :	GM
Waste Description :	N/R
Primary NAICS :	44711 - Gasoline Stations with Convenience Stores
Source Code :	G11 - Discarding off-specification, out-of-date, and/or unused chemicals or products
Form Code :	N/R
Management Method :	H124 - Phase separation (as the major component of treatment; not reportable as H071-H083)
Generation Tons :	2.502
Managed Tons :	0
Shipped Tons :	2.502
Received Tons :	0
Receiver ID :	MID016985814
Receiver State :	MI
Shipper ID :	MID087750204
Shipper State :	MI
Waste Minimization :	N/R
Waste Code List :	D001
Waste Code Group :	D001 - IGNITABLE WASTE
Waste Generation Type :	N/R

ECHO

Facility Name :	SUNOCO SERVICE STATION 84178
Facility Address :	35001 WOODWARD AVE, BIRMINGHAM, MI 48009
County :	OAKLAND
Last Inspection Date :	2002-11-22
Registry ID :	110003607124
FIPS Code :	26125

Map Id: 67
 Direction: NW
 Distance: 0.420 mi.
 Actual: 2217.650 ft.
 Elevation: 0.148 mi. / 780.226 ft.
 Relative: Higher

Site Name : SUNOCO SERVICE STATION 84178 |
 SUNOCO #0008-4178 | HORTONS
 BIRMINGHAM SUNOCO NUMBER 84178
 35001 WOODWARD AVE
 BIRMINGHAM | Birmingham, MI 48009

Database(s) : [BEA - MI, BRS, ECHO, FRS, HWG - MI,
 LUST - MI, RCRA_NONGEN, UST - MI]
(cont.)

Envirosite ID: 3290078
EPA ID: N/R

ECHO (cont.)

EPA Region :	05
Inspection Count :	0
Last Inspection Days :	6533
Informal Count :	0
Last Informal Action Date :	2002-12-05
Formal Action Count :	0
Last Formal Action Date :	N/R
Total Penalties :	0
Penalty Count :	N/R
Last Penalty Date :	N/R
Last Penalty Amount :	N/R
QTRS IN NC :	0
Programs IN SNC :	0
Current Compliance Status :	No Violation Identified
Three-Year Compliance Status :	
Collection Method :	ADDRESS MATCHING-HOUSE NUMBER
Reference Point :	CENTER OF A FACILITY OR STATION
Accuracy Meters :	30
Derived Tribes :	N/R
Derived HUC :	04090004
Derived WBD :	040900030202
Derived STCTY FIPS :	26125
Derived Zip :	48009
Derived CD113 :	11
Derived CB2010 :	261251531002008
MYRTK Universe :	NNN
NPDES IDs :	N/R
CWA Permit Types :	N/R
CWA Compliance Tracking :	N/R
CWA NAICS :	N/R
CWA SICS :	N/R
CWA Inspection Count :	N/R
CWA Last Inspection Days :	N/R
CWA Informal Count :	N/R
CWA Formal Action Count :	N/R
CWA Last Formal Action Date :	N/R
CWA Penalties :	N/R
CWA Last Penalty Date :	N/R
CWA Last Penalty Amount :	N/R
CWA Quarters IN NC :	N/R
CWA Current Compliance Status :	N/R
CWA Current SNC Flag :	N
CWA 13 Quarters Compliance Status :	N/R
CWA 13 Quarters Effluent Exceedances:	N/R
CWA Three-Year QNCR Codes :	N/R
DFR URL :	Click here for hyperlink provided by the agency.
Facility SIC :	N/R
Facility NAICS :	44711 - Gasoline Stations with Convenience Stores
Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	2002-11-22
Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R
Facility Last Informal Act EPA Date :	N/R

Map Id: 67
 Direction: NW
 Distance: 0.420 mi.
 Actual: 2217.650 ft.
 Elevation: 0.148 mi. / 780.226 ft.
 Relative: Higher

Site Name : SUNOCO SERVICE STATION 84178 |
 SUNOCO #0008-4178 | HORTONS
 BIRMINGHAM SUNOCO NUMBER 84178
 35001 WOODWARD AVE
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, BRS, ECHO, FRS, HWG - MI,
 LUST - MI, RCRA_NONGEN, UST - MI]
(cont.)

Envirosite ID: 3290078
EPA ID: N/R

ECHO (cont.)

Facility Last Informal Act State Date:	2002-12-05
Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	N/R
Current SNC Flag :	N
Indian County Flag :	N
Federal Flag :	N/R
US Mexico Border Flag :	N/R
Chesapeake Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	N
SDWIS Flag :	N
RCRA Flag :	Y
TRI Flag :	N
GHG Flag :	N
Major Flag :	N/R
Active Flag :	N/R
NAA Flag :	Y
Latitude :	42.54733
Longitude :	-83.21172
Last Date in Agency List :	2020-12-31

FRS

Facility Name :	SUNOCO SERVICE STATION 84178
Facility Address :	35001 WOODWARD AVE, HORTONS BIRMINGHAM SUNOCO, BIRMINGHAM, MI 48009
County :	OAKLAND
Registry ID :	110003607124
FRS Facility URL :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	08/31/2020

Source Description :

All generators and treatment, storage, and disposal (TSD) facilities who handle hazardous waste are required to report to the EPA Administrator at least once every two years. The data collected is used to create the National Biennial Resource Conservation and Recovery Act (RCRA) Hazardous Waste Report. This data is processed within the RCRA Information (RCRAInfo) database.

Map Id: 67
 Direction: NW
 Distance: 0.420 mi.
 Actual: 2217.650 ft.
 Elevation: 0.148 mi. / 780.226 ft.
 Relative: Higher

Site Name : SUNOCO SERVICE STATION 84178 |
 SUNOCO #0008-4178 | HORTONS
 BIRMINGHAM SUNOCO NUMBER 84178
 35001 WOODWARD AVE
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, BRS, ECHO, FRS, HWG - MI,
 LUST - MI, RCRA_NONGEN, UST - MI]
(cont.)

EnviroSite ID: 3290078
EPA ID: N/R

FRS (cont.)

Source Description :

RCRAInfo is EPA's comprehensive information system that supports the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984 through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA. RCRAInfo also supports generation of the National Hazardous Waste Biennial Report. All generators and treatment, storage, and disposal facilities who handle hazardous waste are required to report to the EPA Administrator at least once every two years to support creation of the Biennial Report.

FRS Environmental Interest

Source and System ID :

RCRAINFO - MID087750204

HWG - MI

Facility Name : HORTONS BIRMINGHAM SUNOCO NUMBER 84178
Facility Address : 35001 WOODWARD AVE, BIRMINGHAM, MI 48009
County : OAKLAND

WDS ID : 397695
Site ID : MID087750204
Generator Status : No longer generating, out of business
Site Legal Name : SUNOCO INC
Contact Name : N/R
Contact Phone : N/R
Contact Email : N/R
Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
Last Date in Agency List : 2021-01-04

LUST - MI

Facility Name : Sunoco #0008-4178
Facility Address : 35001 WOODWARD AVE, BIRMINGHAM, 48009-
County : Oakland

Site Details

Date of Collection : 01/11/2001
Facility ID : 00005935
Accuracy : 100
Accuracy Value Unit : FEET
Horizontal Datum : NAD83
Source : STATE OF MICHIGAN
Point/Line/Area : POINT
Description Category : Plant Entrance (Freight)
Method of Collection : Address Matching-House Number
District : Warren
Latitude : 42.546988

Map Id: 67
 Direction: NW
 Distance: 0.420 mi.
 Actual: 2217.650 ft.
 Elevation: 0.148 mi. / 780.226 ft.
 Relative: Higher

Site Name : SUNOCO SERVICE STATION 84178 |
 SUNOCO #0008-4178 | HORTONS
 BIRMINGHAM SUNOCO NUMBER 84178
 35001 WOODWARD AVE
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, BRS, ECHO, FRS, HWG - MI,
 LUST - MI, RCRA_NONGEN, UST - MI]
(cont.)

Envirosite ID: 3290078
EPA ID: N/R

LUST - MI (cont.)

Longitude : -83.214282
 Last Date in Agency List : 09/21/2020

Owner Summary

Owner Name : SunocoInc (R&M)
 Owner Address : UNKNOWN, MI
 Owner Country : USA
 Owner Contact Person : N/R
 Owner Phone Number : N/R

Release Information

Release Date : 11/07/1996
 Release Status : Closed
 Substance Released : Unknown
 Release Closed Date : 06/08/2010
 Leak Number : C-0924-96
 LUST Site Name : Sunoco #0008-4178

RCRA_NONGEN

Facility Name : SUNOCO SERVICE STATION 84178
 Facility Address : 35001 WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

Date Form Received by Agency : 03/01/2004
 EPA ID : MID087750204
 Mailing Address : 1801 MARKET STREET, PHILADELPHIA, PA 19103
 Contact : LINDA HOFFMAN
 Contact Address : N/R
 Contact Country : US
 Contact Telephone : 215-977-6841
 Contact Email : N/R
 EPA Region : 05
 Land Type : Other land type
 Source Type : Annual/Biennial Report
 Classification : Not a generator, verified
 Description : Not a generator, verified
 Last Date in Agency List : 10/19/2020

Owner/Operator Summary

Owner/Operator Name : CURRENT OWNER-OPERATOR IS NOT REGULATED
 Owner/Operator Address : N/R
 Owner/Operator Country : US
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R

Map Id: 67
 Direction: NW
 Distance: 0.420 mi.
 Actual: 2217.650 ft.
 Elevation: 0.148 mi. / 780.226 ft.
 Relative: Higher

Site Name : SUNOCO SERVICE STATION 84178 |
 SUNOCO #0008-4178 | HORTONS
 BIRMINGHAM SUNOCO NUMBER 84178
 35001 WOODWARD AVE
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, BRS, ECHO, FRS, HWG - MI,
 LUST - MI, RCRA_NONGEN, UST - MI]
(cont.)

Envirosite ID: 3290078
EPA ID: N/R

RCRA_NONGEN (cont.)

Owner/Operator Fax : N/R
 Legal Status : Other
 Owner/Operator Type : Operator
 Owner/Operator Start Date : 11/07/2003
 Owner/Operator End Date : N/R

Owner/Operator Name : CURRENT OWNER-OPERATOR IS NOT REGULATED
 Owner/Operator Address : N/R
 Owner/Operator Country : US
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Other
 Owner/Operator Type : Owner
 Owner/Operator Start Date : 11/07/2003
 Owner/Operator End Date : N/R

Handler Activities Summary

U.S. Importer of Hazardous Waste : N
 Mixed Waste (Haz. and Radioactive) : N
 Recycler of Hazardous Waste : N
 Transporter of Hazardous Waste : N
 Treater, Storer or Disposer of HW : N
 Underground Injection Activity : N
 On-site Burner Exemption : N
 Furnace Exemption : N
 Used Oil Fuel Burner : N
 Used Oil Processor : N
 Used Oil Refiner : N
 Used Oil Fuel Marketer to Burner : N
 Used Oil Specification Marketer : N
 Used Oil Transfer Facility : N
 Used Oil Transporter : N

Historical Generators

Date Form Received by Agency : 11/07/2003
 Facility Name : SUNOCO INC
 Classification : Not a generator, verified

Date Form Received by Agency : 11/22/2002
 Facility Name : SUNOCO INC
 Classification : Large Quantity Generator

Date Form Received by Agency : 10/14/1998
 Facility Name : SUNOCO INC

Map Id: 67
 Direction: NW
 Distance: 0.420 mi.
 Actual: 2217.650 ft.
 Elevation: 0.148 mi. / 780.226 ft.
 Relative: Higher

Site Name : SUNOCO SERVICE STATION 84178 |
 SUNOCO #0008-4178 | HORTONS
 BIRMINGHAM SUNOCO NUMBER 84178
 35001 WOODWARD AVE
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, BRS, ECHO, FRS, HWG - MI,
 LUST - MI, RCRA_NONGEN, UST - MI]
(cont.)

EnviroSite ID: 3290078
EPA ID: N/R

RCRA_NONGEN (cont.)

Classification : Very Small Quantity Generator

Date Form Received by Agency : 01/01/1992
 Facility Name : SUNOCO SERVICE STATION
 Classification : Large Quantity Generator

Date Form Received by Agency : 08/18/1980
 Facility Name : SUNOCO INC
 Classification : Very Small Quantity Generator

Notices of Violations Summary

Date of Violation : 11/22/2002
 Date Achieved Compliance : 03/13/2003
 Regulation Violated : Y
 Area of Violation : State Statute or Regulation
 Enforcement Action : WRITTEN INFORMAL
 Enforcement Action Date : 12/05/2002
 Enf. Disposition Status : N/R
 Enf. Disp. Status Date : N/R
 Violation Lead Agency : State
 Enforcement Lead Agency : State
 Proposed Penalty Amount : N/R
 Final Penalty Amount : N/R
 Paid Penalty Amount : N/R

Date of Violation : 11/22/2002
 Date Achieved Compliance : 03/13/2003
 Regulation Violated : Y
 Area of Violation : Universal Waste - Small Quantity Handlers
 Enforcement Action : WRITTEN INFORMAL
 Enforcement Action Date : 12/05/2002
 Enf. Disposition Status : N/R
 Enf. Disp. Status Date : N/R
 Violation Lead Agency : State
 Enforcement Lead Agency : State
 Proposed Penalty Amount : N/R
 Final Penalty Amount : N/R
 Paid Penalty Amount : N/R

Date of Violation : 11/22/2002
 Date Achieved Compliance : 03/13/2003
 Regulation Violated : Y
 Area of Violation : Used Oil - Generators
 Enforcement Action : WRITTEN INFORMAL
 Enforcement Action Date : 12/05/2002
 Enf. Disposition Status : N/R

Map Id: 67
 Direction: NW
 Distance: 0.420 mi.
 Actual: 2217.650 ft.
 Elevation: 0.148 mi. / 780.226 ft.
 Relative: Higher

Site Name : SUNOCO SERVICE STATION 84178 |
 SUNOCO #0008-4178 | HORTONS
 BIRMINGHAM SUNOCO NUMBER 84178
 35001 WOODWARD AVE
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, BRS, ECHO, FRS, HWG - MI,
 LUST - MI, RCRA_NONGEN, UST - MI]
(cont.)

Envirosite ID: 3290078
EPA ID: N/R

RCRA_NONGEN (cont.)

Enf. Disp. Status Date :	N/R
Violation Lead Agency :	State
Enforcement Lead Agency :	State
Proposed Penalty Amount :	N/R
Final Penalty Amount :	N/R
Paid Penalty Amount :	N/R

Evaluation Action Summary

Evaluation Date :	11/22/2002
Evaluation :	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of Violation :	State Statute or Regulation
Date Achieved Compliance :	03/13/2003
Evaluation Lead Agency :	State

Evaluation Date :	11/22/2002
Evaluation :	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of Violation :	Universal Waste - Small Quantity Handlers
Date Achieved Compliance :	03/13/2003
Evaluation Lead Agency :	State

Evaluation Date :	11/22/2002
Evaluation :	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of Violation :	Used Oil - Generators
Date Achieved Compliance :	03/13/2003
Evaluation Lead Agency :	State

UST - MI

Facility Name :	Sunoco #0008-4178
Facility Address :	35001 WOODWARD AVE, BIRMINGHAM, MI 48009-0933
County :	OAKLAND

Site Details

Facility Number :	00005935
Region :	1
Facility Contact :	N/R
Latitude :	42.5469880000
Longitude :	-83.2142820000
Last Date in Agency List :	03/20/2020

Owner Summary

Owner Name :	Sunoco Inc (R&M)
Owner Address :	1735 Market St 12nd Floor, Philadelphia, PA 19103
Owner Country :	N/R

Map Id: 67
 Direction: NW
 Distance: 0.420 mi.
 Actual: 2217.650 ft.
 Elevation: 0.148 mi. / 780.226 ft.
 Relative: Higher

Site Name : SUNOCO SERVICE STATION 84178 |
 SUNOCO #0008-4178 | HORTONS
 BIRMINGHAM SUNOCO NUMBER 84178
 35001 WOODWARD AVE
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, BRS, ECHO, FRS, HWG - MI,
 LUST - MI, RCRA_NONGEN, UST - MI]
(cont.)

Envirosite ID: 3290078
EPA ID: N/R

UST - MI (cont.)

Owner Phone : 2152468513

Tank Information

Installation Date : 04/01/1988
 New Tank Number : UTK-044675-15
 Old Tank Number : 6
 Tank Status : Removed from Ground
 Tank Content : Used Oil
 Capacity (in gallons) : 1000
 Removed/Closed Date : 10/14/1998
 Number of Compartments : N/R
 Piping Material : Fiberglass Reinforced Plastic
 Piping Type : N/R
 Tank Material : Composite (Steel With Fiberglass)
 Impressed Current Installed : N/R

Installation Date : 05/05/1982
 New Tank Number : UTK-001064-15
 Old Tank Number : 5
 Tank Status : Removed from Ground
 Tank Content : Gasoline
 Capacity (in gallons) : 8000
 Removed/Closed Date : 10/01/2003
 Number of Compartments : N/R
 Piping Material : Fiberglass Reinforced Plastic
 Piping Type : Pressure (Remote)
 Tank Material : Fiberglass Reinforced Plastic
 Impressed Current Installed : N/R

Installation Date : 05/05/1982
 New Tank Number : UTK-033696-15
 Old Tank Number : 4
 Tank Status : Removed from Ground
 Tank Content : Gasoline
 Capacity (in gallons) : 8000
 Removed/Closed Date : 10/01/2003
 Number of Compartments : N/R
 Piping Material : Fiberglass Reinforced Plastic
 Piping Type : Pressure (Remote)
 Tank Material : Composite (Steel With Fiberglass),Fiberglass Reinforced Plastic
 Impressed Current Installed : N/R

Installation Date : 05/05/1982
 New Tank Number : UTK-047664-15
 Old Tank Number : 1
 Tank Status : Removed from Ground
 Tank Content : Diesel
 Capacity (in gallons) : 6000

Map Id: 67
 Direction: NW
 Distance: 0.420 mi.
 Actual: 2217.650 ft.
 Elevation: 0.148 mi. / 780.226 ft.
 Relative: Higher

Site Name : SUNOCO SERVICE STATION 84178 |
 SUNOCO #0008-4178 | HORTONS
 BIRMINGHAM SUNOCO NUMBER 84178
 35001 WOODWARD AVE
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, BRS, ECHO, FRS, HWG - MI,
 LUST - MI, RCRA_NONGEN, UST - MI]
(cont.)

EnviroSite ID: 3290078
EPA ID: N/R

UST - MI (cont.)

Removed/Closed Date : 04/01/1988
 Number of Compartments : N/R
 Piping Material : Fiberglass Reinforced Plastic
 Piping Type : Pressure (Remote)
 Tank Material : Composite (Steel With Fiberglass),Fiberglass Reinforced Plastic
 Impressed Current Installed : N/R

Installation Date : 05/05/1981
 New Tank Number : UTK-072971-15
 Old Tank Number : 3
 Tank Status : Removed from Ground
 Tank Content : Gasoline
 Capacity (in gallons) : 6000
 Removed/Closed Date : 10/01/2003
 Number of Compartments : N/R
 Piping Material : Fiberglass Reinforced Plastic
 Piping Type : Pressure (Remote)
 Tank Material : Composite (Steel With Fiberglass)
 Impressed Current Installed : N/R

Installation Date : 05/05/1970
 New Tank Number : UTK-072966-15
 Old Tank Number : 2
 Tank Status : Removed from Ground
 Tank Content : Used Oil
 Capacity (in gallons) : 1000
 Removed/Closed Date : 04/01/1988
 Number of Compartments : N/R
 Piping Material : Bare Steel,Fiberglass Reinforced Plastic
 Piping Type : N/R
 Tank Material : Asphalt Coated or Bare Steel,Composite (Steel With Fiberglass)
 Impressed Current Installed : N/R

Map Id: 68
 Direction: WSW
 Distance: 0.423 mi.
 Actual: 2232.184 ft.
 Elevation: 0.145 mi. / 767.182 ft.
 Relative: Higher

Site Name : Wesley Drugs
 1000 W. 14 MILE @ PIERCE
 Birmingham, MI 48009
Database(s) : [BROWNFIELDS - MI]

EnviroSite ID: 3285639
EPA ID: N/R

BROWNFIELDS - MI

Facility Name : Wesley Drugs
 Facility Address : 1000 W. 14 MILE @ PIERCE, Birmingham, 48009
 County : Oakland

Map Id: 68
 Direction: WSW
 Distance: 0.423 mi.
 Actual: 2232.184 ft.
 Elevation: 0.145 mi. / 767.182 ft.
 Relative: Higher

Site Name : Wesley Drugs
 1000 W. 14 MILE @ PIERCE
 Birmingham, MI 48009
Database(s) : [BROWNFIELDS - MI] **(cont.)**

EnviroSite ID: 3285639
EPA ID: N/R

BROWNFIELDS - MI **(cont.)**

Facility ID : 63000912
 Data Source : Part 201
 District : Southeast MI
 Township : Birmingham
 Latitude : 42.53158
 Longitude : -83.22450
 Last Date in Agency List : 2020-09-25

Map Id: P69
 Direction: SSE
 Distance: 0.432 mi.
 Actual: 2279.888 ft.
 Elevation: 0.142 mi. / 748.845 ft.
 Relative: Lower

Site Name : CITGO BIRMINGHAM
 33588 WOODWARD AVE 1531 S
 WOODWARD (FORMERLY) | 33588
 Woodward Ave
 BIRMINGHAM | Birmingham, MI
Database(s) : [LUST - MI, SHWS - MI, UST - MI]

EnviroSite ID: 3306156
EPA ID: N/R

LUST - MI

Facility Name : Citgo Birmingham
 Facility Address : 33588 Woodward Ave, 1531 S Woodward (Formerly), Birmingham, 48126
 County : Oakland

Site Details

Date of Collection : 01/11/2001
 Facility ID : 00013409
 Accuracy : 100
 Accuracy Value Unit : FEET
 Horizontal Datum : NAD83
 Source : STATE OF MICHIGAN
 Point/Line/Area : POINT
 Description Category : Plant Entrance (Freight)
 Method of Collection : Address Matching-House Number
 District : Region 1 - SE Michigan District Office
 Latitude : 42.535721
 Longitude : -83.202812
 Last Date in Agency List : 03/26/2015

Owner Summary

Owner Name : Citgo Birmingham
 Owner Address : 4815 Curtis St, Dearborn, MI 48126-4128
 Owner Country : USA
 Owner Contact Person : N/R
 Owner Phone Number : N/R

Map Id: P69
 Direction: SSE
 Distance: 0.432 mi.
 Actual: 2279.888 ft.
 Elevation: 0.142 mi. / 748.845 ft.
 Relative: Lower

Site Name : CITGO BIRMINGHAM
 33588 WOODWARD AVE 1531 S
 WOODWARD (FORMERLY) | 33588
 Woodward Ave
 BIRMINGHAM | Birmingham, MI
Database(s) : [LUST - MI, SHWS - MI, UST - MI] **(cont.)**

EnviroSite ID: 3306156
EPA ID: N/R

LUST - MI **(cont.)**

Release Information

Release Date : 12/13/2013
 Release Status : Open
 Substance Released : Gasoline,Gasoline,Gasoline,Gasoline,Other,Diesel
 Release Closed Date : N/R
 Leak Number : C-0005-15
 LUST Site Name : Citgo

SHWS - MI

Facility Name : Citgo Birmingham
 Facility Address : 33588 Woodward Ave, Birmingham, 48011
 County : Oakland

Facility ID : 00013409
 Data Source : Part 213
 District : Southeast MI
 Township : N/R
 Latitude : 42.53572
 Longitude : -83.20281
 Last Date in Agency List : 2015-07-15

UST - MI

Facility Name : Citgo Birmingham
 Facility Address : 33588 Woodward Ave 1531 S Woodward (Formerly), Birmingham, MI 48126
 County : Oakland

Site Details

Facility Number : 00013409
 Region : N/R
 Facility Contact : Mohammed Hammoud
 Latitude : 42.5357210000
 Longitude : -83.2028120000
 Last Date in Agency List : 06/17/2015

Owner Summary

Owner Name : Citgo Birmingham
 Owner Address : 4815 Curtis St, Dearborn, MI 48126-4128
 Owner Country : USA
 Owner Phone : N/R

Tank Information

Installation Date : 05/06/1976
 New Tank Number : N/R
 Old Tank Number : 4
 Tank Status : Currently In Use

Map Id: P69
 Direction: SSE
 Distance: 0.432 mi.
 Actual: 2279.888 ft.
 Elevation: 0.142 mi. / 748.845 ft.
 Relative: Lower

Site Name : CITGO BIRMINGHAM
 33588 WOODWARD AVE 1531 S
 WOODWARD (FORMERLY) | 33588
 Woodward Ave
 BIRMINGHAM | Birmingham, MI
Database(s) : [LUST - MI, SHWS - MI, UST - MI] **(cont.)**

EnviroSite ID: 3306156
EPA ID: N/R

UST - MI **(cont.)**

Tank Content :	Gasoline
Capacity (in gallons) :	10000
Removed/Closed Date :	N/R
Number of Compartments :	N/R
Piping Material :	Double Walled
Piping Type :	Pressure
Tank Material :	Asphalt Coated or Bare Steel,Cathodically Protected Steel
Impressed Current Installed :	Yes

Installation Date :	05/06/1976
New Tank Number :	N/R
Old Tank Number :	5
Tank Status :	Currently In Use
Tank Content :	Kerosene,RACING-FUEL
Capacity (in gallons) :	6000
Removed/Closed Date :	N/R
Number of Compartments :	N/R
Piping Material :	Double Walled
Piping Type :	Pressure
Tank Material :	Asphalt Coated or Bare Steel,Cathodically Protected Steel
Impressed Current Installed :	Yes

Installation Date :	05/06/1976
New Tank Number :	N/R
Old Tank Number :	6
Tank Status :	Currently In Use
Tank Content :	Diesel
Capacity (in gallons) :	6000
Removed/Closed Date :	N/R
Number of Compartments :	N/R
Piping Material :	Double Walled
Piping Type :	Suction: Valve at Tank
Tank Material :	Asphalt Coated or Bare Steel,Cathodically Protected Steel
Impressed Current Installed :	Yes

Installation Date :	05/06/1974
New Tank Number :	N/R
Old Tank Number :	1
Tank Status :	Currently In Use
Tank Content :	Gasoline
Capacity (in gallons) :	12000
Removed/Closed Date :	N/R
Number of Compartments :	N/R
Piping Material :	Double Walled
Piping Type :	Pressure
Tank Material :	Asphalt Coated or Bare Steel,Cathodically Protected Steel
Impressed Current Installed :	Yes

Installation Date :	05/06/1974
New Tank Number :	N/R
Old Tank Number :	2

Map Id: P69
 Direction: SSE
 Distance: 0.432 mi.
 Actual: 2279.888 ft.
 Elevation: 0.142 mi. / 748.845 ft.
 Relative: Lower

Site Name : CITGO BIRMINGHAM
 33588 WOODWARD AVE 1531 S
 WOODWARD (FORMERLY) | 33588
 Woodward Ave
 BIRMINGHAM | Birmingham, MI
Database(s) : [LUST - MI, SHWS - MI, UST - MI] **(cont.)**

EnviroSite ID: 3306156
EPA ID: N/R

UST - MI **(cont.)**

Tank Status :	Currently In Use
Tank Content :	Gasoline
Capacity (in gallons) :	12000
Removed/Closed Date :	N/R
Number of Compartments :	N/R
Piping Material :	Double Walled
Piping Type :	Pressure
Tank Material :	Asphalt Coated or Bare Steel,Cathodically Protected Steel
Impressed Current Installed :	Yes

Installation Date :	05/06/1974
New Tank Number :	N/R
Old Tank Number :	3
Tank Status :	Currently In Use
Tank Content :	Gasoline
Capacity (in gallons) :	10000
Removed/Closed Date :	N/R
Number of Compartments :	N/R
Piping Material :	Double Walled
Piping Type :	Pressure
Tank Material :	Asphalt Coated or Bare Steel,Cathodically Protected Steel
Impressed Current Installed :	Yes

Map Id: P70
 Direction: SSE
 Distance: 0.447 mi.
 Actual: 2360.235 ft.
 Elevation: 0.142 mi. / 748.579 ft.
 Relative: Lower

Site Name : SHELL STATION | 33588 WOODWARD
 AVENUE | BARRICK OIL CO
 33588 WOODWARD AVE | 33588
 Woodward Avenue Formerly 1531 S.
 Woodward Avenue
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, FED BROWNFIELDS, FRS, LUST
 - MI, LWF - MI, SHWS - MI, UST - MI]

EnviroSite ID: 3298449
EPA ID: N/R

BEA - MI

Facility Name :	Citgo (Former)
Facility Address :	33588 Woodward Avenue Formerly 1531 S. Woodward Avenue, Birmingham, 48009
County :	Oakland
Facility ID :	N/R
BEA Number :	201405858LV
Data Source :	BEA
District :	Southeast MI
Township :	Birmingham

Map Id: P70
 Direction: SSE
 Distance: 0.447 mi.
 Actual: 2360.235 ft.
 Elevation: 0.142 mi. / 748.579 ft.
 Relative: Lower

Site Name : SHELL STATION | 33588 WOODWARD AVENUE | BARRICK OIL CO
 33588 WOODWARD AVE | 33588 Woodward Avenue Formerly 1531 S. Woodward Avenue
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, FED BROWNFIELDS, FRS, LUST - MI, LWF - MI, SHWS - MI, UST - MI]
(cont.)

EnviroSite ID: 3298449
EPA ID: N/R

BEA - MI (cont.)

Latitude : N/R
 Longitude : N/R
 Last Date in Agency List : 2020-09-25

FED BROWNFIELDS

Facility Name : 33588 Woodward Avenue
 Facility Address : 33588 Woodward Avenue, Birmingham, MI 48009

Site Details

ACRES Property ID : 169261
 Cooperative Agreement Number : 00E01208
 Type of Brownfields Grant : Assessment
 Type of Funding : Petroleum
 Grant Recipient Name : Oakland County Michigan
 IC Data Address : N/R
 Redevelopment Completion Date : N/R
 Property Size (acres) : .33
 Local Property Number(s) : 08-20-31-352-001
 Ownership Entity : Private
 Current Owner : N/R
 Did Ownership Change : Y
 SFLLP fact into the ownership : N
 Latitude : 42.535718
 Longitude : -83.20263299999999
 Horizontal Collection Method : Address Matching-House Number
 Source Map Scale : N/R
 Reference Point : Entrance Point of a Facility or Station
 Horizontal Reference Datum : North American Datum of 1983

Description/History :

Original development of the subject property occurred between 1950 and 1951 with the construction of a gasoline service station in the northeastern portion of the property. The building was demolished, and the property was redeveloped with a portion of the current gasoline dispensing station building in 1956 located in the eastern portion of the property. A canopy was constructed west of the building in 1977, and an addition was constructed to the southern portion of the building in 1987. The property was occupied by a gasoline service station until approximately 2000, when the building was renovated for use as the current convenience store. Fuel dispensing operations have continued since that time.

Last Date in Agency List : 2020-12-18

Additional Details

Past Use: Greenspace (acres) : N/R
 Past Use: Residential (acres) : N/R
 Past Use: Commercial (acres) : .33
 Past Use: Industrial (acres) : N/R

Map Id: P70
 Direction: SSE
 Distance: 0.447 mi.
 Actual: 2360.235 ft.
 Elevation: 0.142 mi. / 748.579 ft.
 Relative: Lower

Site Name : SHELL STATION | 33588 WOODWARD AVENUE | BARRICK OIL CO
 33588 WOODWARD AVE | 33588 Woodward Avenue Formerly 1531 S. Woodward Avenue
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, FED BROWNFIELDS, FRS, LUST - MI, LWF - MI, SHWS - MI, UST - MI]
(cont.)

EnviroSite ID: 3298449
EPA ID: N/R

FED BROWNFIELDS (cont.)

Past Use: Multistory (acres) :	N/R
Cleanup Required :	N
Contaminants Found: Controlled Substances:	N/R
Contaminants Found: Petroleum :	Y
Contaminants Found: Asbestos :	N/R
Contaminants Found: Lead :	N/R
Contaminants Found: PAHs :	N/R
Contaminants Found: PCBs :	N/R
Contaminants Found: VOCs :	Y
Contaminants Found: Selenium :	N/R
Contaminants Found: Iron :	N/R
Contaminants Found: Arsenic :	N/R
Contaminants Found: Cadmium :	N/R
Contaminants Found: Chromium :	N/R
Contaminants Found: Copper :	N/R
Contaminants Found: Mercury :	N/R
Contaminants Found: Nickel :	N/R
Contaminants Found: Pesticides :	N/R
Contaminants Found: SVOCs :	N/R
Contaminants Found: Other Metals :	N/R
Contaminants Found: Other :	N/R
Contaminants Found: Other (Descr) :	N/R
Contaminants Found: Unknown :	N/R
Contaminants Found: None :	N/R
Contaminants Cleaned Up: Controlled Substances:	N/R
Contaminants Cleaned Up: Petroleum :	N/R
Contaminants Cleaned Up: Asbestos :	N/R
Contaminants Cleaned Up: Lead :	N/R
Contaminants Cleaned Up: PAHs :	N/R
Contaminants Cleaned Up: PCBs :	N/R
Contaminants Cleaned Up: VOCs :	N/R
Contaminants Cleaned Up: Selenium :	N/R
Contaminants Cleaned Up: Iron :	N/R
Contaminants Cleaned Up: Arsenic :	N/R
Contaminants Cleaned Up: Cadmium :	N/R
Contaminants Cleaned Up: Chromium :	N/R
Contaminants Cleaned Up: Copper :	N/R
Contaminants Cleaned Up: Mercury :	N/R
Contaminants Cleaned Up: Nickel :	N/R
Contaminants Cleaned Up: Pesticides :	N/R
Contaminants Cleaned Up: SVOCs :	N/R
Contaminants Cleaned Up: Other Metals:	N/R
Contaminants Cleaned Up: Other :	N/R
Contaminants Cleaned Up: Other (Descr):	N/R
Contaminants Cleaned Up: Unknown :	N/R
Contaminants Cleaned Up: None :	N/R
Media Affected: Air :	N/R
Media Affected: Sediments :	N/R
Media Affected: Soil :	Y

Map Id: P70
 Direction: SSE
 Distance: 0.447 mi.
 Actual: 2360.235 ft.
 Elevation: 0.142 mi. / 748.579 ft.
 Relative: Lower

Site Name : SHELL STATION | 33588 WOODWARD AVENUE | BARRICK OIL CO
 33588 WOODWARD AVE | 33588 Woodward Avenue Formerly 1531 S. Woodward Avenue
 BIRMINGHAM | Birmingham, MI 48009

Database(s) : [BEA - MI, FED BROWNFIELDS, FRS, LUST - MI, LWF - MI, SHWS - MI, UST - MI]
(cont.)

EnviroSite ID: 3298449
EPA ID: N/R

FED BROWNFIELDS (cont.)

Media Affected: Drinking Water :	N/R
Media Affected: Ground Water :	N/R
Media Affected: Surface Water :	N/R
Media Affected: Bldg Materials :	N/R
Media Affected: Indoor Air :	N/R
Media Affected: Unknown :	N/R
Media Cleaned Up: Air :	N/R
Media Cleaned Up: Sediments :	N/R
Media Cleaned Up: Soil :	N/R
Media Cleaned Up: Drinking Water :	N/R
Media Cleaned Up: Ground Water :	N/R
Media Cleaned Up: Surface Water :	N/R
Media Cleaned Up: Bldg Materials :	N/R
Media Cleaned Up: Indoor Air :	N/R
Media Cleaned Up: Unknown :	N/R
ST/Tribal Prj ID Number :	N/R
Further Action/Cleanup :	N/R
Enrollment ST/Tribal Prj :	N/R
Institutional Ctrl (ICs) Req? :	N
IC Category: Proprietary Controls :	N/R
IC Category: Informational Devices :	N/R
IC Category: Governmental Controls :	N/R
IC Category: Enforcement/Permit Tools:	N/R
ICs in Place? :	N
Date ICs in Place :	N/R
Cleanup Start Date :	N/R
Cleanup Completion Date :	N/R
Redevelopment Start Date :	N/R
Future Use: Greenspace :	N/R
Future Use: Residential :	N/R
Future Use: Commercial :	.33
Future Use: Industrial :	N/R
Future Use: Multistory (acres) :	N/R
Number of Cleanup and Redev Jobs :	N/R
Acreage and Greenspace Created :	N/R
Photographs are Available :	Y
Video is Available :	N

Assessment Details

Accomplishment Counted :	N
Assessment Phase :	Phase II Environmental Assessment
Assessment Start Date :	2013-02-09
Assessment Completion Date :	2014-01-07
Amount of Assessment Funding :	5000
Source of Assessment Funding :	EPA
Entity Providing Assessment Funds :	US EPA - Brownfields Assessment Cooperative Agreement
Source of Cleanup Funding :	N/R
Entity Providing Cleanup Funds :	N/R
Amount of Cleanup Funding :	N/R
Source of Redevelopment Funding :	N/R

Map Id: P70
 Direction: SSE
 Distance: 0.447 mi.
 Actual: 2360.235 ft.
 Elevation: 0.142 mi. / 748.579 ft.
 Relative: Lower

Site Name : SHELL STATION | 33588 WOODWARD AVENUE | BARRICK OIL CO
 33588 WOODWARD AVE | 33588 Woodward Avenue Formerly 1531 S. Woodward Avenue
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, FED BROWNFIELDS, FRS, LUST - MI, LWF - MI, SHWS - MI, UST - MI]
(cont.)

EnviroSite ID: 3298449
EPA ID: N/R

FED BROWNFIELDS (cont.)

Entity Prvding Redevelopment Funds : N/R
 Amount of Redevelopment Funding : N/R

Accomplishment Counted : Y
 Assessment Phase : Phase I Environmental Assessment
 Assessment Start Date : 2013-10-29
 Assessment Completion Date : 2013-11-21
 Amount of Assessment Funding : 2400
 Source of Assessment Funding : EPA
 Entity Providing Assessment Funds : US EPA - Brownfields Assessment Cooperative Agreement
 Source of Cleanup Funding : N/R
 Entity Providing Cleanup Funds : N/R
 Amount of Cleanup Funding : N/R
 Source of Redevelopment Funding : N/R
 Entity Prvding Redevelopment Funds : N/R
 Amount of Redevelopment Funding : N/R

FRS

Facility Name : 33588 WOODWARD AVENUE
 Facility Address : 33588 WOODWARD AVENUE, BIRMINGHAM, MI 48009
 County : OAKLAND

Registry ID : 110059659409
 FRS Facility URL : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 08/31/2020

Source Description :

ACRES stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions.

FRS Environmental Interest
 Source and System ID : ACRES - 169261

LUST - MI

Facility Name : Shell Station
 Facility Address : 33588 Woodward Ave, Birmingham, 48009-
 County : Oakland

Map Id: P70
 Direction: SSE
 Distance: 0.447 mi.
 Actual: 2360.235 ft.
 Elevation: 0.142 mi. / 748.579 ft.
 Relative: Lower

Site Name : SHELL STATION | 33588 WOODWARD AVENUE | BARRICK OIL CO
 33588 WOODWARD AVE | 33588 Woodward Avenue Formerly 1531 S. Woodward Avenue
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, FED BROWNFIELDS, FRS, LUST - MI, LWF - MI, SHWS - MI, UST - MI]
(cont.)

Envirosite ID: 3298449
EPA ID: N/R

LUST - MI (cont.)

Site Details

Date of Collection :	01/11/2001
Facility ID :	00013409
Accuracy :	100
Accuracy Value Unit :	FEET
Horizontal Datum :	NAD83
Source :	STATE OF MICHIGAN
Point/Line/Area :	POINT
Description Category :	Plant Entrance (Freight)
Method of Collection :	Address Matching-House Number
District :	Warren
Latitude :	42.535721
Longitude :	-83.202812
Last Date in Agency List :	09/21/2020

Owner Summary

Owner Name :	Barrick Enterprises #40 LLC
Owner Address :	4338 Delemere Ct, Royal Oak, MI 48073-
Owner Country :	US
Owner Contact Person :	N/R
Owner Phone Number :	N/R

Release Information

Release Date :	12/13/2013
Release Status :	Open
Substance Released :	Gasoline,Gasoline,Gasoline,Gasoline,Other,Diesel
Release Closed Date :	N/R
Leak Number :	C-0005-15
LUST Site Name :	Citgo

LWF - MI

Facility Name :	BARRICK OIL CO
Facility Address :	33588 WOODWARD AVE, BIRMINGHAM, MI 48009
County :	OAKLAND

WDS ID :	439533
Site ID :	MIG000047678
Site Legal Name :	BARRICK OIL CO
Contact Name :	N/R
Contact Phone :	N/R
Contact Email :	N/R
Agency Hyperlink :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	08/19/2020

Map Id: P70
 Direction: SSE
 Distance: 0.447 mi.
 Actual: 2360.235 ft.
 Elevation: 0.142 mi. / 748.579 ft.
 Relative: Lower

Site Name : SHELL STATION | 33588 WOODWARD AVENUE | BARRICK OIL CO
 33588 WOODWARD AVE | 33588 Woodward Avenue Formerly 1531 S. Woodward Avenue
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, FED BROWNFIELDS, FRS, LUST - MI, LWF - MI, SHWS - MI, UST - MI]
(cont.)

Envirosite ID: 3298449
EPA ID: N/R

LWF - MI (cont.)

Facility Name : CITGO PETROLEUM
 Facility Address : 33588 WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

 WDS ID : 426396
 Site ID : MIG000057282
 Site Legal Name : CITGO PETROLEUM
 Contact Name : N/R
 Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 08/19/2020

SHWS - MI

Facility Name : Shell Station
 Facility Address : 33588 Woodward Ave, Birmingham, 48009
 County : Oakland

 Facility ID : 00013409
 Data Source : Part 213
 District : Southeast MI
 Township : N/R
 Latitude : 42.53572
 Longitude : -83.20281
 Last Date in Agency List : 2020-09-26

UST - MI

Facility Name : Shell Station
 Facility Address : 33588 WOODWARD AVE, BIRMINGHAM, MI 48009-0908
 County : OAKLAND

Site Details

Facility Number : 00013409
 Region : 1
 Facility Contact : N/R
 Latitude : 42.5357210000
 Longitude : -83.2028120000
 Last Date in Agency List : 08/26/2020

Owner Summary

Owner Name : Bham Shell Inc
 Owner Address : 33477 Woodward Ave 800, Birmingham, MI 48009
 Owner Country : N/R

Map Id: P70
 Direction: SSE
 Distance: 0.447 mi.
 Actual: 2360.235 ft.
 Elevation: 0.142 mi. / 748.579 ft.
 Relative: Lower

Site Name : SHELL STATION | 33588 WOODWARD AVENUE | BARRICK OIL CO
 33588 WOODWARD AVE | 33588 Woodward Avenue Formerly 1531 S. Woodward Avenue
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, FED BROWNFIELDS, FRS, LUST - MI, LWF - MI, SHWS - MI, UST - MI]
(cont.)

Envirosite ID: 3298449
EPA ID: N/R

UST - MI **(cont.)**

Owner Phone : 2382553568

Tank Information

Installation Date : 04/29/2015
 New Tank Number : UTK-140385-15
 Old Tank Number : 7
 Tank Status : Currently In Use
 Tank Content : Gasoline
 Capacity (in gallons) : 20000
 Removed/Closed Date : N/R
 Number of Compartments : N/R
 Piping Material : Double Walled,Fiberglass Reinforced Plastic
 Piping Type : Pressure (Remote)
 Tank Material : Double Walled,Fiberglass Reinforced Plastic,Other
 Impressed Current Installed : N/R

Installation Date : 04/29/2015
 New Tank Number : UTK-140386-15
 Old Tank Number : 8
 Tank Status : Currently In Use
 Tank Content : Diesel,Other(Gas/Racing Gas)
 Capacity (in gallons) : 12000
 Removed/Closed Date : N/R
 Number of Compartments : N/R
 Piping Material : Double Walled,Fiberglass Reinforced Plastic
 Piping Type : Pressure (Remote)
 Tank Material : Double Walled,Fiberglass Reinforced Plastic,Other
 Impressed Current Installed : N/R

Installation Date : 05/06/1976
 New Tank Number : UTK-012551-15
 Old Tank Number : 5
 Tank Status : Removed from Ground
 Tank Content : Kerosene,Other(RACING-FUEL)
 Capacity (in gallons) : 6000
 Removed/Closed Date : 04/17/2015
 Number of Compartments : N/R
 Piping Material : Double Walled
 Piping Type : Pressure (Remote)
 Tank Material : Asphalt Coated or Bare Steel,Cathodically Protected Steel,Other
 Impressed Current Installed : Yes

Installation Date : 05/06/1976
 New Tank Number : UTK-030062-15
 Old Tank Number : 4
 Tank Status : Removed from Ground

Map Id: P70
 Direction: SSE
 Distance: 0.447 mi.
 Actual: 2360.235 ft.
 Elevation: 0.142 mi. / 748.579 ft.
 Relative: Lower

Site Name : SHELL STATION | 33588 WOODWARD AVENUE | BARRICK OIL CO
 33588 WOODWARD AVE | 33588 Woodward Avenue Formerly 1531 S. Woodward Avenue
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, FED BROWNFIELDS, FRS, LUST - MI, LWF - MI, SHWS - MI, UST - MI]
(cont.)

EnviroSite ID: 3298449
EPA ID: N/R

UST - MI (cont.)

Tank Content :	Gasoline
Capacity (in gallons) :	10000
Removed/Closed Date :	04/17/2015
Number of Compartments :	N/R
Piping Material :	Double Walled
Piping Type :	Pressure (Remote)
Tank Material :	Asphalt Coated or Bare Steel,Cathodically Protected Steel,Other
Impressed Current Installed :	Yes

Installation Date :	05/06/1976
New Tank Number :	UTK-064034-15
Old Tank Number :	6
Tank Status :	Removed from Ground
Tank Content :	Diesel
Capacity (in gallons) :	6000
Removed/Closed Date :	04/16/2015
Number of Compartments :	N/R
Piping Material :	Double Walled
Piping Type :	Suction:Valve at Tank
Tank Material :	Asphalt Coated or Bare Steel,Cathodically Protected Steel,Other
Impressed Current Installed :	Yes

Installation Date :	05/06/1974
New Tank Number :	UTK-012550-15
Old Tank Number :	2
Tank Status :	Removed from Ground
Tank Content :	Gasoline
Capacity (in gallons) :	12000
Removed/Closed Date :	04/15/2015
Number of Compartments :	N/R
Piping Material :	Double Walled
Piping Type :	Pressure (Remote)
Tank Material :	Asphalt Coated or Bare Steel,Cathodically Protected Steel,Other
Impressed Current Installed :	Yes

Installation Date :	05/06/1974
New Tank Number :	UTK-016052-15
Old Tank Number :	3
Tank Status :	Removed from Ground
Tank Content :	Gasoline
Capacity (in gallons) :	10000
Removed/Closed Date :	04/16/2015
Number of Compartments :	N/R
Piping Material :	Double Walled
Piping Type :	Pressure (Remote)
Tank Material :	Asphalt Coated or Bare Steel,Cathodically Protected Steel,Other
Impressed Current Installed :	Yes

Map Id: P70
 Direction: SSE
 Distance: 0.447 mi.
 Actual: 2360.235 ft.
 Elevation: 0.142 mi. / 748.579 ft.
 Relative: Lower

Site Name : SHELL STATION | 33588 WOODWARD AVENUE | BARRICK OIL CO
 33588 WOODWARD AVE | 33588 Woodward Avenue Formerly 1531 S. Woodward Avenue
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI, FED BROWNFIELDS, FRS, LUST - MI, LWF - MI, SHWS - MI, UST - MI]
(cont.)

EnviroSite ID: 3298449
EPA ID: N/R

UST - MI (cont.)

Installation Date :	05/06/1974
New Tank Number :	UTK-064017-15
Old Tank Number :	1
Tank Status :	Removed from Ground
Tank Content :	Gasoline
Capacity (in gallons) :	12000
Removed/Closed Date :	04/15/2015
Number of Compartments :	N/R
Piping Material :	Double Walled
Piping Type :	Pressure (Remote)
Tank Material :	Asphalt Coated or Bare Steel,Cathodically Protected Steel,Other
Impressed Current Installed :	Yes

Map Id: 71
 Direction: WNW
 Distance: 0.478 mi.
 Actual: 2526.246 ft.
 Elevation: 0.148 mi. / 780.299 ft.
 Relative: Higher

Site Name : MI0040090 | MI0040357 | MI2047280
 217 PIERCE SUITE 209 | 165 - 217 Pierce Street
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [BEA - MI]

EnviroSite ID: 3339500
EPA ID: N/R

BEA - MI

Facility Name :	165 - 217 Pierce Street
Facility Address :	165 - 217 Pierce Street, Birmingham, 48009
County :	Oakland
Facility ID :	N/R
BEA Number :	201707682LV
Data Source :	BEA
District :	Southeast MI
Township :	Birmingham
Latitude :	N/R
Longitude :	N/R
Last Date in Agency List :	2020-09-25

Map Id: 72
 Direction: WNW
 Distance: 0.674 mi.
 Actual: 3559.251 ft.
 Elevation: 0.148 mi. / 782.549 ft.
 Relative: Higher

Site Name : BIRMINGHAM PUBLIC SCHOOLS
 550 W MERRILL ST
 BIRMINGHAM, MI 48009
Database(s) : [LUST - MI, SHWS - MI, UST - MI]

Envirosite ID: 3395198
EPA ID: N/R

LUST - MI

Facility Name : Birmingham Public Schools
 Facility Address : 550 W MERRILL ST, BIRMINGHAM, 48009-
 County : Oakland

Site Details

Date of Collection : 01/11/2001
 Facility ID : 50000584
 Accuracy : 100
 Accuracy Value Unit : FEET
 Horizontal Datum : NAD83
 Source : STATE OF MICHIGAN
 Point/Line/Area : POINT
 Description Category : Plant Entrance (Freight)
 Method of Collection : Address Matching-House Number
 District : Warren
 Latitude : 42.545929
 Longitude : -83.219424
 Last Date in Agency List : 09/21/2020

Owner Summary

Owner Name : NrtOwner
 Owner Address : UNKNOWN, MI
 Owner Country : USA
 Owner Contact Person : N/R
 Owner Phone Number : N/R

Release Information

Release Date : 08/08/1990
 Release Status : Open
 Substance Released : N/R
 Release Closed Date : N/R
 Leak Number : C-1462-90
 LUST Site Name : Birmingham Public Schools

SHWS - MI

Facility Name : Birmingham Public Schools
 Facility Address : 550 W MERRILL ST, BIRMINGHAM, 48009
 County : Oakland

Facility ID : 50000584
 Data Source : Part 213
 District : Southeast MI
 Township : N/R
 Latitude : 42.54593
 Longitude : -83.21942
 Last Date in Agency List : 2020-09-26

Map Id: 72
 Direction: WNW
 Distance: 0.674 mi.
 Actual: 3559.251 ft.
 Elevation: 0.148 mi. / 782.549 ft.
 Relative: Higher

Site Name : BIRMINGHAM PUBLIC SCHOOLS
 550 W MERRILL ST
 BIRMINGHAM, MI 48009
Database(s) : [LUST - MI, SHWS - MI, UST - MI] **(cont.)**

EnviroSite ID: 3395198
EPA ID: N/R

UST - MI

Facility Name : Birmingham Public Schools
 Facility Address : 550 W MERRILL ST, BIRMINGHAM, MI 48009-1443
 County : OAKLAND

Site Details

Facility Number : 50000584
 Region : 1
 Facility Contact : N/R
 Latitude : N/R
 Longitude : N/R
 Last Date in Agency List : 04/02/2019

Owner Summary

Owner Name : Nrt Owner
 Owner Address : Unknown, Unknown, MI 99999
 Owner Country : N/R
 Owner Phone : N/R

Tank Information

Installation Date : N/R
 New Tank Number : UTK-058576-15
 Old Tank Number : N/R
 Tank Status : Non-Registered Tank
 Tank Content : N/R
 Capacity (in gallons) : 2000
 Removed/Closed Date : N/R
 Number of Compartments : N/R
 Piping Material : N/R
 Piping Type : N/R
 Tank Material : N/R
 Impressed Current Installed : N/R

Map Id: 73
 Direction: E
 Distance: 0.737 mi.
 Actual: 3889.323 ft.
 Elevation: N/R
 Relative: N/R

Site Name : Iveco Engine Product Development |
 FORD NEW HOLLAND INC - RESCINDED |
 FORMER FORD NEW HOLLAND
 1333 COOLIDGE HWY
 TROY | Troy, MI 48084
Database(s) : [AUL - MI, LUST - MI, SHWS - MI, UST - MI]

EnviroSite ID: 3274341
EPA ID: N/R

AUL - MI

Facility Name : Former Ford New Holland
 Facility Address : 1333 Coolidge Road, Troy, 48084

Map Id: 73
 Direction: E
 Distance: 0.737 mi.
 Actual: 3889.323 ft.
 Elevation: N/R
 Relative: N/R

Site Name : Iveco Engine Product Development |
 FORD NEW HOLLAND INC - RESCINDED |
 FORMER FORD NEW HOLLAND
 1333 COOLIDGE HWY
 TROY | Troy, MI 48084
Database(s) : [AUL - MI, LUST - MI, SHWS - MI, UST - MI]
(cont.)

Envirosite ID: 3274341
EPA ID: N/R

AUL - MI (cont.)

Site Details

KERMIT ID : 11120111004
 Acreage : 60.16932734
 Mileage : 0.09401457

ICO Map Attribute : Restriction mapped using all of the property polygons and creating one overall polygon

LRUR Type : 1
 LRUR Status : 2
 DEQ Reference Number : RC-RRD-201-11-004

Facility Name : Ford New Holland Inc - Rescinded
 Facility Address : 1333 Coolidge, Troy, 48084

Site Details

KERMIT ID : 11120106011
 Acreage : 0.17938797
 Mileage : 0.00028029
 ICO Map Attribute : N/R
 LRUR Type : 1
 LRUR Status : 3
 DEQ Reference Number : RC-RRD-201-06-011

LUST - MI

Facility Name : Iveco Engine Product Development
 Facility Address : 1333 COOLIDGE HWY, TROY, 48084-
 County : Oakland

Site Details

Date of Collection : 01/11/2001
 Facility ID : 00017853
 Accuracy : 100
 Accuracy Value Unit : FEET
 Horizontal Datum : NAD83
 Source : STATE OF MICHIGAN
 Point/Line/Area : POINT
 Description Category : Plant Entrance (Freight)
 Method of Collection : Address Matching-House Number
 District : Warren
 Latitude : 42.543235
 Longitude : -83.186351
 Last Date in Agency List : 09/21/2020

Map Id: 73
 Direction: E
 Distance: 0.737 mi.
 Actual: 3889.323 ft.
 Elevation: N/R
 Relative: N/R

Site Name : Iveco Engine Product Development |
 FORD NEW HOLLAND INC - RESCINDED |
 FORMER FORD NEW HOLLAND
 1333 COOLIDGE HWY
 TROY | Troy, MI 48084
Database(s) : [AUL - MI, LUST - MI, SHWS - MI, UST - MI]
(cont.)

Envirosite ID: 3274341
EPA ID: N/R

LUST - MI (cont.)

Owner Summary

Owner Name :	NewHolland North America Inc
Owner Address :	UNKNOWN, MI
Owner Country :	USA
Owner Contact Person :	N/R
Owner Phone Number :	N/R

Release Information

Release Date :	08/13/1999
Release Status :	Open
Substance Released :	Unknown
Release Closed Date :	N/R
Leak Number :	C-0823-99
LUST Site Name :	Iveco Engine Product Development

Release Date :	02/09/1999
Release Status :	Closed
Substance Released :	Unknown
Release Closed Date :	08/05/1999
Leak Number :	C-0132-99
LUST Site Name :	Iveco Engine Product Development

Release Date :	02/26/1991
Release Status :	Closed
Substance Released :	N/R
Release Closed Date :	08/05/1999
Leak Number :	C-0209-91
LUST Site Name :	Ford New Holland Inc

SHWS - MI

Facility Name :	Iveco Engine Product Development
Facility Address :	1333 COOLIDGE HWY, TROY, 48084
County :	Oakland

Facility ID :	00017853
Data Source :	Part 213
District :	Southeast MI
Township :	N/R
Latitude :	42.54324
Longitude :	-83.18635
Last Date in Agency List :	2020-09-26

UST - MI

Facility Name :	Iveco Engine Product Development
Facility Address :	1333 COOLIDGE HWY, TROY, MI 48084-7017
County :	OAKLAND

Map Id: 73
 Direction: E
 Distance: 0.737 mi.
 Actual: 3889.323 ft.
 Elevation: N/R
 Relative: N/R

Site Name : Iveco Engine Product Development |
 FORD NEW HOLLAND INC - RESCINDED |
 FORMER FORD NEW HOLLAND
 1333 COOLIDGE HWY
 TROY | Troy, MI 48084
Database(s) : [AUL - MI, LUST - MI, SHWS - MI, UST - MI]
(cont.)

Envirosite ID: 3274341
EPA ID: N/R

UST - MI (cont.)

Site Details

Facility Number : 00017853
 Region : 1
 Facility Contact : N/R
 Latitude : 42.5432350000
 Longitude : -83.1863510000
 Last Date in Agency List : 03/20/2020

Owner Summary

Owner Name : New Holland North America Inc
 Owner Address : 500 DILLER AVE MS - 645, NEW HOLLAND, PA 17557
 Owner Country : N/R
 Owner Phone : 7173551211

Tank Information

Installation Date : 09/02/1999
 New Tank Number : UTK-042915-15
 Old Tank Number : 3-1
 Tank Status : Removed from Ground
 Tank Content : Diesel
 Capacity (in gallons) : 500
 Removed/Closed Date : 08/16/1999
 Number of Compartments : N/R
 Piping Material : Unknown
 Piping Type : N/R
 Tank Material : Asphalt Coated or Bare Steel
 Impressed Current Installed : N/R

Installation Date : 09/02/1999
 New Tank Number : UTK-092869-15
 Old Tank Number : 3-2
 Tank Status : Removed from Ground
 Tank Content : Used Oil
 Capacity (in gallons) : 250
 Removed/Closed Date : 08/17/1999
 Number of Compartments : N/R
 Piping Material : Unknown
 Piping Type : N/R
 Tank Material : Asphalt Coated or Bare Steel
 Impressed Current Installed : N/R

Installation Date : 04/15/1978
 New Tank Number : UTK-006944-15
 Old Tank Number : 6
 Tank Status : Removed from Ground
 Tank Content : Diesel
 Capacity (in gallons) : 12000
 Removed/Closed Date : 02/09/1999

Map Id: 73
 Direction: E
 Distance: 0.737 mi.
 Actual: 3889.323 ft.
 Elevation: N/R
 Relative: N/R

Site Name : Iveco Engine Product Development |
 FORD NEW HOLLAND INC - RESCINDED |
 FORMER FORD NEW HOLLAND
 1333 COOLIDGE HWY
 TROY | Troy, MI 48084
Database(s) : [AUL - MI, LUST - MI, SHWS - MI, UST - MI]
(cont.)

EnviroSite ID: 3274341
EPA ID: N/R

UST - MI (cont.)

Number of Compartments :	N/R
Piping Material :	Cathodically Protected,Double Walled
Piping Type :	Suction: No Valve at Tank
Tank Material :	Cathodically Protected Steel
Impressed Current Installed :	N/R

Installation Date :	04/15/1978
New Tank Number :	UTK-013115-15
Old Tank Number :	1
Tank Status :	Removed from Ground
Tank Content :	Diesel
Capacity (in gallons) :	2500
Removed/Closed Date :	02/09/1999
Number of Compartments :	N/R
Piping Material :	Cathodically Protected,Double Walled
Piping Type :	Suction: No Valve at Tank
Tank Material :	Cathodically Protected Steel
Impressed Current Installed :	N/R

Installation Date :	04/15/1978
New Tank Number :	UTK-035153-15
Old Tank Number :	5
Tank Status :	Removed from Ground
Tank Content :	Diesel
Capacity (in gallons) :	12000
Removed/Closed Date :	02/09/1999
Number of Compartments :	N/R
Piping Material :	Cathodically Protected
Piping Type :	Suction: No Valve at Tank
Tank Material :	Cathodically Protected Steel
Impressed Current Installed :	N/R

Installation Date :	04/15/1978
New Tank Number :	UTK-047350-15
Old Tank Number :	7
Tank Status :	Removed from Ground
Tank Content :	Diesel
Capacity (in gallons) :	12000
Removed/Closed Date :	02/09/1999
Number of Compartments :	N/R
Piping Material :	Cathodically Protected,Double Walled
Piping Type :	Suction: No Valve at Tank
Tank Material :	Cathodically Protected Steel
Impressed Current Installed :	N/R

Installation Date :	04/15/1978
New Tank Number :	UTK-070571-15
Old Tank Number :	2
Tank Status :	Removed from Ground
Tank Content :	Gasoline

Map Id: 73
Direction: E
Distance: 0.737 mi.
Actual: 3889.323 ft.
Elevation: N/R
Relative: N/R

Site Name : Iveco Engine Product Development |
FORD NEW HOLLAND INC - RESCINDED |
FORMER FORD NEW HOLLAND
1333 COOLIDGE HWY
TROY | Troy, MI 48084

Database(s) : [AUL - MI, LUST - MI, SHWS - MI, UST - MI]
(cont.)

EnviroSite ID: 3274341
EPA ID: N/R

UST - MI (cont.)

Capacity (in gallons) : 2500
Removed/Closed Date : 02/26/1991
Number of Compartments : N/R
Piping Material : Bare Steel, Cathodically Protected, Double Walled
Piping Type : Suction: No Valve at Tank
Tank Material : Cathodically Protected Steel
Impressed Current Installed : N/R

Installation Date : 04/15/1978
New Tank Number : UTK-070575-15
Old Tank Number : 3
Tank Status : Removed from Ground
Tank Content : Used Oil
Capacity (in gallons) : 1000
Removed/Closed Date : 02/09/1999
Number of Compartments : N/R
Piping Material : Cathodically Protected, Double Walled
Piping Type : Pressure (Remote)
Tank Material : Cathodically Protected Steel
Impressed Current Installed : N/R

Installation Date : 04/15/1974
New Tank Number : UTK-070580-15
Old Tank Number : 4
Tank Status : Removed from Ground
Tank Content : Gasoline
Capacity (in gallons) : 1000
Removed/Closed Date : 12/23/1989
Number of Compartments : N/R
Piping Material : Fiberglass Reinforced Plastic
Piping Type : N/R
Tank Material : Fiberglass Reinforced Plastic
Impressed Current Installed : N/R

Map Id: 74
Direction: N
Distance: 0.743 mi.
Actual: 3920.963 ft.
Elevation: 0.148 mi. / 783.625 ft.
Relative: Higher

Site Name : DERBY MIDDLE SCHOOL
1100 DERBY RD
BIRMINGHAM, MI 48009

Database(s) : [LUST - MI, SHWS - MI, UST - MI]

EnviroSite ID: 3282446
EPA ID: N/R

LUST - MI

Facility Name : Derby Middle School
Facility Address : 1100 DERBY RD, BIRMINGHAM, 48009-
County : Oakland

Map Id: 74
 Direction: N
 Distance: 0.743 mi.
 Actual: 3920.963 ft.
 Elevation: 0.148 mi. / 783.625 ft.
 Relative: Higher

Site Name : DERBY MIDDLE SCHOOL
 1100 DERBY RD
 BIRMINGHAM, MI 48009
Database(s) : [LUST - MI, SHWS - MI, UST - MI] **(cont.)**

EnviroSite ID: 3282446
EPA ID: N/R

LUST - MI **(cont.)**

Site Details

Date of Collection : 01/11/2001
 Facility ID : 50001650
 Accuracy : 100
 Accuracy Value Unit : FEET
 Horizontal Datum : NAD83
 Source : STATE OF MICHIGAN
 Point/Line/Area : POINT
 Description Category : Plant Entrance (Freight)
 Method of Collection : Address Matching-House Number
 District : Warren
 Latitude : 42.553046
 Longitude : -83.205991
 Last Date in Agency List : 09/21/2020

Owner Summary

Owner Name : NrtOwner
 Owner Address : UNKNOWN, MI
 Owner Country : USA
 Owner Contact Person : N/R
 Owner Phone Number : N/R

Release Information

Release Date : 09/09/1988
 Release Status : Open
 Substance Released : N/R
 Release Closed Date : N/R
 Leak Number : C-0865-85
 LUST Site Name : Derby Middle School

SHWS - MI

Facility Name : Derby Middle School
 Facility Address : 1100 DERBY RD, BIRMINGHAM, 48009
 County : Oakland

Facility ID : 50001650
 Data Source : Part 213
 District : Southeast MI
 Township : N/R
 Latitude : 42.55305
 Longitude : -83.20599
 Last Date in Agency List : 2020-09-26

UST - MI

Facility Name : Derby Middle School
 Facility Address : 1100 Derby, Birmingham, 48009
 County : N/R

Map Id: 74
 Direction: N
 Distance: 0.743 mi.
 Actual: 3920.963 ft.
 Elevation: 0.148 mi. / 783.625 ft.
 Relative: Higher

Site Name : DERBY MIDDLE SCHOOL
 1100 DERBY RD
 BIRMINGHAM, MI 48009
Database(s) : [LUST - MI, SHWS - MI, UST - MI] **(cont.)**

EnviroSite ID: 3282446
EPA ID: N/R

UST - MI **(cont.)**

Site Details

Facility Number : 50001650
 Region : N/R
 Facility Contact : N/R
 Latitude : N/R
 Longitude : N/R
 Last Date in Agency List : 09/22/2017

Owner Summary

Owner Name : Nrt Owner
 Owner Address : Unknown, Unknown, MI 99999
 Owner Country : N/R
 Owner Phone : N/R

Tank Information

Installation Date : N/R
 New Tank Number : N/R
 Old Tank Number : N/R
 Tank Status : N/R
 Tank Content : N/R
 Capacity (in gallons) : N/R
 Removed/Closed Date : N/R
 Number of Compartments : N/R
 Piping Material : N/R
 Piping Type : N/R
 Tank Material : N/R
 Impressed Current Installed : N/R

Map Id: 75
 Direction: SW
 Distance: 0.749 mi.
 Actual: 3955.317 ft.
 Elevation: N/R
 Relative: N/R

Site Name : MOBILE GAS | MARATHON
 101 EAST 14 MILE RD | 101 E 14 MILE RD
 | 101 EAST FOURTEEN MILE ROAD
 BIRMINGHAM | Birmingham, MI
Database(s) : [AUL - MI, LUST - MI, SHWS - MI, UST - MI]

EnviroSite ID: 3290554
EPA ID: N/R

AUL - MI

Facility Name : Marathon
 Facility Address : 101 East Fourteen Mile Road, Birmingham, 48009

Site Details

KERMIT ID : 11121307089
 Acreage : 0.30303155
 Mileage : 0.00047348

Map Id: 75
 Direction: SW
 Distance: 0.749 mi.
 Actual: 3955.317 ft.
 Elevation: N/R
 Relative: N/R

Site Name : MOBILE GAS | MARATHON
 101 EAST 14 MILE RD | 101 E 14 MILE RD
 | 101 EAST FOURTEEN MILE ROAD
 BIRMINGHAM | Birmingham, MI
Database(s) : [AUL - MI, LUST - MI, SHWS - MI, UST - MI]
(cont.)

EnviroSite ID: 3290554
EPA ID: N/R

AUL - MI (cont.)

ICO Map Attribute :	Restriction mapped using the legal description provided in the document
LRUR Type :	1
LRUR Status :	2
DEQ Reference Number :	RC-RRD-213-07-089

LUST - MI

Facility Name :	Mobile Gas
Facility Address :	101 East 14 Mile Rd, Birmingham, 48009-2007
County :	Oakland

Site Details

Date of Collection :	01/11/2001
Facility ID :	00004474
Accuracy :	100
Accuracy Value Unit :	FEET
Horizontal Datum :	NAD83
Source :	STATE OF MICHIGAN
Point/Line/Area :	POINT
Description Category :	Plant Entrance (Freight)
Method of Collection :	Address Matching-House Number
District :	Southeast MI
Latitude :	42.531676
Longitude :	-83.214247
Last Date in Agency List :	06/26/2019

Owner Summary

Owner Name :	Ewais Ent
Owner Address :	101 East 14 Mile, Birmingham, MI 48009
Owner Country :	USA
Owner Contact Person :	N/R
Owner Phone Number :	(248) 594-2285

Release Information

Release Date :	11/10/2005
Release Status :	Open
Substance Released :	Used Oil
Release Closed Date :	N/R
Leak Number :	C-0319-05
LUST Site Name :	Marathon

Release Date :	06/13/2005
Release Status :	Open
Substance Released :	Gasoline,Gasoline,Gasoline
Release Closed Date :	N/R
Leak Number :	C-0183-05
LUST Site Name :	Marathon

Map Id: 75
 Direction: SW
 Distance: 0.749 mi.
 Actual: 3955.317 ft.
 Elevation: N/R
 Relative: N/R

Site Name : MOBILE GAS | MARATHON
 101 EAST 14 MILE RD | 101 E 14 MILE RD
 | 101 EAST FOURTEEN MILE ROAD
 BIRMINGHAM | Birmingham, MI
Database(s) : [AUL - MI, LUST - MI, SHWS - MI, UST - MI]
(cont.)

Envirosite ID: 3290554
EPA ID: N/R

LUST - MI (cont.)

Facility Name : Mobile Gas
 Facility Address : 101 E 14 MILE RD, BIRMINGHAM, 48009-
 County : Oakland

Site Details

Date of Collection : 01/11/2001
 Facility ID : 00004474
 Accuracy : 100
 Accuracy Value Unit : FEET
 Horizontal Datum : NAD83
 Source : STATE OF MICHIGAN
 Point/Line/Area : POINT
 Description Category : Plant Entrance (Freight)
 Method of Collection : Address Matching-House Number
 District : Warren
 Latitude : 42.531676
 Longitude : -83.214247
 Last Date in Agency List : 09/21/2020

Owner Summary

Owner Name : Wallace Russell
 Owner Address : 30198 Dequindre Rd, Warren, MI 48092-
 Owner Country : US
 Owner Contact Person : N/R
 Owner Phone Number : N/R

Release Information

Release Date : 11/10/2005
 Release Status : Open
 Substance Released : Used Oil
 Release Closed Date : N/R
 Leak Number : C-0319-05
 LUST Site Name : Marathon

Release Date : 06/13/2005
 Release Status : Open
 Substance Released : Gasoline,Gasoline,Gasoline
 Release Closed Date : N/R
 Leak Number : C-0183-05
 LUST Site Name : Marathon

Facility Name : Marathon
 Facility Address : 101 East 14 Mile Rd, Birmingham, 48009
 County : Oakland

Map Id: 75
 Direction: SW
 Distance: 0.749 mi.
 Actual: 3955.317 ft.
 Elevation: N/R
 Relative: N/R

Site Name : MOBILE GAS | MARATHON
 101 EAST 14 MILE RD | 101 E 14 MILE RD
 | 101 EAST FOURTEEN MILE ROAD
 BIRMINGHAM | Birmingham, MI
Database(s) : [AUL - MI, LUST - MI, SHWS - MI, UST - MI]
(cont.)

Envirosite ID: 3290554
EPA ID: N/R

LUST - MI (cont.)

Site Details

Date of Collection :	01/11/2001
Facility ID :	00004474
Accuracy :	100
Accuracy Value Unit :	FEET
Horizontal Datum :	NAD83
Source :	STATE OF MICHIGAN
Point/Line/Area :	POINT
Description Category :	Plant Entrance (Freight)
Method of Collection :	Address Matching-House Number
District :	SE Michigan District Office
Latitude :	42.531676
Longitude :	-83.214247
Last Date in Agency List :	09/24/2014

Owner Summary

Owner Name :	Ewais Ent
Owner Address :	5772 Dacosta St, Dearborn Heights, MI 48127-2416
Owner Country :	USA
Owner Contact Person :	N/R
Owner Phone Number :	(313) 414-4445

Release Information

Release Date :	11/10/2005
Release Status :	Open
Substance Released :	Used Oil
Release Closed Date :	N/R
Leak Number :	C-0319-05
LUST Site Name :	Marathon

Release Date :	06/13/2005
Release Status :	Open
Substance Released :	Gasoline,Gasoline,Gasoline
Release Closed Date :	N/R
Leak Number :	C-0183-05
LUST Site Name :	Marathon

SHWS - MI

Facility Name :	Marathon
Facility Address :	101 East 14 Mile Rd, Birmingham, 48009
County :	Oakland

Facility ID :	00004474
Data Source :	Part 213
District :	Southeast MI
Township :	N/R
Latitude :	42.53168
Longitude :	-83.21425

Map Id: 75
 Direction: SW
 Distance: 0.749 mi.
 Actual: 3955.317 ft.
 Elevation: N/R
 Relative: N/R

Site Name : MOBILE GAS | MARATHON
 101 EAST 14 MILE RD | 101 E 14 MILE RD
 | 101 EAST FOURTEEN MILE ROAD
 BIRMINGHAM | Birmingham, MI
Database(s) : [AUL - MI, LUST - MI, SHWS - MI, UST - MI]
(cont.)

EnviroSite ID: 3290554
EPA ID: N/R

SHWS - MI (cont.)

Last Date in Agency List : 2014-10-16

Facility Name : Mobile Gas
 Facility Address : 101 E 14 MILE RD, BIRMINGHAM, 48009
 County : Oakland

Facility ID : 00004474
 Data Source : Part 213
 District : Southeast MI
 Township : N/R
 Latitude : 42.53168
 Longitude : -83.21425
 Last Date in Agency List : 2020-09-26

Facility Name : Mobile Gas
 Facility Address : 101 East 14 Mile Rd, Birmingham, 480092007
 County : Oakland

Facility ID : 00004474
 Data Source : Part 213
 District : Southeast MI
 Township : N/R
 Latitude : 42.53168
 Longitude : -83.21425
 Last Date in Agency List : 2019-06-28

UST - MI

Facility Name : Mobile Gas
 Facility Address : 101 E 14 MILE RD, BIRMINGHAM, MI 48009-2007
 County : OAKLAND

Site Details

Facility Number : 00004474
 Region : 1
 Facility Contact : N/R
 Latitude : 42.5316760000
 Longitude : -83.2142470000
 Last Date in Agency List : 08/26/2020

Owner Summary

Owner Name : Ewais Ent
 Owner Address : 101 East 14 Mile, Birmingham, MI 48009
 Owner Country : N/R
 Owner Phone : 2485942285

Map Id: 75
 Direction: SW
 Distance: 0.749 mi.
 Actual: 3955.317 ft.
 Elevation: N/R
 Relative: N/R

Site Name : MOBILE GAS | MARATHON
 101 EAST 14 MILE RD | 101 E 14 MILE RD
 | 101 EAST FOURTEEN MILE ROAD
 BIRMINGHAM | Birmingham, MI
Database(s) : [AUL - MI, LUST - MI, SHWS - MI, UST - MI]
(cont.)

EnviroSite ID: 3290554
EPA ID: N/R

UST - MI (cont.)

Tank Information

Installation Date : 05/11/2005
 New Tank Number : UTK-121806-15
 Old Tank Number : 5
 Tank Status : Currently In Use
 Tank Content : Diesel,Gasoline
 Capacity (in gallons) : 25000
 Removed/Closed Date : N/R
 Number of Compartments : N/R
 Piping Material : Double Walled,Fiberglass Reinforced Plastic
 Piping Type : Pressure (Remote)
 Tank Material : Double Walled,Fiberglass Reinforced Plastic,Other
 Impressed Current Installed : N/R

Installation Date : 05/06/1985
 New Tank Number : UTK-097985-15
 Old Tank Number : 3
 Tank Status : Removed from Ground
 Tank Content : Gasoline
 Capacity (in gallons) : 8000
 Removed/Closed Date : 05/12/2005
 Number of Compartments : N/R
 Piping Material : Fiberglass Reinforced Plastic
 Piping Type : Suction: No Valve at Tank
 Tank Material : Fiberglass Reinforced Plastic,Other
 Impressed Current Installed : Yes

Installation Date : 05/07/1983
 New Tank Number : UTK-024151-15
 Old Tank Number : 2
 Tank Status : Removed from Ground
 Tank Content : Gasoline
 Capacity (in gallons) : 6000
 Removed/Closed Date : 05/12/2005
 Number of Compartments : N/R
 Piping Material : Fiberglass Reinforced Plastic
 Piping Type : Pressure (Remote)
 Tank Material : Fiberglass Reinforced Plastic,Other
 Impressed Current Installed : Yes

Installation Date : 05/07/1983
 New Tank Number : UTK-097978-15
 Old Tank Number : 1
 Tank Status : Removed from Ground
 Tank Content : Gasoline
 Capacity (in gallons) : 6000
 Removed/Closed Date : 05/12/2005
 Number of Compartments : N/R
 Piping Material : Fiberglass Reinforced Plastic
 Piping Type : Pressure (Remote)
 Tank Material : Fiberglass Reinforced Plastic,Other
 Impressed Current Installed : Yes

Map Id: 75
 Direction: SW
 Distance: 0.749 mi.
 Actual: 3955.317 ft.
 Elevation: N/R
 Relative: N/R

Site Name : MOBILE GAS | MARATHON
 101 EAST 14 MILE RD | 101 E 14 MILE RD
 | 101 EAST FOURTEEN MILE ROAD
 BIRMINGHAM | Birmingham, MI
Database(s) : [AUL - MI, LUST - MI, SHWS - MI, UST - MI]
(cont.)

EnviroSite ID: 3290554
EPA ID: N/R

UST - MI (cont.)

Installation Date : 05/06/1981
 New Tank Number : UTK-005494-15
 Old Tank Number : 4
 Tank Status : Removed from Ground
 Tank Content : Used Oil
 Capacity (in gallons) : 500
 Removed/Closed Date : 05/12/2005
 Number of Compartments : N/R
 Piping Material : Galvanized Steel
 Piping Type : Suction: No Valve at Tank
 Tank Material : Asphalt Coated or Bare Steel,Lined Interior,Other
 Impressed Current Installed : N/R

Facility Name : Marathon
 Facility Address : 101 East 14 Mile Rd, Birmingham, MI 48009
 County : Oakland

Site Details

Facility Number : 00004474
 Region : N/R
 Facility Contact : Rapheal Iwies
 Latitude : 42.531676
 Longitude : -83.214247
 Last Date in Agency List : 09/20/2014

Owner Summary

Owner Name : Ewais Ent
 Owner Address : 5772 Dacosta St, Dearborn Heights, MI 48127-2416
 Owner Country : USA
 Owner Phone : (313) 414-4445

Tank Information

Installation Date : 05/11/2005
 New Tank Number : N/R
 Old Tank Number : 5
 Tank Status : Currently In Use
 Tank Content : Gasoline, Diesel
 Capacity (in gallons) : 25000
 Removed/Closed Date : N/R
 Number of Compartments : N/R
 Piping Material : Fiberglass Reinforced Plastic, Double Walled
 Piping Type : N/R
 Tank Material : Fiberglass Reinforced Plastic, Double Walled
 Impressed Current Installed : No

Installation Date : 05/06/1985
 New Tank Number : N/R

Map Id: 75
 Direction: SW
 Distance: 0.749 mi.
 Actual: 3955.317 ft.
 Elevation: N/R
 Relative: N/R

Site Name : MOBILE GAS | MARATHON
 101 EAST 14 MILE RD | 101 E 14 MILE RD
 | 101 EAST FOURTEEN MILE ROAD
 BIRMINGHAM | Birmingham, MI
Database(s) : [AUL - MI, LUST - MI, SHWS - MI, UST - MI]
(cont.)

EnviroSite ID: 3290554
EPA ID: N/R

UST - MI (cont.)

Old Tank Number : 3
 Tank Status : Removed from Ground
 Tank Content : Gasoline
 Capacity (in gallons) : 8000
 Removed/Closed Date : 05/12/2005
 Number of Compartments : N/R
 Piping Material : Fiberglass reinforced plastic
 Piping Type : Suction: No Valve At Tank
 Tank Material : Fiberglass Reinforced plastic
 Impressed Current Installed : Yes

Installation Date : 05/07/1983
 New Tank Number : N/R
 Old Tank Number : 1
 Tank Status : Removed from Ground
 Tank Content : Gasoline
 Capacity (in gallons) : 6000
 Removed/Closed Date : 05/12/2005
 Number of Compartments : N/R
 Piping Material : Fiberglass reinforced plastic
 Piping Type : Pressure
 Tank Material : Fiberglass Reinforced plastic
 Impressed Current Installed : Yes

Installation Date : 05/07/1983
 New Tank Number : N/R
 Old Tank Number : 2
 Tank Status : Removed from Ground
 Tank Content : Gasoline
 Capacity (in gallons) : 6000
 Removed/Closed Date : 05/12/2005
 Number of Compartments : N/R
 Piping Material : Fiberglass reinforced plastic
 Piping Type : Pressure
 Tank Material : Fiberglass Reinforced plastic
 Impressed Current Installed : Yes

Installation Date : 05/06/1981
 New Tank Number : N/R
 Old Tank Number : 4
 Tank Status : Removed from Ground
 Tank Content : Used Oil
 Capacity (in gallons) : 500
 Removed/Closed Date : 05/12/2005
 Number of Compartments : N/R
 Piping Material : Galvanized Steel
 Piping Type : Suction: No Valve At Tank
 Tank Material : Asphalt Coated or Bare Steel,Lined Interior
 Impressed Current Installed : No

Map Id: Q76
 Direction: SE
 Distance: 0.922 mi.
 Actual: 4865.911 ft.
 Elevation: 0.14 mi. / 738.032 ft.
 Relative: Lower

Site Name : QUICK DRY CLEANING | FORMER GAS STATION
 32701 WOODWARD AVE
 ROYAL OAK, MI 48073
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI, RCRA_VSQG, SHWS - MI, UST - MI]

EnviroSite ID: 3422108
EPA ID: N/R

ECHO

Facility Name : QUICK DRY CLEANING
 Facility Address : 32701 WOODWARD AVE, ROYAL OAK, MI 48073
 County : OAKLAND

Last Inspection Date : N/R
 Registry ID : 110003710360
 FIPS Code : 26125
 EPA Region : 05
 Inspection Count : 0
 Last Inspection Days : N/R
 Informal Count : 0
 Last Informal Action Date : N/R
 Formal Action Count : 0
 Last Formal Action Date : N/R
 Total Penalties : 0
 Penalty Count : N/R
 Last Penalty Date : N/R
 Last Penalty Amount : N/R
 QTRS IN NC : 0
 Programs IN SNC : 0
 Current Compliance Status : No Violation Identified
 Three-Year Compliance Status :
 Collection Method : ADDRESS MATCHING-HOUSE NUMBER
 Reference Point : CENTER OF A FACILITY OR STATION
 Accuracy Meters : 30
 Derived Tribes : N/R
 Derived HUC : 04090003
 Derived WBD : 040900030202
 Derived STCTY FIPS : 26125
 Derived Zip : 48073
 Derived CD113 : 09
 Derived CB2010 : 261251834001000
 MYRTK Universe : NNN
 NPDES IDs : N/R
 CWA Permit Types : N/R
 CWA Compliance Tracking : N/R
 CWA NAICS : N/R
 CWA SICS : N/R
 CWA Inspection Count : N/R
 CWA Last Inspection Days : N/R
 CWA Informal Count : N/R
 CWA Formal Action Count : N/R
 CWA Last Formal Action Date : N/R
 CWA Penalties : N/R
 CWA Last Penalty Date : N/R
 CWA Last Penalty Amount : N/R
 CWA Quarters IN NC : N/R
 CWA Current Compliance Status : N/R
 CWA Current SNC Flag : N
 CWA 13 Quarters Compliance Status : N/R
 CWA 13 Quarters Effluent Exceedances: N/R
 CWA Three-Year QNCR Codes : N/R
 DFR URL : [Click here for hyperlink provided by the agency.](#)
 Facility SIC : N/R

Map Id: Q76
 Direction: SE
 Distance: 0.922 mi.
 Actual: 4865.911 ft.
 Elevation: 0.14 mi. / 738.032 ft.
 Relative: Lower

Site Name : QUICK DRY CLEANING | FORMER GAS STATION
 32701 WOODWARD AVE
 ROYAL OAK, MI 48073
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI, RCRA_VSQG, SHWS - MI, UST - MI] **(cont.)**

EnviroSite ID: 3422108
EPA ID: N/R

ECHO (cont.)

Facility NAICS :	11131 - Orange Groves
Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	N/R
Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R
Facility Last Informal Act EPA Date :	N/R
Facility Last Informal Act State Date:	N/R
Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	N/R
Current SNC Flag :	N
Indian County Flag :	N
Federal Flag :	N/R
US Mexico Border Flag :	N/R
Chesapeake Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	N
SDWIS Flag :	N
RCRA Flag :	Y
TRI Flag :	N
GHG Flag :	N
Major Flag :	N/R
Active Flag :	Y
NAA Flag :	Y
Latitude :	42.52972
Longitude :	-83.19782
Last Date in Agency List :	2020-12-31

FRS

Facility Name :	QUICK DRY CLEANING
Facility Address :	32701 WOODWARD AVE, ROYAL OAK, MI 48073
County :	OAKLAND

Registry ID :	110003710360
FRS Facility URL :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	08/31/2020

Source Description :

RCRAInfo is EPA's comprehensive information system that supports the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984 through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA. RCRAInfo also supports generation of the National Hazardous Waste Biennial Report. All generators and treatment, storage, and disposal facilities who handle hazardous waste are required to report to the EPA Administrator at least once every two years to support creation of the Biennial Report.

Map Id: Q76
 Direction: SE
 Distance: 0.922 mi.
 Actual: 4865.911 ft.
 Elevation: 0.14 mi. / 738.032 ft.
 Relative: Lower

Site Name : QUICK DRY CLEANING | FORMER GAS STATION
 32701 WOODWARD AVE
 ROYAL OAK, MI 48073
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI, RCRA_VSQG, SHWS - MI, UST - MI] **(cont.)**

EnviroSite ID: 3422108
EPA ID: N/R

FRS (cont.)

FRS Environmental Interest
 Source and System ID : RCRAINFO - MIR000039933

HWG - MI

Facility Name : QUICK DRY CLEANING
 Facility Address : 32701 WOODWARD AVE, ROYAL OAK, MI 48073
 County : OAKLAND

WDS ID : 413143
 Site ID : MIR000039933
 Generator Status : CESQG
 Site Legal Name : QUICK DRY CLEANING
 Contact Name : N/R
 Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 2021-01-04

LUST - MI

Facility Name : Former Gas Station
 Facility Address : 32701 WOODWARD AVE, ROYAL OAK, 48073-
 County : Oakland

Site Details

Date of Collection : N/R
 Facility ID : 50005347
 Accuracy : 15
 Accuracy Value Unit : METERS
 Horizontal Datum : NAD83
 Source : STATE OF MICHIGAN
 Point/Line/Area : POINT
 Description Category : N/R
 Method of Collection : Interpolation-Map
 District : Warren
 Latitude : 42.543397
 Longitude : -83.209304
 Last Date in Agency List : 09/21/2020

Owner Summary

Owner Name : OWNERADDRESS UNKNOWN
 Owner Address : Not Recorded, Not Recorded, MI 99999-
 Owner Country : USA
 Owner Contact Person : N/R
 Owner Phone Number : N/R

Map Id: Q76
 Direction: SE
 Distance: 0.922 mi.
 Actual: 4865.911 ft.
 Elevation: 0.14 mi. / 738.032 ft.
 Relative: Lower

Site Name : QUICK DRY CLEANING | FORMER GAS STATION
 32701 WOODWARD AVE
 ROYAL OAK, MI 48073
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI, RCRA_VSQG, SHWS - MI, UST - MI] **(cont.)**

EnviroSite ID: 3422108
EPA ID: N/R

LUST - MI **(cont.)**

Release Information

Release Date : 04/13/2004
 Release Status : Open
 Substance Released : Unknown
 Release Closed Date : N/R
 Leak Number : C-0146-04
 LUST Site Name : Strip Mall Ne Woodward & Buckingham

RCRA_VSQG

Facility Name : QUICK DRY CLEANING
 Facility Address : 32701 WOODWARD AVE, ROYAL OAK, MI 48073
 County : OAKLAND

Date Form Received by Agency : 06/04/1999
 EPA ID : MIR000039933
 Mailing Address : 32701 WOODWARD AVE, ROYAL OAK, MI 48073
 Contact : SUSAN CASALOU
 Contact Address : 32701 WOODWARD AVE, ROYAL OAK, MI 48073
 Contact Country : US
 Contact Telephone : 248-549-2940
 Contact Email : N/R
 EPA Region : 05
 Land Type : Private
 Source Type : Notification
 Classification : Very Small Quantity Generator

Description :

Handlers that generate 100 kilograms or less of hazardous waste per calendar month, and accumulate 1000 kg or less of hazardous waste at any time; or generate one kilogram or less of acutely hazardous waste per calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generate 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste.

Last Date in Agency List : 10/19/2020

Owner/Operator Summary

Owner/Operator Name : SOON CHO
 Owner/Operator Address : N/R
 Owner/Operator Country : N/R
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Private
 Owner/Operator Type : Operator
 Owner/Operator Start Date : 01/01/1970
 Owner/Operator End Date : N/R

Map Id: Q76
 Direction: SE
 Distance: 0.922 mi.
 Actual: 4865.911 ft.
 Elevation: 0.14 mi. / 738.032 ft.
 Relative: Lower

Site Name : QUICK DRY CLEANING | FORMER GAS STATION
 32701 WOODWARD AVE
 ROYAL OAK, MI 48073
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI, RCRA_VSQG, SHWS - MI, UST - MI] **(cont.)**

EnviroSite ID: 3422108
EPA ID: N/R

RCRA_VSQG (cont.)

Owner/Operator Name : SOON CHO
 Owner/Operator Address : N/R
 Owner/Operator Country : N/R
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Private
 Owner/Operator Type : Owner
 Owner/Operator Start Date : 01/01/1970
 Owner/Operator End Date : N/R

Handler Activities Summary

U.S. Importer of Hazardous Waste : N
 Mixed Waste (Haz. and Radioactive) : N
 Recycler of Hazardous Waste : N
 Transporter of Hazardous Waste : N
 Treater, Storer or Disposer of HW : N
 Underground Injection Activity : N
 On-site Burner Exemption : N
 Furnace Exemption : N
 Used Oil Fuel Burner : N
 Used Oil Processor : N
 Used Oil Refiner : N
 Used Oil Fuel Marketer to Burner : N
 Used Oil Specification Marketer : N
 Used Oil Transfer Facility : N
 Used Oil Transporter : N

Hazardous Waste Summary

Waste Code / Name : D001 - IGNITABLE WASTE

Notices of Violations Summary

Regulation Violated : N

SHWS - MI

Facility Name : Former Gas Station
 Facility Address : 32701 WOODWARD AVE, ROYAL OAK, 48073
 County : Oakland

Facility ID : 50005347
 Data Source : Part 213
 District : Southeast MI
 Township : N/R
 Latitude : 42.54340
 Longitude : -83.20930
 Last Date in Agency List : 2020-09-26

Map Id: Q76
 Direction: SE
 Distance: 0.922 mi.
 Actual: 4865.911 ft.
 Elevation: 0.14 mi. / 738.032 ft.
 Relative: Lower

Site Name : QUICK DRY CLEANING | FORMER GAS STATION
 32701 WOODWARD AVE
 ROYAL OAK, MI 48073
Database(s) : [ECHO, FRS, HWG - MI, LUST - MI, RCRA_VSQG, SHWS - MI, UST - MI] **(cont.)**

EnviroSite ID: 3422108
EPA ID: N/R

UST - MI

Facility Name : Former Gas Station
 Facility Address : 32701 WOODWARD AVE, ROYAL OAK, MI 48073-0954
 County : OAKLAND

Site Details

Facility Number : 50005347
 Region : 1
 Facility Contact : N/R
 Latitude : N/R
 Longitude : N/R
 Last Date in Agency List : 04/02/2019

Owner Summary

Owner Name : OWNER ADDRESS UNKNOWN
 Owner Address : Not Recorded, Not Recorded, XX 99999
 Owner Country : N/R
 Owner Phone : N/R

Tank Information

Installation Date : N/R
 New Tank Number : UTK-119616-15
 Old Tank Number : N/R
 Tank Status : Non-Registered Tank
 Tank Content : Other(Unknown)
 Capacity (in gallons) : N/R
 Removed/Closed Date : N/R
 Number of Compartments : N/R
 Piping Material : Unknown
 Piping Type : N/R
 Tank Material : Unknown
 Impressed Current Installed : N/R

Map Id: Q77
 Direction: SE
 Distance: 0.936 mi.
 Actual: 4942.945 ft.
 Elevation: 0.14 mi. / 737.835 ft.
 Relative: Lower

Site Name : FORMER GAS STATION | C & S QUICK CLEANERS | Paramount Bank
 32701-32737 WOODWARD AVE 4501 WOODWARD AVE (FORMERLY) | 32701-32737 Woodward Avenue | 32701 N WOODWARD
 ROYAL OAK | Royal Oak, MI
Database(s) : [BEA - MI, DRYCLEANERS - MI, LUST - MI, SHWS - MI, UST - MI]

Envirosite ID: 3301883
EPA ID: N/R

BEA - MI

Facility Name : Paramount Bank
 Facility Address : 32701-32737 Woodward Avenue, Royal Oak, 48073
 County : Oakland

Facility ID : N/R
 BEA Number : 200803990LV
 Data Source : BEA
 District : Southeast MI
 Township : Royal Oak
 Latitude : N/R
 Longitude : N/R
 Last Date in Agency List : 2020-09-25

Facility Name : Retail Strip Mall
 Facility Address : 32701-32737 Woodward Avenue, Royal Oak, 48073
 County : Oakland

Facility ID : N/R
 BEA Number : 200904138LV
 Data Source : BEA
 District : Southeast MI
 Township : Royal Oak
 Latitude : N/R
 Longitude : N/R
 Last Date in Agency List : 2020-09-25

DRYCLEANERS - MI

Facility Name : C & S QUICK CLEANERS
 Facility Address : 32701 N WOODWARD, ROYAL OAK, MI 48073
 County : OAKLAND

Last Inspection Date : N/R
 Establishment Number : 6300143
 Status : Closed
 DCM Type : Perc
 Number of DCM : 1
 Total Pounds : 35
 Inspector : N/R
 Last Date in Agency List : 2016-10-12

LUST - MI

Facility Name : Former Gas Station
 Facility Address : 32701-32737 Woodward Ave 4501 Woodward Ave (Formerly), Royal Oak, 99999
 County : Oakland

Map Id: Q77
 Direction: SE
 Distance: 0.936 mi.
 Actual: 4942.945 ft.
 Elevation: 0.14 mi. / 737.835 ft.
 Relative: Lower

Site Name : FORMER GAS STATION | C & S QUICK
 CLEANERS | Paramount Bank
 32701-32737 WOODWARD AVE 4501
 WOODWARD AVE (FORMERLY) | 32701-
 32737 Woodward Avenue | 32701 N
 WOODWARD
 ROYAL OAK | Royal Oak, MI
Database(s) : [BEA - MI, DRYCLEANERS - MI, LUST - MI,
 SHWS - MI, UST - MI] **(cont.)**

Envirosite ID: 3301883
EPA ID: N/R

LUST - MI **(cont.)**

Site Details

Date of Collection :	N/R
Facility ID :	50005347
Accuracy :	15
Accuracy Value Unit :	METERS
Horizontal Datum :	NAD83
Source :	STATE OF MICHIGAN
Point/Line/Area :	POINT
Description Category :	N/R
Method of Collection :	Interpolation-Map
District :	Southeast MI
Latitude :	42.543397
Longitude :	-83.209304
Last Date in Agency List :	06/26/2019

Owner Summary

Owner Name :	OWNER ADDRESS UNKNOWN
Owner Address :	Not Recorded, Not Recorded, XX 99999
Owner Country :	USA
Owner Contact Person :	N/R
Owner Phone Number :	N/R

Release Information

Release Date :	04/13/2004
Release Status :	Open
Substance Released :	Unknown
Release Closed Date :	N/R
Leak Number :	C-0146-04
LUST Site Name :	Strip Mall Ne Woodward & Buckingham

SHWS - MI

Facility Name :	Former Gas Station
Facility Address :	32701-32737 Woodward Ave 4501 Woodward Ave (Formerly), Royal Oak, 48073
County :	Oakland

Facility ID :	50005347
Data Source :	Part 213
District :	Southeast MI
Township :	N/R
Latitude :	42.54340
Longitude :	-83.20930
Last Date in Agency List :	2019-06-28

Map Id: Q77
 Direction: SE
 Distance: 0.936 mi.
 Actual: 4942.945 ft.
 Elevation: 0.14 mi. / 737.835 ft.
 Relative: Lower

Site Name : FORMER GAS STATION | C & S QUICK
 CLEANERS | Paramount Bank
 32701-32737 WOODWARD AVE 4501
 WOODWARD AVE (FORMERLY) | 32701-
 32737 Woodward Avenue | 32701 N
 WOODWARD
 ROYAL OAK | Royal Oak, MI
Database(s) : [BEA - MI, DRYCLEANERS - MI, LUST - MI,
 SHWS - MI, UST - MI] **(cont.)**

EnviroSite ID: 3301883
EPA ID: N/R

UST - MI

Facility Name : Former Gas Station
 Facility Address : 32701-32737 Woodward Ave 4501 Woodward Ave (Formerly), Royal
 Oak, 48073
 County : N/R

Site Details

Facility Number : 50005347
 Region : N/R
 Facility Contact : N/R
 Latitude : N/R
 Longitude : N/R
 Last Date in Agency List : 09/22/2017

Owner Summary

Owner Name : OWNER ADDRESS UNKNOWN
 Owner Address : Not Recorded, Not Recorded, XX 99999
 Owner Country : N/R
 Owner Phone : N/R

Tank Information

Installation Date : N/R
 New Tank Number : N/R
 Old Tank Number : 1
 Tank Status : Non-Registered Tank
 Tank Content : Unknown
 Capacity (in gallons) : N/R
 Removed/Closed Date : N/R
 Number of Compartments : N/R
 Piping Material : Unknown
 Piping Type : N/R
 Tank Material : Unknown
 Impressed Current Installed : No

Map Id: 78
 Direction: NW
 Distance: 0.981 mi.
 Actual: 5182.118 ft.
 Elevation: 0.143 mi. / 756.739 ft.
 Relative: Higher

Site Name : A & G AUTO CARE | Simon Land Development Group LLC | AMOCO STATION #5791 (former)
 35975 WOODWARD AVE | 35975 Woodward Avenue formerly 905 Hunter BIRMINGHAM | Birmingham, MI 48009

Database(s) : [BEA - MI, BROWNFIELDS - MI, ECHO, FRS, HWG - MI, LUST - MI, LWF - MI, RCRA_VSQG, SHWS - MI, UST - MI]

Envirosite ID: 3284980
EPA ID: N/R

BEA - MI

Facility Name : AMOCO STATION #5791 (former)
 Facility Address : 35975 Woodward Avenue, Birmingham
 County : Oakland

Facility ID : N/R
 BEA Number : 200603161LV
 Data Source : BEA
 District : Southeast MI
 Township : Birmingham
 Latitude : N/R
 Longitude : N/R
 Last Date in Agency List : 2020-09-25

Facility Name : Gasoline Station
 Facility Address : 35975 Woodward Avenue, Birmingham, 48009
 County : Oakland

Facility ID : N/R
 BEA Number : 200703735LV
 Data Source : BEA
 District : Southeast MI
 Township : Birmingham
 Latitude : N/R
 Longitude : N/R
 Last Date in Agency List : 2020-09-25

BROWNFIELDS - MI

Facility Name : Amoco #5791 (former) - Part 213
 Facility Address : 35975 Woodward Avenue formerly 905 Hunter, Birmingham
 County : Oakland

Facility ID : 63006077
 Data Source : Part 201
 District : Southeast MI
 Township : Birmingham
 Latitude : 42.55350
 Longitude : -83.21871
 Last Date in Agency List : 2020-09-25

ECHO

Facility Name : A & G AUTO CARE
 Facility Address : 35975 WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

Map Id: 78
 Direction: NW
 Distance: 0.981 mi.
 Actual: 5182.118 ft.
 Elevation: 0.143 mi. / 756.739 ft.
 Relative: Higher

Site Name : A & G AUTO CARE | Simon Land
 Development Group LLC | AMOCO
 STATION #5791 (former)
 35975 WOODWARD AVE | 35975
 Woodward Avenue formerly 905 Hunter
 BIRMINGHAM | Birmingham, MI 48009

Database(s) : [BEA - MI, BROWNFIELDS - MI, ECHO,
 FRS, HWG - MI, LUST - MI, LWF - MI,
 RCRA_VSQG, SHWS - MI, UST - MI] **(cont.)**

EnviroSite ID: 3284980
EPA ID: N/R

ECHO (cont.)

Last Inspection Date :	N/R
Registry ID :	110003653056
FIPS Code :	26125
EPA Region :	05
Inspection Count :	0
Last Inspection Days :	N/R
Informal Count :	0
Last Informal Action Date :	2004-02-20
Formal Action Count :	0
Last Formal Action Date :	N/R
Total Penalties :	0
Penalty Count :	N/R
Last Penalty Date :	N/R
Last Penalty Amount :	N/R
QTRS IN NC :	0
Programs IN SNC :	0
Current Compliance Status :	No Violation Identified
Three-Year Compliance Status :	
Collection Method :	ADDRESS MATCHING-HOUSE NUMBER
Reference Point :	CENTER OF A FACILITY OR STATION
Accuracy Meters :	30
Derived Tribes :	N/R
Derived HUC :	04090004
Derived WBD :	040900040403
Derived STCTY FIPS :	26125
Derived Zip :	48009
Derived CD113 :	11
Derived CB2010 :	261251531002005
MYRTK Universe :	NNN
NPDES IDs :	N/R
CWA Permit Types :	N/R
CWA Compliance Tracking :	N/R
CWA NAICS :	N/R
CWA SICS :	N/R
CWA Inspection Count :	N/R
CWA Last Inspection Days :	N/R
CWA Informal Count :	N/R
CWA Formal Action Count :	N/R
CWA Last Formal Action Date :	N/R
CWA Penalties :	N/R
CWA Last Penalty Date :	N/R
CWA Last Penalty Amount :	N/R
CWA Quarters IN NC :	N/R
CWA Current Compliance Status :	N/R
CWA Current SNC Flag :	N
CWA 13 Quarters Compliance Status :	N/R
CWA 13 Quarters Effluent Exceedances:	N/R
CWA Three-Year QNCR Codes :	N/R
DFR URL :	Click here for hyperlink provided by the agency.
Facility SIC :	N/R
Facility NAICS :	811111 - General Automotive Repair
Facility Last Inspection EPA Date :	N/R

Map Id: 78
 Direction: NW
 Distance: 0.981 mi.
 Actual: 5182.118 ft.
 Elevation: 0.143 mi. / 756.739 ft.
 Relative: Higher

Site Name : A & G AUTO CARE | Simon Land Development Group LLC | AMOCO STATION #5791 (former)
 35975 WOODWARD AVE | 35975 Woodward Avenue formerly 905 Hunter BIRMINGHAM | Birmingham, MI 48009

Database(s) : [BEA - MI, BROWNFIELDS - MI, ECHO, FRS, HWG - MI, LUST - MI, LWF - MI, RCRA_VSQG, SHWS - MI, UST - MI] **(cont.)**

EnviroSite ID: 3284980
EPA ID: N/R

ECHO (cont.)

Facility Last Inspection State Date :	N/R
Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R
Facility Last Informal Act EPA Date :	N/R
Facility Last Informal Act State Date:	2004-02-20
Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	N/R
Current SNC Flag :	N
Indian County Flag :	N
Federal Flag :	N/R
US Mexico Border Flag :	N/R
Chesapeake Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	N
SDWIS Flag :	N
RCRA Flag :	Y
TRI Flag :	N
GHG Flag :	N
Major Flag :	N/R
Active Flag :	Y
NAA Flag :	Y
Latitude :	42.55383
Longitude :	-83.21857
Last Date in Agency List :	2020-12-31

FRS

Facility Name :	A & G AUTO CARE
Facility Address :	35975 WOODWARD AVE, BIRMINGHAM, MI 48009
County :	OAKLAND

Registry ID :	110003653056
FRS Facility URL :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	08/31/2020

Source Description :

RCRAInfo is EPA's comprehensive information system that supports the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984 through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA. RCRAInfo also supports generation of the National Hazardous Waste Biennial Report. All generators and treatment, storage, and disposal facilities who handle hazardous waste are required to report to the EPA Administrator at least once every two years to support creation of the Biennial Report.

Map Id: 78
 Direction: NW
 Distance: 0.981 mi.
 Actual: 5182.118 ft.
 Elevation: 0.143 mi. / 756.739 ft.
 Relative: Higher

Site Name : A & G AUTO CARE | Simon Land Development Group LLC | AMOCO STATION #5791 (former)
 35975 WOODWARD AVE | 35975 Woodward Avenue formerly 905 Hunter BIRMINGHAM | Birmingham, MI 48009

Database(s) : [BEA - MI, BROWNFIELDS - MI, ECHO, FRS, HWG - MI, LUST - MI, LWF - MI, RCRA_VSQG, SHWS - MI, UST - MI] **(cont.)**

EnviroSite ID: 3284980
EPA ID: N/R

FRS (cont.)

FRS Environmental Interest
 Source and System ID : RCRAINFO - MID985606458

HWG - MI

Facility Name : A & G AUTO CARE
 Facility Address : 35975 WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

WDS ID : 404537
 Site ID : MID985606458
 Generator Status : CESQG
 Site Legal Name : A & G AUTO CARE
 Contact Name : N/R
 Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 2021-01-04

LUST - MI

Facility Name : Simon Land Development Group LLC
 Facility Address : 35975 WOODWARD AVE, BIRMINGHAM, 48009-
 County : Oakland

Site Details

Date of Collection : 01/11/2001
 Facility ID : 00005681
 Accuracy : 100
 Accuracy Value Unit : FEET
 Horizontal Datum : NAD83
 Source : STATE OF MICHIGAN
 Point/Line/Area : POINT
 Description Category : Plant Entrance (Freight)
 Method of Collection : Address Matching-House Number
 District : Warren
 Latitude : 42.553549
 Longitude : -83.219358
 Last Date in Agency List : 09/21/2020

Owner Summary

Owner Name : SimonLand Development Group LLC
 Owner Address : UNKNOWN, MI
 Owner Country : USA
 Owner Contact Person : N/R
 Owner Phone Number : N/R

Map Id: 78
 Direction: NW
 Distance: 0.981 mi.
 Actual: 5182.118 ft.
 Elevation: 0.143 mi. / 756.739 ft.
 Relative: Higher

Site Name : A & G AUTO CARE | Simon Land Development Group LLC | AMOCO STATION #5791 (former)
 35975 WOODWARD AVE | 35975 Woodward Avenue formerly 905 Hunter BIRMINGHAM | Birmingham, MI 48009

Database(s) : [BEA - MI, BROWNFIELDS - MI, ECHO, FRS, HWG - MI, LUST - MI, LWF - MI, RCRA_VSQG, SHWS - MI, UST - MI] **(cont.)**

EnviroSite ID: 3284980
EPA ID: N/R

LUST - MI **(cont.)**

Release Information

Release Date : 01/13/1989
 Release Status : Open
 Substance Released : N/R
 Release Closed Date : N/R
 Leak Number : C-0008-89
 LUST Site Name : Amoco #5791

LWF - MI

Facility Name : A & G AUTO CARE
 Facility Address : 35975 WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

WDS ID : 404537
 Site ID : MID985606458
 Site Legal Name : A & G AUTO CARE
 Contact Name : N/R
 Contact Phone : N/R
 Contact Email : N/R
 Agency Hyperlink : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 08/19/2020

RCRA_VSQG

Facility Name : A & G AUTO CARE
 Facility Address : 35975 WOODWARD AVE, BIRMINGHAM, MI 48009
 County : OAKLAND

Date Form Received by Agency : 01/24/2005
 EPA ID : MID985606458
 Mailing Address : 35975 WOODWARD AVE, BIRMINGHAM, MI 48009
 Contact : ASLAM GARBOWAI
 Contact Address : 35975 WOODWARD AVE, BIRMINGHAM, MI 48009
 Contact Country : US
 Contact Telephone : 248-203-7866
 Contact Email : N/R
 EPA Region : 05
 Land Type : Private
 Source Type : Notification
 Classification : Very Small Quantity Generator

Map Id: 78
 Direction: NW
 Distance: 0.981 mi.
 Actual: 5182.118 ft.
 Elevation: 0.143 mi. / 756.739 ft.
 Relative: Higher

Site Name : A & G AUTO CARE | Simon Land
 Development Group LLC | AMOCO
 STATION #5791 (former)
 35975 WOODWARD AVE | 35975
 Woodward Avenue formerly 905 Hunter
 BIRMINGHAM | Birmingham, MI 48009

Database(s) : [BEA - MI, BROWNFIELDS - MI, ECHO,
 FRS, HWG - MI, LUST - MI, LWF - MI,
 RCRA_VSQG, SHWS - MI, UST - MI] **(cont.)**

EnviroSite ID: 3284980
EPA ID: N/R

RCRA_VSQG (cont.)

Description :

Handlers that generate 100 kilograms or less of hazardous waste per calendar month, and accumulate 1000 kg or less of hazardous waste at any time; or generate one kilogram or less of acutely hazardous waste per calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generate 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste.

Last Date in Agency List : 10/19/2020

Owner/Operator Summary

Owner/Operator Name : ASLAM GARBOWAI
 Owner/Operator Address : N/R
 Owner/Operator Country : N/R
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Private
 Owner/Operator Type : Operator
 Owner/Operator Start Date : 01/20/2003
 Owner/Operator End Date : N/R

Owner/Operator Name : ASLAM GARBOWAI
 Owner/Operator Address : N/R
 Owner/Operator Country : N/R
 Owner/Operator Telephone : N/R
 Owner/Operator Email : N/R
 Owner/Operator Fax : N/R
 Legal Status : Private
 Owner/Operator Type : Owner
 Owner/Operator Start Date : 01/20/2003
 Owner/Operator End Date : N/R

Handler Activities Summary

U.S. Importer of Hazardous Waste : N
 Mixed Waste (Haz. and Radioactive) : N
 Recycler of Hazardous Waste : N
 Transporter of Hazardous Waste : N
 Treater, Storer or Disposer of HW : N
 Underground Injection Activity : N
 On-site Burner Exemption : N
 Furnace Exemption : N

Map Id: 78
 Direction: NW
 Distance: 0.981 mi.
 Actual: 5182.118 ft.
 Elevation: 0.143 mi. / 756.739 ft.
 Relative: Higher

Site Name : A & G AUTO CARE | Simon Land Development Group LLC | AMOCO STATION #5791 (former)
 35975 WOODWARD AVE | 35975 Woodward Avenue formerly 905 Hunter BIRMINGHAM | Birmingham, MI 48009

Database(s) : [BEA - MI, BROWNFIELDS - MI, ECHO, FRS, HWG - MI, LUST - MI, LWF - MI, RCRA_VSQG, SHWS - MI, UST - MI] **(cont.)**

EnviroSite ID: 3284980
EPA ID: N/R

RCRA_VSQG (cont.)

Used Oil Fuel Burner :	N
Used Oil Processor :	N
Used Oil Refiner :	N
Used Oil Fuel Marketer to Burner :	N
Used Oil Specification Marketer :	N
Used Oil Transfer Facility :	N
Used Oil Transporter :	N

Historical Generators

Date Form Received by Agency :	09/08/1997
Facility Name :	A & G AUTO CARE
Classification :	Not a generator, verified

Date Form Received by Agency :	02/20/1991
Facility Name :	A & G AUTO CARE
Classification :	Small Quantity Generator

Hazardous Waste Summary

Waste Code / Name :	D001 - IGNITABLE WASTE

Notices of Violations Summary

Date of Violation :	02/20/2004
Date Achieved Compliance :	01/24/2005
Regulation Violated :	Y
Area of Violation :	Generators - General
Enforcement Action :	WRITTEN INFORMAL
Enforcement Action Date :	02/20/2004
Enf. Disposition Status :	N/R
Enf. Disp. Status Date :	N/R
Violation Lead Agency :	State
Enforcement Lead Agency :	State
Proposed Penalty Amount :	N/R
Final Penalty Amount :	N/R
Paid Penalty Amount :	N/R

Evaluation Action Summary

Evaluation Date :	02/20/2004
Evaluation :	NON-FINANCIAL RECORD REVIEW
Area of Violation :	Generators - General
Date Achieved Compliance :	01/24/2005
Evaluation Lead Agency :	State

Map Id: 78
 Direction: NW
 Distance: 0.981 mi.
 Actual: 5182.118 ft.
 Elevation: 0.143 mi. / 756.739 ft.
 Relative: Higher

Site Name : A & G AUTO CARE | Simon Land Development Group LLC | AMOCO STATION #5791 (former)
 35975 WOODWARD AVE | 35975 Woodward Avenue formerly 905 Hunter BIRMINGHAM | Birmingham, MI 48009

Database(s) : [BEA - MI, BROWNFIELDS - MI, ECHO, FRS, HWG - MI, LUST - MI, LWF - MI, RCRA_VSQG, SHWS - MI, UST - MI] **(cont.)**

EnviroSite ID: 3284980
EPA ID: N/R

SHWS - MI

Facility Name : Simon Land Development Group LLC
Facility Address : 35975 WOODWARD AVE, BIRMINGHAM, 48009
County : Oakland

Facility ID : 00005681
Data Source : Part 213
District : Southeast MI
Township : N/R
Latitude : 42.55355
Longitude : -83.21936
Last Date in Agency List : 2020-09-26

UST - MI

Facility Name : Simon Land Development Group LLC
Facility Address : 35975 WOODWARD AVE, BIRMINGHAM, MI 48009-0940
County : OAKLAND

Site Details

Facility Number : 00005681
Region : 1
Facility Contact : N/R
Latitude : 42.5535490000
Longitude : -83.2193580000
Last Date in Agency List : 03/20/2020

Owner Summary

Owner Name : Simon Land Development Group LLC
Owner Address : 1826 Northwood Dr, Troy, MI 48084
Owner Country : N/R
Owner Phone : 2486889625

Tank Information

Installation Date : 11/10/1989
New Tank Number : UTK-025537-15
Old Tank Number : 10
Tank Status : Removed from Ground
Tank Content : Used Oil
Capacity (in gallons) : 560
Removed/Closed Date : 11/01/2007
Number of Compartments : N/R
Piping Material : Fiberglass Reinforced Plastic
Piping Type : N/R
Tank Material : Cathodically Protected Steel,Other

Map Id: 78
 Direction: NW
 Distance: 0.981 mi.
 Actual: 5182.118 ft.
 Elevation: 0.143 mi. / 756.739 ft.
 Relative: Higher

Site Name : A & G AUTO CARE | Simon Land
 Development Group LLC | AMOCO
 STATION #5791 (former)
 35975 WOODWARD AVE | 35975
 Woodward Avenue formerly 905 Hunter
 BIRMINGHAM | Birmingham, MI 48009

Database(s) : [BEA - MI, BROWNFIELDS - MI, ECHO,
 FRS, HWG - MI, LUST - MI, LWF - MI,
 RCRA_VSQG, SHWS - MI, UST - MI] **(cont.)**

Envirosite ID: 3284980
EPA ID: N/R

UST - MI **(cont.)**

Impressed Current Installed :	N/R
Installation Date :	04/26/1986
New Tank Number :	UTK-026612-15
Old Tank Number :	7
Tank Status :	Removed from Ground
Tank Content :	Gasoline
Capacity (in gallons) :	12000
Removed/Closed Date :	10/11/2007
Number of Compartments :	N/R
Piping Material :	Fiberglass Reinforced Plastic
Piping Type :	Pressure (Remote)
Tank Material :	Cathodically Protected Steel,Other
Impressed Current Installed :	N/R
Installation Date :	04/26/1986
New Tank Number :	UTK-042265-15
Old Tank Number :	8
Tank Status :	Removed from Ground
Tank Content :	Gasoline
Capacity (in gallons) :	12000
Removed/Closed Date :	10/11/2007
Number of Compartments :	N/R
Piping Material :	Fiberglass Reinforced Plastic
Piping Type :	Pressure (Remote)
Tank Material :	Cathodically Protected Steel,Other
Impressed Current Installed :	N/R
Installation Date :	04/26/1986
New Tank Number :	UTK-052649-15
Old Tank Number :	9
Tank Status :	Removed from Ground
Tank Content :	Gasoline
Capacity (in gallons) :	12000
Removed/Closed Date :	10/11/2007
Number of Compartments :	N/R
Piping Material :	Fiberglass Reinforced Plastic
Piping Type :	Pressure (Remote)
Tank Material :	Cathodically Protected Steel,Other
Impressed Current Installed :	N/R
Installation Date :	04/26/1970
New Tank Number :	UTK-029764-15
Old Tank Number :	5
Tank Status :	Removed from Ground
Tank Content :	Gasoline
Capacity (in gallons) :	8000

Map Id: 78
 Direction: NW
 Distance: 0.981 mi.
 Actual: 5182.118 ft.
 Elevation: 0.143 mi. / 756.739 ft.
 Relative: Higher

Site Name : A & G AUTO CARE | Simon Land
 Development Group LLC | AMOCO
 STATION #5791 (former)
 35975 WOODWARD AVE | 35975
 Woodward Avenue formerly 905 Hunter
 BIRMINGHAM | Birmingham, MI 48009

Database(s) : [BEA - MI, BROWNFIELDS - MI, ECHO,
 FRS, HWG - MI, LUST - MI, LWF - MI,
 RCRA_VSQG, SHWS - MI, UST - MI] **(cont.)**

EnviroSite ID: 3284980
EPA ID: N/R

UST - MI **(cont.)**

Removed/Closed Date : 12/01/1988
 Number of Compartments : N/R
 Piping Material : Galvanized Steel
 Piping Type : N/R
 Tank Material : Asphalt Coated or Bare Steel,Lined Interior
 Impressed Current Installed : N/R

Installation Date : 04/26/1962
 New Tank Number : UTK-042264-15
 Old Tank Number : 4
 Tank Status : Removed from Ground
 Tank Content : Gasoline
 Capacity (in gallons) : 6000
 Removed/Closed Date : 12/01/1988
 Number of Compartments : N/R
 Piping Material : Galvanized Steel
 Piping Type : N/R
 Tank Material : Asphalt Coated or Bare Steel,Lined Interior
 Impressed Current Installed : N/R

Installation Date : 04/26/1962
 New Tank Number : UTK-049515-15
 Old Tank Number : 1
 Tank Status : Removed from Ground
 Tank Content : Diesel
 Capacity (in gallons) : 6000
 Removed/Closed Date : 02/09/1989
 Number of Compartments : N/R
 Piping Material : Galvanized Steel
 Piping Type : N/R
 Tank Material : Asphalt Coated or Bare Steel,Lined Interior
 Impressed Current Installed : N/R

Installation Date : 04/26/1962
 New Tank Number : UTK-053069-15
 Old Tank Number : 2
 Tank Status : Removed from Ground
 Tank Content : Gasoline
 Capacity (in gallons) : 6000
 Removed/Closed Date : 12/01/1988
 Number of Compartments : N/R
 Piping Material : Galvanized Steel
 Piping Type : N/R
 Tank Material : Asphalt Coated or Bare Steel,Lined Interior
 Impressed Current Installed : N/R

Map Id: 78
 Direction: NW
 Distance: 0.981 mi.
 Actual: 5182.118 ft.
 Elevation: 0.143 mi. / 756.739 ft.
 Relative: Higher

Site Name : A & G AUTO CARE | Simon Land
 Development Group LLC | AMOCO
 STATION #5791 (former)
 35975 WOODWARD AVE | 35975
 Woodward Avenue formerly 905 Hunter
 BIRMINGHAM | Birmingham, MI 48009

Database(s) : [BEA - MI, BROWNFIELDS - MI, ECHO,
 FRS, HWG - MI, LUST - MI, LWF - MI,
 RCRA_VSQG, SHWS - MI, UST - MI] **(cont.)**

EnviroSite ID: 3284980
EPA ID: N/R

UST - MI **(cont.)**

Installation Date :	04/26/1962
New Tank Number :	UTK-053073-15
Old Tank Number :	3
Tank Status :	Removed from Ground
Tank Content :	Gasoline
Capacity (in gallons) :	6000
Removed/Closed Date :	12/01/1988
Number of Compartments :	N/R
Piping Material :	Galvanized Steel
Piping Type :	N/R
Tank Material :	Asphalt Coated or Bare Steel,Lined Interior
Impressed Current Installed :	N/R

Installation Date :	04/27/1959
New Tank Number :	UTK-046701-15
Old Tank Number :	6
Tank Status :	Removed from Ground
Tank Content :	Used Oil
Capacity (in gallons) :	560
Removed/Closed Date :	11/10/1989
Number of Compartments :	N/R
Piping Material :	Galvanized Steel
Piping Type :	N/R
Tank Material :	Asphalt Coated or Bare Steel
Impressed Current Installed :	N/R

<u>ENVIROSITE ID</u>	<u>NAME</u>	<u>ADDRESS</u>	<u>CITY</u>	<u>ZIP</u>	<u>DATABASE(S)</u>
<u>32756773</u>	.07 Acre Parcel E Frank &...	.07 Acre Parcel E Frank &...	Birmingham	48009	BEA - MI
<u>11724939</u>	BIG BOY	1337 S WOODWARD AVE	ROYAL OAK	48067	UST - MI
<u>32830195</u>	Commercial Shopping Cente...	32701, 32713, 32725, 3273...	Royal Oak	48073	BEA - MI
<u>32929340</u>	CVS Pharmacy #1150	30908 and 30964 Woodward ...	Royal Oak	48073	BEA - MI
<u>32745358</u>	EOP South, LLC	563 and 575 S. Eton Stree...	Birmingham	48009	BEA - MI
<u>12096971</u>	Erb Family Foundation Pro...	Cole Street Vacant Proper...	Birmingham	48009	BEA - MI
<u>32705538</u>	Eton Road Property	563 thru 635 South Eton S...	Birmingham		BEA - MI
<u>12097080</u>	GRAND TRUNK WESTERN RAILR...	N. OF LINCOLN ST., S OF M...	Birmingham	48009	BEA - MI
<u>32676342</u>	MALLY, C . LANE PROPERTY	575 SOUTH HUNTER BLVD.	Birmingham		BEA - MI
<u>12122471</u>	NATIONAL BANK OF ROYAL OA...	316 N WOODWARD AVE	ROYAL OAK	48067	LWF - MI
<u>32882707</u>	Proposed Royal Oak Office...	SE Corner W. 11 Mile and ...	Royal Oak	48067	BEA - MI
<u>12100128</u>	Standard Federal Bank	6117 Woodrow Avenue	Royal Oak	48067	BEA - MI
<u>32747956</u>	TimothY Patrick Homes Pro...	East Harrison Ave. & Know...	Royal Oak	48067	BEA - MI
<u>11568814</u>	Webster/Crooks	Webster/Crooks	Royal Oak	48073	BROWNFIELDS - MI

FEDERAL RCRA NON-CORRACTS TSD FACILITIES LIST

ARCHIVED RCRA TSDF: Resource Conservation and Recovery Act hazardous waste transportation storage disposal and treatment facilities

Agency Version Date: 10/12/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 04/13/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 01/15/2021

RCRA_TSDF: Resource Conservation and Recovery Act hazardous waste transportation storage disposal and treatment facilities

Agency Version Date: 10/12/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 04/13/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 01/15/2021

FEDERAL CERCLIS LIST

CERCLIS NFRAP: The CERCLIS sites with No Further Remedial Action Planned from the CERCLIS program database. The Environmental Protection Agency decommissioned the CERCLIS data in 2014. The last update was November 12, 2013.

Agency Version Date: 10/25/2013
Agency Update Frequency: Quarterly
Planned Next Contact: 02/12/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 800-424-9346
Most Recent Contact: 11/17/2020

CERCLIS-HIST: The CERCLIS program database contains information on the assessment and remediation of federal hazardous waste sites. The Environmental Protection Agency decommissioned the CERCLIS data in 2014. The last update was November 12, 2013.

Agency Version Date: 10/29/2013
Agency Update Frequency: Quarterly
Planned Next Contact: 02/12/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 800-424-9346
Most Recent Contact: 11/17/2020

FEDERAL FACILITY: Sites where Federal Facilities Restoration and Reuse Office (FFRRO) arranged cleanup for Base Closure and Property Transfer at Federal Facilities

Agency Version Date: 11/17/2020
Agency Update Frequency: Varies
Planned Next Contact: 02/12/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8712
Most Recent Contact: 11/17/2020

SEMS_8R_ACTIVE SITES: The Active Site Inventory Report displays site and location information at active SEMS sites. An active site is one at which site assessment, removal, remedial, enforcement, cost recovery, or oversight activities are being planned or conducted. NPL sites include latitude and longitude information. For non-NPL sites, a brief site status is provided.

Agency Version Date: 11/17/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/12/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 11/17/2020

SEMS_8R_ARCHIVED SITES: The Archived Site Inventory displays site and location information at sites archived from SEMS. An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time.

Agency Version Date: 10/28/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/12/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 11/17/2020

FEDERAL RCRA CORRACTS FACILITIES LIST

CORRACTS: List of facilities where Resource Conservation and Recovery Act Corrective Action Program used to investigate and remediate hazardous releases

Agency Version Date: 10/12/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 04/13/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-1667
Most Recent Contact: 01/15/2021

HIST CORRACTS 2: List of facilities where Resource Conservation and Recovery Act Corrective Action Program used to investigate and remediate hazardous releases that are no longer in current agency list.

Agency Version Date: 10/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 03/12/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-1667
Most Recent Contact: 12/15/2020

FEDERAL DELISTED NPL SITE LIST

DELISTED NPL: National Priority List of sites that were delisted and no longer require action

Agency Version Date: 11/17/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/12/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 11/17/2020

DELISTED PROPOSED NPL: Sites that have been delisted from the proposed National Priority List

Agency Version Date: 11/17/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/12/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 11/17/2020

SEMS_DELETED NPL: All Deleted National Priority List Sties

Agency Version Date: 10/28/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/12/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 11/17/2020

FEDERAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS

EPA LF MOP: Sites in the EPA Landfill Methane Outreach Program

Agency Version Date: 10/22/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 04/09/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 01/11/2021

FEDERAL ERNS LIST

ERNS: Emergency Response Notification System records of reported spills

Agency Version Date: 08/14/2020
Agency Update Frequency: Annually
Planned Next Contact: 02/04/2021

Agency: National Response Center United States Coast Guard
Agency Contact: N/R
Most Recent Contact: 11/10/2020

FEDERAL INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES

FED E C: Federal listing of remediation sites with engineering controls

Agency Version Date: 12/18/2020
Agency Update Frequency: Varies
Planned Next Contact: 03/11/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 800-424-9346
Most Recent Contact: 12/18/2020

FEDERAL INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES (cont.)

FED I C: Federal listing of remediation sites with institutional controls

Agency Version Date: 12/18/2020
Agency Update Frequency: Varies
Planned Next Contact: 03/11/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 800-424-9346
Most Recent Contact: 12/18/2020

RCRA IC_EC: Sites with institutional or engineering controls related to Resource Conservation and Recovery Act

Agency Version Date: 08/27/2020
Agency Update Frequency: Varies
Planned Next Contact: 02/19/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 11/23/2020

FEDERAL RCRA GENERATORS LIST

HIST RCRA_CESQG: List of Resource Conservation and Recovery Act licensed conditionally exempt small quantity generators that are no longer in current agency list.

Agency Version Date: 10/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 03/12/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 12/15/2020

HIST RCRA_LQG: List of Resource Conservation and Recovery Act licensed large quantity generators that are no longer in current agency list.

Agency Version Date: 10/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 03/12/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 12/15/2020

HIST RCRA_NONGEN: List of Resource Conservation and Recovery Act licensed non-generators that are no longer in current agency list.

Agency Version Date: 10/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 03/12/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 12/15/2020

HIST RCRA_SQG: List of Resource Conservation and Recovery Act licensed small quantity generators that are no longer in current agency list.

Agency Version Date: 10/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 03/12/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 12/15/2020

RCRA_LQG: Resource Conservation and Recovery Act listing of licensed large quantity generators

Agency Version Date: 10/12/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 04/13/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 01/15/2021

RCRA_NONGEN: Resource Conservation and Recovery Act listing of licensed non-generators

Agency Version Date: 10/12/2020
Agency Update Frequency: Varies
Planned Next Contact: 04/13/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 01/15/2021

RCRA_SQG: Resource Conservation and Recovery Act listing of licensed small quantity generators

Agency Version Date: 10/12/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 04/13/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 01/15/2021

FEDERAL RCRA GENERATORS LIST (cont.)

RCRA_VSQG: Resource Conservation and Recovery Act listing of licensed very small quantity generators.

Agency Version Date: 10/12/2020
Agency Update Frequency: Varies
Planned Next Contact: 04/13/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 01/15/2021

FEDERAL NPL SITE LIST

NPL: List of priority contaminated sites among identified releases or threatened releases of hazardous substances pollutants or contaminants nationally

Agency Version Date: 11/17/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/12/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 11/17/2020

NPL EPA R1 GIS: Geospatial data for the Environmental Protection Agency Region 1 National Priority List subject to environmental regulation

Agency Version Date: 08/21/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/12/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-2132
Most Recent Contact: 11/17/2020

NPL EPA R3 GIS: Geospatial data for the Environmental Protection Agency Region 3 National Priority List subject to environmental regulation

Agency Version Date: 08/21/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/12/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-2132
Most Recent Contact: 11/17/2020

NPL EPA R6 GIS: Geospatial data for the Environmental Protection Agency Region 6 National Priority List subject to environmental regulation

Agency Version Date: 08/21/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/12/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-2132
Most Recent Contact: 11/17/2020

NPL EPA R8 GIS: Geospatial data for the Environmental Protection Agency Region 8 National Priority List subject to environmental regulation

Agency Version Date: 08/21/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/12/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-2132
Most Recent Contact: 11/17/2020

NPL EPA R9 GIS: Geospatial data for the Environmental Protection Agency Region 9 National Priority List subject to environmental regulation

Agency Version Date: 08/21/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/12/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-2132
Most Recent Contact: 11/17/2020

PART NPL: Sites that are a part of an National Priority List site referred to as the parent site

Agency Version Date: 11/17/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/12/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 11/17/2020

FEDERAL NPL SITE LIST (cont.)

PROPOSED NPL: Sites that have been proposed for the National Priority List

Agency Version Date: 11/17/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/12/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 11/17/2020

SEMS_FINAL NPL: All Included National Priority List Sites

Agency Version Date: 10/28/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/12/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 11/17/2020

SEMS_PROPOSED NPL: All Proposed National Priority List Sites

Agency Version Date: 10/28/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/12/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 11/17/2020

STATE AND TRIBAL REGISTERED STORAGE TANK LISTS

FEMA UST: FEMA underground storage tank listing

Agency Version Date: 06/21/2019
Agency Update Frequency: Varies
Planned Next Contact: 04/16/2021

Agency: FEMA
Agency Contact: 202-212-5283
Most Recent Contact: 01/19/2021

INDIAN UST R1: Underground Storage Tanks on Indian Land in EPA Region 1

Agency Version Date: 11/06/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/03/2021

Agency: U.S. Environmental Protection Agency Region 1
Agency Contact: 855-246-3642
Most Recent Contact: 11/06/2020

INDIAN UST R10: Underground Storage Tanks on Indian Land in EPA Region 10

Agency Version Date: 12/02/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 03/01/2021

Agency: U.S. Environmental Protection Agency Region 10
Agency Contact: 855-246-3642
Most Recent Contact: 12/02/2020

INDIAN UST R2: Underground Storage Tanks on Indian Land in EPA Region 2

Agency Version Date: 12/07/2016
Agency Update Frequency: Quarterly
Planned Next Contact: 02/05/2021

Agency: U.S. Environmental Protection Agency Region 2
Agency Contact: 855-246-3642
Most Recent Contact: 11/09/2020

INDIAN UST R4: Underground Storage Tanks on Indian Land in EPA Region 4

Agency Version Date: 04/14/2020
Agency Update Frequency: Semi Annually
Planned Next Contact: 03/01/2021

Agency: U.S. Environmental Protection Agency Region 4
Agency Contact: 855-246-3642
Most Recent Contact: 12/02/2020

INDIAN UST R5: Underground Storage Tanks on Indian Land in EPA Region 5

Agency Version Date: 11/19/2020
Agency Update Frequency: Varies
Planned Next Contact: 02/15/2021

Agency: U.S. Environmental Protection Agency Region 5
Agency Contact: 855-246-3642
Most Recent Contact: 11/19/2020

STATE AND TRIBAL REGISTERED STORAGE TANK LISTS (cont.)

INDIAN UST R6: Underground Storage Tanks on Indian Land in EPA Region 6

Agency Version Date: 09/21/2020
Agency Update Frequency: Semi Annually
Planned Next Contact: 03/17/2021

Agency: U.S. Environmental Protection Agency Region 6
Agency Contact: 855-246-3642
Most Recent Contact: 12/18/2020

INDIAN UST R7: Underground Storage Tanks on Indian Land in EPA Region 7

Agency Version Date: 11/19/2020
Agency Update Frequency: Varies
Planned Next Contact: 02/15/2021

Agency: U.S. Environmental Protection Agency Region 7
Agency Contact: 855-246-3642
Most Recent Contact: 11/19/2020

INDIAN UST R8: Underground Storage Tanks on Indian Land in EPA Region 8

Agency Version Date: 04/14/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/01/2021

Agency: U.S. Environmental Protection Agency Region 8
Agency Contact: 855-246-3642
Most Recent Contact: 11/04/2020

INDIAN UST R9: Underground Storage Tanks on Indian Land in EPA Region 9

Agency Version Date: 12/07/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/01/2021

Agency: U.S. Environmental Protection Agency Region 9
Agency Contact: 855-246-3642
Most Recent Contact: 11/04/2020

AST - MI: Registered Aboveground Storage Tanks

Agency Version Date: 09/18/2020
Agency Update Frequency: Varies
Planned Next Contact: 03/12/2021

Agency: Department of Environmental Quality
Agency Contact: (517) 335-7279
Most Recent Contact: 12/15/2020

HIST AST - MI: Closed/ Inactive Aboveground Storage Tanks

Agency Version Date: 06/15/2018
Agency Update Frequency: Varies
Planned Next Contact: 03/12/2021

Agency: Department of Environmental Quality
Agency Contact: (517) 335-7279
Most Recent Contact: 12/14/2020

UST - MI: Underground storage tank listing

Agency Version Date: 08/26/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/18/2021

Agency: Michigan Department of Environmental Quality
Agency Contact: 517-335-7260
Most Recent Contact: 11/23/2020

STATE AND TRIBAL BROWNFIELD SITES

TRIBAL BROWNFIELDS: Tribal brownfield remediation site listing

Agency Version Date: 02/10/2017
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 04/02/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 01/05/2021

BROWNFIELDS - MI: Brownfield remediation sites

Agency Version Date: 09/25/2020
Agency Update Frequency: Varies
Planned Next Contact: 03/18/2021

Agency: Michigan Department of Environmental Quality
Agency Contact: 517-241-8707
Most Recent Contact: 12/22/2020

STATE AND TRIBAL BROWNFIELD SITES (cont.)

BROWNFIELDS 2 - MI: Brownfields Building and Land Sites

Agency Version Date: 11/09/2020
Agency Update Frequency: Varies
Planned Next Contact: 02/04/2021

Agency: Economic Development Corporation
Agency Contact: (888) 522-0103
Most Recent Contact: 11/09/2020

STATE- AND TRIBAL - EQUIVALENT CERCLIS

DEL SHWS - MI: Delisted listing of contaminated sites

Agency Version Date: 09/21/2020
Agency Update Frequency: Varies
Planned Next Contact: 03/10/2021

Agency: Michigan Department of Environmental Quality
Agency Contact: 616-356-0226
Most Recent Contact: 12/18/2020

SHWS - MI: Listing of contaminated sites

Agency Version Date: 09/25/2020
Agency Update Frequency: Semi Annually
Planned Next Contact: 03/18/2021

Agency: Michigan Department of Environmental Quality
Agency Contact: 616-356-0226
Most Recent Contact: 12/22/2020

STATE AND TRIBAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS

HIST LF - MI: Inactive solid waste facility listing

Agency Version Date: 09/21/2020
Agency Update Frequency: Varies
Planned Next Contact: 03/16/2021

Agency: Michigan Department of Environmental Quality
Agency Contact: 517-335-2690
Most Recent Contact: 12/18/2020

SWF/LF - MI: Solid waste facility and landfill listing

Agency Version Date: 09/02/2020
Agency Update Frequency: Semi Annually
Planned Next Contact: 02/26/2021

Agency: Michigan Department of Environmental Quality
Agency Contact: 517-335-2690
Most Recent Contact: 11/30/2020

STATE RCRA GENERATORS LIST

HWG - MI: Listing of permitted hazardous waste generators

Agency Version Date: 11/16/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/12/2021

Agency: Michigan Department of Environmental Quality
Agency Contact: 517-335-2690
Most Recent Contact: 11/16/2020

STATE AND TRIBAL LEAKING STORAGE TANK LISTS

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land in EPA Region 1

Agency Version Date: 11/06/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/02/2021

Agency: U.S. Environmental Protection Agency Region 1
Agency Contact: 855-246-3642
Most Recent Contact: 11/06/2020

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land in EPA Region 10

Agency Version Date: 04/14/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 03/01/2021

Agency: U.S. Environmental Protection Agency Region 10
Agency Contact: 855-246-3642
Most Recent Contact: 12/02/2020

STATE AND TRIBAL LEAKING STORAGE TANK LISTS (cont.)

INDIAN LUST R2: Leaking Underground Storage Tanks on Indian Land in EPA Region 2

Agency Version Date: 12/07/2016
Agency Update Frequency: Quarterly
Planned Next Contact: 02/05/2021

Agency: U.S. Environmental Protection Agency Region 2
Agency Contact: 855-246-3642
Most Recent Contact: 11/09/2020

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land in EPA Region 4

Agency Version Date: 04/14/2020
Agency Update Frequency: Semi Annually
Planned Next Contact: 03/01/2021

Agency: U.S. Environmental Protection Agency Region 4
Agency Contact: 855-246-3642
Most Recent Contact: 12/02/2020

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land in EPA Region 5

Agency Version Date: 11/19/2020
Agency Update Frequency: Varies
Planned Next Contact: 02/15/2021

Agency: U.S. Environmental Protection Agency Region 5
Agency Contact: 855-246-3642
Most Recent Contact: 11/19/2020

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land in EPA Region 6

Agency Version Date: 11/23/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/19/2021

Agency: U.S. Environmental Protection Agency Region 6
Agency Contact: 855-246-3642
Most Recent Contact: 11/23/2020

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land in EPA Region 7

Agency Version Date: 04/15/2020
Agency Update Frequency: Varies
Planned Next Contact: 02/15/2021

Agency: U.S. Environmental Protection Agency Region 7
Agency Contact: 855-246-3642
Most Recent Contact: 11/19/2020

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land in EPA Region 8

Agency Version Date: 11/23/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/19/2021

Agency: U.S. Environmental Protection Agency Region 8
Agency Contact: 855-246-3642
Most Recent Contact: 11/23/2020

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land in EPA Region 9

Agency Version Date: 11/19/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/01/2021

Agency: U.S. Environmental Protection Agency Region 9
Agency Contact: 855-246-3642
Most Recent Contact: 11/04/2020

LUST - MI: Leaking underground storage tank site listing

Agency Version Date: 09/21/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 03/17/2021

Agency: Michigan Department of Environmental Quality
Agency Contact: 517-284-5089
Most Recent Contact: 12/18/2020

LOCAL BROWNFIELD LISTS

BROWNFIELDS-ACRES: EPA Brownfields Assessment, Cleanup and Redevelopment Exchange System.

Agency Version Date: 07/06/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 03/26/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 12/28/2020

LOCAL BROWNFIELD LISTS (cont.)

FED BROWNFIELDS: Federal brownfield remediation sites

Agency Version Date: 11/10/2020
Agency Update Frequency: Semi Annually
Planned Next Contact: 02/05/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 11/10/2020

LOCAL LISTS OF HAZARDOUS WASTE / CONTAMINATED SITES

FED CDL: The U.S. Department of Justice listing of clandestine drug lab locations

Agency Version Date: 11/02/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 01/28/2021

Agency: U.S. Department of Justice
Agency Contact: 202-307-7610
Most Recent Contact: 11/02/2020

US HIST CDL: The U.S. Department of Justice historical listing of clandestine drug lab locations

Agency Version Date: 08/05/2019
Agency Update Frequency: Quarterly
Planned Next Contact: 03/03/2021

Agency: U.S. Department of Justice
Agency Contact: 202-307-7610
Most Recent Contact: 12/07/2020

LOCAL LISTS OF LANDFILL / SOLID WASTE DISPOSAL SITES

HIST INDIAN ODI R8: List of Region 8 Indian land open dump inventory sites maintained within the STARS program that is no longer in current agency list.

Agency Version Date: 11/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 02/02/2021

Agency: Indian Health Service
Agency Contact: 855-246-3642
Most Recent Contact: 11/06/2020

INDIAN ODI R8: Region 8 Indian land open dump inventory sites maintained within the STARS program

Agency Version Date: 11/13/2020
Agency Update Frequency: Varies
Planned Next Contact: 02/12/2021

Agency: Indian Health Service
Agency Contact: 855-246-3642
Most Recent Contact: 11/13/2020

ODI: Open dump inventory sites

Agency Version Date: 10/03/2017
Agency Update Frequency: No Update
Planned Next Contact: 02/25/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 11/30/2020

TRIBAL ODI: Indian land open dump inventory for all regions

Agency Version Date: 09/21/2020
Agency Update Frequency: Varies
Planned Next Contact: 03/10/2021

Agency: Indian Health Service
Agency Contact: 301-443-3593
Most Recent Contact: 12/18/2020

SWRCY - MI: Recycling & Recovery Facilities

Agency Version Date: 11/13/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/10/2021

Agency: Michigan Department of Environmental Quality
Agency Contact: N/R
Most Recent Contact: 11/13/2020

SWTIRE - MI: Scrap Tire Facilities and Collection Sites

Agency Version Date: 11/13/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/10/2021

Agency: Michigan Department of Environmental Quality
Agency Contact: 517-335-2690
Most Recent Contact: 11/13/2020

LOCAL LISTS OF LANDFILL / SOLID WASTE DISPOSAL SITES (cont.)

WDS - MI: Waste Disposal Sites

Agency Version Date: 11/16/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/12/2021

Agency: Michigan Department of Environmental Quality
Agency Contact: 517-335-2690
Most Recent Contact: 11/16/2020

RECORDS OF EMERGENCY RELEASE REPORTS

HMIRS (DOT): Hazardous Material spills reported by the Department of Transportation

Agency Version Date: 10/09/2020
Agency Update Frequency: Varies
Planned Next Contact: 04/02/2021

Agency: U.S. Department of Transportation
Agency Contact: (202) 366-4996
Most Recent Contact: 01/05/2021

HIST PEAS - MI: List of pollution emergency alerting system reported incident that are no longer in current agency list.

Agency Version Date: 02/01/2019
Agency Update Frequency: Quarterly
Planned Next Contact: 04/06/2021

Agency: Michigan Department of Environmental Quality
Agency Contact: 517-373-8427
Most Recent Contact: 01/08/2021

PEAS - MI: Pollution emergency alerting system reported incident listing

Agency Version Date: 06/05/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/22/2021

Agency: Michigan Department of Environmental Quality
Agency Contact: 517-373-8427
Most Recent Contact: 11/26/2020

LOCAL LAND RECORDS

LIENS 2: Comprehensive Environmental Response Compensation and Liability Act sites with liens

Agency Version Date: 05/11/2017
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 04/02/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 800-424-9346
Most Recent Contact: 01/05/2021

LIENS - MI: Listing of remediation division sites with liens

Agency Version Date: 11/20/2020
Agency Update Frequency: Varies
Planned Next Contact: 02/17/2021

Agency: Michigan Department of Environmental Quality
Agency Contact: 517-241-8707
Most Recent Contact: 11/20/2020

OTHER ASCERTAINABLE RECORDS

AFS: Air Facility Systems Quarterly Extract

Agency Version Date: 03/20/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/16/2021

Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 11/20/2020

ALT FUELING: Alternative Fueling Stations by fuel type.

Agency Version Date: 10/19/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 04/12/2021

Agency: U.S. Department of Energy
Agency Contact: N/R
Most Recent Contact: 01/14/2021

AST PBS: Bulk petroleum terminals with a total bulk storage capacity of 50,000 barrels or more.

Agency Version Date: 06/18/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 03/09/2021

Agency: Department of Homeland Security
Agency Contact: 202-853-5361
Most Recent Contact: 12/11/2020

OTHER ASCERTAINABLE RECORDS (cont.)

BRS: Reporting of hazardous waste generation and management from large quantity generators

Agency Version Date: 10/12/2020
Agency Update Frequency: Biennial
Planned Next Contact: 04/13/2021

Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 01/15/2021

CDC HAZDAT: The Agency for Toxic Substances and Disease Registry's Hazardous Substance Release/Health Effects Database.

Agency Version Date: 08/21/2020
Agency Update Frequency: Varies
Planned Next Contact: 02/12/2021

Agency: Agency for Toxic Substances and Disease Registry
Agency Contact: 770-488-6399
Most Recent Contact: 11/17/2020

COAL ASH DOE: List of existing and planned generators with 1 megawatt or greater of combined capacity that are utilizing coal ash impoundments.

Agency Version Date: 10/12/2020
Agency Update Frequency: Varies
Planned Next Contact: 04/07/2021

Agency: Department of Energy
Agency Contact: (202) 586-8800
Most Recent Contact: 01/08/2021

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

Agency Version Date: 07/31/2014
Agency Update Frequency: Varies
Planned Next Contact: 02/18/2021

Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 11/23/2020

COAL GAS: Manufactured Gas Plant locations

Agency Version Date: 02/06/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 04/20/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 01/22/2021

CONSENT (DECREEES): Legal decisions regarding responsibility for Superfund locations

Agency Version Date: 03/16/2020
Agency Update Frequency: Varies
Planned Next Contact: 02/10/2021

Agency: Environmental Protection Agency
Agency Contact: (800) 424-9346
Most Recent Contact: 11/13/2020

CORRECTIVE ACTIONS_2020: In 2009 the EPA created the 2020 Corrective Action Baseline list of contaminated or potentially contaminated sites with a cleanup goal to complete 95% by the year 2020. The names on the list indicate the facility owners who may or may not have caused the contamination.

Agency Version Date: 12/21/2018
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 02/05/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: N/R
Most Recent Contact: 11/10/2020

DEBRIS R5 LF: US EPA Region 5 Disaster Debris Recovery Database is a list of public facilities for disaster construction and demolition materials, electronics, household hazardous waste, metals, tires, and vehicles in EPA Region 5.

Agency Version Date: 02/28/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 01/26/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 10/30/2020

DEBRIS R5 SWRCY: US EPA Region 5 Disaster Debris Recovery Database is a list of public facilities for disaster construction and demolition materials, electronics, household hazardous waste, metals, tires, and vehicles in EPA Region 5.

Agency Version Date: 10/30/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 01/26/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 10/30/2020

OTHER ASCERTAINABLE RECORDS (cont.)

DOD: Department of Defense sites

Agency Version Date: 08/21/2020
Agency Update Frequency: Varies
Planned Next Contact: 02/12/2021

Agency: Environmental Protection Agency
Agency Contact: (800) 424-9346
Most Recent Contact: 11/17/2020

DOT OPS: Incident Data Report

Agency Version Date: 01/20/2020
Agency Update Frequency: Varies
Planned Next Contact: 02/26/2021

Agency: U.S. Department of Transportation
Agency Contact: (202) 366-4996
Most Recent Contact: 11/30/2020

ECHO: ECHO is EPA Enforcement and Compliance History Online website to search for facilities in your community to assess their compliance with environmental regulations related to CAA, CWA, RCRA, & SDWA.

Agency Version Date: 10/13/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 04/05/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-1667
Most Recent Contact: 01/07/2021

ENOI: The Electronic Notice of Intent (eNOI) database contains construction sites and industrial facilities that submit permit requests to EPA for Construction General Permits (CGP) and Multi-Sector General Permits (MSGP).

Agency Version Date: 09/25/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 03/19/2021

Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 12/22/2020

EPA FUELS: List of companies and facilities registered to participate in EPA Fuel Programs under Title 40 CFR Part 80.

Agency Version Date: 08/26/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/19/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: (202) 564-2307
Most Recent Contact: 11/23/2020

EPA OSC: Listing of oil spills and hazardous substance release sites requiring EPA On-Site Coordinators.

Agency Version Date: 10/09/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 04/02/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: (202) 564-2307
Most Recent Contact: 01/05/2021

EPA WATCH: The EPA Watch List was used to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. EPA maintained the lists from 2011 - 2013.

Agency Version Date: 02/09/2018
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 04/02/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: (202) 564-2307
Most Recent Contact: 01/05/2021

FA HWF: Hazardous Waste Facilities with Financial Assurance

Agency Version Date: 10/26/2020
Agency Update Frequency: Varies
Planned Next Contact: 04/19/2021

Agency: Environmental Protection Agency
Agency Contact: (800) 424-9346
Most Recent Contact: 01/20/2021

FEDLAND: Federal land locations

Agency Version Date: 01/06/2020
Agency Update Frequency: Varies
Planned Next Contact: 02/09/2021

Agency: Environmental Protection Agency
Agency Contact: (800) 424-9346
Most Recent Contact: 11/13/2020

OTHER ASCERTAINABLE RECORDS (cont.)

FRS: Facility Registry Systems

Agency Version Date: 08/31/2020
Agency Update Frequency: Varies
Planned Next Contact: 02/23/2021

Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 11/27/2020

FTTS: Tracking of administrative and enforcement activities related to FIFRA/TSCA

Agency Version Date: 04/16/2013
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 04/20/2021

Agency: Environmental Protection Agency
Agency Contact: (202) 564-2280
Most Recent Contact: 01/22/2021

FTTS INSP: Tracking of inspections related to FIFRA/TSCA

Agency Version Date: 05/08/2017
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 04/13/2021

Agency: Environmental Protection Agency
Agency Contact: (202) 564-2280
Most Recent Contact: 01/15/2021

FUDS: Defense sites that require cleanup

Agency Version Date: 08/26/2020
Agency Update Frequency: Varies
Planned Next Contact: 02/19/2021

Agency: US Army Corps of Engineering
Agency Contact: (202) 761-0011
Most Recent Contact: 11/23/2020

HIST AFS: List of Air Facility Systems Quarterly Extract that are no longer in current agency list.

Agency Version Date: 06/14/2019
Agency Update Frequency: Quarterly
Planned Next Contact: 04/01/2021

Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 01/05/2021

HIST AFS 2: List of Air Facility Systems Quarterly Extract that are no longer in current agency list.

Agency Version Date: 11/26/2018
Agency Update Frequency: Quarterly
Planned Next Contact: 02/05/2021

Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 11/10/2020

HIST DOD: Department of Defense historical sites

Agency Version Date: 08/17/2018
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 02/12/2021

Agency: Environmental Protection Agency
Agency Contact: (800) 424-9346
Most Recent Contact: 11/17/2020

HIST LEAD_SMELTER: List of former lead smelter sites that is no longer in current agency list.

Agency Version Date: 12/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 04/19/2021

Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 01/21/2021

HIST MLTS: List of sites in possession/use of radioactive materials regulated by NRC that is no longer in current agency list.

Agency Version Date: 07/13/2016
Agency Update Frequency: Annually
Planned Next Contact: 02/02/2021

Agency: Nuclear Regulatory Commission
Agency Contact: (800) 397-4209
Most Recent Contact: 11/06/2020

HIST PCB TRANS: List of PCB Disposal Facilities that are no longer in current agency list.

Agency Version Date: 01/18/2018
Agency Update Frequency: No Update
Planned Next Contact: 02/18/2021

Agency: Environmental Protection Agency
Agency Contact: (703) 308-8404
Most Recent Contact: 11/24/2020

OTHER ASCERTAINABLE RECORDS (cont.)

HIST PCS ENF: List of permitted facilities to discharge wastewater (Federal equivalent to NPDES) that are no longer in current agency list.

Agency Version Date: 12/08/2018
Agency Update Frequency: Annually
Planned Next Contact: 03/09/2021

Agency: Environmental Protection Agency
Agency Contact: (202) 564-6582
Most Recent Contact: 12/11/2020

HIST PCS FACILITY: List of Permitted facilities to discharge wastewater (Federal equivalent to NPDES) that are no longer in current agency list.

Agency Version Date: 12/18/2018
Agency Update Frequency: Annually
Planned Next Contact: 03/12/2021

Agency: Environmental Protection Agency
Agency Contact: (202) 564-6582
Most Recent Contact: 12/15/2020

HIST SSTs: List of tracking of facilities who produce pesticides and their quantity that are no longer in current agency list.

Agency Version Date: 02/13/2019
Agency Update Frequency: Annually
Planned Next Contact: 02/23/2021

Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 11/27/2020

HWC DOCKET: Listing of Federal facilities which are managing or have managed hazardous waste; or have had a release of hazardous waste.

Agency Version Date: 10/28/2019
Agency Update Frequency: Quarterly
Planned Next Contact: 02/16/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: (202) 564-2307
Most Recent Contact: 11/20/2020

ICIS: Comprised of all Federal Administrative and Judicial enforcement information [intended to replace PCS] by tracking enforcement and compliance information (also contains what used to be known as FFTS)

Agency Version Date: 10/16/2020
Agency Update Frequency: Varies
Planned Next Contact: 04/09/2021

Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 01/12/2021

INACTIVE PCS: Inactive Permitted facilities to discharge wastewater

Agency Version Date: 10/16/2020
Agency Update Frequency: Varies
Planned Next Contact: 04/09/2021

Agency: Environmental Protection Agency
Agency Contact: (202) 564-6582
Most Recent Contact: 01/12/2021

INDIAN RESERVATION: Indian Reservation sites

Agency Version Date: 10/26/2020
Agency Update Frequency: Varies
Planned Next Contact: 04/19/2021

Agency: Environmental Protection Agency
Agency Contact: (800) 424-9346
Most Recent Contact: 01/21/2021

LUCIS: Land Use Control Information Systems

Agency Version Date: 07/24/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 04/06/2021

Agency: Department of the Navy: BRAC PMO
Agency Contact: (619) 532-0900
Most Recent Contact: 01/08/2021

LUCIS 2: Land Use Control Information Systems

Agency Version Date: 01/17/2018
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 02/19/2021

Agency: Department of the Navy: BRAC PMO
Agency Contact: (619) 532-0900
Most Recent Contact: 11/24/2020

OTHER ASCERTAINABLE RECORDS (cont.)

MINES: Mines Master Index Files

Agency Version Date: 10/16/2020
Agency Update Frequency: Varies
Planned Next Contact: 04/09/2021

Agency: Department of Labor
Agency Contact: (202) 693-9400
Most Recent Contact: 01/11/2021

MINES USGS: Listing of all active mines and mineral plants in 2003

Agency Version Date: 10/20/2020
Agency Update Frequency: Varies
Planned Next Contact: 04/13/2021

Agency: USGS Mineral Resources Program
Agency Contact: (703) 648-5953
Most Recent Contact: 01/15/2021

MLTS: Sites in possession/use of radioactive materials regulated by NRC

Agency Version Date: 05/19/2020
Agency Update Frequency: Varies
Planned Next Contact: 02/05/2021

Agency: Nuclear Regulatory Commission
Agency Contact: (800) 397-4209
Most Recent Contact: 11/10/2020

NPL AOC: Areas of Concern related to NPL remediation sites

Agency Version Date: 08/21/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/12/2021

Agency: Environmental Protection Agency
Agency Contact: N/R
Most Recent Contact: 11/17/2020

NPL LIENS: National Priority List of sites with Liens

Agency Version Date: 10/28/2020
Agency Update Frequency: Varies
Planned Next Contact: 02/12/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 11/17/2020

OSHA: OSHA's listing of inspections violations and fatality information

Agency Version Date: 10/16/2020
Agency Update Frequency: Varies
Planned Next Contact: 04/08/2021

Agency: Occupational Safety & Health Administration
Agency Contact: 800-321-6742
Most Recent Contact: 01/11/2021

PADS: Listing of generators transporters commercial store/ brokers and disposers of PCB

Agency Version Date: 11/16/2020
Agency Update Frequency: Varies
Planned Next Contact: 02/12/2021

Agency: Environmental Protection Agency
Agency Contact: (703) 308-8404
Most Recent Contact: 11/16/2020

PCB TRANSFORMER: Disposal and Storage of Polychlorinated Biphenyl (PCB) Waste

Agency Version Date: 11/27/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/24/2021

Agency: Environmental Protection Agency
Agency Contact: (703) 308-8404
Most Recent Contact: 11/27/2020

PCS ENF: Permitted facilities to discharge wastewater (Federal equivalent to NPDES)

Agency Version Date: 10/16/2020
Agency Update Frequency: Varies
Planned Next Contact: 04/09/2021

Agency: Environmental Protection Agency
Agency Contact: (202) 564-6582
Most Recent Contact: 01/12/2021

PCS FACILITY: Permitted facilities to discharge wastewater (Federal equivalent to NPDES)

Agency Version Date: 10/16/2020
Agency Update Frequency: Varies
Planned Next Contact: 04/09/2021

Agency: Environmental Protection Agency
Agency Contact: (202) 564-6582
Most Recent Contact: 01/12/2021

OTHER ASCERTAINABLE RECORDS (cont.)

RAATS: Listing of major violators with enforcement actions issued under RCRA. Includes administrative and civil actions filed by the EPA. This dataset is no longer maintained.

Agency Version Date: 09/23/2019
Agency Update Frequency: Varies
Planned Next Contact: 02/05/2021

Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 11/10/2020

RADINFO: EPA regulated facilities with radiation and radioactive materials

Agency Version Date: 08/01/2019
Agency Update Frequency: Varies
Planned Next Contact: 01/26/2021

Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 10/30/2020

RMP: Facilities producing/handling/ process/ distribute/ store specific chemicals report plans required by the Clean Air Act

Agency Version Date: 03/17/2020
Agency Update Frequency: Monthly
Planned Next Contact: 04/16/2021

Agency: Environmental Protection Agency
Agency Contact: (202) 564-2534
Most Recent Contact: 01/19/2021

ROD: Permanent remedy at an NPL site

Agency Version Date: 11/17/2020
Agency Update Frequency: Varies
Planned Next Contact: 02/12/2021

Agency: Environmental Protection Agency
Agency Contact: (800) 424-9346
Most Recent Contact: 11/17/2020

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners

Agency Version Date: 09/21/2020
Agency Update Frequency: No Update
Planned Next Contact: 03/16/2021

Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 12/18/2020

SEMS_SMELTER: This report includes sites that have smelting-related, or potentially smelting-related, indicators in the SEMS database. The report includes information on the site location as well as contaminants of concern.

Agency Version Date: 10/28/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/12/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 11/17/2020

SSTS: Tracking of facilities who produce pesticides and their quantity

Agency Version Date: 09/28/2020
Agency Update Frequency: Annually
Planned Next Contact: 03/23/2021

Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 12/25/2020

STORMWATER: Permitted storm water sites

Agency Version Date: 10/16/2020
Agency Update Frequency: Varies
Planned Next Contact: 04/09/2021

Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 01/12/2021

TOSCA-PLANT: Plants controlled by the Toxic Substance Control Act

Agency Version Date: 10/01/2020
Agency Update Frequency: Varies
Planned Next Contact: 03/26/2021

Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 12/28/2020

OTHER ASCERTAINABLE RECORDS (cont.)

TRIS: Information regarding toxic chemicals that are being used/manufactured/ treated/ transported/released into the environment

Agency Version Date: 10/14/2020
Agency Update Frequency: Varies
Planned Next Contact: 04/09/2021

Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 01/11/2021

UMTRA: Uranium Recovery Sites

Agency Version Date: 07/18/2019
Agency Update Frequency: Varies
Planned Next Contact: 04/12/2021

Agency: United States Nuclear Regulatory Commission
Agency Contact: (301) 415-8200
Most Recent Contact: 01/14/2021

VAPOR: EPA Vapor Intrusion Database

Agency Version Date: 09/23/2020
Agency Update Frequency: Varies
Planned Next Contact: 03/19/2021

Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 12/21/2020

AIRS - MI: Air Permits and Emissions inventory data

Agency Version Date: 03/05/2020
Agency Update Frequency: Varies
Planned Next Contact: 02/19/2021

Agency: Department of Environmental Quality
Agency Contact: (517) 373-7033
Most Recent Contact: 11/24/2020

AUL - MI: Sites with controls (Engineering and Institutional)

Agency Version Date: 08/19/2020
Agency Update Frequency: Varies
Planned Next Contact: 02/12/2021

Agency: Department of Environmental Quality
Agency Contact: (517) 373-4805
Most Recent Contact: 11/16/2020

BEA - MI: Baseline Environmental Assessment Database

Agency Version Date: 09/25/2020
Agency Update Frequency: Varies
Planned Next Contact: 03/18/2021

Agency: Department of Environmental Quality
Agency Contact: (517) 373-9541
Most Recent Contact: 12/22/2020

COAL ASH - MI: Coal Ash handling sites

Agency Version Date: 09/21/2020
Agency Update Frequency: Varies
Planned Next Contact: 03/16/2021

Agency: Department of Environmental Quality
Agency Contact: (517) 241-7622
Most Recent Contact: 12/18/2020

DAYCARE - MI: Childcare listings

Agency Version Date: 11/20/2020
Agency Update Frequency: Varies
Planned Next Contact: 02/16/2021

Agency: Department of Human Services
Agency Contact: (877) 614-7328
Most Recent Contact: 11/20/2020

DRYCLEANERS - MI: Registered Drycleaning Facilities

Agency Version Date: 11/18/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/15/2021

Agency: Department of Environmental Quality
Agency Contact: (517) 241-7622
Most Recent Contact: 11/18/2020

GW RELEASE - MI: Sites of Groundwater discharges and releases

Agency Version Date: 11/16/2020
Agency Update Frequency: Quarterly
Planned Next Contact: 02/12/2021

Agency: Michigan Department of Environmental Quality
Agency Contact: 517-335-2690
Most Recent Contact: 11/16/2020

OTHER ASCERTAINABLE RECORDS (cont.)

HIST AIRS - MI: Air Permits and Emissions inventory data

Agency Version Date: 09/11/2018

Agency Update Frequency: No Longer Maintained

Planned Next Contact: 02/19/2021

Agency: Department of Environmental Quality

Agency Contact: (517) 373-7033

Most Recent Contact: 11/24/2020

HIST NPDES - MI: List of facilities with wastewater permits that is no longer in current agency list.

Agency Version Date: 11/05/2018

Agency Update Frequency: Annually

Planned Next Contact: 01/26/2021

Agency: Michigan Department of Environmental Quality

Agency Contact: 517-373-7917

Most Recent Contact: 10/30/2020

HIST UIC - MI: List of Class I, III and V underground injection control wells that is no longer in current agency list.

Agency Version Date: 01/23/2019

Agency Update Frequency: Annually

Planned Next Contact: 01/29/2021

Agency: Michigan Department of Environmental Quality

Agency Contact: 517-241-1506

Most Recent Contact: 11/03/2020

LWF - MI: List of Hazard and Liquid Industrial Generators, Transporters and Designated Facilities.

Agency Version Date: 08/19/2020

Agency Update Frequency: Semi Annually

Planned Next Contact: 02/12/2021

Agency: Michigan Department of Environmental Quality

Agency Contact: 517-335-2690

Most Recent Contact: 11/16/2020

NPDES - MI: Listing of facilities with wastewater and NPDES permits

Agency Version Date: 11/10/2020

Agency Update Frequency: Varies

Planned Next Contact: 02/04/2021

Agency: Michigan Department of Environmental Quality

Agency Contact: 517-373-7917

Most Recent Contact: 11/10/2020

UIC - MI: Listing of Class I, III and V underground injection control wells

Agency Version Date: 08/18/2020

Agency Update Frequency: Varies

Planned Next Contact: 02/10/2021

Agency: Michigan Department of Environmental Quality

Agency Contact: 517-241-1506

Most Recent Contact: 11/13/2020

UIC 2 - MI: Listing of Class II underground injection control wells

Agency Version Date: 11/13/2020

Agency Update Frequency: Varies

Planned Next Contact: 02/10/2021

Agency: Michigan Department of Environmental Quality

Agency Contact: 517-243-5402

Most Recent Contact: 11/13/2020

SUBJECT PROPERTY ADDRESS:

Commercial Property
1000 Haynes St
Birmingham, MI 48009

SUBJECT PROPERTY COORDINATES:

Latitude(North):	42.542049 - 42°32'31.4"
Longitude(West):	-83.206414 - -83°12'23.1"
Universal Transverse Mercator:	Zone 17N
UTM X (Meters):	318825.12
UTM Y (Meters):	4712321.43

ELEVATION:

Elevation: 755.010 ft. above sea level

USGS TOPOGRAPHIC MAP:

Subject Property Map:	42083-E2 Birmingham, MI
Most Recent Revision:	2017

GEOHYDROLOGY DATA:

SUBJECT PROPERTY TOPOGRAPHY:

Topographic Gradient: East

DFIRM FLOOD ZONE:

	DFIRM Flood
Subject Property County:	Electronic Data:
Oakland	Yes - refer to the PROPERTY PROXIMITY MAP and AREA MAP
Flood Plain Panel at Subject Property:	26125C
Additional Panels in search area:	No available data

FEMA FLOOD ZONE:

	FEMA Flood
Subject Property County:	Electronic Data:
Oakland	Yes - refer to the PROPERTY PROXIMITY MAP and AREA MAP
Flood Plain Panel at Subject Property:	2601680005B
Additional Panels in search area:	2601690016B 2601800003E 2601800005C 2602560002B

NATIONAL WETLAND INVENTORY:

NWI Electronic	
<u>NWI Quad at Subject Property:</u>	<u>Data Coverage:</u>
Birmingham	Yes - refer to the Geological Findings Map

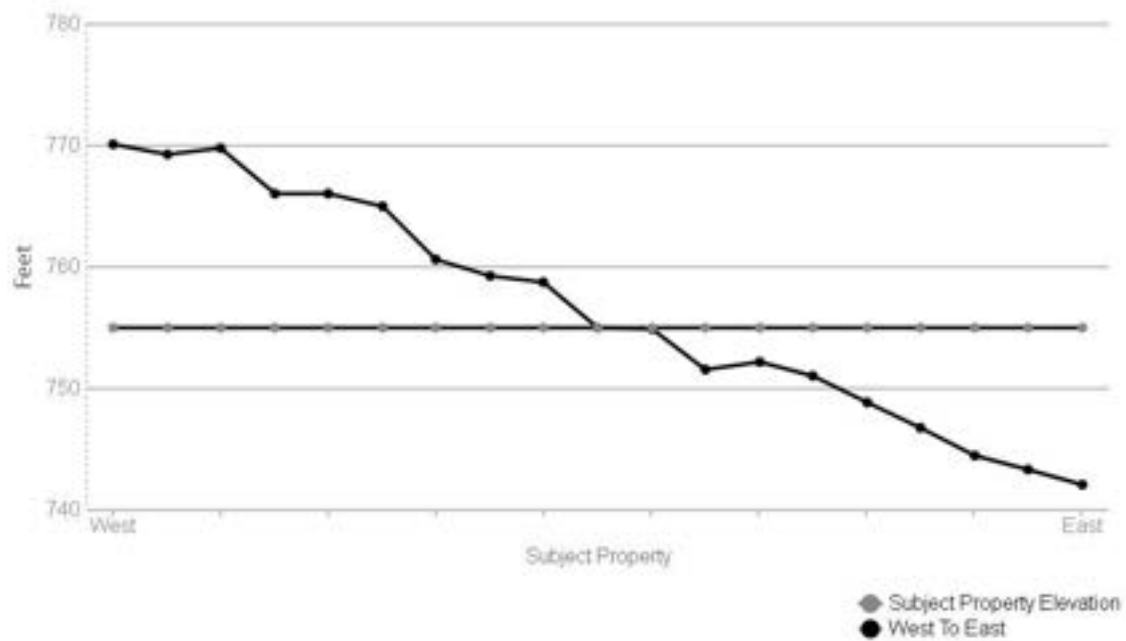
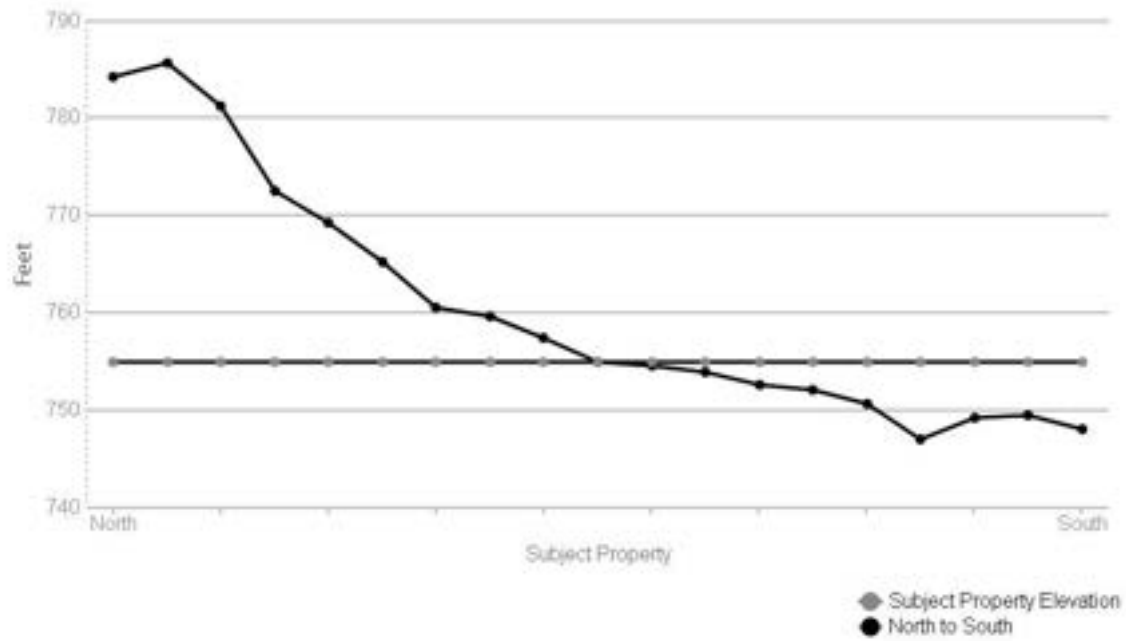
LITHOSTRATIGRAPHIC INFORMATION:

ROCK STRATIGRAPHIC UNIT:

GEOLOGIC AGE IDENTIFICATION

Era:	Paleozoic	Category: 103 D3 Upper Devonian
System:	Devonian	
Series:	Upper Devonian	
Code:	D3	

SURROUNDING ELEVATION PROFILES:



SUBJECT NAME: Commercial Property
 ADDRESS: 1000 Haynes St, Birmingham, MI, 48009
 LAT/LONG: 42.542049 / -83.206414

PREPARED FOR: Darcy Environmental Consultants LLC
 ORDER #: 49822
 REPORT DATE: January 22, 2021



SOIL COMPOSITION IN GENERAL AREA OF SUBJECT PROPERTY:

Agency source: Soil Conservation Service, US Department of Agriculture

SOIL MAP ID 1

USDA Soil Name	Udorthents, Taxon above family
USDA Soil Texture	Silt loam
Hydrologic Soil Group	C
Soil Drainage Class	Well drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	Moderate

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-8	Silt loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	6.6-7.8
2	8-39	Clay loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-14.11	7.4-8.4
3	39-80	Clay loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil	0-0.06	7.4-8.4

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
3	39-80	Clay loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0-0.06	7.4-8.4

SOIL MAP ID 2

USDA Soil Name	Shebeon,Taxadjunct
USDA Soil Texture	Sandy loam
Hydrologic Soil Group	C
Soil Drainage Class	Somewhat poorly drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-9	Sandy loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1-99.9999	7.3-7.9
2	9-12	Loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and	0.1-9.9999	7.4-8.4

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
2	9-12	Loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0.1-9.9999	7.4-8.4
3	12-27	Loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0.1-9.9999	7.2-7.7
4	27-31	Clay loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0.1-0.9999	7.6-8.1
5	31-55	Clay loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in	0.01-0.9999	7.8-8.3

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
5	31-55	Clay loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	organic matter (ASTM test D 2487, in ASTM, 1984).	0.01-0.9999	7.8-8.3
6	55-80	Loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0.001-0.0099	7.4-8.4

SOIL MAP ID 3

USDA Soil Name	Shebeon,Taxadjunct
USDA Soil Texture	Sandy loam
Hydrologic Soil Group	C
Soil Drainage Class	Somewhat poorly drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-9	Sandy loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75	1-99.9999	7.3-7.9

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-9	Sandy loam	of State Highway and Transportation Officials, 1984.	mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1-99.9999	7.3-7.9
2	9-12	Loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0.1-9.9999	7.4-8.4
3	12-27	Loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0.1-9.9999	7.2-7.7
4	27-31	Clay loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0.1-0.9999	7.6-8.1

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
5	31-55	Clay loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0.01-0.9999	7.8-8.3
6	55-80	Loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0.001-0.0099	7.4-8.4

SOIL MAP ID A

USDA Soil Name	Urbanland,Miscellaneous area
USDA Soil Texture	Not Reported
Hydrologic Soil Group	Not Reported
Soil Drainage Class	Excessively drained
Hydric Classification	5
Corrosion Potential - Uncoated Steel	Not Reported

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-60		No data	No data	No data	No data

SOIL MAP ID B

USDA Soil Name	Urbanland,Miscellaneous area
USDA Soil Texture	Not Reported
Hydrologic Soil Group	Not Reported
Soil Drainage Class	Somewhat poorly drained
Hydric Classification	24
Corrosion Potential - Uncoated Steel	Not Reported

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-60		No data	No data	No data	No data

WATER AGENCY DATA:**WATER AGENCY SEARCH DISTANCES:**

<u>DATABASE:</u>	<u>SEARCH DISTANCE (MILES):</u>
NWIS	1.000
OIL & GAS WELLS - MI	1.000
PWS	1.000
WELLS - MI	1.000

<u>DISTANCE TO NEAREST:</u>	<u>DISTANCE:</u>
NWIS	0.828 mi / 4372 ft
OIL & GAS WELLS - MI	N/A
PWS	0.262 mi / 1385 ft
WELLS - MI	0.324 mi / 1712 ft

FEDERAL WATER AGENCY DATA SUMMARY:

<u>MAP ID:</u>	<u>WELL ID:</u>	<u>LOCATION FROM SP:</u>
A2	MI0040669	1/4 - 1/2 Mile WNW
A3	WOLK PETROLEUM INC MI0040669	1/4 - 1/2 Mile WNW
A4	MI0040553 MI0040444	1/4 - 1/2 Mile WNW
A5	CT0780181 CT1600081	1/4 - 1/2 Mile WNW
A6	VT0020477 UNIPROP-HURON SHORES MHC	1/4 - 1/2 Mile WNW
A7	CT1600081	1/4 - 1/2 Mile WNW
A10	MI6321772 MI6321782	1/4 - 1/2 Mile WNW
11	MI2289463 MI6322894 MI2001263	1/4 - 1/2 Mile WNW
C12	TN0008080	1/4 - 1/2 Mile NW
C14	FL6080272	1/4 - 1/2 Mile NW

FEDERAL WATER AGENCY DATA SUMMARY: (cont.)

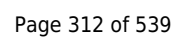
MAP ID:	WELL ID:	LOCATION FROM SP:
D15	MI0040090 MI0040357 MI2047280	1/4 - 1/2 Mile WNW
D16	MI0000730 MI2023245	1/2 - 1 Mile WNW
E17	MI0002340 MI2196863 MI2276563	1/2 - 1 Mile E
D18	AMERICAN CHAIN & CABLE CO., INC. MI2017540 MI4020175	1/2 - 1 Mile WNW
22	MI2091147 MI4720911 THE MAGNI GROUP, INC.	1/2 - 1 Mile NW
47	MI2034447 MI2292463 MI4720344	1/2 - 1 Mile NW
76	MI2002872 MI7220028	1/2 - 1 Mile SW
82	423147083121301	1/2 - 1 Mile SSE
87	MI2012347 MI4720123	1/2 - 1 Mile SE
S97	04166000	1/2 - 1 Mile WNW
S100	423246083132501	1/2 - 1 Mile WNW
101	423153083114402	1/2 - 1 Mile SE
108	423242083132801	1/2 - 1 Mile W
V118	423314083114501	1/2 - 1 Mile NE
121	423147083114501	1/2 - 1 Mile SE

Note: PWS System location is not always the same as well location.

STATE/LOCAL WATER AGENCY DATA SUMMARY:

MAP ID:	WELL ID:	LOCATION FROM SP:
B8	63000054342	1/4 - 1/2 Mile ESE
B9	63000054179	1/4 - 1/2 Mile ESE
19	63000000181 63000004359 63000026129	1/2 - 1 Mile ESE
53	63000004360	1/2 - 1 Mile SE
V117	63000004358	1/2 - 1 Mile NE
W123	63000004244	1/2 - 1 Mile NNW
W124	63000032902	1/2 - 1 Mile NNW

PREPARED FOR: Darcy Environmental Consultants LLC
ORDER #: 49822
REPORT DATE: January 22, 2021



Map Id: 1
 Direction: W
 Distance: 0.130 mi.
 Actual: 686.122 ft.
 Elevation: 0.144 mi. / 760.965 ft.
 Relative: Higher

Site Name : BLDG
 42.542372, -83.209464
 BIRMINGHAM, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3323356
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
 Action : Change
 FAA Study Number : 2005AGL060900E
 OBS Number : 26-003210
 Obstacle Type : BLDG
 City Name : BIRMINGHAM
 State Identifier : MI
 Country Identifier : USA
 Type of Lighting : None
 Verification Status : Verified
 Quantity : 1
 Mark Indicator : None
 Above Ground Level Height (Feet) : 00144
 Above Mean Sea Level Height (Feet) : 00905
 Horizontal Accuracy : +-50'
 Vertical Accuracy : +-20'
 Latitude : 42 32 32.54N
 Longitude : 083 12 34.07W

Map Id: A2
 Direction: WNW
 Distance: 0.262 mi.
 Actual: 1384.973 ft.
 Elevation: 0.145 mi. / 766.02 ft.
 Relative: Higher

Site Name : MI0040669
 401 S. OLD WOODWARD AVENUE SUITE
 315
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF]

Envirosite ID: 3413479
EPA ID: N/R

PWS

Facility Address : 401 S. Old Woodward Avenue, Suite 315, BIRMINGHAM, MI 48009

PWS ID : MI0040669
 PWS Type : Community water system
 PWS Name : WOODLAND RIDGE
 Activity Status : Active
 Primary Source : Ground water
 Submission Year : 2020
 Submission Year Quarter : 2020Q3
 Population Served Count : 1,080
 Service Connections Count : 437
 Population Category 2 : <10,000
 Population Category 3 : <=3300
 Population Category 4 : <10K
 Population Category 5 : 501-3,300
 Population Category 11 : 1,001-3,300
 Submission Quarter : 3
 Submission Status Code : Y
 First Reported Date : 11/22/2002
 Last Reported Date : 09/23/2020
 Deactivation Date : N/R
 GW or SW : Groundwater

Map Id: A2
 Direction: WNW
 Distance: 0.262 mi.
 Actual: 1384.973 ft.
 Elevation: 0.145 mi. / 766.02 ft.
 Relative: Higher

Site Name : MI0040669
 401 S. OLD WOODWARD AVENUE SUITE
 315
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] **(cont.)**

EnviroSite ID: 3413479
EPA ID: N/R

PWS (cont.)

Is Grant Eligible :	Y
Is Outstanding Performer :	N/R
Is School or Daycare :	N
Is Source Water Protected :	N
Primacy Agency :	Michigan
Primacy Type :	State
Org Name :	LIPSCHUTZ, KENNETH
EPA Region :	Region 5
Admin Name :	LIPSCHUTZ, KENNETH
Owner Type :	Private
Phone Number :	248-645-1077
Phone Ext Number :	N/R
Alt Phone Number :	N/R
Email Address :	kenl@brooksidecommunities.com
Fax Number :	248-645-9399
Is Wholesaler :	N
LT2 Schedule Category :	N/R
NPM Candidate :	Y
CDS ID :	N/R
DBPR Schedule Category :	System serving fewer than 10,000 AND not connected to a larger system
Outstanding Performer Date :	N/R
Season Begin Date :	N/R
Season End Date :	N/R
Source Water Protection Date :	N/R
Seasonal Startup System :	N/R
Reduced Monitoring Begin Date :	N/R
Reduced Monitoring End Date :	N/R
Reduced RTCR Monitoring :	N/R
Last Date in Agency List :	10/26/2020

PWS ENF

Facility Address : N/R

PWS ID :	MI0040669
PWS Name :	WOODLAND RIDGE
EPA Region :	Region 5
Primacy Agency :	Michigan
PWS Type :	Community water system
Primacy Type :	State
Primary Source :	Ground water
Activity Status :	Active
Deactivation Date :	N/R
Owner Type :	Private
Phone Number :	248-645-1077
Last Date in Agency List :	02/20/2020

Violation Details

RTC Enforcement ID :	10
Violation ID :	10
Submission Year :	2019
Violation First Reported Date :	05/30/2019
Contaminant Name :	o-Dichlorobenzene

Geological Landscape Section Map Findings

2021

Map Id: A2
Direction: WNW
Distance: 0.262 mi.
Actual: 1384.973 ft.
Elevation: 0.145 mi. / 766.02 ft.
Relative: Higher

Site Name : MI0040669
401 S. OLD WOODWARD AVENUE SUITE
315
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3413479
EPA ID: N/R

PWS ENF (**cont.**)

Rule Family : Volatile Organic Chemicals
Rule Group : Chemicals
Rule Name : Volatile Organic Chemicals
Violation Type : Monitoring, Regular
Is Health Based : N
Is Major Violation : Y
Severity Indicator Count : -
Public Notification Tier : 3
Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009
Address Line 2 : Suite 315
Compliance Status : Returned to Compliance
RTC Date : 04/29/2019
Enforcement Action Description : State Compliance achieved
Admin Name : LIPSCHUTZ, KENNETH
Email Address : kenl@brooksidecommunities.com

RTC Enforcement ID : 10
Violation ID : 11
Submission Year : 2019
Violation First Reported Date : 05/30/2019
Contaminant Name : p-Dichlorobenzene
Rule Family : Volatile Organic Chemicals
Rule Group : Chemicals
Rule Name : Volatile Organic Chemicals
Violation Type : Monitoring, Regular
Is Health Based : N
Is Major Violation : Y
Severity Indicator Count : -
Public Notification Tier : 3
Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009
Address Line 2 : Suite 315
Compliance Status : Returned to Compliance
RTC Date : 04/29/2019
Enforcement Action Description : State Compliance achieved
Admin Name : LIPSCHUTZ, KENNETH
Email Address : kenl@brooksidecommunities.com

RTC Enforcement ID : 10
Violation ID : 12
Submission Year : 2019
Violation First Reported Date : 05/30/2019
Contaminant Name : Vinyl chloride
Rule Family : Volatile Organic Chemicals
Rule Group : Chemicals
Rule Name : Volatile Organic Chemicals
Violation Type : Monitoring, Regular
Is Health Based : N
Is Major Violation : Y
Severity Indicator Count : -
Public Notification Tier : 3
Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009
Address Line 2 : Suite 315
Compliance Status : Returned to Compliance
RTC Date : 04/29/2019

Geological Landscape Section Map Findings

2021

Map Id: A2
Direction: WNW
Distance: 0.262 mi.
Actual: 1384.973 ft.
Elevation: 0.145 mi. / 766.02 ft.
Relative: Higher

Site Name : MI0040669
401 S. OLD WOODWARD AVENUE SUITE
315
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3413479
EPA ID: N/R

PWS ENF (**cont.**)

Enforcement Action Description : State Compliance achieved
Admin Name : LIPSCHUTZ, KENNETH
Email Address : kenl@brooksidecommunities.com

RTC Enforcement ID : 10
Violation ID : 13
Submission Year : 2019
Violation First Reported Date : 05/30/2019
Contaminant Name : 1,1-Dichloroethylene
Rule Family : Volatile Organic Chemicals
Rule Group : Chemicals
Rule Name : Volatile Organic Chemicals
Violation Type : Monitoring, Regular
Is Health Based : N
Is Major Violation : Y
Severity Indicator Count : -
Public Notification Tier : 3
Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009
Address Line 2 : Suite 315
Compliance Status : Returned to Compliance
RTC Date : 04/29/2019
Enforcement Action Description : State Compliance achieved
Admin Name : LIPSCHUTZ, KENNETH
Email Address : kenl@brooksidecommunities.com

RTC Enforcement ID : 10
Violation ID : 14
Submission Year : 2019
Violation First Reported Date : 05/30/2019
Contaminant Name : trans-1,2-Dichloroethylene
Rule Family : Volatile Organic Chemicals
Rule Group : Chemicals
Rule Name : Volatile Organic Chemicals
Violation Type : Monitoring, Regular
Is Health Based : N
Is Major Violation : Y
Severity Indicator Count : -
Public Notification Tier : 3
Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009
Address Line 2 : Suite 315
Compliance Status : Returned to Compliance
RTC Date : 04/29/2019
Enforcement Action Description : State Compliance achieved
Admin Name : LIPSCHUTZ, KENNETH
Email Address : kenl@brooksidecommunities.com

RTC Enforcement ID : 10
Violation ID : 15
Submission Year : 2019
Violation First Reported Date : 05/30/2019
Contaminant Name : 1,2-Dichloroethane
Rule Family : Volatile Organic Chemicals
Rule Group : Chemicals

Geological Landscape Section Map Findings

2021

Map Id: A2
Direction: WNW
Distance: 0.262 mi.
Actual: 1384.973 ft.
Elevation: 0.145 mi. / 766.02 ft.
Relative: Higher

Site Name : MI0040669
401 S. OLD WOODWARD AVENUE SUITE
315
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3413479
EPA ID: N/R

PWS ENF (**cont.**)

Rule Name : Volatile Organic Chemicals
Violation Type : Monitoring, Regular
Is Health Based : N
Is Major Violation : Y
Severity Indicator Count : -
Public Notification Tier : 3
Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009
Address Line 2 : Suite 315
Compliance Status : Returned to Compliance
RTC Date : 04/29/2019
Enforcement Action Description : State Compliance achieved
Admin Name : LIPSCHUTZ, KENNETH
Email Address : kenl@brooksidecommunities.com

RTC Enforcement ID : 10
Violation ID : 16
Submission Year : 2019
Violation First Reported Date : 05/30/2019
Contaminant Name : 1,1,1-Trichloroethane
Rule Family : Volatile Organic Chemicals
Rule Group : Chemicals
Rule Name : Volatile Organic Chemicals
Violation Type : Monitoring, Regular
Is Health Based : N
Is Major Violation : Y
Severity Indicator Count : -
Public Notification Tier : 3
Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009
Address Line 2 : Suite 315
Compliance Status : Returned to Compliance
RTC Date : 04/29/2019
Enforcement Action Description : State Compliance achieved
Admin Name : LIPSCHUTZ, KENNETH
Email Address : kenl@brooksidecommunities.com

RTC Enforcement ID : 10
Violation ID : 17
Submission Year : 2019
Violation First Reported Date : 05/30/2019
Contaminant Name : Carbon tetrachloride
Rule Family : Volatile Organic Chemicals
Rule Group : Chemicals
Rule Name : Volatile Organic Chemicals
Violation Type : Monitoring, Regular
Is Health Based : N
Is Major Violation : Y
Severity Indicator Count : -
Public Notification Tier : 3
Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009
Address Line 2 : Suite 315
Compliance Status : Returned to Compliance
RTC Date : 04/29/2019
Enforcement Action Description : State Compliance achieved
Admin Name : LIPSCHUTZ, KENNETH

Geological Landscape Section Map Findings

2021

Map Id: A2
Direction: WNW
Distance: 0.262 mi.
Actual: 1384.973 ft.
Elevation: 0.145 mi. / 766.02 ft.
Relative: Higher

Site Name : MI0040669
401 S. OLD WOODWARD AVENUE SUITE
315
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3413479
EPA ID: N/R

PWS ENF (**cont.**)

Email Address : kenl@brooksidecommunities.com

RTC Enforcement ID : 10
Violation ID : 18
Submission Year : 2019
Violation First Reported Date : 05/30/2019
Contaminant Name : 1,2-Dichloropropane
Rule Family : Volatile Organic Chemicals
Rule Group : Chemicals
Rule Name : Volatile Organic Chemicals
Violation Type : Monitoring, Regular
Is Health Based : N
Is Major Violation : Y
Severity Indicator Count : -
Public Notification Tier : 3
Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009
Address Line 2 : Suite 315
Compliance Status : Returned to Compliance
RTC Date : 04/29/2019
Enforcement Action Description : State Compliance achieved
Admin Name : LIPSCHUTZ, KENNETH
Email Address : kenl@brooksidecommunities.com

RTC Enforcement ID : 10
Violation ID : 19
Submission Year : 2019
Violation First Reported Date : 05/30/2019
Contaminant Name : Trichloroethylene
Rule Family : Volatile Organic Chemicals
Rule Group : Chemicals
Rule Name : Volatile Organic Chemicals
Violation Type : Monitoring, Regular
Is Health Based : N
Is Major Violation : Y
Severity Indicator Count : -
Public Notification Tier : 3
Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009
Address Line 2 : Suite 315
Compliance Status : Returned to Compliance
RTC Date : 04/29/2019
Enforcement Action Description : State Compliance achieved
Admin Name : LIPSCHUTZ, KENNETH
Email Address : kenl@brooksidecommunities.com

RTC Enforcement ID : 10
Violation ID : 20
Submission Year : 2019
Violation First Reported Date : 05/30/2019
Contaminant Name : 1,1,2-Trichloroethane
Rule Family : Volatile Organic Chemicals
Rule Group : Chemicals
Rule Name : Volatile Organic Chemicals
Violation Type : Monitoring, Regular

Geological Landscape Section Map Findings

2021

Map Id: A2
Direction: WNW
Distance: 0.262 mi.
Actual: 1384.973 ft.
Elevation: 0.145 mi. / 766.02 ft.
Relative: Higher

Site Name : MI0040669
401 S. OLD WOODWARD AVENUE SUITE
315
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3413479
EPA ID: N/R

PWS ENF (**cont.**)

Is Health Based : N
Is Major Violation : Y
Severity Indicator Count : -
Public Notification Tier : 3
Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009
Address Line 2 : Suite 315
Compliance Status : Returned to Compliance
RTC Date : 04/29/2019
Enforcement Action Description : State Compliance achieved
Admin Name : LIPSCHUTZ, KENNETH
Email Address : kenl@brooksidecommunities.com

RTC Enforcement ID : 10
Violation ID : 21
Submission Year : 2019
Violation First Reported Date : 05/30/2019
Contaminant Name : Tetrachloroethylene
Rule Family : Volatile Organic Chemicals
Rule Group : Chemicals
Rule Name : Volatile Organic Chemicals
Violation Type : Monitoring, Regular
Is Health Based : N
Is Major Violation : Y
Severity Indicator Count : -
Public Notification Tier : 3
Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009
Address Line 2 : Suite 315
Compliance Status : Returned to Compliance
RTC Date : 04/29/2019
Enforcement Action Description : State Compliance achieved
Admin Name : LIPSCHUTZ, KENNETH
Email Address : kenl@brooksidecommunities.com

RTC Enforcement ID : 10
Violation ID : 22
Submission Year : 2019
Violation First Reported Date : 05/30/2019
Contaminant Name : CHLOROBENZENE
Rule Family : Volatile Organic Chemicals
Rule Group : Chemicals
Rule Name : Volatile Organic Chemicals
Violation Type : Monitoring, Regular
Is Health Based : N
Is Major Violation : Y
Severity Indicator Count : -
Public Notification Tier : 3
Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009
Address Line 2 : Suite 315
Compliance Status : Returned to Compliance
RTC Date : 04/29/2019
Enforcement Action Description : State Compliance achieved
Admin Name : LIPSCHUTZ, KENNETH
Email Address : kenl@brooksidecommunities.com

Map Id: A2
 Direction: WNW
 Distance: 0.262 mi.
 Actual: 1384.973 ft.
 Elevation: 0.145 mi. / 766.02 ft.
 Relative: Higher

Site Name : MI0040669
 401 S. OLD WOODWARD AVENUE SUITE
 315
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3413479
EPA ID: N/R

PWS ENF (**cont.**)

RTC Enforcement ID : 10
 Violation ID : 23
 Submission Year : 2019
 Violation First Reported Date : 05/30/2019
 Contaminant Name : Benzene
 Rule Family : Volatile Organic Chemicals
 Rule Group : Chemicals
 Rule Name : Volatile Organic Chemicals
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : -
 Public Notification Tier : 3
 Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009
 Address Line 2 : Suite 315
 Compliance Status : Returned to Compliance
 RTC Date : 04/29/2019
 Enforcement Action Description : State Compliance achieved
 Admin Name : LIPSCHUTZ, KENNETH
 Email Address : kenl@brooksidecommunities.com

RTC Enforcement ID : 10
 Violation ID : 24
 Submission Year : 2019
 Violation First Reported Date : 05/30/2019
 Contaminant Name : Toluene
 Rule Family : Volatile Organic Chemicals
 Rule Group : Chemicals
 Rule Name : Volatile Organic Chemicals
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : -
 Public Notification Tier : 3
 Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009
 Address Line 2 : Suite 315
 Compliance Status : Returned to Compliance
 RTC Date : 04/29/2019
 Enforcement Action Description : State Compliance achieved
 Admin Name : LIPSCHUTZ, KENNETH
 Email Address : kenl@brooksidecommunities.com

RTC Enforcement ID : 10
 Violation ID : 25
 Submission Year : 2019
 Violation First Reported Date : 05/30/2019
 Contaminant Name : Ethylbenzene
 Rule Family : Volatile Organic Chemicals
 Rule Group : Chemicals
 Rule Name : Volatile Organic Chemicals
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : -

Map Id: A2
 Direction: WNW
 Distance: 0.262 mi.
 Actual: 1384.973 ft.
 Elevation: 0.145 mi. / 766.02 ft.
 Relative: Higher

Site Name : MI0040669
 401 S. OLD WOODWARD AVENUE SUITE
 315
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3413479
EPA ID: N/R

PWS ENF (**cont.**)

Public Notification Tier : 3
 Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009
 Address Line 2 : Suite 315
 Compliance Status : Returned to Compliance
 RTC Date : 04/29/2019
 Enforcement Action Description : State Compliance achieved
 Admin Name : LIPSCHUTZ, KENNETH
 Email Address : kenl@brooksidecommunities.com

RTC Enforcement ID : 10
 Violation ID : 26
 Submission Year : 2019
 Violation First Reported Date : 05/30/2019
 Contaminant Name : Styrene
 Rule Family : Volatile Organic Chemicals
 Rule Group : Chemicals
 Rule Name : Volatile Organic Chemicals
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : -
 Public Notification Tier : 3
 Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009
 Address Line 2 : Suite 315
 Compliance Status : Returned to Compliance
 RTC Date : 04/29/2019
 Enforcement Action Description : State Compliance achieved
 Admin Name : LIPSCHUTZ, KENNETH
 Email Address : kenl@brooksidecommunities.com

RTC Enforcement ID : 10
 Violation ID : 6
 Submission Year : 2019
 Violation First Reported Date : 05/30/2019
 Contaminant Name : 1,2,4-Trichlorobenzene
 Rule Family : Volatile Organic Chemicals
 Rule Group : Chemicals
 Rule Name : Volatile Organic Chemicals
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : -
 Public Notification Tier : 3
 Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009
 Address Line 2 : Suite 315
 Compliance Status : Returned to Compliance
 RTC Date : 04/29/2019
 Enforcement Action Description : State Compliance achieved
 Admin Name : LIPSCHUTZ, KENNETH
 Email Address : kenl@brooksidecommunities.com

RTC Enforcement ID : 10
 Violation ID : 7

Map Id: A2
 Direction: WNW
 Distance: 0.262 mi.
 Actual: 1384.973 ft.
 Elevation: 0.145 mi. / 766.02 ft.
 Relative: Higher

Site Name : MI0040669
 401 S. OLD WOODWARD AVENUE SUITE
 315
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3413479
EPA ID: N/R

PWS ENF (**cont.**)

Submission Year : 2019
 Violation First Reported Date : 05/30/2019
 Contaminant Name : cis-1,2-Dichloroethylene
 Rule Family : Volatile Organic Chemicals
 Rule Group : Chemicals
 Rule Name : Volatile Organic Chemicals
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : -
 Public Notification Tier : 3
 Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009
 Address Line 2 : Suite 315
 Compliance Status : Returned to Compliance
 RTC Date : 04/29/2019
 Enforcement Action Description : State Compliance achieved
 Admin Name : LIPSCHUTZ, KENNETH
 Email Address : kenl@brooksidecommunities.com

RTC Enforcement ID : 10
 Violation ID : 8
 Submission Year : 2019
 Violation First Reported Date : 05/30/2019
 Contaminant Name : Xylenes, Total
 Rule Family : Volatile Organic Chemicals
 Rule Group : Chemicals
 Rule Name : Volatile Organic Chemicals
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : -
 Public Notification Tier : 3
 Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009
 Address Line 2 : Suite 315
 Compliance Status : Returned to Compliance
 RTC Date : 04/29/2019
 Enforcement Action Description : State Compliance achieved
 Admin Name : LIPSCHUTZ, KENNETH
 Email Address : kenl@brooksidecommunities.com

RTC Enforcement ID : 10
 Violation ID : 9
 Submission Year : 2019
 Violation First Reported Date : 05/30/2019
 Contaminant Name : DICHLOROMETHANE
 Rule Family : Volatile Organic Chemicals
 Rule Group : Chemicals
 Rule Name : Volatile Organic Chemicals
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : -
 Public Notification Tier : 3
 Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009

Map Id: A2
 Direction: WNW
 Distance: 0.262 mi.
 Actual: 1384.973 ft.
 Elevation: 0.145 mi. / 766.02 ft.
 Relative: Higher

Site Name : MI0040669
 401 S. OLD WOODWARD AVENUE SUITE
 315
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] **(cont.)**

Envirosite ID: 3413479
EPA ID: N/R

PWS ENF (cont.)

Address Line 2 : Suite 315
 Compliance Status : Returned to Compliance
 RTC Date : 04/29/2019
 Enforcement Action Description : State Compliance achieved
 Admin Name : LIPSCHUTZ, KENNETH
 Email Address : kenl@brooksidecommunities.com

RTC Enforcement ID : 6
 Violation ID : 3
 Submission Year : 2019
 Violation First Reported Date : 12/17/2015
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Repeat Minor (TCR)
 Is Health Based : N
 Is Major Violation : -
 Severity Indicator Count : -
 Public Notification Tier : 3
 Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009
 Address Line 2 : Suite 315
 Compliance Status : Returned to Compliance
 RTC Date : 10/31/2015
 Enforcement Action Description : State Public Notification received
 Admin Name : LIPSCHUTZ, KENNETH
 Email Address : kenl@brooksidecommunities.com

RTC Enforcement ID : 6
 Violation ID : 5
 Submission Year : 2019
 Violation First Reported Date : 12/17/2015
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Minor (TCR)
 Is Health Based : N
 Is Major Violation : -
 Severity Indicator Count : -
 Public Notification Tier : 3
 Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009
 Address Line 2 : Suite 315
 Compliance Status : Returned to Compliance
 RTC Date : 10/31/2015
 Enforcement Action Description : State Public Notification received
 Admin Name : LIPSCHUTZ, KENNETH
 Email Address : kenl@brooksidecommunities.com

RTC Enforcement ID : 7
 Violation ID : 4
 Submission Year : 2019
 Violation First Reported Date : 12/17/2015

Map Id: A2
 Direction: WNW
 Distance: 0.262 mi.
 Actual: 1384.973 ft.
 Elevation: 0.145 mi. / 766.02 ft.
 Relative: Higher

Site Name : MI0040669
 401 S. OLD WOODWARD AVENUE SUITE
 315
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3413479
EPA ID: N/R

PWS ENF (**cont.**)

Contaminant Name :	E. COLI
Rule Family :	Groundwater Rule
Rule Group :	Microbials
Rule Name :	Ground Water Rule
Violation Type :	Monitoring, Source Water (GWR)
Is Health Based :	N
Is Major Violation :	Y
Severity Indicator Count :	-
Public Notification Tier :	3
Address Line 1 :	401 S. Old Woodward Avenue, BIRMINGHAM, 48009
Address Line 2 :	Suite 315
Compliance Status :	Returned to Compliance
RTC Date :	03/24/2016
Enforcement Action Description :	State Compliance achieved
Admin Name :	LIPSCHUTZ, KENNETH
Email Address :	kenl@brooksidecommunities.com

Map Id: A3
 Direction: WNW
 Distance: 0.262 mi.
 Actual: 1385.367 ft.
 Elevation: 0.145 mi. / 766.02 ft.
 Relative: Higher

Site Name : WOLK PETROLEUM INC | MI0040669
 401 S WOODWARD STE 450 | 401 SOUTH
 WOODWARD SUITE 311
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF]

Envirosite ID: 3268572
EPA ID: N/R

PWS

Facility Address : 401 South Woodward, Suite 311, BIRMINGHAM, MI 48009

PWS ID :	MI0040669
PWS Type :	Community water system
PWS Name :	WOODLAND RIDGE
Activity Status :	Active
Primary Source :	Ground water
Submission Year :	2018
Submission Year Quarter :	2018Q1
Population Served Count :	1,080
Service Connections Count :	437
Population Category 2 :	<10,000
Population Category 3 :	<=3300
Population Category 4 :	<10K
Population Category 5 :	501-3,300
Population Category 11 :	1,001-3,300
Submission Quarter :	1
Submission Status Code :	Y
First Reported Date :	11/22/2002
Last Reported Date :	03/29/2018
Deactivation Date :	N/R
GW or SW :	Groundwater
Is Grant Eligible :	Y

Map Id: A3
 Direction: WNW
 Distance: 0.262 mi.
 Actual: 1385.367 ft.
 Elevation: 0.145 mi. / 766.02 ft.
 Relative: Higher

Site Name : WOLK PETROLEUM INC | MI0040669
 401 S WOODWARD STE 450 | 401 SOUTH
 WOODWARD SUITE 311
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3268572
EPA ID: N/R

PWS (**cont.**)

Is Outstanding Performer :	N/R
Is School or Daycare :	N
Is Source Water Protected :	N
Primacy Agency :	Michigan
Primacy Type :	State
Org Name :	LIPSCHUTZ, KENNETH
EPA Region :	Region 5
Admin Name :	LIPSCHUTZ, KENNETH
Owner Type :	Private
Phone Number :	248-645-1077
Phone Ext Number :	N/R
Alt Phone Number :	N/R
Email Address :	kenl@brooksidecommunities.com
Fax Number :	248-645-9399
Is Wholesaler :	N
LT2 Schedule Category :	N/R
NPM Candidate :	Y
CDS ID :	N/R
DBPR Schedule Category :	System serving fewer than 10,000 AND not connected to a larger system
Outstanding Performer Date :	N/R
Season Begin Date :	N/R
Season End Date :	N/R
Source Water Protection Date :	N/R
Seasonal Startup System :	N/R
Reduced Monitoring Begin Date :	N/R
Reduced Monitoring End Date :	N/R
Reduced RTRC Monitoring :	N/R
Last Date in Agency List :	05/31/2018

PWS ENF

Facility Address : 401 South Woodward, Suite 311, BIRMINGHAM, MI 48009

PWS ID :	MI0040669
PWS Name :	WOODLAND RIDGE
EPA Region :	Region 5
Primacy Agency :	Michigan
PWS Type :	Community water system
Primacy Type :	State
Primary Source :	Ground water
Activity Status :	Active
Deactivation Date :	N/R
Owner Type :	Private
Phone Number :	248-645-1077
Last Date in Agency List :	10/26/2020

Violation Details

RTC Enforcement ID :	10
Violation ID :	10
Submission Year :	2020
Violation First Reported Date :	05/30/2019
Contaminant Name :	o-Dichlorobenzene
Rule Family :	Volatile Organic Chemicals

Geological Landscape Section Map Findings

2021

Map Id: A3
Direction: WNW
Distance: 0.262 mi.
Actual: 1385.367 ft.
Elevation: 0.145 mi. / 766.02 ft.
Relative: Higher

Site Name : WOLK PETROLEUM INC | MI0040669
401 S WOODWARD STE 450 | 401 SOUTH
WOODWARD SUITE 311
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3268572
EPA ID: N/R

PWS ENF (**cont.**)

Rule Group : Chemicals
Rule Name : Volatile Organic Chemicals
Violation Type : Monitoring, Regular
Is Health Based : N
Is Major Violation : Y
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009
Address Line 2 : Suite 315
Compliance Status : Returned to Compliance
RTC Date : 04/29/2019
Enforcement Action Description : State Compliance achieved
Admin Name : LIPSCHUTZ, KENNETH
Email Address : kenl@brooksidecommunities.com

RTC Enforcement ID : 10
Violation ID : 11
Submission Year : 2020
Violation First Reported Date : 05/30/2019
Contaminant Name : p-Dichlorobenzene
Rule Family : Volatile Organic Chemicals
Rule Group : Chemicals
Rule Name : Volatile Organic Chemicals
Violation Type : Monitoring, Regular
Is Health Based : N
Is Major Violation : Y
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009
Address Line 2 : Suite 315
Compliance Status : Returned to Compliance
RTC Date : 04/29/2019
Enforcement Action Description : State Compliance achieved
Admin Name : LIPSCHUTZ, KENNETH
Email Address : kenl@brooksidecommunities.com

RTC Enforcement ID : 10
Violation ID : 12
Submission Year : 2020
Violation First Reported Date : 05/30/2019
Contaminant Name : Vinyl chloride
Rule Family : Volatile Organic Chemicals
Rule Group : Chemicals
Rule Name : Volatile Organic Chemicals
Violation Type : Monitoring, Regular
Is Health Based : N
Is Major Violation : Y
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009
Address Line 2 : Suite 315
Compliance Status : Returned to Compliance
RTC Date : 04/29/2019
Enforcement Action Description : State Compliance achieved

Geological Landscape Section Map Findings

2021

Map Id: A3
Direction: WNW
Distance: 0.262 mi.
Actual: 1385.367 ft.
Elevation: 0.145 mi. / 766.02 ft.
Relative: Higher

Site Name : WOLK PETROLEUM INC | MI0040669
401 S WOODWARD STE 450 | 401 SOUTH
WOODWARD SUITE 311
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3268572
EPA ID: N/R

PWS ENF (**cont.**)

Admin Name : LIPSCHUTZ, KENNETH
Email Address : kenl@brooksidecommunities.com

RTC Enforcement ID : 10
Violation ID : 13
Submission Year : 2020
Violation First Reported Date : 05/30/2019
Contaminant Name : 1,1-Dichloroethylene
Rule Family : Volatile Organic Chemicals
Rule Group : Chemicals
Rule Name : Volatile Organic Chemicals
Violation Type : Monitoring, Regular
Is Health Based : N
Is Major Violation : Y
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009
Address Line 2 : Suite 315
Compliance Status : Returned to Compliance
RTC Date : 04/29/2019
Enforcement Action Description : State Compliance achieved
Admin Name : LIPSCHUTZ, KENNETH
Email Address : kenl@brooksidecommunities.com

RTC Enforcement ID : 10
Violation ID : 15
Submission Year : 2020
Violation First Reported Date : 05/30/2019
Contaminant Name : 1,2-Dichloroethane
Rule Family : Volatile Organic Chemicals
Rule Group : Chemicals
Rule Name : Volatile Organic Chemicals
Violation Type : Monitoring, Regular
Is Health Based : N
Is Major Violation : Y
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009
Address Line 2 : Suite 315
Compliance Status : Returned to Compliance
RTC Date : 04/29/2019
Enforcement Action Description : State Compliance achieved
Admin Name : LIPSCHUTZ, KENNETH
Email Address : kenl@brooksidecommunities.com

RTC Enforcement ID : 10
Violation ID : 17
Submission Year : 2020
Violation First Reported Date : 05/30/2019
Contaminant Name : Carbon tetrachloride
Rule Family : Volatile Organic Chemicals
Rule Group : Chemicals
Rule Name : Volatile Organic Chemicals

Geological Landscape Section Map Findings

2021

Map Id: A3
Direction: WNW
Distance: 0.262 mi.
Actual: 1385.367 ft.
Elevation: 0.145 mi. / 766.02 ft.
Relative: Higher

Site Name : WOLK PETROLEUM INC | MI0040669
401 S WOODWARD STE 450 | 401 SOUTH
WOODWARD SUITE 311
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3268572
EPA ID: N/R

PWS ENF (**cont.**)

Violation Type :	Monitoring, Regular
Is Health Based :	N
Is Major Violation :	Y
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	401 S. Old Woodward Avenue, BIRMINGHAM, 48009
Address Line 2 :	Suite 315
Compliance Status :	Returned to Compliance
RTC Date :	04/29/2019
Enforcement Action Description :	State Compliance achieved
Admin Name :	LIPSCHUTZ, KENNETH
Email Address :	kenl@brooksidecommunities.com

RTC Enforcement ID :	10
Violation ID :	18
Submission Year :	2020
Violation First Reported Date :	05/30/2019
Contaminant Name :	1,2-Dichloropropane
Rule Family :	Volatile Organic Chemicals
Rule Group :	Chemicals
Rule Name :	Volatile Organic Chemicals
Violation Type :	Monitoring, Regular
Is Health Based :	N
Is Major Violation :	Y
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	401 S. Old Woodward Avenue, BIRMINGHAM, 48009
Address Line 2 :	Suite 315
Compliance Status :	Returned to Compliance
RTC Date :	04/29/2019
Enforcement Action Description :	State Compliance achieved
Admin Name :	LIPSCHUTZ, KENNETH
Email Address :	kenl@brooksidecommunities.com

RTC Enforcement ID :	10
Violation ID :	19
Submission Year :	2020
Violation First Reported Date :	05/30/2019
Contaminant Name :	Trichloroethylene
Rule Family :	Volatile Organic Chemicals
Rule Group :	Chemicals
Rule Name :	Volatile Organic Chemicals
Violation Type :	Monitoring, Regular
Is Health Based :	N
Is Major Violation :	Y
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	401 S. Old Woodward Avenue, BIRMINGHAM, 48009
Address Line 2 :	Suite 315
Compliance Status :	Returned to Compliance
RTC Date :	04/29/2019
Enforcement Action Description :	State Compliance achieved
Admin Name :	LIPSCHUTZ, KENNETH
Email Address :	kenl@brooksidecommunities.com

Map Id: A3
 Direction: WNW
 Distance: 0.262 mi.
 Actual: 1385.367 ft.
 Elevation: 0.145 mi. / 766.02 ft.
 Relative: Higher

Site Name : WOLK PETROLEUM INC | MI0040669
 401 S WOODWARD STE 450 | 401 SOUTH
 WOODWARD SUITE 311
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3268572
EPA ID: N/R

PWS ENF (**cont.**)

RTC Enforcement ID : 10
 Violation ID : 20
 Submission Year : 2020
 Violation First Reported Date : 05/30/2019
 Contaminant Name : 1,1,2-Trichloroethane
 Rule Family : Volatile Organic Chemicals
 Rule Group : Chemicals
 Rule Name : Volatile Organic Chemicals
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009
 Address Line 2 : Suite 315
 Compliance Status : Returned to Compliance
 RTC Date : 04/29/2019
 Enforcement Action Description : State Compliance achieved
 Admin Name : LIPSCHUTZ, KENNETH
 Email Address : kenl@brooksidecommunities.com

RTC Enforcement ID : 10
 Violation ID : 23
 Submission Year : 2020
 Violation First Reported Date : 05/30/2019
 Contaminant Name : Benzene
 Rule Family : Volatile Organic Chemicals
 Rule Group : Chemicals
 Rule Name : Volatile Organic Chemicals
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009
 Address Line 2 : Suite 315
 Compliance Status : Returned to Compliance
 RTC Date : 04/29/2019
 Enforcement Action Description : State Compliance achieved
 Admin Name : LIPSCHUTZ, KENNETH
 Email Address : kenl@brooksidecommunities.com

RTC Enforcement ID : 10
 Violation ID : 25
 Submission Year : 2020
 Violation First Reported Date : 05/30/2019
 Contaminant Name : Ethylbenzene
 Rule Family : Volatile Organic Chemicals
 Rule Group : Chemicals
 Rule Name : Volatile Organic Chemicals
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R

Map Id: A3
 Direction: WNW
 Distance: 0.262 mi.
 Actual: 1385.367 ft.
 Elevation: 0.145 mi. / 766.02 ft.
 Relative: Higher

Site Name : WOLK PETROLEUM INC | MI0040669
 401 S WOODWARD STE 450 | 401 SOUTH
 WOODWARD SUITE 311
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3268572
EPA ID: N/R

PWS ENF (**cont.**)

Public Notification Tier : 3
 Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009
 Address Line 2 : Suite 315
 Compliance Status : Returned to Compliance
 RTC Date : 04/29/2019
 Enforcement Action Description : State Compliance achieved
 Admin Name : LIPSCHUTZ, KENNETH
 Email Address : kenl@brooksidecommunities.com

RTC Enforcement ID : 10
 Violation ID : 26
 Submission Year : 2020
 Violation First Reported Date : 05/30/2019
 Contaminant Name : Styrene
 Rule Family : Volatile Organic Chemicals
 Rule Group : Chemicals
 Rule Name : Volatile Organic Chemicals
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009
 Address Line 2 : Suite 315
 Compliance Status : Returned to Compliance
 RTC Date : 04/29/2019
 Enforcement Action Description : State Compliance achieved
 Admin Name : LIPSCHUTZ, KENNETH
 Email Address : kenl@brooksidecommunities.com

RTC Enforcement ID : 10
 Violation ID : 6
 Submission Year : 2020
 Violation First Reported Date : 05/30/2019
 Contaminant Name : 1,2,4-Trichlorobenzene
 Rule Family : Volatile Organic Chemicals
 Rule Group : Chemicals
 Rule Name : Volatile Organic Chemicals
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009
 Address Line 2 : Suite 315
 Compliance Status : Returned to Compliance
 RTC Date : 04/29/2019
 Enforcement Action Description : State Compliance achieved
 Admin Name : LIPSCHUTZ, KENNETH
 Email Address : kenl@brooksidecommunities.com

RTC Enforcement ID : 10
 Violation ID : 7

Map Id: A3
 Direction: WNW
 Distance: 0.262 mi.
 Actual: 1385.367 ft.
 Elevation: 0.145 mi. / 766.02 ft.
 Relative: Higher

Site Name : WOLK PETROLEUM INC | MI0040669
 401 S WOODWARD STE 450 | 401 SOUTH
 WOODWARD SUITE 311
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3268572
EPA ID: N/R

PWS ENF (**cont.**)

Submission Year : 2020
 Violation First Reported Date : 05/30/2019
 Contaminant Name : cis-1,2-Dichloroethylene
 Rule Family : Volatile Organic Chemicals
 Rule Group : Chemicals
 Rule Name : Volatile Organic Chemicals
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009
 Address Line 2 : Suite 315
 Compliance Status : Returned to Compliance
 RTC Date : 04/29/2019
 Enforcement Action Description : State Compliance achieved
 Admin Name : LIPSCHUTZ, KENNETH
 Email Address : kenl@brooksidecommunities.com

RTC Enforcement ID : 10
 Violation ID : 9
 Submission Year : 2020
 Violation First Reported Date : 05/30/2019
 Contaminant Name : DICHLOROMETHANE
 Rule Family : Volatile Organic Chemicals
 Rule Group : Chemicals
 Rule Name : Volatile Organic Chemicals
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009
 Address Line 2 : Suite 315
 Compliance Status : Returned to Compliance
 RTC Date : 04/29/2019
 Enforcement Action Description : State Compliance achieved
 Admin Name : LIPSCHUTZ, KENNETH
 Email Address : kenl@brooksidecommunities.com

RTC Enforcement ID : 6
 Violation ID : 3
 Submission Year : 2020
 Violation First Reported Date : 12/17/2015
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Repeat Minor (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 401 S. Old Woodward Avenue, BIRMINGHAM, 48009

Geological Landscape Section Map Findings

2021

Map Id: A3
Direction: WNW
Distance: 0.262 mi.
Actual: 1385.367 ft.
Elevation: 0.145 mi. / 766.02 ft.
Relative: Higher

Site Name : WOLK PETROLEUM INC | MI0040669
401 S WOODWARD STE 450 | 401 SOUTH
WOODWARD SUITE 311
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3268572
EPA ID: N/R

PWS ENF (**cont.**)

Address Line 2 :	Suite 315
Compliance Status :	Returned to Compliance
RTC Date :	10/31/2015
Enforcement Action Description :	State Public Notification received
Admin Name :	LIPSCHUTZ, KENNETH
Email Address :	kenl@brooksidecommunities.com
RTC Enforcement ID :	6
Violation ID :	5
Submission Year :	2020
Violation First Reported Date :	12/17/2015
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Monitoring, Routine Minor (TCR)
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	401 S. Old Woodward Avenue, BIRMINGHAM, 48009
Address Line 2 :	Suite 315
Compliance Status :	Returned to Compliance
RTC Date :	10/31/2015
Enforcement Action Description :	State Public Notification received
Admin Name :	LIPSCHUTZ, KENNETH
Email Address :	kenl@brooksidecommunities.com

Map Id: A4
Direction: WNW
Distance: 0.294 mi.
Actual: 1553.149 ft.
Elevation: 0.145 mi. / 767.142 ft.
Relative: Higher

Site Name : MI0040553 | MI0040444
280 DAINES SUITE 300 | UNIPROP, INC.
280 DAINES SUITE 300
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF]

EnviroSite ID: 3354435
EPA ID: N/R

PWS

Facility Address :	UNIPROP, Inc., 280 DAINES SUITE 300, BIRMINGHAM, MI 48009
PWS ID :	MI0040444
PWS Type :	Community water system
PWS Name :	HURON SHORES
Activity Status :	Changed from public to non-public
Primary Source :	Ground water
Submission Year :	2019
Submission Year Quarter :	2019Q1
Population Served Count :	480
Service Connections Count :	192

Map Id: A4
 Direction: WNW
 Distance: 0.294 mi.
 Actual: 1553.149 ft.
 Elevation: 0.145 mi. / 767.142 ft.
 Relative: Higher

Site Name : MI0040553 | MI0040444
 280 DAINES SUITE 300 | UNIPROP, INC.
 280 DAINES SUITE 300
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3354435
EPA ID: N/R

PWS (**cont.**)

Population Category 2 : <10,000
 Population Category 3 : <=3300
 Population Category 4 : <10K
 Population Category 5 : <=500
 Population Category 11 : 101-500
 Submission Quarter : 1
 Submission Status Code : Y
 First Reported Date : 02/03/1981
 Last Reported Date : 03/26/2019
 Deactivation Date : 11/20/2007
 GW or SW : Groundwater
 Is Grant Eligible : N
 Is Outstanding Performer : N/R
 Is School or Daycare : N
 Is Source Water Protected : N
 Primacy Agency : Michigan
 Primacy Type : State
 Org Name : UNIPROP INC
 EPA Region : Region 5
 Admin Name : UNIPROP INC
 Owner Type : Private
 Phone Number : 248-645-9220
 Phone Ext Number : N/R
 Alt Phone Number : N/R
 Email Address : N/R
 Fax Number : N/R
 Is Wholesaler : N
 LT2 Schedule Category : N/R
 NPM Candidate : N
 CDS ID : N/R
 DBPR Schedule Category : N/R
 Outstanding Performer Date : N/R
 Season Begin Date : 1-Jan
 Season End Date : 31-Dec
 Source Water Protection Date : N/R
 Seasonal Startup System : N/R
 Reduced Monitoring Begin Date : N/R
 Reduced Monitoring End Date : N/R
 Reduced RTCR Monitoring : N/R
 Last Date in Agency List : 05/16/2019

Facility Address : 280 DAINES SUITE 300, BIRMINGHAM, MI 48009

PWS ID : MI0040553
 PWS Type : Community water system
 PWS Name : CAMELOT VILLA
 Activity Status : Inactive
 Primary Source : Ground water
 Submission Year : 2020
 Submission Year Quarter : 2020Q3
 Population Served Count : 648
 Service Connections Count : 259
 Population Category 2 : <10,000
 Population Category 3 : <=3300

Geological Landscape Section Map Findings

2021

Map Id: A4
Direction: WNW
Distance: 0.294 mi.
Actual: 1553.149 ft.
Elevation: 0.145 mi. / 767.142 ft.
Relative: Higher

Site Name : MI0040553 | MI0040444
280 DAINES SUITE 300 | UNIPROP, INC.
280 DAINES SUITE 300
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3354435
EPA ID: N/R

PWS (**cont.**)

Population Category 4 :	<10K
Population Category 5 :	501-3,300
Population Category 11 :	501-1,000
Submission Quarter :	3
Submission Status Code :	Y
First Reported Date :	02/03/1981
Last Reported Date :	08/26/2005
Deactivation Date :	06/01/2002
GW or SW :	Groundwater
Is Grant Eligible :	N
Is Outstanding Performer :	N/R
Is School or Daycare :	N
Is Source Water Protected :	-
Primacy Agency :	Michigan
Primacy Type :	State
Org Name :	-
EPA Region :	Region 5
Admin Name :	UNIPROP INC
Owner Type :	Private
Phone Number :	248-645-9220
Phone Ext Number :	N/R
Alt Phone Number :	N/R
Email Address :	N/R
Fax Number :	N/R
Is Wholesaler :	N
LT2 Schedule Category :	N/R
NPM Candidate :	N
CDS ID :	N/R
DBPR Schedule Category :	N/R
Outstanding Performer Date :	N/R
Season Begin Date :	01-01
Season End Date :	12-31
Source Water Protection Date :	N/R
Seasonal Startup System :	N/R
Reduced Monitoring Begin Date :	N/R
Reduced Monitoring End Date :	N/R
Reduced RTCR Monitoring :	N/R
Last Date in Agency List :	10/26/2020

PWS ENF

Facility Address : UNIPROP, Inc., 280 DAINES SUITE 300, BIRMINGHAM, MI 48009

PWS ID :	MI0040444
PWS Name :	HURON SHORES
EPA Region :	Region 5
Primacy Agency :	Michigan
PWS Type :	Community water system
Primacy Type :	State
Primary Source :	Ground water
Activity Status :	Changed from public to non-public
Deactivation Date :	11/20/2007
Owner Type :	Private
Phone Number :	248-645-9220
Last Date in Agency List :	05/16/2019

Geological Landscape Section Map Findings

2021

Map Id: A4
Direction: WNW
Distance: 0.294 mi.
Actual: 1553.149 ft.
Elevation: 0.145 mi. / 767.142 ft.
Relative: Higher

Site Name : MI0040553 | MI0040444
280 DAINES SUITE 300 | UNIPROP, INC.
280 DAINES SUITE 300
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3354435
EPA ID: N/R

PWS ENF (**cont.**)

Violation Details

RTC Enforcement ID : 3000397
Violation ID : 3000197
Submission Year : 2019
Violation First Reported Date : 09/09/1997
Contaminant Name : Coliform (TCR)
Rule Family : Total Coliform Rules
Rule Group : Microbials
Rule Name : Total Coliform Rule
Violation Type : Monitoring, Routine Major (TCR)
Is Health Based : N
Is Major Violation : N/R
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : UNIPROP, Inc., BIRMINGHAM, 48009
Address Line 2 : 280 DAINES SUITE 300
Compliance Status : Returned to Compliance
RTC Date : 07/01/1997
Enforcement Action Description : State Compliance achieved
Admin Name : UNIPROP INC
Email Address : N/R

RTC Enforcement ID : 3000397
Violation ID : 3000297
Submission Year : 2019
Violation First Reported Date : 09/09/1997
Contaminant Name : Nitrate
Rule Family : Inorganic Chemicals
Rule Group : Chemicals
Rule Name : Nitrates
Violation Type : Monitoring, Regular
Is Health Based : N
Is Major Violation : Y
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : UNIPROP, Inc., BIRMINGHAM, 48009
Address Line 2 : 280 DAINES SUITE 300
Compliance Status : Returned to Compliance
RTC Date : 07/01/1997
Enforcement Action Description : State Compliance achieved
Admin Name : UNIPROP INC
Email Address : N/R

Facility Address : 280 DAINES SUITE 300, BIRMINGHAM, MI 48009

PWS ID : MI0040553
PWS Name : CAMELOT VILLA
EPA Region : Region 5
Primacy Agency : Michigan
PWS Type : Community water system
Primacy Type : State
Primary Source : Ground water
Activity Status : Inactive

Geological Landscape Section Map Findings

2021

Map Id: A4
Direction: WNW
Distance: 0.294 mi.
Actual: 1553.149 ft.
Elevation: 0.145 mi. / 767.142 ft.
Relative: Higher

Site Name : MI0040553 | MI0040444
280 DAINES SUITE 300 | UNIPROP, INC.
280 DAINES SUITE 300
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3354435
EPA ID: N/R

PWS ENF (**cont.**)

Deactivation Date : 06/01/2002
Owner Type : Private
Phone Number : 248-645-9220
Last Date in Agency List : 10/26/2020

Violation Details

RTC Enforcement ID : 1001398
Violation ID : 1000198
Submission Year : 2020
Violation First Reported Date : 03/11/1998
Contaminant Name : Lead and Copper Rule
Rule Family : Lead and Copper Rule
Rule Group : Chemicals
Rule Name : Lead and Copper Rule
Violation Type : Follow-up Or Routine LCR Tap M/R
Is Health Based : N
Is Major Violation : N/R
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 280 DAINES SUITE 300, BIRMINGHAM, 48009
Address Line 2 : N/R
Compliance Status : Returned to Compliance
RTC Date : 09/29/1998
Enforcement Action Description : State Compliance achieved
Admin Name : UNIPROP INC
Email Address : N/R

RTC Enforcement ID : N/R
Violation ID : 2000193
Submission Year : 2020
Violation First Reported Date : 06/01/1993
Contaminant Name : Coliform (TCR)
Rule Family : Total Coliform Rules
Rule Group : Microbials
Rule Name : Total Coliform Rule
Violation Type : Monitoring, Routine Major (TCR)
Is Health Based : N
Is Major Violation : N/R
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 280 DAINES SUITE 300, BIRMINGHAM, 48009
Address Line 2 : N/R
Compliance Status : System Inactive
RTC Date : 06/01/2002
Enforcement Action Description : State Public Notification received
Admin Name : UNIPROP INC
Email Address : N/R

Geological Landscape Section Map Findings

2021

Map Id: A5
Direction: WNW
Distance: 0.309 mi.
Actual: 1629.724 ft.
Elevation: 0.145 mi. / 768.058 ft.
Relative: Higher

Site Name : CT0780181 | CT1600081
300 S. OLD WOODWARD AVENUE
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF]

EnviroSite ID: 3348559
EPA ID: N/R

PWS

Facility Address : 300 S. OLD WOODWARD AVENUE, BIRMINGHAM, MI 48009

PWS ID : CT0780181
PWS Type : Community water system
PWS Name : CARRIAGE HOUSE APARTMENTS
Activity Status : Active
Primary Source : Ground water
Submission Year : 2018
Submission Year Quarter : 2018Q3
Population Served Count : 196
Service Connections Count : 64
Population Category 2 : <10,000
Population Category 3 : <=3300
Population Category 4 : <10K
Population Category 5 : <=500
Population Category 11 : 101-500
Submission Quarter : 3
Submission Status Code : Y
First Reported Date : 03/08/1979
Last Reported Date : 09/11/2018
Deactivation Date : N/R
GW or SW : Groundwater
Is Grant Eligible : Y
Is Outstanding Performer : N/R
Is School or Daycare : N
Is Source Water Protected : Y
Primacy Agency : Connecticut
Primacy Type : State
Org Name : LANAGAN, ASHLEY
EPA Region : Region 1
Admin Name : LANAGAN, ASHLEY
Owner Type : Private
Phone Number : 734-624-3272
Phone Ext Number : N/R
Alt Phone Number : N/R
Email Address : ALANAGAN@LUTZCO.COM
Fax Number : 248-432-3201
Is Wholesaler : N
LT2 Schedule Category : N/R
NPM Candidate : Y
CDS ID : N/R
DBPR Schedule Category : N/R
Outstanding Performer Date : N/R
Season Begin Date : N/R
Season End Date : N/R
Source Water Protection Date : 01/01/2012
Seasonal Startup System : N/R
Reduced Monitoring Begin Date : N/R
Reduced Monitoring End Date : N/R
Reduced RTCR Monitoring : N/R
Last Date in Agency List : 12/27/2018

Facility Address : 300 S. OLD WOODWARD AVENUE, BIRMINGHAM, MI 48009

Map Id: A5
 Direction: WNW
 Distance: 0.309 mi.
 Actual: 1629.724 ft.
 Elevation: 0.145 mi. / 768.058 ft.
 Relative: Higher

Site Name : CT0780181 | CT1600081
 300 S. OLD WOODWARD AVENUE
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3348559
EPA ID: N/R

PWS (**cont.**)

PWS ID :	CT1600081
PWS Type :	Community water system
PWS Name :	CEDAR RIDGE APARTMENTS
Activity Status :	Active
Primary Source :	Ground water
Submission Year :	2017
Submission Year Quarter :	2017Q3
Population Served Count :	300
Service Connections Count :	100
Population Category 2 :	<10,000
Population Category 3 :	<=3300
Population Category 4 :	<10K
Population Category 5 :	<=500
Population Category 11 :	101-500
Submission Quarter :	3
Submission Status Code :	Y
First Reported Date :	03/08/1979
Last Reported Date :	08/21/2017
Deactivation Date :	N/R
GW or SW :	Groundwater
Is Grant Eligible :	Y
Is Outstanding Performer :	N/R
Is School or Daycare :	N
Is Source Water Protected :	Y
Primacy Agency :	Connecticut
Primacy Type :	State
Org Name :	LANAGAN, ASHLEY
EPA Region :	Region 1
Admin Name :	LANAGAN, ASHLEY
Owner Type :	Private
Phone Number :	734-624-3272
Phone Ext Number :	N/R
Alt Phone Number :	N/R
Email Address :	ALANAGAN@LUTZCO.COM
Fax Number :	248-432-3201
Is Wholesaler :	N
LT2 Schedule Category :	N/R
NPM Candidate :	Y
CDS ID :	-
DBPR Schedule Category :	N/R
Outstanding Performer Date :	N/R
Season Begin Date :	N/R
Season End Date :	N/R
Source Water Protection Date :	01/01/2012
Seasonal Startup System :	N/R
Reduced Monitoring Begin Date :	N/R
Reduced Monitoring End Date :	N/R
Reduced RTCR Monitoring :	N/R
Last Date in Agency List :	11/02/2017

PWS ENF

Facility Address :	300 S. OLD WOODWARD AVENUE, BIRMINGHAM, MI 48009
PWS ID :	CT0780181
PWS Name :	CARRIAGE HOUSE APARTMENTS

Map Id: A5
 Direction: WNW
 Distance: 0.309 mi.
 Actual: 1629.724 ft.
 Elevation: 0.145 mi. / 768.058 ft.
 Relative: Higher

Site Name : CT0780181 | CT1600081
 300 S. OLD WOODWARD AVENUE
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3348559
EPA ID: N/R

PWS ENF (**cont.**)

EPA Region :	Region 1
Primacy Agency :	Connecticut
PWS Type :	Community water system
Primacy Type :	State
Primary Source :	Ground water
Activity Status :	Active
Deactivation Date :	N/R
Owner Type :	Private
Phone Number :	860-470-1202
Last Date in Agency List :	12/12/2019

Violation Details

Details for this site have been truncated due to the large number of available details for this site within this dataset. For the complete details for this site, contact your EnviroSite account representative for a complimentary site report containing all of the details available.

RTC Enforcement ID :	129702
Violation ID :	224602
Submission Year :	2019
Violation First Reported Date :	05/04/2002
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Maximum Contaminant Level Violation, Monthly (TCR)
Is Health Based :	Y
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	2
Address Line 1 :	20 Avon Meadow Lane, AVON, 06001
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	03/12/2002
Enforcement Action Description :	State Administrative/Compliance Order with penalty issued
Admin Name :	BROWN, HAGAN
Email Address :	hagan@corridorventures.com

RTC Enforcement ID :	150903
Violation ID :	225003
Submission Year :	2019
Violation First Reported Date :	12/24/2002
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Monitoring, Repeat Minor (TCR)
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	20 Avon Meadow Lane, AVON, 06001
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance

Map Id: A5
 Direction: WNW
 Distance: 0.309 mi.
 Actual: 1629.724 ft.
 Elevation: 0.145 mi. / 768.058 ft.
 Relative: Higher

Site Name : CT0780181 | CT1600081
 300 S. OLD WOODWARD AVENUE
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3348559
EPA ID: N/R

PWS ENF (**cont.**)

RTC Date : 07/17/2003
 Enforcement Action Description : State Compliance achieved
 Admin Name : BROWN, HAGAN
 Email Address : hagan@corridorventures.com

RTC Enforcement ID : 151004
 Violation ID : 224702
 Submission Year : 2019
 Violation First Reported Date : 08/07/2002
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 20 Avon Meadow Lane, AVON, 06001
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 01/09/2004
 Enforcement Action Description : State Compliance achieved
 Admin Name : BROWN, HAGAN
 Email Address : hagan@corridorventures.com

RTC Enforcement ID : 151705
 Violation ID : 225104
 Submission Year : 2019
 Violation First Reported Date : 11/06/2004
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 20 Avon Meadow Lane, AVON, 06001
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 01/04/2005
 Enforcement Action Description : State Compliance achieved
 Admin Name : BROWN, HAGAN
 Email Address : hagan@corridorventures.com

RTC Enforcement ID : 153206
 Violation ID : 226006
 Submission Year : 2019
 Violation First Reported Date : 12/20/2005
 Contaminant Name : Consumer Confidence Rule
 Rule Family : Consumer Confidence Rule
 Rule Group : Other

Map Id: A5
 Direction: WNW
 Distance: 0.309 mi.
 Actual: 1629.724 ft.
 Elevation: 0.145 mi. / 768.058 ft.
 Relative: Higher

Site Name : CT0780181 | CT1600081
 300 S. OLD WOODWARD AVENUE
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3348559
EPA ID: N/R

PWS ENF (**cont.**)

Rule Name :	Consumer Confidence Rule
Violation Type :	Consumer Confidence Report Complete Failure to Report
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	20 Avon Meadow Lane, AVON, 06001
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	12/13/2005
Enforcement Action Description :	State Compliance achieved
Admin Name :	BROWN, HAGAN
Email Address :	hagan@corridorventures.com

RTC Enforcement ID :	153206
Violation ID :	226106
Submission Year :	2019
Violation First Reported Date :	12/20/2005
Contaminant Name :	Consumer Confidence Rule
Rule Family :	Consumer Confidence Rule
Rule Group :	Other
Rule Name :	Consumer Confidence Rule
Violation Type :	Consumer Confidence Report Inadequate Reporting
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	20 Avon Meadow Lane, AVON, 06001
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	12/13/2005
Enforcement Action Description :	State Compliance achieved
Admin Name :	BROWN, HAGAN
Email Address :	hagan@corridorventures.com

RTC Enforcement ID :	153306
Violation ID :	225705
Submission Year :	2019
Violation First Reported Date :	09/30/2005
Contaminant Name :	Lead and Copper Rule
Rule Family :	Lead and Copper Rule
Rule Group :	Chemicals
Rule Name :	Lead and Copper Rule
Violation Type :	Follow-up Or Routine LCR Tap M/R
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	20 Avon Meadow Lane, AVON, 06001
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	12/30/2005
Enforcement Action Description :	State Compliance achieved
Admin Name :	BROWN, HAGAN
Email Address :	hagan@corridorventures.com

Geological Landscape Section Map Findings

2021

Map Id: A5
Direction: WNW
Distance: 0.309 mi.
Actual: 1629.724 ft.
Elevation: 0.145 mi. / 768.058 ft.
Relative: Higher

Site Name : CT0780181 | CT1600081
300 S. OLD WOODWARD AVENUE
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3348559
EPA ID: N/R

PWS ENF (**cont.**)

RTC Enforcement ID : 153406
Violation ID : 226506
Submission Year : 2019
Violation First Reported Date : 04/30/2008
Contaminant Name : Public Notice
Rule Family : Public Notice Rule
Rule Group : Other
Rule Name : Public Notice Rule
Violation Type : Public Notification Violation for NPDWR Violation
Is Health Based : N
Is Major Violation : N/R
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 20 Avon Meadow Lane, AVON, 06001
Address Line 2 : N/R
Compliance Status : Returned to Compliance
RTC Date : 11/21/2005
Enforcement Action Description : State Compliance achieved
Admin Name : BROWN, HAGAN
Email Address : hagan@corridorventures.com

RTC Enforcement ID : 153506
Violation ID : 226606
Submission Year : 2019
Violation First Reported Date : 04/30/2008
Contaminant Name : Public Notice
Rule Family : Public Notice Rule
Rule Group : Other
Rule Name : Public Notice Rule
Violation Type : Public Notification Violation for NPDWR Violation
Is Health Based : N
Is Major Violation : N/R
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 20 Avon Meadow Lane, AVON, 06001
Address Line 2 : N/R
Compliance Status : Returned to Compliance
RTC Date : 11/10/2005
Enforcement Action Description : State Compliance achieved
Admin Name : BROWN, HAGAN
Email Address : hagan@corridorventures.com

RTC Enforcement ID : 154403
Violation ID : 224903
Submission Year : 2019
Violation First Reported Date : 11/21/2002
Contaminant Name : Coliform (TCR)
Rule Family : Total Coliform Rules
Rule Group : Microbials
Rule Name : Total Coliform Rule
Violation Type : Maximum Contaminant Level Violation, Monthly (TCR)
Is Health Based : Y
Is Major Violation : N/R
Severity Indicator Count : N/R
Public Notification Tier : 2

Map Id: A5
 Direction: WNW
 Distance: 0.309 mi.
 Actual: 1629.724 ft.
 Elevation: 0.145 mi. / 768.058 ft.
 Relative: Higher

Site Name : CT0780181 | CT1600081
 300 S. OLD WOODWARD AVENUE
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3348559
EPA ID: N/R

PWS ENF (**cont.**)

Address Line 1 : 20 Avon Meadow Lane, AVON, 06001
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 03/31/2003
 Enforcement Action Description : State Administrative/Compliance Order with penalty issued
 Admin Name : BROWN, HAGAN
 Email Address : hagan@corridorventures.com

RTC Enforcement ID : 154505
 Violation ID : 225204
 Submission Year : 2019
 Violation First Reported Date : 11/06/2004
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Maximum Contaminant Level Violation, Monthly (TCR)
 Is Health Based : Y
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 2
 Address Line 1 : 20 Avon Meadow Lane, AVON, 06001
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 03/31/2005
 Enforcement Action Description : State Administrative/Compliance Order with penalty issued
 Admin Name : BROWN, HAGAN
 Email Address : hagan@corridorventures.com

RTC Enforcement ID : 154606
 Violation ID : 225906
 Submission Year : 2019
 Violation First Reported Date : 02/28/2006
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Maximum Contaminant Level Violation, Acute (TCR)
 Is Health Based : Y
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 1
 Address Line 1 : 20 Avon Meadow Lane, AVON, 06001
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 06/30/2006
 Enforcement Action Description : State Compliance achieved
 Admin Name : BROWN, HAGAN
 Email Address : hagan@corridorventures.com

RTC Enforcement ID : 154606
 Violation ID : 226306
 Submission Year : 2019
 Violation First Reported Date : 02/28/2006

Map Id: A5
 Direction: WNW
 Distance: 0.309 mi.
 Actual: 1629.724 ft.
 Elevation: 0.145 mi. / 768.058 ft.
 Relative: Higher

Site Name : CT0780181 | CT1600081
 300 S. OLD WOODWARD AVENUE
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3348559
EPA ID: N/R

PWS ENF (**cont.**)

Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Maximum Contaminant Level Violation, Monthly (TCR)
Is Health Based :	Y
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	2
Address Line 1 :	20 Avon Meadow Lane, AVON, 06001
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	06/30/2006
Enforcement Action Description :	State Compliance achieved
Admin Name :	BROWN, HAGAN
Email Address :	hagan@corridorventures.com

RTC Enforcement ID :	154606
Violation ID :	225805
Submission Year :	2019
Violation First Reported Date :	07/08/2005
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Maximum Contaminant Level Violation, Monthly (TCR)
Is Health Based :	Y
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	2
Address Line 1 :	20 Avon Meadow Lane, AVON, 06001
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	06/30/2006
Enforcement Action Description :	State Compliance achieved
Admin Name :	BROWN, HAGAN
Email Address :	hagan@corridorventures.com

RTC Enforcement ID :	154607
Violation ID :	226608
Submission Year :	2019
Violation First Reported Date :	12/21/2010
Contaminant Name :	Consumer Confidence Rule
Rule Family :	Consumer Confidence Rule
Rule Group :	Other
Rule Name :	Consumer Confidence Rule
Violation Type :	Consumer Confidence Report Complete Failure to Report
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	20 Avon Meadow Lane, AVON, 06001
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	07/12/2010

Map Id: A5
 Direction: WNW
 Distance: 0.309 mi.
 Actual: 1629.724 ft.
 Elevation: 0.145 mi. / 768.058 ft.
 Relative: Higher

Site Name : CT0780181 | CT1600081
 300 S. OLD WOODWARD AVENUE
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3348559
EPA ID: N/R

PWS ENF (**cont.**)

Enforcement Action Description :	State Violation/Reminder Notice
Admin Name :	BROWN, HAGAN
Email Address :	hagan@corridorventures.com
RTC Enforcement ID :	154612
Violation ID :	226609
Submission Year :	2019
Violation First Reported Date :	12/06/2012
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Maximum Contaminant Level Violation, Monthly (TCR)
Is Health Based :	Y
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	2
Address Line 1 :	20 Avon Meadow Lane, AVON, 06001
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	10/31/2012
Enforcement Action Description :	State Compliance achieved
Admin Name :	BROWN, HAGAN
Email Address :	hagan@corridorventures.com

RTC Enforcement ID :	154622
Violation ID :	226611
Submission Year :	2019
Violation First Reported Date :	05/07/2015
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Monitoring, Routine Major (TCR)
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	20 Avon Meadow Lane, AVON, 06001
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	12/19/2014
Enforcement Action Description :	State Public Notification received
Admin Name :	BROWN, HAGAN
Email Address :	hagan@corridorventures.com

RTC Enforcement ID :	154623
Violation ID :	226610
Submission Year :	2019
Violation First Reported Date :	12/29/2014
Contaminant Name :	Chlorine
Rule Family :	Stage 1 Disinfectants and Disinfection Byproducts Rule
Rule Group :	Disinfectants and Disinfection Byproducts Rule
Rule Name :	Stage 1 Disinfectants and Disinfection Byproducts Rule

Geological Landscape Section Map Findings

2021

Map Id: A5
Direction: WNW
Distance: 0.309 mi.
Actual: 1629.724 ft.
Elevation: 0.145 mi. / 768.058 ft.
Relative: Higher

Site Name : CT0780181 | CT1600081
300 S. OLD WOODWARD AVENUE
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3348559
EPA ID: N/R

PWS ENF (**cont.**)

Violation Type :	Monitoring and Reporting (DBP)
Is Health Based :	N
Is Major Violation :	Y
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	20 Avon Meadow Lane, AVON, 06001
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	09/30/2014
Enforcement Action Description :	State Public Notification received
Admin Name :	BROWN, HAGAN
Email Address :	hagan@corridorventures.com
RTC Enforcement ID :	154624
Violation ID :	226616
Submission Year :	2019
Violation First Reported Date :	07/06/2015
Contaminant Name :	Public Notice
Rule Family :	Public Notice Rule
Rule Group :	Other
Rule Name :	Public Notice Rule
Violation Type :	Public Notification Violation for NPDWR Violation
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	20 Avon Meadow Lane, AVON, 06001
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	06/19/2015
Enforcement Action Description :	State Compliance achieved
Admin Name :	BROWN, HAGAN
Email Address :	hagan@corridorventures.com
RTC Enforcement ID :	154632
Violation ID :	226623
Submission Year :	2019
Violation First Reported Date :	03/31/2016
Contaminant Name :	Public Notice
Rule Family :	Public Notice Rule
Rule Group :	Other
Rule Name :	Public Notice Rule
Violation Type :	Public Notification Violation for NPDWR Violation
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	20 Avon Meadow Lane, AVON, 06001
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	11/19/2015
Enforcement Action Description :	State Compliance achieved
Admin Name :	BROWN, HAGAN
Email Address :	hagan@corridorventures.com

Map Id: A5
 Direction: WNW
 Distance: 0.309 mi.
 Actual: 1629.724 ft.
 Elevation: 0.145 mi. / 768.058 ft.
 Relative: Higher

Site Name : CT0780181 | CT1600081
 300 S. OLD WOODWARD AVENUE
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3348559
EPA ID: N/R

PWS ENF (**cont.**)

RTC Enforcement ID : 154634
 Violation ID : 226617
 Submission Year : 2019
 Violation First Reported Date : 12/22/2015
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Maximum Contaminant Level Violation, Monthly (TCR)
 Is Health Based : Y
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 2
 Address Line 1 : 20 Avon Meadow Lane, AVON, 06001
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 11/30/2015
 Enforcement Action Description : State Compliance achieved
 Admin Name : BROWN, HAGAN
 Email Address : hagan@corridorventures.com

RTC Enforcement ID : 154635
 Violation ID : 226618
 Submission Year : 2019
 Violation First Reported Date : 02/29/2016
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Maximum Contaminant Level Violation, Monthly (TCR)
 Is Health Based : Y
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 2
 Address Line 1 : 20 Avon Meadow Lane, AVON, 06001
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 11/30/2015
 Enforcement Action Description : State Compliance achieved
 Admin Name : BROWN, HAGAN
 Email Address : hagan@corridorventures.com

RTC Enforcement ID : 154640
 Violation ID : 226632
 Submission Year : 2019
 Violation First Reported Date : 03/13/2018
 Contaminant Name : Consumer Confidence Rule
 Rule Family : Consumer Confidence Rule
 Rule Group : Other
 Rule Name : Consumer Confidence Rule
 Violation Type : Consumer Confidence Report Complete Failure to Report
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3

Map Id: A5
 Direction: WNW
 Distance: 0.309 mi.
 Actual: 1629.724 ft.
 Elevation: 0.145 mi. / 768.058 ft.
 Relative: Higher

Site Name : CT0780181 | CT1600081
 300 S. OLD WOODWARD AVENUE
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3348559
EPA ID: N/R

PWS ENF (**cont.**)

Address Line 1 : 20 Avon Meadow Lane, AVON, 06001
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 07/10/2017
 Enforcement Action Description : State Violation/Reminder Notice
 Admin Name : BROWN, HAGAN
 Email Address : hagan@corridorventures.com

RTC Enforcement ID : 154644
 Violation ID : 226630
 Submission Year : 2019
 Violation First Reported Date : 12/12/2017
 Contaminant Name : Chlorine
 Rule Family : Stage 1 Disinfectants and Disinfection Byproducts Rule
 Rule Group : Disinfectants and Disinfection Byproducts Rule
 Rule Name : Stage 1 Disinfectants and Disinfection Byproducts Rule
 Violation Type : Monitoring and Reporting (DBP)
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 20 Avon Meadow Lane, AVON, 06001
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 09/30/2017
 Enforcement Action Description : State Public Notification received
 Admin Name : BROWN, HAGAN
 Email Address : hagan@corridorventures.com

RTC Enforcement ID : 154649
 Violation ID : 226625
 Submission Year : 2019
 Violation First Reported Date : 12/12/2017
 Contaminant Name : Revised Total Coliform Rule
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Revised Total Coliform Rule
 Violation Type : Monitoring, Routine (RTCR)
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 20 Avon Meadow Lane, AVON, 06001
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 09/30/2017
 Enforcement Action Description : State Public Notification received
 Admin Name : BROWN, HAGAN
 Email Address : hagan@corridorventures.com

RTC Enforcement ID : 154650
 Violation ID : 226631
 Submission Year : 2019
 Violation First Reported Date : 12/12/2017

Map Id: A5
 Direction: WNW
 Distance: 0.309 mi.
 Actual: 1629.724 ft.
 Elevation: 0.145 mi. / 768.058 ft.
 Relative: Higher

Site Name : CT0780181 | CT1600081
 300 S. OLD WOODWARD AVENUE
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3348559
EPA ID: N/R

PWS ENF (**cont.**)

Contaminant Name :	Total Haloacetic Acids (HAA5)
Rule Family :	Stage 2 Disinfectants and Disinfection Byproducts Rule
Rule Group :	Disinfectants and Disinfection Byproducts Rule
Rule Name :	Stage 2 Disinfectants and Disinfection Byproducts Rule
Violation Type :	Monitoring and Reporting (DBP)
Is Health Based :	N
Is Major Violation :	Y
Severity Indicator Count :	1
Public Notification Tier :	3
Address Line 1 :	20 Avon Meadow Lane, AVON, 06001
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	10/06/2017
Enforcement Action Description :	State Public Notification received
Admin Name :	BROWN, HAGAN
Email Address :	hagan@corridorventures.com

RTC Enforcement ID :	154655
Violation ID :	226624
Submission Year :	2019
Violation First Reported Date :	03/31/2016
Contaminant Name :	Public Notice
Rule Family :	Public Notice Rule
Rule Group :	Other
Rule Name :	Public Notice Rule
Violation Type :	Public Notification Violation for NPDWR Violation
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	20 Avon Meadow Lane, AVON, 06001
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	03/21/2019
Enforcement Action Description :	State Compliance achieved
Admin Name :	BROWN, HAGAN
Email Address :	hagan@corridorventures.com

RTC Enforcement ID :	154657
Violation ID :	226636
Submission Year :	2019
Violation First Reported Date :	03/28/2019
Contaminant Name :	Public Notice
Rule Family :	Public Notice Rule
Rule Group :	Other
Rule Name :	Public Notice Rule
Violation Type :	Public Notification Violation for NPDWR Violation
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	20 Avon Meadow Lane, AVON, 06001
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	03/21/2019

Map Id: A5
 Direction: WNW
 Distance: 0.309 mi.
 Actual: 1629.724 ft.
 Elevation: 0.145 mi. / 768.058 ft.
 Relative: Higher

Site Name : CT0780181 | CT1600081
 300 S. OLD WOODWARD AVENUE
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3348559
EPA ID: N/R

PWS ENF (**cont.**)

Enforcement Action Description :	State Compliance achieved
Admin Name :	BROWN, HAGAN
Email Address :	hagan@corridorventures.com
RTC Enforcement ID :	1696
Violation ID :	16896
Submission Year :	2019
Violation First Reported Date :	12/27/2005
Contaminant Name :	Lead and Copper Rule
Rule Family :	Lead and Copper Rule
Rule Group :	Chemicals
Rule Name :	Lead and Copper Rule
Violation Type :	Initial Tap Sampling for Pb and Cu
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	20 Avon Meadow Lane, AVON, 06001
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	12/08/1995
Enforcement Action Description :	State Compliance achieved
Admin Name :	BROWN, HAGAN
Email Address :	hagan@corridorventures.com

RTC Enforcement ID :	1696
Violation ID :	224494
Submission Year :	2019
Violation First Reported Date :	06/17/1994
Contaminant Name :	Lead and Copper Rule
Rule Family :	Lead and Copper Rule
Rule Group :	Chemicals
Rule Name :	Lead and Copper Rule
Violation Type :	Notification, Public
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	20 Avon Meadow Lane, AVON, 06001
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	12/08/1995
Enforcement Action Description :	State Compliance achieved
Admin Name :	BROWN, HAGAN
Email Address :	hagan@corridorventures.com

Facility Address : 300 S. OLD WOODWARD AVENUE, BIRMINGHAM, MI 48009

PWS ID :	CT1600081
PWS Name :	CEDAR RIDGE APARTMENTS
EPA Region :	Region 1
Primacy Agency :	Connecticut
PWS Type :	Community water system

Map Id: A5
 Direction: WNW
 Distance: 0.309 mi.
 Actual: 1629.724 ft.
 Elevation: 0.145 mi. / 768.058 ft.
 Relative: Higher

Site Name : CT0780181 | CT1600081
 300 S. OLD WOODWARD AVENUE
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3348559
EPA ID: N/R

PWS ENF (**cont.**)

Primacy Type :	State
Primary Source :	Ground water
Activity Status :	Active
Deactivation Date :	N/R
Owner Type :	Private
Phone Number :	203-941-6005
Last Date in Agency List :	10/26/2020

Violation Details

RTC Enforcement ID :	231010
Violation ID :	227110
Submission Year :	2020
Violation First Reported Date :	12/21/2010
Contaminant Name :	Consumer Confidence Rule
Rule Family :	Consumer Confidence Rule
Rule Group :	Other
Rule Name :	Consumer Confidence Rule
Violation Type :	Consumer Confidence Report Complete Failure to Report
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	43 Burt Latham Rd, WILLINGTON, 06279
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	07/12/2010
Enforcement Action Description :	State Violation/Reminder Notice
Admin Name :	BROUSSEAU, MARTIN
Email Address :	martin.brouseeau@storrsstudentliving.com

RTC Enforcement ID :	231020
Violation ID :	227209
Submission Year :	2020
Violation First Reported Date :	05/19/2016
Contaminant Name :	Lead and Copper Rule
Rule Family :	Lead and Copper Rule
Rule Group :	Chemicals
Rule Name :	Lead and Copper Rule
Violation Type :	Lead Consumer Notice
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	43 Burt Latham Rd, WILLINGTON, 06279
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	02/26/2016
Enforcement Action Description :	State Compliance achieved
Admin Name :	BROUSSEAU, MARTIN
Email Address :	martin.brouseeau@storrsstudentliving.com

RTC Enforcement ID :	N/R
Violation ID :	227216

Geological Landscape Section Map Findings

2021

Map Id: A5
Direction: WNW
Distance: 0.309 mi.
Actual: 1629.724 ft.
Elevation: 0.145 mi. / 768.058 ft.
Relative: Higher

Site Name : CT0780181 | CT1600081
300 S. OLD WOODWARD AVENUE
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3348559
EPA ID: N/R

PWS ENF (**cont.**)

Submission Year : 2020
Violation First Reported Date : 03/13/2018
Contaminant Name : Nitrate
Rule Family : Inorganic Chemicals
Rule Group : Chemicals
Rule Name : Nitrates
Violation Type : Monitoring, Regular
Is Health Based : N
Is Major Violation : Y
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 43 Burt Latham Rd, WILLINGTON, 06279
Address Line 2 : N/R
Compliance Status : Known
RTC Date : N/R
Enforcement Action Description : State Public Notification received
Admin Name : BROUSSEAU, MARTIN
Email Address : martin.brouseeau@storrsstudentliving.com

RTC Enforcement ID : N/R
Violation ID : 227138
Submission Year : 2020
Violation First Reported Date : 05/18/2011
Contaminant Name : Vinyl chloride
Rule Family : Volatile Organic Chemicals
Rule Group : Chemicals
Rule Name : Volatile Organic Chemicals
Violation Type : Monitoring, Regular
Is Health Based : N
Is Major Violation : Y
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 43 Burt Latham Rd, WILLINGTON, 06279
Address Line 2 : N/R
Compliance Status : Known
RTC Date : N/R
Enforcement Action Description : State Intentional no-action
Admin Name : BROUSSEAU, MARTIN
Email Address : martin.brouseeau@storrsstudentliving.com

RTC Enforcement ID : N/R
Violation ID : 227181
Submission Year : 2020
Violation First Reported Date : 05/18/2011
Contaminant Name : Atrazine
Rule Family : Synthetic Organic Chemicals
Rule Group : Chemicals
Rule Name : Synthetic Organic Chemicals
Violation Type : Monitoring, Regular
Is Health Based : N
Is Major Violation : Y
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 43 Burt Latham Rd, WILLINGTON, 06279
Address Line 2 : N/R

Map Id: A5
 Direction: WNW
 Distance: 0.309 mi.
 Actual: 1629.724 ft.
 Elevation: 0.145 mi. / 768.058 ft.
 Relative: Higher

Site Name : CT0780181 | CT1600081
 300 S. OLD WOODWARD AVENUE
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3348559
EPA ID: N/R

PWS ENF (**cont.**)

Compliance Status :	Known
RTC Date :	N/R
Enforcement Action Description :	State Intentional no-action
Admin Name :	BROUSSEAU, MARTIN
Email Address :	martin.brouseeau@storrstudentliving.com

Map Id: A6
 Direction: WNW
 Distance: 0.321 mi.
 Actual: 1694.914 ft.
 Elevation: 0.146 mi. / 768.327 ft.
 Relative: Higher

Site Name : VT0020477 | UNIPROP-HURON SHORES
 MHC
 AIR DEVELOPMENT LLC 280 DAINES ST
 SUITE 300 | 280 DAINES STREET, SUITE
 300
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF]

EnviroSite ID: 3316416
EPA ID: N/R

PWS

Facility Address : AIR DEVELOPMENT LLC, 280 DAINES ST SUITE 300, BIRMINGHAM, MI 48009

PWS ID :	VT0020477
PWS Type :	Transient non-community system
PWS Name :	APPLE ISLAND RESORT
Activity Status :	Active
Primary Source :	Surface water
Submission Year :	2020
Submission Year Quarter :	2020Q3
Population Served Count :	900
Service Connections Count :	308
Population Category 2 :	<10,000
Population Category 3 :	<=3300
Population Category 4 :	<10K
Population Category 5 :	501-3,300
Population Category 11 :	501-1,000
Submission Quarter :	3
Submission Status Code :	Y
First Reported Date :	05/20/1996
Last Reported Date :	08/17/2020
Deactivation Date :	N/R
GW or SW :	Surface water
Is Grant Eligible :	Y
Is Outstanding Performer :	N
Is School or Daycare :	N
Is Source Water Protected :	N
Primacy Agency :	Vermont
Primacy Type :	State
Org Name :	ANDERSON, CHRISTOPHER R
EPA Region :	Region 1
Admin Name :	ANDERSON, CHRISTOPHER R
Owner Type :	Private

Map Id: A6
 Direction: WNW
 Distance: 0.321 mi.
 Actual: 1694.914 ft.
 Elevation: 0.146 mi. / 768.327 ft.
 Relative: Higher

Site Name : VT0020477 | UNIPROP-HURON SHORES
 MHC
 AIR DEVELOPMENT LLC 280 DAINES ST
 SUITE 300 | 280 DAINES STREET, SUITE
 300
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] **(cont.)**

Envirosite ID: 3316416
EPA ID: N/R

PWS (cont.)

Phone Number : 248-594-6826
 Phone Ext Number : N/R
 Alt Phone Number : N/R
 Email Address : chris@uniprop.com
 Fax Number : 248-645-2154
 Is Wholesaler : N
 LT2 Schedule Category : N/R
 NPM Candidate : Y
 CDS ID : N/R
 DBPR Schedule Category : N/R
 Outstanding Performer Date : N/R
 Season Begin Date : 05-01
 Season End Date : 10-31
 Source Water Protection Date : N/R
 Seasonal Startup System : Not Pressurized All Year
 Reduced Monitoring Begin Date : N/R
 Reduced Monitoring End Date : N/R
 Reduced RTCR Monitoring : N/R
 Last Date in Agency List : 10/26/2020

PWS ENF

Facility Address : AIR DEVELOPMENT LLC, 280 DAINES ST SUITE 300, BIRMINGHAM, MI 48009

PWS ID : VT0020477
 PWS Name : APPLE ISLAND RESORT
 EPA Region : Region 1
 Primacy Agency : Vermont
 PWS Type : Transient non-community system
 Primacy Type : State
 Primary Source : Surface water
 Activity Status : Active
 Deactivation Date : N/R
 Owner Type : Private
 Phone Number : 248-594-6826
 Last Date in Agency List : 10/26/2020

Violation Details

RTC Enforcement ID : 2594806
 Violation ID : 1045202
 Submission Year : 2020
 Violation First Reported Date : 11/16/2005
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R

Map Id: A6
 Direction: WNW
 Distance: 0.321 mi.
 Actual: 1694.914 ft.
 Elevation: 0.146 mi. / 768.327 ft.
 Relative: Higher

Site Name : VT0020477 | UNIPROP-HURON SHORES
 MHC
 AIR DEVELOPMENT LLC 280 DAINES ST
 SUITE 300 | 280 DAINES STREET, SUITE
 300
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] **(cont.)**

Envirosite ID: 3316416
EPA ID: N/R

PWS ENF (cont.)

Public Notification Tier : 3
 Address Line 1 : AIR DEVELOPMENT LLC, BIRMINGHAM, 48009
 Address Line 2 : 280 DAINES ST SUITE 300
 Compliance Status : Returned to Compliance
 RTC Date : 09/03/2019
 Enforcement Action Description : State Compliance achieved
 Admin Name : ANDERSON, CHRISTOPHER R
 Email Address : chris@uniprop.com

RTC Enforcement ID : 2594806
 Violation ID : 806299
 Submission Year : 2020
 Violation First Reported Date : 11/16/2005
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : AIR DEVELOPMENT LLC, BIRMINGHAM, 48009
 Address Line 2 : 280 DAINES ST SUITE 300
 Compliance Status : Returned to Compliance
 RTC Date : 09/03/2019
 Enforcement Action Description : State Compliance achieved
 Admin Name : ANDERSON, CHRISTOPHER R
 Email Address : chris@uniprop.com

RTC Enforcement ID : 2594806
 Violation ID : 818500
 Submission Year : 2020
 Violation First Reported Date : 11/16/2005
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : AIR DEVELOPMENT LLC, BIRMINGHAM, 48009
 Address Line 2 : 280 DAINES ST SUITE 300
 Compliance Status : Returned to Compliance
 RTC Date : 09/03/2019
 Enforcement Action Description : State Compliance achieved
 Admin Name : ANDERSON, CHRISTOPHER R
 Email Address : chris@uniprop.com

Map Id: A6
 Direction: WNW
 Distance: 0.321 mi.
 Actual: 1694.914 ft.
 Elevation: 0.146 mi. / 768.327 ft.
 Relative: Higher

Site Name : VT0020477 | UNIPROP-HURON SHORES
 MHC
 AIR DEVELOPMENT LLC 280 DAINES ST
 SUITE 300 | 280 DAINES STREET, SUITE
 300
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] **(cont.)**

EnviroSite ID: 3316416
EPA ID: N/R

PWS ENF (cont.)

RTC Enforcement ID : N/R
 Violation ID : 828099
 Submission Year : 2020
 Violation First Reported Date : 11/16/2005
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Notification, Public
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : AIR DEVELOPMENT LLC, BIRMINGHAM, 48009
 Address Line 2 : 280 DAINES ST SUITE 300
 Compliance Status : Known
 RTC Date : N/R
 Enforcement Action Description : State Public Notification requested
 Admin Name : ANDERSON, CHRISTOPHER R
 Email Address : chris@uniprop.com

RTC Enforcement ID : N/R
 Violation ID : 828199
 Submission Year : 2020
 Violation First Reported Date : 11/16/2005
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Notification, Public
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : AIR DEVELOPMENT LLC, BIRMINGHAM, 48009
 Address Line 2 : 280 DAINES ST SUITE 300
 Compliance Status : Known
 RTC Date : N/R
 Enforcement Action Description : State Public Notification requested
 Admin Name : ANDERSON, CHRISTOPHER R
 Email Address : chris@uniprop.com

RTC Enforcement ID : N/R
 Violation ID : 320802
 Submission Year : 2020
 Violation First Reported Date : 02/28/2002
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N

Map Id: A6
 Direction: WNW
 Distance: 0.321 mi.
 Actual: 1694.914 ft.
 Elevation: 0.146 mi. / 768.327 ft.
 Relative: Higher

Site Name : VT0020477 | UNIPROP-HURON SHORES
 MHC
 AIR DEVELOPMENT LLC 280 DAINES ST
 SUITE 300 | 280 DAINES STREET, SUITE
 300
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] **(cont.)**

EnviroSite ID: 3316416
EPA ID: N/R

PWS ENF (cont.)

Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : AIR DEVELOPMENT LLC, BIRMINGHAM, 48009
 Address Line 2 : 280 DAINES ST SUITE 300
 Compliance Status : Known
 RTC Date : N/R
 Enforcement Action Description : State Public Notification requested
 Admin Name : ANDERSON, CHRISTOPHER R
 Email Address : chris@uniprop.com

RTC Enforcement ID : N/R
 Violation ID : 270199
 Submission Year : 2020
 Violation First Reported Date : 05/19/2000
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : AIR DEVELOPMENT LLC, BIRMINGHAM, 48009
 Address Line 2 : 280 DAINES ST SUITE 300
 Compliance Status : Known
 RTC Date : N/R
 Enforcement Action Description : N/R
 Admin Name : ANDERSON, CHRISTOPHER R
 Email Address : chris@uniprop.com

RTC Enforcement ID : N/R
 Violation ID : 271999
 Submission Year : 2020
 Violation First Reported Date : 05/19/2000
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Notification, Public
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : AIR DEVELOPMENT LLC, BIRMINGHAM, 48009
 Address Line 2 : 280 DAINES ST SUITE 300
 Compliance Status : Known
 RTC Date : N/R
 Enforcement Action Description : N/R
 Admin Name : ANDERSON, CHRISTOPHER R
 Email Address : chris@uniprop.com

Map Id: A6
 Direction: WNW
 Distance: 0.321 mi.
 Actual: 1694.914 ft.
 Elevation: 0.146 mi. / 768.327 ft.
 Relative: Higher

Site Name : VT0020477 | UNIPROP-HURON SHORES
 MHC
 AIR DEVELOPMENT LLC 280 DAINES ST
 SUITE 300 | 280 DAINES STREET, SUITE
 300
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] **(cont.)**

EnviroSite ID: 3316416
EPA ID: N/R

PWS ENF (cont.)

RTC Enforcement ID :	N/R
Violation ID :	272299
Submission Year :	2020
Violation First Reported Date :	05/19/2000
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Notification, Public
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	AIR DEVELOPMENT LLC, BIRMINGHAM, 48009
Address Line 2 :	280 DAINES ST SUITE 300
Compliance Status :	Known
RTC Date :	N/R
Enforcement Action Description :	N/R
Admin Name :	ANDERSON, CHRISTOPHER R
Email Address :	chris@uniprop.com

Map Id: A7
 Direction: WNW
 Distance: 0.321 mi.
 Actual: 1697.440 ft.
 Elevation: 0.146 mi. / 768.622 ft.
 Relative: Higher

Site Name : CT1600081
 300 SOUTH OLD WOODWARD
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF]

EnviroSite ID: 3367062
EPA ID: N/R

PWS

Facility Address : 300 SOUTH OLD WOODWARD, BIRMINGHAM, MI 48009

PWS ID :	CT1600081
PWS Type :	Community water system
PWS Name :	CEDAR RIDGE APARTMENTS
Activity Status :	Active
Primary Source :	Ground water
Submission Year :	2018
Submission Year Quarter :	2018Q1
Population Served Count :	300
Service Connections Count :	100
Population Category 2 :	<10,000
Population Category 3 :	<=3300
Population Category 4 :	<10K
Population Category 5 :	<=500
Population Category 11 :	101-500
Submission Quarter :	1
Submission Status Code :	Y

Map Id: A7
 Direction: WNW
 Distance: 0.321 mi.
 Actual: 1697.440 ft.
 Elevation: 0.146 mi. / 768.622 ft.
 Relative: Higher

Site Name : CT1600081
 300 SOUTH OLD WOODWARD
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3367062
EPA ID: N/R

PWS (**cont.**)

First Reported Date : 03/08/1979
 Last Reported Date : 03/29/2018
 Deactivation Date : N/R
 GW or SW : Groundwater
 Is Grant Eligible : Y
 Is Outstanding Performer : N/R
 Is School or Daycare : N
 Is Source Water Protected : Y
 Primacy Agency : Connecticut
 Primacy Type : State
 Org Name : LUTZ, ADAM
 EPA Region : Region 1
 Admin Name : LUTZ, ADAM
 Owner Type : Private
 Phone Number : 248-432-3200
 Phone Ext Number : N/R
 Alt Phone Number : N/R
 Email Address : alutz@lutzco.com
 Fax Number : 248-432-3201
 Is Wholesaler : N
 LT2 Schedule Category : N/R
 NPM Candidate : Y
 CDS ID : N/R
 DBPR Schedule Category : N/R
 Outstanding Performer Date : N/R
 Season Begin Date : N/R
 Season End Date : N/R
 Source Water Protection Date : 01/01/2012
 Seasonal Startup System : N/R
 Reduced Monitoring Begin Date : N/R
 Reduced Monitoring End Date : N/R
 Reduced RTCR Monitoring : N/R
 Last Date in Agency List : 05/31/2018

PWS ID : CT1600081
 PWS Type : Community water system
 PWS Name : CEDAR RIDGE APARTMENTS
 Activity Status : Active
 Primary Source : Ground water
 Submission Year : 2018
 Submission Year Quarter : 2018Q2
 Population Served Count : 300
 Service Connections Count : 100
 Population Category 2 : <10,000
 Population Category 3 : <=3300
 Population Category 4 : <10K
 Population Category 5 : <=500
 Population Category 11 : 101-500
 Submission Quarter : 2
 Submission Status Code : Y
 First Reported Date : 03/08/1979
 Last Reported Date : 07/02/2018
 Deactivation Date : N/R
 GW or SW : Groundwater
 Is Grant Eligible : Y
 Is Outstanding Performer : N/R

Geological Landscape Section Map Findings

2021

Map Id: A7
Direction: WNW
Distance: 0.321 mi.
Actual: 1697.440 ft.
Elevation: 0.146 mi. / 768.622 ft.
Relative: Higher

Site Name : CT1600081
300 SOUTH OLD WOODWARD
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3367062
EPA ID: N/R

PWS (**cont.**)

Is School or Daycare :	N
Is Source Water Protected :	Y
Primacy Agency :	Connecticut
Primacy Type :	State
Org Name :	LUTZ, ADAM
EPA Region :	Region 1
Admin Name :	LUTZ, ADAM
Owner Type :	Private
Phone Number :	248-432-3200
Phone Ext Number :	N/R
Alt Phone Number :	N/R
Email Address :	alutz@lutzco.com
Fax Number :	248-432-3201
Is Wholesaler :	N
LT2 Schedule Category :	N/R
NPM Candidate :	Y
CDS ID :	N/R
DBPR Schedule Category :	N/R
Outstanding Performer Date :	N/R
Season Begin Date :	N/R
Season End Date :	N/R
Source Water Protection Date :	01/01/2012
Seasonal Startup System :	N/R
Reduced Monitoring Begin Date :	N/R
Reduced Monitoring End Date :	N/R
Reduced RTCR Monitoring :	N/R
Last Date in Agency List :	08/09/2018

PWS ENF

Facility Address : 300 SOUTH OLD WOODWARD, BIRMINGHAM, MI 48009

PWS ID :	CT1600081
PWS Name :	CEDAR RIDGE APARTMENTS
EPA Region :	Region 1
Primacy Agency :	Connecticut
PWS Type :	Community water system
Primacy Type :	State
Primary Source :	Ground water
Activity Status :	Active
Deactivation Date :	N/R
Owner Type :	Private
Phone Number :	203-941-6005
Last Date in Agency List :	10/26/2020

Violation Details

RTC Enforcement ID :	230607
Violation ID :	226507
Submission Year :	2020
Violation First Reported Date :	11/07/2006
Contaminant Name :	Combined Uranium
Rule Family :	Radionuclides
Rule Group :	Chemicals
Rule Name :	Radionuclides

Geological Landscape Section Map Findings

2021

Map Id: A7
Direction: WNW
Distance: 0.321 mi.
Actual: 1697.440 ft.
Elevation: 0.146 mi. / 768.622 ft.
Relative: Higher

Site Name : CT1600081
300 SOUTH OLD WOODWARD
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3367062
EPA ID: N/R

PWS ENF (**cont.**)

Violation Type :	Monitoring, Regular
Is Health Based :	N
Is Major Violation :	Y
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	43 Burt Latham Rd, WILLINGTON, 06279
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	03/20/2007
Enforcement Action Description :	State Compliance achieved
Admin Name :	BROUSSEAU, MARTIN
Email Address :	martin.brouseeau@storrstudentliving.com

RTC Enforcement ID :	N/R
Violation ID :	227162
Submission Year :	2020
Violation First Reported Date :	05/18/2011
Contaminant Name :	Methoxychlor
Rule Family :	Synthetic Organic Chemicals
Rule Group :	Chemicals
Rule Name :	Synthetic Organic Chemicals
Violation Type :	Monitoring, Regular
Is Health Based :	N
Is Major Violation :	Y
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	43 Burt Latham Rd, WILLINGTON, 06279
Address Line 2 :	N/R
Compliance Status :	Known
RTC Date :	N/R
Enforcement Action Description :	State Intentional no-action
Admin Name :	BROUSSEAU, MARTIN
Email Address :	martin.brouseeau@storrstudentliving.com

RTC Enforcement ID :	N/R
Violation ID :	227182
Submission Year :	2020
Violation First Reported Date :	05/18/2011
Contaminant Name :	LASSO
Rule Family :	Synthetic Organic Chemicals
Rule Group :	Chemicals
Rule Name :	Synthetic Organic Chemicals
Violation Type :	Monitoring, Regular
Is Health Based :	N
Is Major Violation :	Y
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	43 Burt Latham Rd, WILLINGTON, 06279
Address Line 2 :	N/R
Compliance Status :	Known
RTC Date :	N/R
Enforcement Action Description :	State Intentional no-action
Admin Name :	BROUSSEAU, MARTIN
Email Address :	martin.brouseeau@storrstudentliving.com

Geological Landscape Section Map Findings

2021

Map Id: B8
Direction: ESE
Distance: 0.324 mi.
Actual: 1712.139 ft.
Elevation: 0.142 mi. / 747.674 ft.
Relative: Lower

Site Name : 63000054342
42.539536, -83.200287
MI
Database(s) : [WELLS - MI]

Envirosite ID: 35371884
EPA ID: N/R

WELLS - MI

Well ID :	63000054342
County :	Oakland
Permit Number :	20419000002
Township :	Troy
Section/Township/Range :	SEC: 31, TWP: 02N, RNG: 11E
Owner Name :	SSG CRAIG LUDWIG MD
Well Address :	1602 COLE AVE, BIRMINGHAM, 480097055
Well Depth (Feet) :	146
Well Type :	Irrigation
Other Well Type :	N/R
Well Status :	Active
Other Well Status :	N/R
Water Supply Serial Number :	0
Well Number :	N/R
Driller ID :	44-2007
Drilling Method :	Rotary
Other Method :	N/R
Construction Date :	2019-08-14
Case Type :	PVC Plastic
Other Case Type :	N/R
Well Casing Diameter (Inches) :	5
Depth of Casing (Feet) :	138
Screen Start Depth (Feet) :	138
Screen End Depth (Feet) :	146
Static Water Level (Feet) :	70
Flowing :	Not a flowing well
Aquifer Type :	N/R
Test Depth (Feet) :	130
Test Hours (Hour) :	3
Test Rate (Gallons per Minute) :	25
Test Method :	Air
Other Test Method :	N/R
Grouted :	Y
Pump Capacity (Gallons per Minute) :	10
Method of Collection	
(Latitude/Longitude):	GPS Code Measurement Differential (DGPS)
Elevation (Feet) :	0
Method of Collection (Elevation) :	N/R
Within :	Y
Within Section :	Yes, well point is within the stated land survey section
Location Match :	Yes, well point is within the stated Tier/Range
Section Distance :	The well point is within 200 ft of the stated land survey section
Elevation (DEM) :	747
Elevation Difference (Feet) :	0
Landsystem Group Polygon :	Lacustrine Fine
Depth Flag :	N/R
Elevation Flag :	N/R
SWL Flag :	N/R
Specific Capacity :	N/R
Aquifer Code :	Drift (Glacial) Well
Rock Top (Feet) :	N/R
Thickness of All Drift Strata :	12
Confined Horizontal Hydraulic :	50
Confined Vertical Hydraulic :	50
Confined Transmissivity :	600
Thickness of All Drift Strata 2 :	12
Unconfined Horizontal Hydraulic :	50

Geological Landscape Section Map Findings

2021

Map Id: B8
Direction: ESE
Distance: 0.324 mi.
Actual: 1712.139 ft.
Elevation: 0.142 mi. / 747.674 ft.
Relative: Lower

Site Name : 63000054342
42.539536, -83.200287
MI
Database(s) : [WELLS - MI] (**cont.**)

Envirosite ID: 35371884
EPA ID: N/R

WELLS - MI (**cont.**)

Unconfined Vertical Hydraulic :	50
Unconfined Transmissivity :	600
Thickness of All Bedrock Strata :	N/R
Horizontal Hydraulic (Bedrock) :	N/R
Vertical Hydraulic (Bedrock) :	N/R
Transmissivity for Bedrock Units :	N/R
Thickness of All Drift Strata (Ground Surface):	12
Horizontal Hydraulic (Drift) :	50
Vertical Hydraulic (Drift) :	50
Transmissivity :	600
Latitude :	42.53953635
Longitude :	-83.2002866
Last Date in Agency List :	2020-03-19

Map Id: B9
Direction: ESE
Distance: 0.327 mi.
Actual: 1728.083 ft.
Elevation: 0.142 mi. / 747.267 ft.
Relative: Lower

Site Name : 63000054179
42.539531, -83.200221
MI
Database(s) : [WELLS - MI]

Envirosite ID: 22819154
EPA ID: N/R

WELLS - MI

Well ID :	63000054179
County :	Oakland
Permit Number :	204-19-000002
Township :	Troy
Section/Township/Range :	SEC: 31, TWP: 02N, RNG: 11E
Owner Name :	CRAIG LUDWIG
Well Address :	1602 COLE, BIRMINGHAM, 48009
Well Depth (Feet) :	146
Well Type :	Irrigation
Other Well Type :	N/R
Well Status :	Active
Other Well Status :	N/R
Water Supply Serial Number :	0
Well Number :	N/R
Driller ID :	44-2007
Drilling Method :	Rotary
Other Method :	N/R
Construction Date :	2019-08-14
Case Type :	PVC Plastic
Other Case Type :	N/R
Well Casing Diameter (Inches) :	5
Depth of Casing (Feet) :	138
Screen Start Depth (Feet) :	138
Screen End Depth (Feet) :	146
Static Water Level (Feet) :	70
Flowing :	Not a flowing well
Aquifer Type :	N/R
Test Depth (Feet) :	130

Map Id: B9
 Direction: ESE
 Distance: 0.327 mi.
 Actual: 1728.083 ft.
 Elevation: 0.142 mi. / 747.267 ft.
 Relative: Lower

Site Name : 63000054179
 42.539531, -83.200221
 MI
Database(s) : [WELLS - MI] (**cont.**)

Envirosite ID: 22819154
EPA ID: N/R

WELLS - MI (**cont.**)

Test Hours (Hour) :	3
Test Rate (Gallons per Minute) :	25
Test Method :	Air
Other Test Method :	N/R
Grouted :	Y
Pump Capacity (Gallons per Minute) :	10
Method of Collection	
(Latitude/Longitude):	GPS Code Meas. Std. Positioning Svc. SA Off
Elevation (Feet) :	0
Method of Collection (Elevation) :	N/R
Within :	Y
Within Section :	Yes, well point is within the stated land survey section
Location Match :	Yes, well point is within the stated Tier/Range
Section Distance :	The well point is within 200 ft of the stated land survey section
Elevation (DEM) :	747
Elevation Difference (Feet) :	0
Landsystem Group Polygon :	Lacustrine Fine
Depth Flag :	N/R
Elevation Flag :	N/R
SWL Flag :	N/R
Specific Capacity :	N/R
Aquifer Code :	Drift (Glacial) Well
Rock Top (Feet) :	N/R
Thickness of All Drift Strata :	12
Confined Horizontal Hydraulic :	50
Confined Vertical Hydraulic :	50
Confined Transmissivity :	600
Thickness of All Drift Strata 2 :	12
Unconfined Horizontal Hydraulic :	50
Unconfined Vertical Hydraulic :	50
Unconfined Transmissivity :	600
Thickness of All Bedrock Strata :	N/R
Horizontal Hydraulic (Bedrock) :	N/R
Vertical Hydraulic (Bedrock) :	N/R
Transmissivity for Bedrock Units :	N/R
Thickness of All Drift Strata (Ground	
Surface):	12
Horizontal Hydraulic (Drift) :	50
Vertical Hydraulic (Drift) :	50
Transmissivity :	600
Latitude :	42.539531
Longitude :	-83.200221
Last Date in Agency List :	2020-03-19

Geological Landscape Section Map Findings

2021

Map Id: A10
Direction: WNW
Distance: 0.347 mi.
Actual: 1832.283 ft.
Elevation: 0.146 mi. / 768.868 ft.
Relative: Higher

Site Name : MI6321772 | MI6321782
260 E BROWN, STE 280
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF]

EnviroSite ID: 3349969
EPA ID: N/R

PWS

Facility Address : 260 E BROWN, STE 280, BIRMINGHAM, MI 48009

PWS ID : MI6321782
PWS Type : Non-Transient non-community system
PWS Name : WEST POINTE CTR-NORTH WELL
Activity Status : Active
Primary Source : Ground water
Submission Year : 2018
Submission Year Quarter : 2018Q1
Population Served Count : 100
Service Connections Count : 2
Population Category 2 : <10,000
Population Category 3 : <=3300
Population Category 4 : <10K
Population Category 5 : <=500
Population Category 11 : <=100
Submission Quarter : 1
Submission Status Code : Y
First Reported Date : 06/14/1991
Last Reported Date : 03/15/2018
Deactivation Date : N/R
GW or SW : Groundwater
Is Grant Eligible : Y
Is Outstanding Performer : N/R
Is School or Daycare : N
Is Source Water Protected : N/R
Primacy Agency : Michigan
Primacy Type : State
Org Name : 2178263
EPA Region : Region 5
Admin Name : BRODER & SACHSE REAL ESTATE SVCS
Owner Type : Private
Phone Number : 2483575756
Phone Ext Number : N/R
Alt Phone Number : N/R
Email Address : N/R
Fax Number : N/R
Is Wholesaler : N
LT2 Schedule Category : N/R
NPM Candidate : Y
CDS ID : N/R
DBPR Schedule Category : N/R
Outstanding Performer Date : N/R
Season Begin Date : 01-01
Season End Date : 12-31
Source Water Protection Date : N/R
Seasonal Startup System : N/R
Reduced Monitoring Begin Date : N/R
Reduced Monitoring End Date : N/R
Reduced RTRC Monitoring : N/R
Last Date in Agency List : 05/31/2018

PWS ID : MI6321782
PWS Type : Non-Transient non-community system
PWS Name : WEST POINTE CTR-NORTH WELL

Geological Landscape Section Map Findings

2021

Map Id: A10
Direction: WNW
Distance: 0.347 mi.
Actual: 1832.283 ft.
Elevation: 0.146 mi. / 768.868 ft.
Relative: Higher

Site Name : MI6321772 | MI6321782
260 E BROWN, STE 280
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3349969
EPA ID: N/R

PWS (**cont.**)

Activity Status :	Active
Primary Source :	Ground water
Submission Year :	2018
Submission Year Quarter :	2018Q2
Population Served Count :	100
Service Connections Count :	2
Population Category 2 :	<10,000
Population Category 3 :	<=3300
Population Category 4 :	<10K
Population Category 5 :	<=500
Population Category 11 :	<=100
Submission Quarter :	2
Submission Status Code :	Y
First Reported Date :	06/14/1991
Last Reported Date :	06/27/2018
Deactivation Date :	N/R
GW or SW :	Groundwater
Is Grant Eligible :	Y
Is Outstanding Performer :	N/R
Is School or Daycare :	N
Is Source Water Protected :	N/R
Primacy Agency :	Michigan
Primacy Type :	State
Org Name :	2178263
EPA Region :	Region 5
Admin Name :	BRODER & SACHSE REAL ESTATE SVCS
Owner Type :	Private
Phone Number :	2483575756
Phone Ext Number :	N/R
Alt Phone Number :	N/R
Email Address :	N/R
Fax Number :	N/R
Is Wholesaler :	N
LT2 Schedule Category :	N/R
NPM Candidate :	Y
CDS ID :	N/R
DBPR Schedule Category :	N/R
Outstanding Performer Date :	N/R
Season Begin Date :	01-01
Season End Date :	12-31
Source Water Protection Date :	N/R
Seasonal Startup System :	N/R
Reduced Monitoring Begin Date :	N/R
Reduced Monitoring End Date :	N/R
Reduced RTCR Monitoring :	N/R
Last Date in Agency List :	08/09/2018
Facility Address :	260 E BROWN, STE 280, BIRMINGHAM, MI 48009
PWS ID :	MI6321772
PWS Type :	Non-Transient non-community system
PWS Name :	WEST POINTE CTR-SOUTH WELL
Activity Status :	Active
Primary Source :	Ground water
Submission Year :	2018

Geological Landscape Section Map Findings

2021

Map Id: A10
Direction: WNW
Distance: 0.347 mi.
Actual: 1832.283 ft.
Elevation: 0.146 mi. / 768.868 ft.
Relative: Higher

Site Name : MI6321772 | MI6321782
260 E BROWN, STE 280
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3349969
EPA ID: N/R

PWS (**cont.**)

Submission Year Quarter :	2018Q1
Population Served Count :	38
Service Connections Count :	2
Population Category 2 :	<10,000
Population Category 3 :	<=3300
Population Category 4 :	<10K
Population Category 5 :	<=500
Population Category 11 :	<=100
Submission Quarter :	1
Submission Status Code :	Y
First Reported Date :	06/14/1991
Last Reported Date :	03/15/2018
Deactivation Date :	N/R
GW or SW :	Groundwater
Is Grant Eligible :	Y
Is Outstanding Performer :	N/R
Is School or Daycare :	N
Is Source Water Protected :	N/R
Primacy Agency :	Michigan
Primacy Type :	State
Org Name :	2177263
EPA Region :	Region 5
Admin Name :	BRODER & SACHSE REAL ESTATE SVCS
Owner Type :	Private
Phone Number :	2483575756
Phone Ext Number :	N/R
Alt Phone Number :	N/R
Email Address :	N/R
Fax Number :	N/R
Is Wholesaler :	N
LT2 Schedule Category :	N/R
NPM Candidate :	Y
CDS ID :	N/R
DBPR Schedule Category :	N/R
Outstanding Performer Date :	N/R
Season Begin Date :	01-01
Season End Date :	12-31
Source Water Protection Date :	N/R
Seasonal Startup System :	N/R
Reduced Monitoring Begin Date :	N/R
Reduced Monitoring End Date :	N/R
Reduced RTCR Monitoring :	N/R
Last Date in Agency List :	05/31/2018

PWS ID :	MI6321772
PWS Type :	Non-Transient non-community system
PWS Name :	WEST POINTE CTR-SOUTH WELL
Activity Status :	Active
Primary Source :	Ground water
Submission Year :	2018
Submission Year Quarter :	2018Q2
Population Served Count :	38
Service Connections Count :	2
Population Category 2 :	<10,000
Population Category 3 :	<=3300
Population Category 4 :	<10K

Geological Landscape Section Map Findings

2021

Map Id: A10
Direction: WNW
Distance: 0.347 mi.
Actual: 1832.283 ft.
Elevation: 0.146 mi. / 768.868 ft.
Relative: Higher

Site Name : MI6321772 | MI6321782
260 E BROWN, STE 280
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3349969
EPA ID: N/R

PWS (**cont.**)

Population Category 5 :	<=500
Population Category 11 :	<=100
Submission Quarter :	2
Submission Status Code :	Y
First Reported Date :	06/14/1991
Last Reported Date :	06/27/2018
Deactivation Date :	N/R
GW or SW :	Groundwater
Is Grant Eligible :	Y
Is Outstanding Performer :	N/R
Is School or Daycare :	N
Is Source Water Protected :	N/R
Primacy Agency :	Michigan
Primacy Type :	State
Org Name :	2177263
EPA Region :	Region 5
Admin Name :	BRODER & SACHSE REAL ESTATE SVCS
Owner Type :	Private
Phone Number :	2483575756
Phone Ext Number :	N/R
Alt Phone Number :	N/R
Email Address :	N/R
Fax Number :	N/R
Is Wholesaler :	N
LT2 Schedule Category :	N/R
NPM Candidate :	Y
CDS ID :	N/R
DBPR Schedule Category :	N/R
Outstanding Performer Date :	N/R
Season Begin Date :	01-01
Season End Date :	12-31
Source Water Protection Date :	N/R
Seasonal Startup System :	N/R
Reduced Monitoring Begin Date :	N/R
Reduced Monitoring End Date :	N/R
Reduced RTRC Monitoring :	N/R
Last Date in Agency List :	08/09/2018

PWS ENF

Facility Address : 260 E BROWN, STE 280, BIRMINGHAM, MI 48009

PWS ID :	MI6321782
PWS Name :	WEST POINTE CTR-NORTH WELL
EPA Region :	Region 5
Primacy Agency :	Michigan
PWS Type :	Non-Transient non-community system
Primacy Type :	State
Primary Source :	Ground water
Activity Status :	Active
Deactivation Date :	N/R
Owner Type :	Private
Phone Number :	2483575756
Last Date in Agency List :	08/09/2018

Map Id: A10
 Direction: WNW
 Distance: 0.347 mi.
 Actual: 1832.283 ft.
 Elevation: 0.146 mi. / 768.868 ft.
 Relative: Higher

Site Name : MI6321772 | MI6321782
 260 E BROWN, STE 280
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3349969
EPA ID: N/R

PWS ENF (**cont.**)

Violation Details

Details for this site have been truncated due to the large number of available details for this site within this dataset. For the complete details for this site, contact your Envirosearch account representative for a complimentary site report containing all of the details available.

RTC Enforcement ID : 002000091
 Violation ID : 9913722
 Submission Year : 2018
 Violation First Reported Date : 06/23/1999
 Contaminant Name : CYANIDE
 Rule Family : Inorganic Chemicals
 Rule Group : Chemicals
 Rule Name : Inorganic Chemicals
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 03/22/2000
 Enforcement Action Description : State Compliance achieved
 Admin Name : BRODER & SACHSE REAL ESTATE SVCS
 Email Address : N/R

RTC Enforcement ID : 002002871
 Violation ID : 0013460
 Submission Year : 2018
 Violation First Reported Date : 03/15/2000
 Contaminant Name : Nitrate
 Rule Family : Inorganic Chemicals
 Rule Group : Chemicals
 Rule Name : Nitrates
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 03/08/2000
 Enforcement Action Description : State Compliance achieved
 Admin Name : BRODER & SACHSE REAL ESTATE SVCS
 Email Address : N/R

RTC Enforcement ID : 021001072
 Violation ID : 9913720
 Submission Year : 2018
 Violation First Reported Date : 12/22/2005
 Contaminant Name : Lead and Copper Rule
 Rule Family : Lead and Copper Rule
 Rule Group : Chemicals

Map Id: A10
 Direction: WNW
 Distance: 0.347 mi.
 Actual: 1832.283 ft.
 Elevation: 0.146 mi. / 768.868 ft.
 Relative: Higher

Site Name : MI6321772 | MI6321782
 260 E BROWN, STE 280
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3349969
EPA ID: N/R

PWS ENF (**cont.**)

Rule Name : Lead and Copper Rule
 Violation Type : Initial Tap Sampling for Pb and Cu
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 12/26/2001
 Enforcement Action Description : State Compliance achieved
 Admin Name : BRODER & SACHSE REAL ESTATE SVCS
 Email Address : N/R

RTC Enforcement ID : 021001081
 Violation ID : 9813538
 Submission Year : 2018
 Violation First Reported Date : 07/01/1998
 Contaminant Name : Lead and Copper Rule
 Rule Family : Lead and Copper Rule
 Rule Group : Chemicals
 Rule Name : Lead and Copper Rule
 Violation Type : Initial Tap Sampling for Pb and Cu
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 12/26/2001
 Enforcement Action Description : State Compliance achieved
 Admin Name : BRODER & SACHSE REAL ESTATE SVCS
 Email Address : N/R

RTC Enforcement ID : 021001085
 Violation ID : 9714338
 Submission Year : 2018
 Violation First Reported Date : 10/03/1997
 Contaminant Name : Lead and Copper Rule
 Rule Family : Lead and Copper Rule
 Rule Group : Chemicals
 Rule Name : Lead and Copper Rule
 Violation Type : Initial Tap Sampling for Pb and Cu
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 12/26/2001
 Enforcement Action Description : State Compliance achieved
 Admin Name : BRODER & SACHSE REAL ESTATE SVCS
 Email Address : N/R

Map Id: A10
 Direction: WNW
 Distance: 0.347 mi.
 Actual: 1832.283 ft.
 Elevation: 0.146 mi. / 768.868 ft.
 Relative: Higher

Site Name : MI6321772 | MI6321782
 260 E BROWN, STE 280
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3349969
EPA ID: N/R

PWS ENF (**cont.**)

RTC Enforcement ID : 021001093
 Violation ID : 0013459
 Submission Year : 2018
 Violation First Reported Date : 03/15/2000
 Contaminant Name : Lead and Copper Rule
 Rule Family : Lead and Copper Rule
 Rule Group : Chemicals
 Rule Name : Lead and Copper Rule
 Violation Type : Initial Tap Sampling for Pb and Cu
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 12/26/2001
 Enforcement Action Description : State Compliance achieved
 Admin Name : BRODER & SACHSE REAL ESTATE SVCS
 Email Address : N/R

RTC Enforcement ID : 021001934
 Violation ID : 9410595
 Submission Year : 2018
 Violation First Reported Date : 10/24/1995
 Contaminant Name : Lead and Copper Rule
 Rule Family : Lead and Copper Rule
 Rule Group : Chemicals
 Rule Name : Lead and Copper Rule
 Violation Type : Initial Tap Sampling for Pb and Cu
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 12/26/2001
 Enforcement Action Description : State Compliance achieved
 Admin Name : BRODER & SACHSE REAL ESTATE SVCS
 Email Address : N/R

RTC Enforcement ID : 031018446
 Violation ID : 0140396
 Submission Year : 2018
 Violation First Reported Date : 12/12/2001
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3

Map Id: A10
 Direction: WNW
 Distance: 0.347 mi.
 Actual: 1832.283 ft.
 Elevation: 0.146 mi. / 768.868 ft.
 Relative: Higher

Site Name : MI6321772 | MI6321782
 260 E BROWN, STE 280
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3349969
EPA ID: N/R

PWS ENF (**cont.**)

Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 10/02/2002
 Enforcement Action Description : State Compliance achieved
 Admin Name : BRODER & SACHSE REAL ESTATE SVCS
 Email Address : N/R

RTC Enforcement ID : 031018730
 Violation ID : 0230352
 Submission Year : 2018
 Violation First Reported Date : 08/28/2002
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 10/02/2002
 Enforcement Action Description : State Compliance achieved
 Admin Name : BRODER & SACHSE REAL ESTATE SVCS
 Email Address : N/R

RTC Enforcement ID : 031019201
 Violation ID : 0240360
 Submission Year : 2018
 Violation First Reported Date : 11/28/2002
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 10/02/2002
 Enforcement Action Description : State Public Notification requested
 Admin Name : BRODER & SACHSE REAL ESTATE SVCS
 Email Address : N/R

RTC Enforcement ID : 041001431
 Violation ID : 9930458
 Submission Year : 2018
 Violation First Reported Date : 09/22/1999

Map Id: A10
 Direction: WNW
 Distance: 0.347 mi.
 Actual: 1832.283 ft.
 Elevation: 0.146 mi. / 768.868 ft.
 Relative: Higher

Site Name : MI6321772 | MI6321782
 260 E BROWN, STE 280
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3349969
EPA ID: N/R

PWS ENF (**cont.**)

Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 12/01/2003
 Enforcement Action Description : State Compliance achieved
 Admin Name : BRODER & SACHSE REAL ESTATE SVCS
 Email Address : N/R

RTC Enforcement ID : 041003562
 Violation ID : 9820363
 Submission Year : 2018
 Violation First Reported Date : 06/09/1998
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 12/01/2003
 Enforcement Action Description : State Compliance achieved
 Admin Name : BRODER & SACHSE REAL ESTATE SVCS
 Email Address : N/R

RTC Enforcement ID : 041005102
 Violation ID : 9730837
 Submission Year : 2018
 Violation First Reported Date : 09/12/1997
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 12/01/2003

Map Id: A10
 Direction: WNW
 Distance: 0.347 mi.
 Actual: 1832.283 ft.
 Elevation: 0.146 mi. / 768.868 ft.
 Relative: Higher

Site Name : MI6321772 | MI6321782
 260 E BROWN, STE 280
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3349969
EPA ID: N/R

PWS ENF (**cont.**)

Enforcement Action Description :	State Compliance achieved
Admin Name :	BRODER & SACHSE REAL ESTATE SVCS
Email Address :	N/R
RTC Enforcement ID :	041005906
Violation ID :	9631401
Submission Year :	2018
Violation First Reported Date :	11/08/1996
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Monitoring, Routine Major (TCR)
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	260 E BROWN, STE 280, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	12/01/2003
Enforcement Action Description :	State Compliance achieved
Admin Name :	BRODER & SACHSE REAL ESTATE SVCS
Email Address :	N/R
RTC Enforcement ID :	041007011
Violation ID :	9840633
Submission Year :	2018
Violation First Reported Date :	12/10/1998
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Monitoring, Routine Major (TCR)
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	260 E BROWN, STE 280, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	12/01/2003
Enforcement Action Description :	State Compliance achieved
Admin Name :	BRODER & SACHSE REAL ESTATE SVCS
Email Address :	N/R
RTC Enforcement ID :	041009852
Violation ID :	9920260
Submission Year :	2018
Violation First Reported Date :	06/22/1999
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule

Geological Landscape Section Map Findings

2021

Map Id: A10
Direction: WNW
Distance: 0.347 mi.
Actual: 1832.283 ft.
Elevation: 0.146 mi. / 768.868 ft.
Relative: Higher

Site Name : MI6321772 | MI6321782
260 E BROWN, STE 280
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3349969
EPA ID: N/R

PWS ENF (**cont.**)

Violation Type :	Monitoring, Routine Major (TCR)
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	260 E BROWN, STE 280, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	12/01/2003
Enforcement Action Description :	State Compliance achieved
Admin Name :	BRODER & SACHSE REAL ESTATE SVCS
Email Address :	N/R

RTC Enforcement ID :	041011641
Violation ID :	9740865
Submission Year :	2018
Violation First Reported Date :	03/04/1998
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Monitoring, Routine Major (TCR)
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	260 E BROWN, STE 280, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	12/01/2003
Enforcement Action Description :	State Compliance achieved
Admin Name :	BRODER & SACHSE REAL ESTATE SVCS
Email Address :	N/R

RTC Enforcement ID :	041012722
Violation ID :	0013458
Submission Year :	2018
Violation First Reported Date :	03/15/2000
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Monitoring, Routine Major (TCR)
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	260 E BROWN, STE 280, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	12/01/2003
Enforcement Action Description :	State Compliance achieved
Admin Name :	BRODER & SACHSE REAL ESTATE SVCS
Email Address :	N/R

Map Id: A10
 Direction: WNW
 Distance: 0.347 mi.
 Actual: 1832.283 ft.
 Elevation: 0.146 mi. / 768.868 ft.
 Relative: Higher

Site Name : MI6321772 | MI6321782
 260 E BROWN, STE 280
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3349969
EPA ID: N/R

PWS ENF (**cont.**)

RTC Enforcement ID :	041017802
Violation ID :	9617740
Submission Year :	2018
Violation First Reported Date :	03/28/1996
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Monitoring, Routine Major (TCR)
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	260 E BROWN, STE 280, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	12/01/2003
Enforcement Action Description :	State Compliance achieved
Admin Name :	BRODER & SACHSE REAL ESTATE SVCS
Email Address :	N/R
RTC Enforcement ID :	054001106
Violation ID :	0540060
Submission Year :	2018
Violation First Reported Date :	12/22/2005
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Maximum Contaminant Level Violation, Monthly (TCR)
Is Health Based :	Y
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	2
Address Line 1 :	260 E BROWN, STE 280, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	08/29/2005
Enforcement Action Description :	State Compliance achieved
Admin Name :	BRODER & SACHSE REAL ESTATE SVCS
Email Address :	N/R
RTC Enforcement ID :	9920019361010
Violation ID :	99137211010
Submission Year :	2018
Violation First Reported Date :	06/18/1999
Contaminant Name :	Barium
Rule Family :	Inorganic Chemicals
Rule Group :	Chemicals
Rule Name :	Inorganic Chemicals
Violation Type :	Monitoring, Regular
Is Health Based :	N
Is Major Violation :	Y
Severity Indicator Count :	N/R
Public Notification Tier :	3

Map Id: A10
 Direction: WNW
 Distance: 0.347 mi.
 Actual: 1832.283 ft.
 Elevation: 0.146 mi. / 768.868 ft.
 Relative: Higher

Site Name : MI6321772 | MI6321782
 260 E BROWN, STE 280
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3349969
EPA ID: N/R

PWS ENF (**cont.**)

Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 03/04/1999
 Enforcement Action Description : State Violation/Reminder Notice
 Admin Name : BRODER & SACHSE REAL ESTATE SVCS
 Email Address : N/R

RTC Enforcement ID : 9920019361015
 Violation ID : 99137211015
 Submission Year : 2018
 Violation First Reported Date : 06/18/1999
 Contaminant Name : Cadmium
 Rule Family : Inorganic Chemicals
 Rule Group : Chemicals
 Rule Name : Inorganic Chemicals
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 03/04/1999
 Enforcement Action Description : State Violation/Reminder Notice
 Admin Name : BRODER & SACHSE REAL ESTATE SVCS
 Email Address : N/R

RTC Enforcement ID : 9920019361020
 Violation ID : 99137211020
 Submission Year : 2018
 Violation First Reported Date : 06/18/1999
 Contaminant Name : Chromium
 Rule Family : Inorganic Chemicals
 Rule Group : Chemicals
 Rule Name : Inorganic Chemicals
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 03/04/1999
 Enforcement Action Description : State Violation/Reminder Notice
 Admin Name : BRODER & SACHSE REAL ESTATE SVCS
 Email Address : N/R

RTC Enforcement ID : 9920019361035
 Violation ID : 99137211035
 Submission Year : 2018
 Violation First Reported Date : 06/18/1999

Map Id: A10
 Direction: WNW
 Distance: 0.347 mi.
 Actual: 1832.283 ft.
 Elevation: 0.146 mi. / 768.868 ft.
 Relative: Higher

Site Name : MI6321772 | MI6321782
 260 E BROWN, STE 280
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3349969
EPA ID: N/R

PWS ENF (**cont.**)

Contaminant Name : Mercury
 Rule Family : Inorganic Chemicals
 Rule Group : Chemicals
 Rule Name : Inorganic Chemicals
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 03/04/1999
 Enforcement Action Description : State Violation/Reminder Notice
 Admin Name : BRODER & SACHSE REAL ESTATE SVCS
 Email Address : N/R

RTC Enforcement ID : 9920019361045
 Violation ID : 99137211045
 Submission Year : 2018
 Violation First Reported Date : 06/18/1999
 Contaminant Name : Selenium
 Rule Family : Inorganic Chemicals
 Rule Group : Chemicals
 Rule Name : Inorganic Chemicals
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 03/04/1999
 Enforcement Action Description : State Violation/Reminder Notice
 Admin Name : BRODER & SACHSE REAL ESTATE SVCS
 Email Address : N/R

RTC Enforcement ID : 9920019361074
 Violation ID : 99137211074
 Submission Year : 2018
 Violation First Reported Date : 06/18/1999
 Contaminant Name : Antimony, Total
 Rule Family : Inorganic Chemicals
 Rule Group : Chemicals
 Rule Name : Inorganic Chemicals
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 03/04/1999

Map Id: A10
 Direction: WNW
 Distance: 0.347 mi.
 Actual: 1832.283 ft.
 Elevation: 0.146 mi. / 768.868 ft.
 Relative: Higher

Site Name : MI6321772 | MI6321782
 260 E BROWN, STE 280
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3349969
EPA ID: N/R

PWS ENF (**cont.**)

Enforcement Action Description :	State Violation/Reminder Notice
Admin Name :	BRODER & SACHSE REAL ESTATE SVCS
Email Address :	N/R
RTC Enforcement ID :	9920019361075
Violation ID :	99137211075
Submission Year :	2018
Violation First Reported Date :	06/18/1999
Contaminant Name :	Beryllium, Total
Rule Family :	Inorganic Chemicals
Rule Group :	Chemicals
Rule Name :	Inorganic Chemicals
Violation Type :	Monitoring, Regular
Is Health Based :	N
Is Major Violation :	Y
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	260 E BROWN, STE 280, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	03/04/1999
Enforcement Action Description :	State Violation/Reminder Notice
Admin Name :	BRODER & SACHSE REAL ESTATE SVCS
Email Address :	N/R
RTC Enforcement ID :	9920019361085
Violation ID :	99137211085
Submission Year :	2018
Violation First Reported Date :	06/18/1999
Contaminant Name :	Thallium, Total
Rule Family :	Inorganic Chemicals
Rule Group :	Chemicals
Rule Name :	Inorganic Chemicals
Violation Type :	Monitoring, Regular
Is Health Based :	N
Is Major Violation :	Y
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	260 E BROWN, STE 280, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	03/04/1999
Enforcement Action Description :	State Violation/Reminder Notice
Admin Name :	BRODER & SACHSE REAL ESTATE SVCS
Email Address :	N/R
RTC Enforcement ID :	N/R
Violation ID :	99137232378
Submission Year :	2018
Violation First Reported Date :	06/18/1999
Contaminant Name :	1,2,4-Trichlorobenzene
Rule Family :	Volatile Organic Chemicals
Rule Group :	Chemicals
Rule Name :	Volatile Organic Chemicals

Geological Landscape Section Map Findings

2021

Map Id: A10
Direction: WNW
Distance: 0.347 mi.
Actual: 1832.283 ft.
Elevation: 0.146 mi. / 768.868 ft.
Relative: Higher

Site Name : MI6321772 | MI6321782
260 E BROWN, STE 280
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3349969
EPA ID: N/R

PWS ENF (**cont.**)

Violation Type :	Monitoring, Regular
Is Health Based :	N
Is Major Violation :	Y
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	260 E BROWN, STE 280, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Known
RTC Date :	N/R
Enforcement Action Description :	N/R
Admin Name :	BRODER & SACHSE REAL ESTATE SVCS
Email Address :	N/R

RTC Enforcement ID :	N/R
Violation ID :	99137232380
Submission Year :	2018
Violation First Reported Date :	06/18/1999
Contaminant Name :	cis-1,2-Dichloroethylene
Rule Family :	Volatile Organic Chemicals
Rule Group :	Chemicals
Rule Name :	Volatile Organic Chemicals
Violation Type :	Monitoring, Regular
Is Health Based :	N
Is Major Violation :	Y
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	260 E BROWN, STE 280, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Known
RTC Date :	N/R
Enforcement Action Description :	N/R
Admin Name :	BRODER & SACHSE REAL ESTATE SVCS
Email Address :	N/R

Facility Address :	260 E BROWN, STE 280, BIRMINGHAM, MI 48009

PWS ID :	MI6321772
PWS Name :	WEST POINTE CTR-SOUTH WELL
EPA Region :	Region 5
Primacy Agency :	Michigan
PWS Type :	Non-Transient non-community system
Primacy Type :	State
Primary Source :	Ground water
Activity Status :	Active
Deactivation Date :	N/R
Owner Type :	Private
Phone Number :	2483575756
Last Date in Agency List :	08/09/2018

Violation Details

RTC Enforcement ID :	002000090
Violation ID :	9913717

Geological Landscape Section Map Findings

2021

Map Id: A10
Direction: WNW
Distance: 0.347 mi.
Actual: 1832.283 ft.
Elevation: 0.146 mi. / 768.868 ft.
Relative: Higher

Site Name : MI6321772 | MI6321782
260 E BROWN, STE 280
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3349969
EPA ID: N/R

PWS ENF (**cont.**)

Submission Year : 2018
Violation First Reported Date : 06/23/1999
Contaminant Name : CYANIDE
Rule Family : Inorganic Chemicals
Rule Group : Chemicals
Rule Name : Inorganic Chemicals
Violation Type : Monitoring, Regular
Is Health Based : N
Is Major Violation : Y
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
Address Line 2 : N/R
Compliance Status : Returned to Compliance
RTC Date : 03/22/2000
Enforcement Action Description : State Compliance achieved
Admin Name : BRODER & SACHSE REAL ESTATE SVCS
Email Address : N/R

RTC Enforcement ID : 002002864
Violation ID : 0013454
Submission Year : 2018
Violation First Reported Date : 03/15/2000
Contaminant Name : Nitrate
Rule Family : Inorganic Chemicals
Rule Group : Chemicals
Rule Name : Nitrates
Violation Type : Monitoring, Regular
Is Health Based : N
Is Major Violation : Y
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
Address Line 2 : N/R
Compliance Status : Returned to Compliance
RTC Date : 03/08/2000
Enforcement Action Description : State Compliance achieved
Admin Name : BRODER & SACHSE REAL ESTATE SVCS
Email Address : N/R

RTC Enforcement ID : 021001071
Violation ID : 9913715
Submission Year : 2018
Violation First Reported Date : 12/22/2005
Contaminant Name : Lead and Copper Rule
Rule Family : Lead and Copper Rule
Rule Group : Chemicals
Rule Name : Lead and Copper Rule
Violation Type : Initial Tap Sampling for Pb and Cu
Is Health Based : N
Is Major Violation : N/R
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
Address Line 2 : N/R

Geological Landscape Section Map Findings

2021

Map Id: A10
Direction: WNW
Distance: 0.347 mi.
Actual: 1832.283 ft.
Elevation: 0.146 mi. / 768.868 ft.
Relative: Higher

Site Name : MI6321772 | MI6321782
260 E BROWN, STE 280
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3349969
EPA ID: N/R

PWS ENF (**cont.**)

Compliance Status :	Returned to Compliance
RTC Date :	12/26/2001
Enforcement Action Description :	State Compliance achieved
Admin Name :	BRODER & SACHSE REAL ESTATE SVCS
Email Address :	N/R
RTC Enforcement ID :	021001080
Violation ID :	9813535
Submission Year :	2018
Violation First Reported Date :	07/01/1998
Contaminant Name :	Lead and Copper Rule
Rule Family :	Lead and Copper Rule
Rule Group :	Chemicals
Rule Name :	Lead and Copper Rule
Violation Type :	Initial Tap Sampling for Pb and Cu
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	260 E BROWN, STE 280, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	12/26/2001
Enforcement Action Description :	State Compliance achieved
Admin Name :	BRODER & SACHSE REAL ESTATE SVCS
Email Address :	N/R
RTC Enforcement ID :	021001084
Violation ID :	9714334
Submission Year :	2018
Violation First Reported Date :	10/03/1997
Contaminant Name :	Lead and Copper Rule
Rule Family :	Lead and Copper Rule
Rule Group :	Chemicals
Rule Name :	Lead and Copper Rule
Violation Type :	Initial Tap Sampling for Pb and Cu
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	260 E BROWN, STE 280, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	12/26/2001
Enforcement Action Description :	State Compliance achieved
Admin Name :	BRODER & SACHSE REAL ESTATE SVCS
Email Address :	N/R
RTC Enforcement ID :	021001092
Violation ID :	0013453
Submission Year :	2018
Violation First Reported Date :	03/15/2000
Contaminant Name :	Lead and Copper Rule
Rule Family :	Lead and Copper Rule

Map Id: A10
 Direction: WNW
 Distance: 0.347 mi.
 Actual: 1832.283 ft.
 Elevation: 0.146 mi. / 768.868 ft.
 Relative: Higher

Site Name : MI6321772 | MI6321782
 260 E BROWN, STE 280
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3349969
EPA ID: N/R

PWS ENF (**cont.**)

Rule Group : Chemicals
 Rule Name : Lead and Copper Rule
 Violation Type : Initial Tap Sampling for Pb and Cu
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 12/26/2001
 Enforcement Action Description : State Compliance achieved
 Admin Name : BRODER & SACHSE REAL ESTATE SVCS
 Email Address : N/R

RTC Enforcement ID : 021001933
 Violation ID : 9410593
 Submission Year : 2018
 Violation First Reported Date : 10/24/1995
 Contaminant Name : Lead and Copper Rule
 Rule Family : Lead and Copper Rule
 Rule Group : Chemicals
 Rule Name : Lead and Copper Rule
 Violation Type : Initial Tap Sampling for Pb and Cu
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 12/26/2001
 Enforcement Action Description : State Compliance achieved
 Admin Name : BRODER & SACHSE REAL ESTATE SVCS
 Email Address : N/R

RTC Enforcement ID : 031018426
 Violation ID : 0212184
 Submission Year : 2018
 Violation First Reported Date : 03/13/2002
 Contaminant Name : Nitrate
 Rule Family : Inorganic Chemicals
 Rule Group : Chemicals
 Rule Name : Nitrates
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 11/20/2002
 Enforcement Action Description : State Compliance achieved
 Admin Name : BRODER & SACHSE REAL ESTATE SVCS

Geological Landscape Section Map Findings

2021

Map Id: A10
Direction: WNW
Distance: 0.347 mi.
Actual: 1832.283 ft.
Elevation: 0.146 mi. / 768.868 ft.
Relative: Higher

Site Name : MI6321772 | MI6321782
260 E BROWN, STE 280
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3349969
EPA ID: N/R

PWS ENF (**cont.**)

Email Address :	N/R
RTC Enforcement ID :	031018445
Violation ID :	0140395
Submission Year :	2018
Violation First Reported Date :	12/12/2001
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Monitoring, Routine Major (TCR)
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	260 E BROWN, STE 280, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	10/02/2002
Enforcement Action Description :	State Compliance achieved
Admin Name :	BRODER & SACHSE REAL ESTATE SVCS
Email Address :	N/R
RTC Enforcement ID :	031018729
Violation ID :	0230351
Submission Year :	2018
Violation First Reported Date :	08/28/2002
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Monitoring, Routine Major (TCR)
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	260 E BROWN, STE 280, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	10/02/2002
Enforcement Action Description :	State Compliance achieved
Admin Name :	BRODER & SACHSE REAL ESTATE SVCS
Email Address :	N/R
RTC Enforcement ID :	031019198
Violation ID :	0240359
Submission Year :	2018
Violation First Reported Date :	11/28/2002
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Monitoring, Routine Major (TCR)
Is Health Based :	N

Map Id: A10
 Direction: WNW
 Distance: 0.347 mi.
 Actual: 1832.283 ft.
 Elevation: 0.146 mi. / 768.868 ft.
 Relative: Higher

Site Name : MI6321772 | MI6321782
 260 E BROWN, STE 280
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3349969
EPA ID: N/R

PWS ENF (**cont.**)

Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 10/02/2002
 Enforcement Action Description : State Public Notification requested
 Admin Name : BRODER & SACHSE REAL ESTATE SVCS
 Email Address : N/R

RTC Enforcement ID : 041001429
 Violation ID : 9930456
 Submission Year : 2018
 Violation First Reported Date : 09/22/1999
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 12/01/2003
 Enforcement Action Description : State Compliance achieved
 Admin Name : BRODER & SACHSE REAL ESTATE SVCS
 Email Address : N/R

RTC Enforcement ID : 041003560
 Violation ID : 9820361
 Submission Year : 2018
 Violation First Reported Date : 06/09/1998
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 12/01/2003
 Enforcement Action Description : State Compliance achieved
 Admin Name : BRODER & SACHSE REAL ESTATE SVCS
 Email Address : N/R

Map Id: A10
 Direction: WNW
 Distance: 0.347 mi.
 Actual: 1832.283 ft.
 Elevation: 0.146 mi. / 768.868 ft.
 Relative: Higher

Site Name : MI6321772 | MI6321782
 260 E BROWN, STE 280
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3349969
EPA ID: N/R

PWS ENF (**cont.**)

RTC Enforcement ID : 041005101
 Violation ID : 9730835
 Submission Year : 2018
 Violation First Reported Date : 09/12/1997
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 12/01/2003
 Enforcement Action Description : State Compliance achieved
 Admin Name : BRODER & SACHSE REAL ESTATE SVCS
 Email Address : N/R

RTC Enforcement ID : 041005903
 Violation ID : 9631397
 Submission Year : 2018
 Violation First Reported Date : 11/08/1996
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 12/01/2003
 Enforcement Action Description : State Compliance achieved
 Admin Name : BRODER & SACHSE REAL ESTATE SVCS
 Email Address : N/R

RTC Enforcement ID : 041007009
 Violation ID : 9840631
 Submission Year : 2018
 Violation First Reported Date : 12/10/1998
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3

Map Id: A10
 Direction: WNW
 Distance: 0.347 mi.
 Actual: 1832.283 ft.
 Elevation: 0.146 mi. / 768.868 ft.
 Relative: Higher

Site Name : MI6321772 | MI6321782
 260 E BROWN, STE 280
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3349969
EPA ID: N/R

PWS ENF (**cont.**)

Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 12/01/2003
 Enforcement Action Description : State Compliance achieved
 Admin Name : BRODER & SACHSE REAL ESTATE SVCS
 Email Address : N/R

RTC Enforcement ID : 041009851
 Violation ID : 9920259
 Submission Year : 2018
 Violation First Reported Date : 06/22/1999
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 12/01/2003
 Enforcement Action Description : State Compliance achieved
 Admin Name : BRODER & SACHSE REAL ESTATE SVCS
 Email Address : N/R

RTC Enforcement ID : 041011639
 Violation ID : 9740863
 Submission Year : 2018
 Violation First Reported Date : 03/04/1998
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 12/01/2003
 Enforcement Action Description : State Compliance achieved
 Admin Name : BRODER & SACHSE REAL ESTATE SVCS
 Email Address : N/R

RTC Enforcement ID : 041012720
 Violation ID : 0013452
 Submission Year : 2018
 Violation First Reported Date : 03/15/2000

Map Id: A10
 Direction: WNW
 Distance: 0.347 mi.
 Actual: 1832.283 ft.
 Elevation: 0.146 mi. / 768.868 ft.
 Relative: Higher

Site Name : MI6321772 | MI6321782
 260 E BROWN, STE 280
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3349969
EPA ID: N/R

PWS ENF (**cont.**)

Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Monitoring, Routine Major (TCR)
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	260 E BROWN, STE 280, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	12/01/2003
Enforcement Action Description :	State Compliance achieved
Admin Name :	BRODER & SACHSE REAL ESTATE SVCS
Email Address :	N/R

RTC Enforcement ID :	041017798
Violation ID :	9617734
Submission Year :	2018
Violation First Reported Date :	03/28/1996
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Monitoring, Routine Major (TCR)
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	260 E BROWN, STE 280, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	12/01/2003
Enforcement Action Description :	State Compliance achieved
Admin Name :	BRODER & SACHSE REAL ESTATE SVCS
Email Address :	N/R

RTC Enforcement ID :	9920019331010
Violation ID :	99137161010
Submission Year :	2018
Violation First Reported Date :	06/18/1999
Contaminant Name :	Barium
Rule Family :	Inorganic Chemicals
Rule Group :	Chemicals
Rule Name :	Inorganic Chemicals
Violation Type :	Monitoring, Regular
Is Health Based :	N
Is Major Violation :	Y
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	260 E BROWN, STE 280, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	03/04/1999

Map Id: A10
 Direction: WNW
 Distance: 0.347 mi.
 Actual: 1832.283 ft.
 Elevation: 0.146 mi. / 768.868 ft.
 Relative: Higher

Site Name : MI6321772 | MI6321782
 260 E BROWN, STE 280
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3349969
EPA ID: N/R

PWS ENF (**cont.**)

Enforcement Action Description :	State Violation/Reminder Notice
Admin Name :	BRODER & SACHSE REAL ESTATE SVCS
Email Address :	N/R
RTC Enforcement ID :	9920019331015
Violation ID :	99137161015
Submission Year :	2018
Violation First Reported Date :	06/18/1999
Contaminant Name :	Cadmium
Rule Family :	Inorganic Chemicals
Rule Group :	Chemicals
Rule Name :	Inorganic Chemicals
Violation Type :	Monitoring, Regular
Is Health Based :	N
Is Major Violation :	Y
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	260 E BROWN, STE 280, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	03/04/1999
Enforcement Action Description :	State Violation/Reminder Notice
Admin Name :	BRODER & SACHSE REAL ESTATE SVCS
Email Address :	N/R
RTC Enforcement ID :	9920019331020
Violation ID :	99137161020
Submission Year :	2018
Violation First Reported Date :	06/18/1999
Contaminant Name :	Chromium
Rule Family :	Inorganic Chemicals
Rule Group :	Chemicals
Rule Name :	Inorganic Chemicals
Violation Type :	Monitoring, Regular
Is Health Based :	N
Is Major Violation :	Y
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	260 E BROWN, STE 280, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	03/04/1999
Enforcement Action Description :	State Violation/Reminder Notice
Admin Name :	BRODER & SACHSE REAL ESTATE SVCS
Email Address :	N/R
RTC Enforcement ID :	9920019331035
Violation ID :	99137161035
Submission Year :	2018
Violation First Reported Date :	06/18/1999
Contaminant Name :	Mercury
Rule Family :	Inorganic Chemicals
Rule Group :	Chemicals
Rule Name :	Inorganic Chemicals

Map Id: A10
 Direction: WNW
 Distance: 0.347 mi.
 Actual: 1832.283 ft.
 Elevation: 0.146 mi. / 768.868 ft.
 Relative: Higher

Site Name : MI6321772 | MI6321782
 260 E BROWN, STE 280
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3349969
EPA ID: N/R

PWS ENF (**cont.**)

Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 03/04/1999
 Enforcement Action Description : State Violation/Reminder Notice
 Admin Name : BRODER & SACHSE REAL ESTATE SVCS
 Email Address : N/R

RTC Enforcement ID : 9920019331045
 Violation ID : 99137161045
 Submission Year : 2018
 Violation First Reported Date : 06/18/1999
 Contaminant Name : Selenium
 Rule Family : Inorganic Chemicals
 Rule Group : Chemicals
 Rule Name : Inorganic Chemicals
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 03/04/1999
 Enforcement Action Description : State Violation/Reminder Notice
 Admin Name : BRODER & SACHSE REAL ESTATE SVCS
 Email Address : N/R

RTC Enforcement ID : 9920019331074
 Violation ID : 99137161074
 Submission Year : 2018
 Violation First Reported Date : 06/18/1999
 Contaminant Name : Antimony, Total
 Rule Family : Inorganic Chemicals
 Rule Group : Chemicals
 Rule Name : Inorganic Chemicals
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 03/04/1999
 Enforcement Action Description : State Violation/Reminder Notice
 Admin Name : BRODER & SACHSE REAL ESTATE SVCS
 Email Address : N/R

Map Id: A10
 Direction: WNW
 Distance: 0.347 mi.
 Actual: 1832.283 ft.
 Elevation: 0.146 mi. / 768.868 ft.
 Relative: Higher

Site Name : MI6321772 | MI6321782
 260 E BROWN, STE 280
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3349969
EPA ID: N/R

PWS ENF (**cont.**)

RTC Enforcement ID : 9920019331075
 Violation ID : 99137161075
 Submission Year : 2018
 Violation First Reported Date : 06/18/1999
 Contaminant Name : Beryllium, Total
 Rule Family : Inorganic Chemicals
 Rule Group : Chemicals
 Rule Name : Inorganic Chemicals
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 03/04/1999
 Enforcement Action Description : State Violation/Reminder Notice
 Admin Name : BRODER & SACHSE REAL ESTATE SVCS
 Email Address : N/R

RTC Enforcement ID : 9920019331085
 Violation ID : 99137161085
 Submission Year : 2018
 Violation First Reported Date : 06/18/1999
 Contaminant Name : Thallium, Total
 Rule Family : Inorganic Chemicals
 Rule Group : Chemicals
 Rule Name : Inorganic Chemicals
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 03/04/1999
 Enforcement Action Description : State Violation/Reminder Notice
 Admin Name : BRODER & SACHSE REAL ESTATE SVCS
 Email Address : N/R

RTC Enforcement ID : N/R
 Violation ID : 9540001
 Submission Year : 2018
 Violation First Reported Date : 12/08/1995
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3

Geological Landscape Section Map Findings

2021

Map Id: A10
Direction: WNW
Distance: 0.347 mi.
Actual: 1832.283 ft.
Elevation: 0.146 mi. / 768.868 ft.
Relative: Higher

Site Name : MI6321772 | MI6321782
260 E BROWN, STE 280
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3349969
EPA ID: N/R

PWS ENF (**cont.**)

Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
Address Line 2 : N/R
Compliance Status : Known
RTC Date : N/R
Enforcement Action Description : N/R
Admin Name : BRODER & SACHSE REAL ESTATE SVCS
Email Address : N/R

RTC Enforcement ID : N/R
Violation ID : 9520001
Submission Year : 2018
Violation First Reported Date : 06/02/1995
Contaminant Name : Coliform (TCR)
Rule Family : Total Coliform Rules
Rule Group : Microbials
Rule Name : Total Coliform Rule
Violation Type : Monitoring, Routine Major (TCR)
Is Health Based : N
Is Major Violation : Y
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 260 E BROWN, STE 280, BIRMINGHAM, 48009
Address Line 2 : N/R
Compliance Status : Known
RTC Date : N/R
Enforcement Action Description : N/R
Admin Name : BRODER & SACHSE REAL ESTATE SVCS
Email Address : N/R

Map Id: 11
Direction: WNW
Distance: 0.388 mi.
Actual: 2049.704 ft.
Elevation: 0.147 mi. / 774.862 ft.
Relative: Higher

Site Name : MI2289463 | MI6322894 | MI2001263
210 S OLD WOODWARD STE 230 | 210 S.
OLD WOODWARD - STE 160 | 210 S OLD
WOODWARD AVE
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF]

Envirosite ID: 3353174
EPA ID: N/R

PWS

Facility Address : 210 S. OLD WOODWARD - STE 160, BIRMINGHAM, MI 48009

PWS ID : MI6320012
PWS Type : Non-Transient non-community system
PWS Name : ESSCO SQUARE
Activity Status : Inactive
Primary Source : Ground water
Submission Year : 2019
Submission Year Quarter : 2019Q1
Population Served Count : 500

Map Id: 11
 Direction: WNW
 Distance: 0.388 mi.
 Actual: 2049.704 ft.
 Elevation: 0.147 mi. / 774.862 ft.
 Relative: Higher

Site Name : MI2289463 | MI6322894 | MI2001263
 210 S OLD WOODWARD STE 230 | 210 S.
 OLD WOODWARD - STE 160 | 210 S OLD
 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] **(cont.)**

Envirosite ID: 3353174
EPA ID: N/R

PWS (cont.)

Service Connections Count :	1
Population Category 2 :	<10,000
Population Category 3 :	<=3300
Population Category 4 :	<10K
Population Category 5 :	<=500
Population Category 11 :	101-500
Submission Quarter :	1
Submission Status Code :	Y
First Reported Date :	01/18/1984
Last Reported Date :	03/28/2019
Deactivation Date :	10/06/2016
GW or SW :	Groundwater
Is Grant Eligible :	N
Is Outstanding Performer :	N/R
Is School or Daycare :	N
Is Source Water Protected :	N/R
Primacy Agency :	Michigan
Primacy Type :	State
Org Name :	2001263
EPA Region :	Region 5
Admin Name :	ESSCO DEVELOPMENT-JIM ESSHAKI
Owner Type :	Private
Phone Number :	2486455900
Phone Ext Number :	N/R
Alt Phone Number :	N/R
Email Address :	N/R
Fax Number :	N/R
Is Wholesaler :	N
LT2 Schedule Category :	N/R
NPM Candidate :	N
CDS ID :	N/R
DBPR Schedule Category :	N/R
Outstanding Performer Date :	N/R
Season Begin Date :	1-Jan
Season End Date :	31-Dec
Source Water Protection Date :	N/R
Seasonal Startup System :	N/R
Reduced Monitoring Begin Date :	N/R
Reduced Monitoring End Date :	N/R
Reduced RTCR Monitoring :	N/R
Last Date in Agency List :	05/16/2019

Facility Address : 210 S OLD WOODWARD STE 230, BIRMINGHAM, MI 48009

PWS ID :	MI6322894
PWS Type :	Non-Transient non-community system
PWS Name :	ORCHARD LAKE COMMONS
Activity Status :	Inactive
Primary Source :	Ground water
Submission Year :	2019
Submission Year Quarter :	2019Q1
Population Served Count :	500
Service Connections Count :	1

Map Id: 11
 Direction: WNW
 Distance: 0.388 mi.
 Actual: 2049.704 ft.
 Elevation: 0.147 mi. / 774.862 ft.
 Relative: Higher

Site Name : MI2289463 | MI6322894 | MI2001263
 210 S OLD WOODWARD STE 230 | 210 S.
 OLD WOODWARD - STE 160 | 210 S OLD
 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] **(cont.)**

EnviroSite ID: 3353174
EPA ID: N/R

PWS (cont.)

Population Category 2 : <10,000
 Population Category 3 : <=3300
 Population Category 4 : <10K
 Population Category 5 : <=500
 Population Category 11 : 101-500
 Submission Quarter : 1
 Submission Status Code : Y
 First Reported Date : 11/29/2011
 Last Reported Date : 03/28/2019
 Deactivation Date : 10/09/2017
 GW or SW : Groundwater
 Is Grant Eligible : N
 Is Outstanding Performer : N/R
 Is School or Daycare : N
 Is Source Water Protected : N/R
 Primacy Agency : Michigan
 Primacy Type : State
 Org Name : 2289463
 EPA Region : Region 5
 Admin Name : ESSCO DEV CO/ STEFANIE FOUMIA
 Owner Type : Private
 Phone Number : 2486455900
 Phone Ext Number : N/R
 Alt Phone Number : N/R
 Email Address : N/R
 Fax Number : N/R
 Is Wholesaler : N
 LT2 Schedule Category : N/R
 NPM Candidate : N
 CDS ID : N/R
 DBPR Schedule Category : N/R
 Outstanding Performer Date : N/R
 Season Begin Date : 1-Jan
 Season End Date : 31-Dec
 Source Water Protection Date : N/R
 Seasonal Startup System : N/R
 Reduced Monitoring Begin Date : N/R
 Reduced Monitoring End Date : N/R
 Reduced RTCR Monitoring : N/R
 Last Date in Agency List : 05/16/2019

Facility Address : 210 S. OLD WOODWARD - STE 160, BIRMINGHAM, MI 48009

PWS ID : MI2001263
 PWS Type : Non-Transient non-community system
 PWS Name : ESSCO SQUARE
 Activity Status : Inactive
 Primary Source : Ground water
 Submission Year : 2020
 Submission Year Quarter : 2020Q3
 Population Served Count : 500
 Service Connections Count : 1
 Population Category 2 : <10,000

Map Id: 11
 Direction: WNW
 Distance: 0.388 mi.
 Actual: 2049.704 ft.
 Elevation: 0.147 mi. / 774.862 ft.
 Relative: Higher

Site Name : MI2289463 | MI6322894 | MI2001263
 210 S OLD WOODWARD STE 230 | 210 S.
 OLD WOODWARD - STE 160 | 210 S OLD
 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3353174
EPA ID: N/R

PWS (**cont.**)

Population Category 3 :	<=3300
Population Category 4 :	<10K
Population Category 5 :	<=500
Population Category 11 :	101-500
Submission Quarter :	3
Submission Status Code :	Y
First Reported Date :	01/18/1984
Last Reported Date :	06/03/2020
Deactivation Date :	10/06/2016
GW or SW :	Groundwater
Is Grant Eligible :	N
Is Outstanding Performer :	N/R
Is School or Daycare :	N
Is Source Water Protected :	-
Primacy Agency :	Michigan
Primacy Type :	State
Org Name :	2001263
EPA Region :	Region 5
Admin Name :	ESSCO DEVELOPMENT-JIM ESSHAKI
Owner Type :	Private
Phone Number :	2486455900
Phone Ext Number :	N/R
Alt Phone Number :	N/R
Email Address :	N/R
Fax Number :	N/R
Is Wholesaler :	N
LT2 Schedule Category :	N/R
NPM Candidate :	N
CDS ID :	N/R
DBPR Schedule Category :	N/R
Outstanding Performer Date :	N/R
Season Begin Date :	01-01
Season End Date :	12-31
Source Water Protection Date :	N/R
Seasonal Startup System :	N/R
Reduced Monitoring Begin Date :	N/R
Reduced Monitoring End Date :	N/R
Reduced RTCR Monitoring :	N/R
Last Date in Agency List :	10/26/2020

Facility Address : 210 S OLD WOODWARD STE 230, BIRMINGHAM, MI 48009

PWS ID :	MI2289463
PWS Type :	Non-Transient non-community system
PWS Name :	ORCHARD LAKE COMMONS
Activity Status :	Inactive
Primary Source :	Ground water
Submission Year :	2020
Submission Year Quarter :	2020Q3
Population Served Count :	500
Service Connections Count :	1
Population Category 2 :	<10,000
Population Category 3 :	<=3300

Map Id: 11
 Direction: WNW
 Distance: 0.388 mi.
 Actual: 2049.704 ft.
 Elevation: 0.147 mi. / 774.862 ft.
 Relative: Higher

Site Name : MI2289463 | MI6322894 | MI2001263
 210 S OLD WOODWARD STE 230 | 210 S.
 OLD WOODWARD - STE 160 | 210 S OLD
 WOODWARD AVE
 BIRMINGHAM, MI 48009

Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3353174
EPA ID: N/R

PWS (**cont.**)

Population Category 4 :	<10K
Population Category 5 :	<=500
Population Category 11 :	101-500
Submission Quarter :	3
Submission Status Code :	Y
First Reported Date :	11/29/2011
Last Reported Date :	06/03/2020
Deactivation Date :	10/09/2017
GW or SW :	Groundwater
Is Grant Eligible :	N
Is Outstanding Performer :	N/R
Is School or Daycare :	N
Is Source Water Protected :	-
Primacy Agency :	Michigan
Primacy Type :	State
Org Name :	2289463
EPA Region :	Region 5
Admin Name :	ESSCO DEV CO/ STEFANIE FOUMIA
Owner Type :	Private
Phone Number :	2486455900
Phone Ext Number :	N/R
Alt Phone Number :	N/R
Email Address :	N/R
Fax Number :	N/R
Is Wholesaler :	N
LT2 Schedule Category :	N/R
NPM Candidate :	N
CDS ID :	N/R
DBPR Schedule Category :	N/R
Outstanding Performer Date :	N/R
Season Begin Date :	01-01
Season End Date :	12-31
Source Water Protection Date :	N/R
Seasonal Startup System :	N/R
Reduced Monitoring Begin Date :	N/R
Reduced Monitoring End Date :	N/R
Reduced RTCR Monitoring :	N/R
Last Date in Agency List :	10/26/2020

PWS ENF

Facility Address : 210 S. OLD WOODWARD - STE 160, BIRMINGHAM, MI 48009

PWS ID :	MI6320012
PWS Name :	ESSCO SQUARE
EPA Region :	Region 5
Primacy Agency :	Michigan
PWS Type :	Non-Transient non-community system
Primacy Type :	State
Primary Source :	Ground water
Activity Status :	Inactive
Deactivation Date :	10/06/2016
Owner Type :	Private
Phone Number :	2486455900

Geological Landscape Section Map Findings

2021

Map Id: 11
Direction: WNW
Distance: 0.388 mi.
Actual: 2049.704 ft.
Elevation: 0.147 mi. / 774.862 ft.
Relative: Higher

Site Name : MI2289463 | MI6322894 | MI2001263
210 S OLD WOODWARD STE 230 | 210 S.
OLD WOODWARD - STE 160 | 210 S OLD
WOODWARD AVE
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3353174
EPA ID: N/R

PWS ENF (**cont.**)

Last Date in Agency List : 05/16/2019

Violation Details

RTC Enforcement ID : 041003302
Violation ID : 9820021
Submission Year : 2019
Violation First Reported Date : 06/09/1998
Contaminant Name : Coliform (TCR)
Rule Family : Total Coliform Rules
Rule Group : Microbials
Rule Name : Total Coliform Rule
Violation Type : Monitoring, Routine Major (TCR)
Is Health Based : N
Is Major Violation : N/R
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 210 S. OLD WOODWARD - STE 160, BIRMINGHAM, 48009
Address Line 2 : N/R
Compliance Status : Returned to Compliance
RTC Date : 12/01/2003
Enforcement Action Description : State Compliance achieved
Admin Name : ESSCO DEVELOPMENT-JIM ESSHAKI
Email Address : N/R

RTC Enforcement ID : 041003896
Violation ID : 9640079
Submission Year : 2019
Violation First Reported Date : 12/11/1996
Contaminant Name : Coliform (TCR)
Rule Family : Total Coliform Rules
Rule Group : Microbials
Rule Name : Total Coliform Rule
Violation Type : Monitoring, Routine Major (TCR)
Is Health Based : N
Is Major Violation : N/R
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 210 S. OLD WOODWARD - STE 160, BIRMINGHAM, 48009
Address Line 2 : N/R
Compliance Status : Returned to Compliance
RTC Date : 12/01/2003
Enforcement Action Description : State Compliance achieved
Admin Name : ESSCO DEVELOPMENT-JIM ESSHAKI
Email Address : N/R

RTC Enforcement ID : 041006417
Violation ID : 9840046
Submission Year : 2019
Violation First Reported Date : 12/10/1998
Contaminant Name : Coliform (TCR)
Rule Family : Total Coliform Rules

Map Id: 11
 Direction: WNW
 Distance: 0.388 mi.
 Actual: 2049.704 ft.
 Elevation: 0.147 mi. / 774.862 ft.
 Relative: Higher

Site Name : MI2289463 | MI6322894 | MI2001263
 210 S OLD WOODWARD STE 230 | 210 S.
 OLD WOODWARD - STE 160 | 210 S OLD
 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3353174
EPA ID: N/R

PWS ENF (**cont.**)

Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Monitoring, Routine Major (TCR)
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	210 S. OLD WOODWARD - STE 160, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	12/01/2003
Enforcement Action Description :	State Compliance achieved
Admin Name :	ESSCO DEVELOPMENT-JIM ESSHAKI
Email Address :	N/R

RTC Enforcement ID :	041006546
Violation ID :	9812042
Submission Year :	2019
Violation First Reported Date :	04/01/1998
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Monitoring, Routine Major (TCR)
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	210 S. OLD WOODWARD - STE 160, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	12/01/2003
Enforcement Action Description :	State Compliance achieved
Admin Name :	ESSCO DEVELOPMENT-JIM ESSHAKI
Email Address :	N/R

RTC Enforcement ID :	041009204
Violation ID :	9720018
Submission Year :	2019
Violation First Reported Date :	06/11/1997
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Monitoring, Routine Major (TCR)
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	210 S. OLD WOODWARD - STE 160, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	12/01/2003

Map Id: 11
 Direction: WNW
 Distance: 0.388 mi.
 Actual: 2049.704 ft.
 Elevation: 0.147 mi. / 774.862 ft.
 Relative: Higher

Site Name : MI2289463 | MI6322894 | MI2001263
 210 S OLD WOODWARD STE 230 | 210 S.
 OLD WOODWARD - STE 160 | 210 S OLD
 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3353174
EPA ID: N/R

PWS ENF (**cont.**)

Enforcement Action Description : State Compliance achieved
 Admin Name : ESSCO DEVELOPMENT-JIM ESSHAKI
 Email Address : N/R

RTC Enforcement ID : 041009672
 Violation ID : 9920018
 Submission Year : 2019
 Violation First Reported Date : 06/22/1999
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 210 S. OLD WOODWARD - STE 160, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 12/01/2003
 Enforcement Action Description : State Compliance achieved
 Admin Name : ESSCO DEVELOPMENT-JIM ESSHAKI
 Email Address : N/R

RTC Enforcement ID : 041011066
 Violation ID : 9620066
 Submission Year : 2019
 Violation First Reported Date : 06/07/1996
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 210 S. OLD WOODWARD - STE 160, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 12/01/2003
 Enforcement Action Description : State Compliance achieved
 Admin Name : ESSCO DEVELOPMENT-JIM ESSHAKI
 Email Address : N/R

RTC Enforcement ID : 041013317
 Violation ID : 0020010
 Submission Year : 2019
 Violation First Reported Date : 06/07/2000
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules

Map Id: 11
 Direction: WNW
 Distance: 0.388 mi.
 Actual: 2049.704 ft.
 Elevation: 0.147 mi. / 774.862 ft.
 Relative: Higher

Site Name : MI2289463 | MI6322894 | MI2001263
 210 S OLD WOODWARD STE 230 | 210 S.
 OLD WOODWARD - STE 160 | 210 S OLD
 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3353174
EPA ID: N/R

PWS ENF (**cont.**)

Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Monitoring, Routine Major (TCR)
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	210 S. OLD WOODWARD - STE 160, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	12/01/2003
Enforcement Action Description :	State Compliance achieved
Admin Name :	ESSCO DEVELOPMENT-JIM ESSHAKI
Email Address :	N/R

RTC Enforcement ID :	041015581
Violation ID :	9613138
Submission Year :	2019
Violation First Reported Date :	03/28/1996
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Monitoring, Routine Major (TCR)
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	210 S. OLD WOODWARD - STE 160, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	12/01/2003
Enforcement Action Description :	State Compliance achieved
Admin Name :	ESSCO DEVELOPMENT-JIM ESSHAKI
Email Address :	N/R

RTC Enforcement ID :	152001232
Violation ID :	1520003
Submission Year :	2019
Violation First Reported Date :	05/27/2015
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Maximum Contaminant Level Violation, Monthly (TCR)
Is Health Based :	Y
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	2
Address Line 1 :	210 S. OLD WOODWARD - STE 160, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	01/20/2015

Map Id: 11
 Direction: WNW
 Distance: 0.388 mi.
 Actual: 2049.704 ft.
 Elevation: 0.147 mi. / 774.862 ft.
 Relative: Higher

Site Name : MI2289463 | MI6322894 | MI2001263
 210 S OLD WOODWARD STE 230 | 210 S.
 OLD WOODWARD - STE 160 | 210 S OLD
 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3353174
EPA ID: N/R

PWS ENF (**cont.**)

Enforcement Action Description :	State Compliance achieved
Admin Name :	ESSCO DEVELOPMENT-JIM ESSHAKI
Email Address :	N/R
RTC Enforcement ID :	161000047
Violation ID :	1540112
Submission Year :	2019
Violation First Reported Date :	11/25/2015
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Maximum Contaminant Level Violation, Monthly (TCR)
Is Health Based :	Y
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	2
Address Line 1 :	210 S. OLD WOODWARD - STE 160, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	10/05/2015
Enforcement Action Description :	State Compliance achieved
Admin Name :	ESSCO DEVELOPMENT-JIM ESSHAKI
Email Address :	N/R
RTC Enforcement ID :	982000292
Violation ID :	9812043
Submission Year :	2019
Violation First Reported Date :	04/01/1998
Contaminant Name :	Nitrate
Rule Family :	Inorganic Chemicals
Rule Group :	Chemicals
Rule Name :	Nitrates
Violation Type :	Monitoring, Regular
Is Health Based :	N
Is Major Violation :	Y
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	210 S. OLD WOODWARD - STE 160, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	03/18/1998
Enforcement Action Description :	State Compliance achieved
Admin Name :	ESSCO DEVELOPMENT-JIM ESSHAKI
Email Address :	N/R
RTC Enforcement ID :	984001196
Violation ID :	9630084
Submission Year :	2019
Violation First Reported Date :	09/30/1998
Contaminant Name :	Lead and Copper Rule
Rule Family :	Lead and Copper Rule

Map Id: 11
 Direction: WNW
 Distance: 0.388 mi.
 Actual: 2049.704 ft.
 Elevation: 0.147 mi. / 774.862 ft.
 Relative: Higher

Site Name : MI2289463 | MI6322894 | MI2001263
 210 S OLD WOODWARD STE 230 | 210 S.
 OLD WOODWARD - STE 160 | 210 S OLD
 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3353174
EPA ID: N/R

PWS ENF (**cont.**)

Rule Group : Chemicals
 Rule Name : Lead and Copper Rule
 Violation Type : Initial Tap Sampling for Pb and Cu
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 210 S. OLD WOODWARD - STE 160, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 09/21/1998
 Enforcement Action Description : State Compliance achieved
 Admin Name : ESSCO DEVELOPMENT-JIM ESSHAKI
 Email Address : N/R

RTC Enforcement ID : 984002512
 Violation ID : 9613139
 Submission Year : 2019
 Violation First Reported Date : 09/30/1998
 Contaminant Name : Lead and Copper Rule
 Rule Family : Lead and Copper Rule
 Rule Group : Chemicals
 Rule Name : Lead and Copper Rule
 Violation Type : Initial Tap Sampling for Pb and Cu
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 210 S. OLD WOODWARD - STE 160, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 09/21/1998
 Enforcement Action Description : State Compliance achieved
 Admin Name : ESSCO DEVELOPMENT-JIM ESSHAKI
 Email Address : N/R

RTC Enforcement ID : 984002513
 Violation ID : 9613140
 Submission Year : 2019
 Violation First Reported Date : 03/28/1996
 Contaminant Name : Nitrate
 Rule Family : Inorganic Chemicals
 Rule Group : Chemicals
 Rule Name : Nitrates
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 210 S. OLD WOODWARD - STE 160, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 09/21/1998

Geological Landscape Section Map Findings

2021

Map Id: 11
Direction: WNW
Distance: 0.388 mi.
Actual: 2049.704 ft.
Elevation: 0.147 mi. / 774.862 ft.
Relative: Higher

Site Name : MI2289463 | MI6322894 | MI2001263
210 S OLD WOODWARD STE 230 | 210 S.
OLD WOODWARD - STE 160 | 210 S OLD
WOODWARD AVE
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3353174
EPA ID: N/R

PWS ENF (**cont.**)

Enforcement Action Description : State Compliance achieved
Admin Name : ESSCO DEVELOPMENT-JIM ESSHAKI
Email Address : N/R

RTC Enforcement ID : 9900416
Violation ID : 9410199
Submission Year : 2019
Violation First Reported Date : 10/24/1995
Contaminant Name : Lead and Copper Rule
Rule Family : Lead and Copper Rule
Rule Group : Chemicals
Rule Name : Lead and Copper Rule
Violation Type : Initial Tap Sampling for Pb and Cu
Is Health Based : N
Is Major Violation : N/R
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 210 S. OLD WOODWARD - STE 160, BIRMINGHAM, 48009
Address Line 2 : N/R
Compliance Status : Returned to Compliance
RTC Date : 08/30/1999
Enforcement Action Description : Federal Compliance achieved
Admin Name : ESSCO DEVELOPMENT-JIM ESSHAKI
Email Address : N/R

RTC Enforcement ID : N/R
Violation ID : 9520001
Submission Year : 2019
Violation First Reported Date : 06/02/1995
Contaminant Name : Coliform (TCR)
Rule Family : Total Coliform Rules
Rule Group : Microbials
Rule Name : Total Coliform Rule
Violation Type : Monitoring, Routine Major (TCR)
Is Health Based : N
Is Major Violation : Y
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 210 S. OLD WOODWARD - STE 160, BIRMINGHAM, 48009
Address Line 2 : N/R
Compliance Status : System Inactive
RTC Date : 10/06/2016
Enforcement Action Description : N/R
Admin Name : ESSCO DEVELOPMENT-JIM ESSHAKI
Email Address : N/R

Facility Address : 210 S OLD WOODWARD STE 230, BIRMINGHAM, MI 48009

PWS ID : MI6322894
PWS Name : ORCHARD LAKE COMMONS
EPA Region : Region 5

Map Id: 11
 Direction: WNW
 Distance: 0.388 mi.
 Actual: 2049.704 ft.
 Elevation: 0.147 mi. / 774.862 ft.
 Relative: Higher

Site Name : MI2289463 | MI6322894 | MI2001263
 210 S OLD WOODWARD STE 230 | 210 S.
 OLD WOODWARD - STE 160 | 210 S OLD
 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3353174
EPA ID: N/R

PWS ENF (**cont.**)

Primacy Agency :	Michigan
PWS Type :	Non-Transient non-community system
Primacy Type :	State
Primary Source :	Ground water
Activity Status :	Inactive
Deactivation Date :	10/09/2017
Owner Type :	Private
Phone Number :	2486455900
Last Date in Agency List :	05/16/2019

Violation Details

RTC Enforcement ID :	134000573
Violation ID :	1340014
Submission Year :	2019
Violation First Reported Date :	11/27/2013
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Maximum Contaminant Level Violation, Monthly (TCR)
Is Health Based :	Y
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	2
Address Line 1 :	210 S OLD WOODWARD STE 230, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	07/31/2013
Enforcement Action Description :	State Compliance achieved
Admin Name :	ESSCO DEV CO/ STEFANIE FOUMIA
Email Address :	N/R

RTC Enforcement ID :	N/R
Violation ID :	1730272
Submission Year :	2019
Violation First Reported Date :	12/07/2017
Contaminant Name :	Lead and Copper Rule
Rule Family :	Lead and Copper Rule
Rule Group :	Chemicals
Rule Name :	Lead and Copper Rule
Violation Type :	Initial Tap Sampling for Pb and Cu
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	210 S OLD WOODWARD STE 230, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	System Inactive
RTC Date :	10/09/2017
Enforcement Action Description :	State Violation/Reminder Notice
Admin Name :	ESSCO DEV CO/ STEFANIE FOUMIA
Email Address :	N/R

Geological Landscape Section Map Findings

2021

Map Id: 11
Direction: WNW
Distance: 0.388 mi.
Actual: 2049.704 ft.
Elevation: 0.147 mi. / 774.862 ft.
Relative: Higher

Site Name : MI2289463 | MI6322894 | MI2001263
210 S OLD WOODWARD STE 230 | 210 S.
OLD WOODWARD - STE 160 | 210 S OLD
WOODWARD AVE
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3353174
EPA ID: N/R

PWS ENF (**cont.**)

Facility Address : 210 S. OLD WOODWARD - STE 160, BIRMINGHAM, MI 48009

PWS ID : MI2001263
PWS Name : ESSCO SQUARE
EPA Region : Region 5
Primacy Agency : Michigan
PWS Type : Non-Transient non-community system
Primacy Type : State
Primary Source : Ground water
Activity Status : Inactive
Deactivation Date : 10/06/2016
Owner Type : Private
Phone Number : 2486455900
Last Date in Agency List : 10/26/2020

Violation Details

RTC Enforcement ID : 041003302
Violation ID : 9820021
Submission Year : 2020
Violation First Reported Date : 06/09/1998
Contaminant Name : Coliform (TCR)
Rule Family : Total Coliform Rules
Rule Group : Microbials
Rule Name : Total Coliform Rule
Violation Type : Monitoring, Routine Major (TCR)
Is Health Based : N
Is Major Violation : N/R
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 210 S. OLD WOODWARD - STE 160, BIRMINGHAM, 48009
Address Line 2 : N/R
Compliance Status : Returned to Compliance
RTC Date : 12/01/2003
Enforcement Action Description : State Compliance achieved
Admin Name : ESSCO DEVELOPMENT-JIM ESSHAKI
Email Address : N/R

RTC Enforcement ID : 041006417
Violation ID : 9840046
Submission Year : 2020
Violation First Reported Date : 12/10/1998
Contaminant Name : Coliform (TCR)
Rule Family : Total Coliform Rules
Rule Group : Microbials
Rule Name : Total Coliform Rule
Violation Type : Monitoring, Routine Major (TCR)
Is Health Based : N
Is Major Violation : N/R
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 210 S. OLD WOODWARD - STE 160, BIRMINGHAM, 48009

Map Id: 11
 Direction: WNW
 Distance: 0.388 mi.
 Actual: 2049.704 ft.
 Elevation: 0.147 mi. / 774.862 ft.
 Relative: Higher

Site Name : MI2289463 | MI6322894 | MI2001263
 210 S OLD WOODWARD STE 230 | 210 S.
 OLD WOODWARD - STE 160 | 210 S OLD
 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] **(cont.)**

Envirosite ID: 3353174
EPA ID: N/R

PWS ENF (cont.)

Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 12/01/2003
 Enforcement Action Description : State Compliance achieved
 Admin Name : ESSCO DEVELOPMENT-JIM ESSHAKI
 Email Address : N/R

RTC Enforcement ID : 041006546
 Violation ID : 9812042
 Submission Year : 2020
 Violation First Reported Date : 04/01/1998
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 210 S. OLD WOODWARD - STE 160, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 12/01/2003
 Enforcement Action Description : State Compliance achieved
 Admin Name : ESSCO DEVELOPMENT-JIM ESSHAKI
 Email Address : N/R

RTC Enforcement ID : 041011066
 Violation ID : 9620066
 Submission Year : 2020
 Violation First Reported Date : 06/07/1996
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 210 S. OLD WOODWARD - STE 160, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 12/01/2003
 Enforcement Action Description : State Compliance achieved
 Admin Name : ESSCO DEVELOPMENT-JIM ESSHAKI
 Email Address : N/R

RTC Enforcement ID : 152001232
 Violation ID : 1520003
 Submission Year : 2020

Map Id: 11
 Direction: WNW
 Distance: 0.388 mi.
 Actual: 2049.704 ft.
 Elevation: 0.147 mi. / 774.862 ft.
 Relative: Higher

Site Name : MI2289463 | MI6322894 | MI2001263
 210 S OLD WOODWARD STE 230 | 210 S.
 OLD WOODWARD - STE 160 | 210 S OLD
 WOODWARD AVE
 BIRMINGHAM, MI 48009

Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3353174
EPA ID: N/R

PWS ENF (**cont.**)

Violation First Reported Date : 05/27/2015
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Maximum Contaminant Level Violation, Monthly (TCR)
 Is Health Based : Y
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 2
 Address Line 1 : 210 S. OLD WOODWARD - STE 160, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 01/20/2015
 Enforcement Action Description : State Compliance achieved
 Admin Name : ESSCO DEVELOPMENT-JIM ESSHAKI
 Email Address : N/R

RTC Enforcement ID : 161000047
 Violation ID : 1540112
 Submission Year : 2020
 Violation First Reported Date : 11/25/2015
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Maximum Contaminant Level Violation, Monthly (TCR)
 Is Health Based : Y
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 2
 Address Line 1 : 210 S. OLD WOODWARD - STE 160, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 10/05/2015
 Enforcement Action Description : State Compliance achieved
 Admin Name : ESSCO DEVELOPMENT-JIM ESSHAKI
 Email Address : N/R

RTC Enforcement ID : 41003896
 Violation ID : 9640079
 Submission Year : 2020
 Violation First Reported Date : 12/11/1996
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 210 S. OLD WOODWARD - STE 160, BIRMINGHAM, 48009

Map Id: 11
 Direction: WNW
 Distance: 0.388 mi.
 Actual: 2049.704 ft.
 Elevation: 0.147 mi. / 774.862 ft.
 Relative: Higher

Site Name : MI2289463 | MI6322894 | MI2001263
 210 S OLD WOODWARD STE 230 | 210 S.
 OLD WOODWARD - STE 160 | 210 S OLD
 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] **(cont.)**

Envirosite ID: 3353174
EPA ID: N/R

PWS ENF (cont.)

Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 12/01/2003
 Enforcement Action Description : State Compliance achieved
 Admin Name : ESSCO DEVELOPMENT-JIM ESSHAKI
 Email Address : N/R

RTC Enforcement ID : 41009204
 Violation ID : 9720018
 Submission Year : 2020
 Violation First Reported Date : 06/11/1997
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 210 S. OLD WOODWARD - STE 160, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 12/01/2003
 Enforcement Action Description : State Compliance achieved
 Admin Name : ESSCO DEVELOPMENT-JIM ESSHAKI
 Email Address : N/R

RTC Enforcement ID : 41009672
 Violation ID : 9920018
 Submission Year : 2020
 Violation First Reported Date : 06/22/1999
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 210 S. OLD WOODWARD - STE 160, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 12/01/2003
 Enforcement Action Description : State Compliance achieved
 Admin Name : ESSCO DEVELOPMENT-JIM ESSHAKI
 Email Address : N/R

RTC Enforcement ID : 41013317
 Violation ID : 20010
 Submission Year : 2020

Map Id: 11
 Direction: WNW
 Distance: 0.388 mi.
 Actual: 2049.704 ft.
 Elevation: 0.147 mi. / 774.862 ft.
 Relative: Higher

Site Name : MI2289463 | MI6322894 | MI2001263
 210 S OLD WOODWARD STE 230 | 210 S.
 OLD WOODWARD - STE 160 | 210 S OLD
 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3353174
EPA ID: N/R

PWS ENF (**cont.**)

Violation First Reported Date : 06/07/2000
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 210 S. OLD WOODWARD - STE 160, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 12/01/2003
 Enforcement Action Description : State Compliance achieved
 Admin Name : ESSCO DEVELOPMENT-JIM ESSHAKI
 Email Address : N/R

RTC Enforcement ID : 41015581
 Violation ID : 9613138
 Submission Year : 2020
 Violation First Reported Date : 03/28/1996
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 210 S. OLD WOODWARD - STE 160, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 12/01/2003
 Enforcement Action Description : State Compliance achieved
 Admin Name : ESSCO DEVELOPMENT-JIM ESSHAKI
 Email Address : N/R

RTC Enforcement ID : 982000292
 Violation ID : 9812043
 Submission Year : 2020
 Violation First Reported Date : 04/01/1998
 Contaminant Name : Nitrate
 Rule Family : Inorganic Chemicals
 Rule Group : Chemicals
 Rule Name : Nitrates
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 210 S. OLD WOODWARD - STE 160, BIRMINGHAM, 48009

Map Id: 11
 Direction: WNW
 Distance: 0.388 mi.
 Actual: 2049.704 ft.
 Elevation: 0.147 mi. / 774.862 ft.
 Relative: Higher

Site Name : MI2289463 | MI6322894 | MI2001263
 210 S OLD WOODWARD STE 230 | 210 S.
 OLD WOODWARD - STE 160 | 210 S OLD
 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] **(cont.)**

Envirosite ID: 3353174
EPA ID: N/R

PWS ENF (cont.)

Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 03/18/1998
 Enforcement Action Description : State Compliance achieved
 Admin Name : ESSCO DEVELOPMENT-JIM ESSHAKI
 Email Address : N/R

RTC Enforcement ID : 984001196
 Violation ID : 9630084
 Submission Year : 2020
 Violation First Reported Date : 09/30/1998
 Contaminant Name : Lead and Copper Rule
 Rule Family : Lead and Copper Rule
 Rule Group : Chemicals
 Rule Name : Lead and Copper Rule
 Violation Type : Initial Tap Sampling for Pb and Cu
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 210 S. OLD WOODWARD - STE 160, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 09/21/1998
 Enforcement Action Description : State Compliance achieved
 Admin Name : ESSCO DEVELOPMENT-JIM ESSHAKI
 Email Address : N/R

RTC Enforcement ID : 984002512
 Violation ID : 9613139
 Submission Year : 2020
 Violation First Reported Date : 09/30/1998
 Contaminant Name : Lead and Copper Rule
 Rule Family : Lead and Copper Rule
 Rule Group : Chemicals
 Rule Name : Lead and Copper Rule
 Violation Type : Initial Tap Sampling for Pb and Cu
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 210 S. OLD WOODWARD - STE 160, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 09/21/1998
 Enforcement Action Description : State Compliance achieved
 Admin Name : ESSCO DEVELOPMENT-JIM ESSHAKI
 Email Address : N/R

RTC Enforcement ID : 984002513
 Violation ID : 9613140
 Submission Year : 2020

Map Id: 11
 Direction: WNW
 Distance: 0.388 mi.
 Actual: 2049.704 ft.
 Elevation: 0.147 mi. / 774.862 ft.
 Relative: Higher

Site Name : MI2289463 | MI6322894 | MI2001263
 210 S OLD WOODWARD STE 230 | 210 S.
 OLD WOODWARD - STE 160 | 210 S OLD
 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3353174
EPA ID: N/R

PWS ENF (**cont.**)

Violation First Reported Date : 03/28/1996
 Contaminant Name : Nitrate
 Rule Family : Inorganic Chemicals
 Rule Group : Chemicals
 Rule Name : Nitrates
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 210 S. OLD WOODWARD - STE 160, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 09/21/1998
 Enforcement Action Description : State Compliance achieved
 Admin Name : ESSCO DEVELOPMENT-JIM ESSHAKI
 Email Address : N/R

RTC Enforcement ID : 9900416
 Violation ID : 9410199
 Submission Year : 2020
 Violation First Reported Date : 10/24/1995
 Contaminant Name : Lead and Copper Rule
 Rule Family : Lead and Copper Rule
 Rule Group : Chemicals
 Rule Name : Lead and Copper Rule
 Violation Type : Initial Tap Sampling for Pb and Cu
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 210 S. OLD WOODWARD - STE 160, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 08/30/1999
 Enforcement Action Description : Federal Compliance achieved
 Admin Name : ESSCO DEVELOPMENT-JIM ESSHAKI
 Email Address : N/R

RTC Enforcement ID : N/R
 Violation ID : 9520001
 Submission Year : 2020
 Violation First Reported Date : 06/02/1995
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 210 S. OLD WOODWARD - STE 160, BIRMINGHAM, 48009

Map Id: 11
 Direction: WNW
 Distance: 0.388 mi.
 Actual: 2049.704 ft.
 Elevation: 0.147 mi. / 774.862 ft.
 Relative: Higher

Site Name : MI2289463 | MI6322894 | MI2001263
 210 S OLD WOODWARD STE 230 | 210 S.
 OLD WOODWARD - STE 160 | 210 S OLD
 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3353174
EPA ID: N/R

PWS ENF (**cont.**)

Address Line 2 : N/R
 Compliance Status : System Inactive
 RTC Date : 10/06/2016
 Enforcement Action Description : N/R
 Admin Name : ESSCO DEVELOPMENT-JIM ESSHAKI
 Email Address : N/R

Facility Address : 210 S OLD WOODWARD STE 230, BIRMINGHAM, MI 48009

PWS ID : MI2289463
 PWS Name : ORCHARD LAKE COMMONS
 EPA Region : Region 5
 Primacy Agency : Michigan
 PWS Type : Non-Transient non-community system
 Primacy Type : State
 Primary Source : Ground water
 Activity Status : Inactive
 Deactivation Date : 10/09/2017
 Owner Type : Private
 Phone Number : 2486455900
 Last Date in Agency List : 10/26/2020

Violation Details

RTC Enforcement ID : 134000573
 Violation ID : 1340014
 Submission Year : 2020
 Violation First Reported Date : 11/27/2013
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Maximum Contaminant Level Violation, Monthly (TCR)
 Is Health Based : Y
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 2
 Address Line 1 : 210 S OLD WOODWARD STE 230, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 07/31/2013
 Enforcement Action Description : State Compliance achieved
 Admin Name : ESSCO DEV CO/ STEFANIE FOUMIA
 Email Address : N/R

RTC Enforcement ID : N/R
 Violation ID : 1730272
 Submission Year : 2020
 Violation First Reported Date : 12/07/2017
 Contaminant Name : Lead and Copper Rule
 Rule Family : Lead and Copper Rule

Map Id: 11
 Direction: WNW
 Distance: 0.388 mi.
 Actual: 2049.704 ft.
 Elevation: 0.147 mi. / 774.862 ft.
 Relative: Higher

Site Name : MI2289463 | MI6322894 | MI2001263
 210 S OLD WOODWARD STE 230 | 210 S.
 OLD WOODWARD - STE 160 | 210 S OLD
 WOODWARD AVE
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3353174
EPA ID: N/R

PWS ENF (**cont.**)

Rule Group :	Chemicals
Rule Name :	Lead and Copper Rule
Violation Type :	Initial Tap Sampling for Pb and Cu
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	210 S OLD WOODWARD STE 230, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	System Inactive
RTC Date :	10/09/2017
Enforcement Action Description :	State Violation/Reminder Notice
Admin Name :	ESSCO DEV CO/ STEFANIE FOUMIA
Email Address :	N/R

Map Id: C12
 Direction: NW
 Distance: 0.421 mi.
 Actual: 2224.048 ft.
 Elevation: 0.148 mi. / 780.203 ft.
 Relative: Higher

Site Name : TN0008080
 370 E. MAPLE RD. THIRD FLOOR
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF]

EnviroSite ID: 3358196
EPA ID: N/R

PWS

Facility Address : 370 E. MAPLE RD. THIRD FLOOR, BIRMINGHAM, MI 48009

PWS ID :	TN0008080
PWS Type :	Community water system
PWS Name :	FRANKLIN ESTATES M H COMMUNITY
Activity Status :	Inactive
Primary Source :	Surface water purchased
Submission Year :	2020
Submission Year Quarter :	2020Q3
Population Served Count :	725
Service Connections Count :	258
Population Category 2 :	<10,000
Population Category 3 :	<=3300
Population Category 4 :	<10K
Population Category 5 :	501-3,300
Population Category 11 :	501-1,000
Submission Quarter :	3
Submission Status Code :	Y
First Reported Date :	06/02/1999
Last Reported Date :	11/20/2018
Deactivation Date :	01/29/2007
GW or SW :	Surface water
Is Grant Eligible :	N
Is Outstanding Performer :	N/R
Is School or Daycare :	N

Map Id: C12
 Direction: NW
 Distance: 0.421 mi.
 Actual: 2224.048 ft.
 Elevation: 0.148 mi. / 780.203 ft.
 Relative: Higher

Site Name : TN0008080
 370 E. MAPLE RD. THIRD FLOOR
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3358196
EPA ID: N/R

PWS (**cont.**)

Is Source Water Protected :	N
Primacy Agency :	Tennessee
Primacy Type :	State
Org Name :	SEGAL, SCOTT
EPA Region :	Region 4
Admin Name :	SEGAL, SCOTT
Owner Type :	Private
Phone Number :	N/R
Phone Ext Number :	N/R
Alt Phone Number :	N/R
Email Address :	N/R
Fax Number :	N/R
Is Wholesaler :	N
LT2 Schedule Category :	N/R
NPM Candidate :	N
CDS ID :	N/R
DBPR Schedule Category :	N/R
Outstanding Performer Date :	N/R
Season Begin Date :	N/R
Season End Date :	N/R
Source Water Protection Date :	N/R
Seasonal Startup System :	N/R
Reduced Monitoring Begin Date :	N/R
Reduced Monitoring End Date :	N/R
Reduced RTCR Monitoring :	N/R
Last Date in Agency List :	10/26/2020

PWS ENF

Facility Address : 370 E. MAPLE RD. THIRD FLOOR, BIRMINGHAM, MI 48009

PWS ID :	TN0008080
PWS Name :	FRANKLIN ESTATES M H COMMUNITY
EPA Region :	Region 4
Primacy Agency :	Tennessee
PWS Type :	Community water system
Primacy Type :	State
Primary Source :	Surface water purchased
Activity Status :	Inactive
Deactivation Date :	01/29/2007
Owner Type :	Private
Phone Number :	N/R
Last Date in Agency List :	10/26/2020

Violation Details

RTC Enforcement ID :	1468
Violation ID :	320
Submission Year :	2020
Violation First Reported Date :	08/19/2008
Contaminant Name :	Consumer Confidence Rule
Rule Family :	Consumer Confidence Rule
Rule Group :	Other
Rule Name :	Consumer Confidence Rule
Violation Type :	Consumer Confidence Report Complete Failure to Report

Map Id: C12
 Direction: NW
 Distance: 0.421 mi.
 Actual: 2224.048 ft.
 Elevation: 0.148 mi. / 780.203 ft.
 Relative: Higher

Site Name : TN0008080
 370 E. MAPLE RD. THIRD FLOOR
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3358196
EPA ID: N/R

PWS ENF (**cont.**)

Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 370 E. MAPLE RD. THIRD FLOOR, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 07/08/2003
 Enforcement Action Description : State Violation/Reminder Notice
 Admin Name : SEGAL, SCOTT
 Email Address : N/R

RTC Enforcement ID : 1623
 Violation ID : 18404
 Submission Year : 2020
 Violation First Reported Date : 11/18/2008
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Minor (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 370 E. MAPLE RD. THIRD FLOOR, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 12/01/2003
 Enforcement Action Description : State Public Notification received
 Admin Name : SEGAL, SCOTT
 Email Address : N/R

RTC Enforcement ID : 1960
 Violation ID : 263
 Submission Year : 2020
 Violation First Reported Date : 08/19/2008
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Repeat Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 370 E. MAPLE RD. THIRD FLOOR, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 05/14/2003
 Enforcement Action Description : State Public Notification received
 Admin Name : SEGAL, SCOTT
 Email Address : N/R

Map Id: C12
 Direction: NW
 Distance: 0.421 mi.
 Actual: 2224.048 ft.
 Elevation: 0.148 mi. / 780.203 ft.
 Relative: Higher

Site Name : TN0008080
 370 E. MAPLE RD. THIRD FLOOR
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3358196
EPA ID: N/R

PWS ENF (**cont.**)

RTC Enforcement ID : 1961
 Violation ID : 350
 Submission Year : 2020
 Violation First Reported Date : 08/19/2008
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 370 E. MAPLE RD. THIRD FLOOR, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 09/10/2003
 Enforcement Action Description : State Public Notification received
 Admin Name : SEGAL, SCOTT
 Email Address : N/R

RTC Enforcement ID : 1961
 Violation ID : 437
 Submission Year : 2020
 Violation First Reported Date : 08/19/2008
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 370 E. MAPLE RD. THIRD FLOOR, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 09/10/2003
 Enforcement Action Description : State Public Notification received
 Admin Name : SEGAL, SCOTT
 Email Address : N/R

RTC Enforcement ID : 1961
 Violation ID : 475
 Submission Year : 2020
 Violation First Reported Date : 08/19/2008
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3

Map Id: C12
 Direction: NW
 Distance: 0.421 mi.
 Actual: 2224.048 ft.
 Elevation: 0.148 mi. / 780.203 ft.
 Relative: Higher

Site Name : TN0008080
 370 E. MAPLE RD. THIRD FLOOR
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3358196
EPA ID: N/R

PWS ENF (**cont.**)

Address Line 1 : 370 E. MAPLE RD. THIRD FLOOR, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 09/10/2003
 Enforcement Action Description : State Public Notification received
 Admin Name : SEGAL, SCOTT
 Email Address : N/R

RTC Enforcement ID : 2393
 Violation ID : 112
 Submission Year : 2020
 Violation First Reported Date : 08/19/2008
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 370 E. MAPLE RD. THIRD FLOOR, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 11/02/2005
 Enforcement Action Description : State Public Notification requested
 Admin Name : SEGAL, SCOTT
 Email Address : N/R

RTC Enforcement ID : N/R
 Violation ID : 532
 Submission Year : 2020
 Violation First Reported Date : 08/19/2008
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 370 E. MAPLE RD. THIRD FLOOR, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : System Inactive
 RTC Date : 01/29/2007
 Enforcement Action Description : State Public Notification requested
 Admin Name : SEGAL, SCOTT
 Email Address : N/R

Geological Landscape Section Map Findings

2021

Map Id: 13
Direction: NW
Distance: 0.428 mi.
Actual: 2262.401 ft.
Elevation: 0.149 mi. / 784.567 ft.
Relative: Higher

Site Name : TANK
42.547942, -83.210669
BIRMINGHAM, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3335435
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2017-08-14
Action : Add
FAA Study Number : N/R
OBS Number : 26-105998
Obstacle Type : TANK
City Name : BIRMINGHAM
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : None
Above Ground Level Height (Feet) : 00112
Above Mean Sea Level Height (Feet) : 00896
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 52.59N
Longitude : 083 12 38.41W

Map Id: C14
Direction: NW
Distance: 0.429 mi.
Actual: 2264.238 ft.
Elevation: 0.148 mi. / 779.892 ft.
Relative: Higher

Site Name : FL6080272
300 E. MAPLE ROAD SUITE 200
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF]

Envirosite ID: 3312565
EPA ID: N/R

PWS

Facility Address : 300 E. MAPLE ROAD, SUITE 200, BIRMINGHAM, MI 48009

PWS ID : FL6080272
PWS Type : Non-Transient non-community system
PWS Name : SUN N SHADE FAMILY CAMPGROUND
Activity Status : Active
Primary Source : Ground water
Submission Year : 2019
Submission Year Quarter : 2019Q2
Population Served Count : 200
Service Connections Count : 80
Population Category 2 : <10,000
Population Category 3 : <=3300
Population Category 4 : <10K
Population Category 5 : <=500
Population Category 11 : 101-500
Submission Quarter : 2
Submission Status Code : Y
First Reported Date : 06/26/1990
Last Reported Date : 05/21/2019
Deactivation Date : N/R
GW or SW : Groundwater
Is Grant Eligible : Y

Map Id: C14
 Direction: NW
 Distance: 0.429 mi.
 Actual: 2264.238 ft.
 Elevation: 0.148 mi. / 779.892 ft.
 Relative: Higher

Site Name : FL6080272
 300 E. MAPLE ROAD SUITE 200
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3312565
EPA ID: N/R

PWS (**cont.**)

Is Outstanding Performer :	N/R
Is School or Daycare :	N
Is Source Water Protected :	N/R
Primacy Agency :	Florida
Primacy Type :	State
Org Name :	SUN N SHADE FAMILY CAMPGROUND
EPA Region :	Region 4
Admin Name :	SUN N SHADE FAMILY CAMPGROUND
Owner Type :	Private
Phone Number :	941-639-5388
Phone Ext Number :	N/R
Alt Phone Number :	N/R
Email Address :	N/R
Fax Number :	N/R
Is Wholesaler :	N
LT2 Schedule Category :	N/R
NPM Candidate :	Y
CDS ID :	N/R
DBPR Schedule Category :	System serving fewer than 10,000 AND not connected to a larger system
Outstanding Performer Date :	N/R
Season Begin Date :	10-01
Season End Date :	05-31
Source Water Protection Date :	N/R
Seasonal Startup System :	N/R
Reduced Monitoring Begin Date :	N/R
Reduced Monitoring End Date :	N/R
Reduced RTRC Monitoring :	N/R
Last Date in Agency List :	07/25/2019

PWS ENF

Facility Address : 300 E. MAPLE ROAD, SUITE 200, BIRMINGHAM, MI 48009

PWS ID :	FL6080272
PWS Name :	SUN N SHADE FAMILY CAMPGROUND
EPA Region :	Region 4
Primacy Agency :	Florida
PWS Type :	Non-Transient non-community system
Primacy Type :	State
Primary Source :	Ground water
Activity Status :	Active
Deactivation Date :	N/R
Owner Type :	Private
Phone Number :	248-988-8845
Last Date in Agency List :	10/26/2020

Violation Details

RTC Enforcement ID :	248926
Violation ID :	20060007866
Submission Year :	2020
Violation First Reported Date :	08/30/2006
Contaminant Name :	TTHM
Rule Family :	Stage 1 Disinfectants and Disinfection Byproducts Rule
Rule Group :	Disinfectants and Disinfection Byproducts Rule

Map Id: C14
 Direction: NW
 Distance: 0.429 mi.
 Actual: 2264.238 ft.
 Elevation: 0.148 mi. / 779.892 ft.
 Relative: Higher

Site Name : FL6080272
 300 E. MAPLE ROAD SUITE 200
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3312565
EPA ID: N/R

PWS ENF (**cont.**)

Rule Name :	Stage 1 Disinfectants and Disinfection Byproducts Rule
Violation Type :	Monitoring and Reporting (DBP)
Is Health Based :	N
Is Major Violation :	Y
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	6400 TELEGRAPH ROAD, BLOOMFIELD HILLS, 48301
Address Line 2 :	SUITE 2000
Compliance Status :	Returned to Compliance
RTC Date :	08/24/2006
Enforcement Action Description :	State Compliance achieved
Admin Name :	JIM BELLINSON
Email Address :	N/R

RTC Enforcement ID :	248926
Violation ID :	20060007867
Submission Year :	2020
Violation First Reported Date :	08/30/2006
Contaminant Name :	Total Haloacetic Acids (HAA5)
Rule Family :	Stage 1 Disinfectants and Disinfection Byproducts Rule
Rule Group :	Disinfectants and Disinfection Byproducts Rule
Rule Name :	Stage 1 Disinfectants and Disinfection Byproducts Rule
Violation Type :	Monitoring and Reporting (DBP)
Is Health Based :	N
Is Major Violation :	Y
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	6400 TELEGRAPH ROAD, BLOOMFIELD HILLS, 48301
Address Line 2 :	SUITE 2000
Compliance Status :	Returned to Compliance
RTC Date :	08/24/2006
Enforcement Action Description :	State Compliance achieved
Admin Name :	JIM BELLINSON
Email Address :	N/R

RTC Enforcement ID :	N/R
Violation ID :	91V0005
Submission Year :	2020
Violation First Reported Date :	08/16/1991
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Monitoring, Routine Minor (TCR)
Is Health Based :	N
Is Major Violation :	N
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	6400 TELEGRAPH ROAD, BLOOMFIELD HILLS, 48301
Address Line 2 :	SUITE 2000
Compliance Status :	Known
RTC Date :	N/R
Enforcement Action Description :	N/R
Admin Name :	JIM BELLINSON
Email Address :	N/R

Geological Landscape Section Map Findings

2021

Map Id: D15
Direction: WNW
Distance: 0.478 mi.
Actual: 2526.246 ft.
Elevation: 0.148 mi. / 780.299 ft.
Relative: Higher

Site Name : MI0040090 | MI0040357 | MI2047280
217 PIERCE SUITE 209 | 165 - 217 Pierce
Street
BIRMINGHAM | Birmingham, MI 48009
Database(s) : [PWS, PWS ENF]

EnviroSite ID: 3339500
EPA ID: N/R

PWS

Facility Address : 217 PIERCE SUITE 209, BIRMINGHAM, MI 48009

PWS ID : MI0040090
PWS Type : Community water system
PWS Name : TWIN PINES MOBILE HOME PARK
Activity Status : Active
Primary Source : Ground water
Submission Year : 2020
Submission Year Quarter : 2020Q3
Population Served Count : 182
Service Connections Count : 73
Population Category 2 : <10,000
Population Category 3 : <=3300
Population Category 4 : <10K
Population Category 5 : <=500
Population Category 11 : 101-500
Submission Quarter : 3
Submission Status Code : Y
First Reported Date : 02/03/1981
Last Reported Date : 09/23/2020
Deactivation Date : N/R
GW or SW : Groundwater
Is Grant Eligible : Y
Is Outstanding Performer : N/R
Is School or Daycare : N
Is Source Water Protected : N
Primacy Agency : Michigan
Primacy Type : State
Org Name : SCHUTT, HEATHER
EPA Region : Region 5
Admin Name : SCHUTT, HEATHER
Owner Type : Private
Phone Number : 616-633-9633
Phone Ext Number : N/R
Alt Phone Number : N/R
Email Address : heather.s@rma1.cc
Fax Number : N/R
Is Wholesaler : N
LT2 Schedule Category : N/R
NPM Candidate : Y
CDS ID : N/R
DBPR Schedule Category : N/R
Outstanding Performer Date : N/R
Season Begin Date : N/R
Season End Date : N/R
Source Water Protection Date : N/R
Seasonal Startup System : N/R
Reduced Monitoring Begin Date : N/R
Reduced Monitoring End Date : N/R
Reduced RTCR Monitoring : N/R
Last Date in Agency List : 10/26/2020

Facility Address : 217 PIERCE, SUITE 209, BIRMINGHAM, MI 48009

Geological Landscape Section Map Findings

2021

Map Id: D15
Direction: WNW
Distance: 0.478 mi.
Actual: 2526.246 ft.
Elevation: 0.148 mi. / 780.299 ft.
Relative: Higher

Site Name : MI0040090 | MI0040357 | MI2047280
217 PIERCE SUITE 209 | 165 - 217 Pierce
Street
BIRMINGHAM | Birmingham, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3339500
EPA ID: N/R

PWS (**cont.**)

PWS ID :	MI2047280
PWS Type :	Transient non-community system
PWS Name :	LAKE OF THE WOODS CAMP
Activity Status :	Active
Primary Source :	Ground water
Submission Year :	2020
Submission Year Quarter :	2020Q3
Population Served Count :	200
Service Connections Count :	1
Population Category 2 :	<10,000
Population Category 3 :	<=3300
Population Category 4 :	<10K
Population Category 5 :	<=500
Population Category 11 :	101-500
Submission Quarter :	3
Submission Status Code :	Y
First Reported Date :	07/11/1995
Last Reported Date :	09/17/2020
Deactivation Date :	N/R
GW or SW :	Groundwater
Is Grant Eligible :	Y
Is Outstanding Performer :	N/R
Is School or Daycare :	N
Is Source Water Protected :	-
Primacy Agency :	Michigan
Primacy Type :	State
Org Name :	DARAKJIAN, ARA
EPA Region :	Region 5
Admin Name :	DARAKJIAN, ARA
Owner Type :	Private
Phone Number :	248-356-9900
Phone Ext Number :	N/R
Alt Phone Number :	N/R
Email Address :	N/R
Fax Number :	N/R
Is Wholesaler :	N
LT2 Schedule Category :	N/R
NPM Candidate :	Y
CDS ID :	N/R
DBPR Schedule Category :	N/R
Outstanding Performer Date :	N/R
Season Begin Date :	01-01
Season End Date :	12-31
Source Water Protection Date :	N/R
Seasonal Startup System :	N/R
Reduced Monitoring Begin Date :	N/R
Reduced Monitoring End Date :	N/R
Reduced RTCR Monitoring :	N/R
Last Date in Agency List :	10/26/2020

Facility Address :	217 PIERCE, SUITE 209, BIRMINGHAM, MI 48009

PWS ID :	MI0040357
PWS Type :	Community water system

Map Id: D15
 Direction: WNW
 Distance: 0.478 mi.
 Actual: 2526.246 ft.
 Elevation: 0.148 mi. / 780.299 ft.
 Relative: Higher

Site Name : MI0040090 | MI0040357 | MI2047280
 217 PIERCE SUITE 209 | 165 - 217 Pierce
 Street
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [PWS, PWS ENF] **(cont.)**

Envirosite ID: 3339500
EPA ID: N/R

PWS (cont.)

PWS Name :	CRYSTAL DOWNS MOBILE VILLAGE
Activity Status :	Active
Primary Source :	Ground water
Submission Year :	2020
Submission Year Quarter :	2020Q3
Population Served Count :	260
Service Connections Count :	104
Population Category 2 :	<10,000
Population Category 3 :	<=3300
Population Category 4 :	<10K
Population Category 5 :	<=500
Population Category 11 :	101-500
Submission Quarter :	3
Submission Status Code :	Y
First Reported Date :	02/03/1981
Last Reported Date :	09/23/2020
Deactivation Date :	N/R
GW or SW :	Groundwater
Is Grant Eligible :	Y
Is Outstanding Performer :	N/R
Is School or Daycare :	N
Is Source Water Protected :	N
Primacy Agency :	Michigan
Primacy Type :	State
Org Name :	DARAKJIAN, ARA
EPA Region :	Region 5
Admin Name :	DARAKJIAN, ARA
Owner Type :	Private
Phone Number :	248-356-9900
Phone Ext Number :	N/R
Alt Phone Number :	N/R
Email Address :	N/R
Fax Number :	N/R
Is Wholesaler :	N
LT2 Schedule Category :	N/R
NPM Candidate :	Y
CDS ID :	N/R
DBPR Schedule Category :	N/R
Outstanding Performer Date :	N/R
Season Begin Date :	N/R
Season End Date :	N/R
Source Water Protection Date :	N/R
Seasonal Startup System :	N/R
Reduced Monitoring Begin Date :	N/R
Reduced Monitoring End Date :	N/R
Reduced RTRC Monitoring :	N/R
Last Date in Agency List :	10/26/2020

PWS ENF

Facility Address :	217 PIERCE SUITE 209, BIRMINGHAM, MI 48009
PWS ID :	MI0040090
PWS Name :	TWIN PINES MOBILE HOME PARK
EPA Region :	Region 5

Geological Landscape Section Map Findings

2021

Map Id: D15
Direction: WNW
Distance: 0.478 mi.
Actual: 2526.246 ft.
Elevation: 0.148 mi. / 780.299 ft.
Relative: Higher

Site Name : MI0040090 | MI0040357 | MI2047280
217 PIERCE SUITE 209 | 165 - 217 Pierce
Street
BIRMINGHAM | Birmingham, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3339500
EPA ID: N/R

PWS ENF (**cont.**)

Primacy Agency :	Michigan
PWS Type :	Community water system
Primacy Type :	State
Primary Source :	Ground water
Activity Status :	Active
Deactivation Date :	N/R
Owner Type :	Private
Phone Number :	616-633-9633
Last Date in Agency List :	10/26/2020

Violation Details

RTC Enforcement ID :	1001498
Violation ID :	1000198
Submission Year :	2020
Violation First Reported Date :	03/11/1998
Contaminant Name :	Lead and Copper Rule
Rule Family :	Lead and Copper Rule
Rule Group :	Chemicals
Rule Name :	Lead and Copper Rule
Violation Type :	Follow-up Or Routine LCR Tap M/R
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	217 PIERCE SUITE 209, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	06/18/1998
Enforcement Action Description :	State Compliance achieved
Admin Name :	SCHUTT, HEATHER
Email Address :	heather.s@rma1.cc

RTC Enforcement ID :	3000397
Violation ID :	3000196
Submission Year :	2020
Violation First Reported Date :	09/10/1996
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Monitoring, Routine Major (TCR)
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	217 PIERCE SUITE 209, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	09/30/1997
Enforcement Action Description :	State Compliance achieved
Admin Name :	SCHUTT, HEATHER
Email Address :	heather.s@rma1.cc

Map Id: D15
 Direction: WNW
 Distance: 0.478 mi.
 Actual: 2526.246 ft.
 Elevation: 0.148 mi. / 780.299 ft.
 Relative: Higher

Site Name : MI0040090 | MI0040357 | MI2047280
 217 PIERCE SUITE 209 | 165 - 217 Pierce
 Street
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [PWS, PWS ENF] **(cont.)**

EnviroSite ID: 3339500
EPA ID: N/R

PWS ENF (cont.)

RTC Enforcement ID : 3000401
 Violation ID : 3000197
 Submission Year : 2020
 Violation First Reported Date : 08/24/2009
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Maximum Contaminant Level Violation, Monthly (TCR)
 Is Health Based : Y
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 2
 Address Line 1 : 217 PIERCE SUITE 209, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 06/16/2009
 Enforcement Action Description : State Public Notification received
 Admin Name : SCHUTT, HEATHER
 Email Address : heather.s@rma1.cc

RTC Enforcement ID : 3000405
 Violation ID : 3000198
 Submission Year : 2020
 Violation First Reported Date : 12/17/2013
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 217 PIERCE SUITE 209, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 09/18/2013
 Enforcement Action Description : State Compliance achieved
 Admin Name : SCHUTT, HEATHER
 Email Address : heather.s@rma1.cc

RTC Enforcement ID : 3000409
 Violation ID : 3000224
 Submission Year : 2020
 Violation First Reported Date : 09/27/2016
 Contaminant Name : Lead and Copper Rule
 Rule Family : Lead and Copper Rule
 Rule Group : Chemicals
 Rule Name : Lead and Copper Rule
 Violation Type : OCCT/SOWT Study/Recommendation
 Is Health Based : Y
 Is Major Violation : N/R
 Severity Indicator Count : N/R

Geological Landscape Section Map Findings

2021

Map Id: D15
Direction: WNW
Distance: 0.478 mi.
Actual: 2526.246 ft.
Elevation: 0.148 mi. / 780.299 ft.
Relative: Higher

Site Name : MI0040090 | MI0040357 | MI2047280
217 PIERCE SUITE 209 | 165 - 217 Pierce
Street
BIRMINGHAM | Birmingham, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3339500
EPA ID: N/R

PWS ENF (**cont.**)

Public Notification Tier : 2
Address Line 1 : 217 PIERCE SUITE 209, BIRMINGHAM, 48009
Address Line 2 : N/R
Compliance Status : Returned to Compliance
RTC Date : 04/11/2016
Enforcement Action Description : State Public Notification requested
Admin Name : SCHUTT, HEATHER
Email Address : heather.s@rma1.cc

RTC Enforcement ID : 3000412
Violation ID : 3000225
Submission Year : 2020
Violation First Reported Date : 06/29/2016
Contaminant Name : Coliform (TCR)
Rule Family : Total Coliform Rules
Rule Group : Microbials
Rule Name : Total Coliform Rule
Violation Type : Monitoring, Routine Major (TCR)
Is Health Based : N
Is Major Violation : N/R
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 217 PIERCE SUITE 209, BIRMINGHAM, 48009
Address Line 2 : N/R
Compliance Status : Returned to Compliance
RTC Date : 04/14/2016
Enforcement Action Description : State Public Notification requested
Admin Name : SCHUTT, HEATHER
Email Address : heather.s@rma1.cc

RTC Enforcement ID : 3000417
Violation ID : 3000228
Submission Year : 2020
Violation First Reported Date : 06/30/2017
Contaminant Name : Lead and Copper Rule
Rule Family : Lead and Copper Rule
Rule Group : Chemicals
Rule Name : Lead and Copper Rule
Violation Type : Follow-up Or Routine LCR Tap M/R
Is Health Based : N
Is Major Violation : N/R
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 217 PIERCE SUITE 209, BIRMINGHAM, 48009
Address Line 2 : N/R
Compliance Status : Returned to Compliance
RTC Date : 03/30/2017
Enforcement Action Description : State Violation/Reminder Notice
Admin Name : SCHUTT, HEATHER
Email Address : heather.s@rma1.cc

RTC Enforcement ID : 3000417
Violation ID : 3000226

Geological Landscape Section Map Findings

2021

Map Id: D15
Direction: WNW
Distance: 0.478 mi.
Actual: 2526.246 ft.
Elevation: 0.148 mi. / 780.299 ft.
Relative: Higher

Site Name : MI0040090 | MI0040357 | MI2047280
217 PIERCE SUITE 209 | 165 - 217 Pierce
Street
BIRMINGHAM | Birmingham, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3339500
EPA ID: N/R

PWS ENF (**cont.**)

Submission Year : 2020
Violation First Reported Date : 03/01/2017
Contaminant Name : Lead and Copper Rule
Rule Family : Lead and Copper Rule
Rule Group : Chemicals
Rule Name : Lead and Copper Rule
Violation Type : Lead Consumer Notice
Is Health Based : N
Is Major Violation : N/R
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 217 PIERCE SUITE 209, BIRMINGHAM, 48009
Address Line 2 : N/R
Compliance Status : Returned to Compliance
RTC Date : 03/30/2017
Enforcement Action Description : State Administrative Penalty assessed
Admin Name : SCHUTT, HEATHER
Email Address : heather.s@rma1.cc

RTC Enforcement ID : 3000424
Violation ID : 3000230
Submission Year : 2020
Violation First Reported Date : 11/29/2017
Contaminant Name : Lead and Copper Rule
Rule Family : Lead and Copper Rule
Rule Group : Chemicals
Rule Name : Lead and Copper Rule
Violation Type : Follow-up Or Routine LCR Tap M/R
Is Health Based : N
Is Major Violation : N/R
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 217 PIERCE SUITE 209, BIRMINGHAM, 48009
Address Line 2 : N/R
Compliance Status : Returned to Compliance
RTC Date : 08/28/2017
Enforcement Action Description : State Compliance achieved
Admin Name : SCHUTT, HEATHER
Email Address : heather.s@rma1.cc

RTC Enforcement ID : 3000427
Violation ID : 3000231
Submission Year : 2020
Violation First Reported Date : 11/29/2017
Contaminant Name : Lead and Copper Rule
Rule Family : Lead and Copper Rule
Rule Group : Chemicals
Rule Name : Lead and Copper Rule
Violation Type : Lead Consumer Notice
Is Health Based : N
Is Major Violation : N/R
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 217 PIERCE SUITE 209, BIRMINGHAM, 48009

Map Id: D15
 Direction: WNW
 Distance: 0.478 mi.
 Actual: 2526.246 ft.
 Elevation: 0.148 mi. / 780.299 ft.
 Relative: Higher

Site Name : MI0040090 | MI0040357 | MI2047280
 217 PIERCE SUITE 209 | 165 - 217 Pierce
 Street
 BIRMINGHAM | Birmingham, MI 48009
Database(s) : [PWS, PWS ENF] **(cont.)**

EnviroSite ID: 3339500
EPA ID: N/R

PWS ENF (cont.)

Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 08/04/2017
 Enforcement Action Description : State Public Notification requested
 Admin Name : SCHUTT, HEATHER
 Email Address : heather.s@rma1.cc

RTC Enforcement ID : 3000428
 Violation ID : 3000222
 Submission Year : 2020
 Violation First Reported Date : 03/01/2016
 Contaminant Name : Lead and Copper Rule
 Rule Family : Lead and Copper Rule
 Rule Group : Chemicals
 Rule Name : Lead and Copper Rule
 Violation Type : Follow-up Or Routine LCR Tap M/R
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 217 PIERCE SUITE 209, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 06/29/2016
 Enforcement Action Description : State Compliance achieved
 Admin Name : SCHUTT, HEATHER
 Email Address : heather.s@rma1.cc

RTC Enforcement ID : 3000432
 Violation ID : 3000232
 Submission Year : 2020
 Violation First Reported Date : 08/20/2019
 Contaminant Name : Revised Total Coliform Rule
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Revised Total Coliform Rule
 Violation Type : Monitoring, Routine (RTCR)
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 217 PIERCE SUITE 209, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 08/31/2019
 Enforcement Action Description : State Compliance achieved
 Admin Name : SCHUTT, HEATHER
 Email Address : heather.s@rma1.cc

RTC Enforcement ID : 3000437
 Violation ID : 3000234
 Submission Year : 2020
 Violation First Reported Date : 12/05/2019

Geological Landscape Section Map Findings

2021

Map Id: D15
Direction: WNW
Distance: 0.478 mi.
Actual: 2526.246 ft.
Elevation: 0.148 mi. / 780.299 ft.
Relative: Higher

Site Name : MI0040090 | MI0040357 | MI2047280
217 PIERCE SUITE 209 | 165 - 217 Pierce
Street
BIRMINGHAM | Birmingham, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3339500
EPA ID: N/R

PWS ENF (**cont.**)

Contaminant Name :	Revised Total Coliform Rule
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Revised Total Coliform Rule
Violation Type :	Monitoring, Routine (RTCR)
Is Health Based :	N
Is Major Violation :	Y
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	217 PIERCE SUITE 209, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	08/31/2019
Enforcement Action Description :	State Administrative Penalty assessed
Admin Name :	SCHUTT, HEATHER
Email Address :	heather.s@rma1.cc
RTC Enforcement ID :	N/R
Violation ID :	3000233
Submission Year :	2020
Violation First Reported Date :	12/05/2019
Contaminant Name :	Consumer Confidence Rule
Rule Family :	Consumer Confidence Rule
Rule Group :	Other
Rule Name :	Consumer Confidence Rule
Violation Type :	Consumer Confidence Report Complete Failure to Report
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	217 PIERCE SUITE 209, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Open
RTC Date :	N/R
Enforcement Action Description :	State Violation/Reminder Notice
Admin Name :	SCHUTT, HEATHER
Email Address :	heather.s@rma1.cc
Facility Address :	217 PIERCE, SUITE 209, BIRMINGHAM, MI 48009
PWS ID :	MI2047280
PWS Name :	LAKE OF THE WOODS CAMP
EPA Region :	Region 5
Primacy Agency :	Michigan
PWS Type :	Transient non-community system
Primacy Type :	State
Primary Source :	Ground water
Activity Status :	Active
Deactivation Date :	N/R
Owner Type :	Private
Phone Number :	248-356-9900
Last Date in Agency List :	10/26/2020

Geological Landscape Section Map Findings

2021

Map Id: D15
Direction: WNW
Distance: 0.478 mi.
Actual: 2526.246 ft.
Elevation: 0.148 mi. / 780.299 ft.
Relative: Higher

Site Name : MI0040090 | MI0040357 | MI2047280
217 PIERCE SUITE 209 | 165 - 217 Pierce
Street
BIRMINGHAM | Birmingham, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3339500
EPA ID: N/R

PWS ENF (**cont.**)

Violation Details

RTC Enforcement ID : 163000895
Violation ID : 1540386
Submission Year : 2020
Violation First Reported Date : 11/25/2015
Contaminant Name : Coliform (TCR)
Rule Family : Total Coliform Rules
Rule Group : Microbials
Rule Name : Total Coliform Rule
Violation Type : Monitoring, Routine Major (TCR)
Is Health Based : N
Is Major Violation : N/R
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 217 PIERCE, BIRMINGHAM, 48009
Address Line 2 : SUITE 209
Compliance Status : Returned to Compliance
RTC Date : 06/08/2016
Enforcement Action Description : State Compliance achieved
Admin Name : DARAKJIAN, ARA
Email Address : N/R

RTC Enforcement ID : 193001755
Violation ID : 1910539
Submission Year : 2020
Violation First Reported Date : 03/12/2019
Contaminant Name : Revised Total Coliform Rule
Rule Family : Total Coliform Rules
Rule Group : Microbials
Rule Name : Revised Total Coliform Rule
Violation Type : Monitoring, Routine (RTCR)
Is Health Based : N
Is Major Violation : Y
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 217 PIERCE, BIRMINGHAM, 48009
Address Line 2 : SUITE 209
Compliance Status : Returned to Compliance
RTC Date : 05/23/2019
Enforcement Action Description : State Compliance achieved
Admin Name : DARAKJIAN, ARA
Email Address : N/R

RTC Enforcement ID : 81001014
Violation ID : 740059
Submission Year : 2020
Violation First Reported Date : 12/15/2010
Contaminant Name : Coliform (TCR)
Rule Family : Total Coliform Rules
Rule Group : Microbials
Rule Name : Total Coliform Rule
Violation Type : Maximum Contaminant Level Violation, Monthly (TCR)
Is Health Based : Y
Is Major Violation : N/R

Geological Landscape Section Map Findings

2021

Map Id: D15
Direction: WNW
Distance: 0.478 mi.
Actual: 2526.246 ft.
Elevation: 0.148 mi. / 780.299 ft.
Relative: Higher

Site Name : MI0040090 | MI0040357 | MI2047280
217 PIERCE SUITE 209 | 165 - 217 Pierce
Street
BIRMINGHAM | Birmingham, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3339500
EPA ID: N/R

PWS ENF (**cont.**)

Severity Indicator Count :	N/R
Public Notification Tier :	2
Address Line 1 :	217 PIERCE, BIRMINGHAM, 48009
Address Line 2 :	SUITE 209
Compliance Status :	Returned to Compliance
RTC Date :	12/31/2007
Enforcement Action Description :	State Compliance achieved
Admin Name :	DARAKJIAN, ARA
Email Address :	N/R
Facility Address :	217 PIERCE, SUITE 209, BIRMINGHAM, MI 48009
PWS ID :	MI0040357
PWS Name :	CRYSTAL DOWNS MOBILE VILLAGE
EPA Region :	Region 5
Primacy Agency :	Michigan
PWS Type :	Community water system
Primacy Type :	State
Primary Source :	Ground water
Activity Status :	Active
Deactivation Date :	N/R
Owner Type :	Private
Phone Number :	248-356-9900
Last Date in Agency List :	10/26/2020

Violation Details

RTC Enforcement ID :	2000307
Violation ID :	2000204
Submission Year :	2020
Violation First Reported Date :	11/18/2009
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Maximum Contaminant Level Violation, Monthly (TCR)
Is Health Based :	Y
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	2
Address Line 1 :	217 PIERCE, BIRMINGHAM, 48009
Address Line 2 :	SUITE 209
Compliance Status :	Returned to Compliance
RTC Date :	10/09/2009
Enforcement Action Description :	State Compliance achieved
Admin Name :	DARAKJIAN, ARA
Email Address :	N/R
RTC Enforcement ID :	2000310
Violation ID :	2000205
Submission Year :	2020
Violation First Reported Date :	11/18/2009

Geological Landscape Section Map Findings

2021

Map Id: D15
Direction: WNW
Distance: 0.478 mi.
Actual: 2526.246 ft.
Elevation: 0.148 mi. / 780.299 ft.
Relative: Higher

Site Name : MI0040090 | MI0040357 | MI2047280
217 PIERCE SUITE 209 | 165 - 217 Pierce
Street
BIRMINGHAM | Birmingham, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3339500
EPA ID: N/R

PWS ENF (**cont.**)

Contaminant Name : Coliform (TCR)
Rule Family : Total Coliform Rules
Rule Group : Microbials
Rule Name : Total Coliform Rule
Violation Type : Monitoring, Repeat Minor (TCR)
Is Health Based : N
Is Major Violation : N/R
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 217 PIERCE, BIRMINGHAM, 48009
Address Line 2 : SUITE 209
Compliance Status : Returned to Compliance
RTC Date : 10/09/2009
Enforcement Action Description : State Compliance achieved
Admin Name : DARAKJIAN, ARA
Email Address : N/R

RTC Enforcement ID : 2000313
Violation ID : 2000206
Submission Year : 2020
Violation First Reported Date : 08/19/2014
Contaminant Name : Coliform (TCR)
Rule Family : Total Coliform Rules
Rule Group : Microbials
Rule Name : Total Coliform Rule
Violation Type : Monitoring, Routine Major (TCR)
Is Health Based : N
Is Major Violation : N/R
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 217 PIERCE, BIRMINGHAM, 48009
Address Line 2 : SUITE 209
Compliance Status : Returned to Compliance
RTC Date : 08/06/2014
Enforcement Action Description : State Compliance achieved
Admin Name : DARAKJIAN, ARA
Email Address : N/R

RTC Enforcement ID : 2000322
Violation ID : 2000212
Submission Year : 2020
Violation First Reported Date : 03/01/2017
Contaminant Name : Lead and Copper Rule
Rule Family : Lead and Copper Rule
Rule Group : Chemicals
Rule Name : Lead and Copper Rule
Violation Type : Follow-up Or Routine LCR Tap M/R
Is Health Based : N
Is Major Violation : N/R
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 217 PIERCE, BIRMINGHAM, 48009
Address Line 2 : SUITE 209
Compliance Status : Returned to Compliance

Geological Landscape Section Map Findings

2021

Map Id: D15
Direction: WNW
Distance: 0.478 mi.
Actual: 2526.246 ft.
Elevation: 0.148 mi. / 780.299 ft.
Relative: Higher

Site Name : MI0040090 | MI0040357 | MI2047280
217 PIERCE SUITE 209 | 165 - 217 Pierce
Street
BIRMINGHAM | Birmingham, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3339500
EPA ID: N/R

PWS ENF (**cont.**)

RTC Date : 09/17/2017
Enforcement Action Description : State Compliance achieved
Admin Name : DARAKJIAN, ARA
Email Address : N/R

RTC Enforcement ID : 2000322
Violation ID : 2000211
Submission Year : 2020
Violation First Reported Date : 03/01/2016
Contaminant Name : Lead and Copper Rule
Rule Family : Lead and Copper Rule
Rule Group : Chemicals
Rule Name : Lead and Copper Rule
Violation Type : Follow-up Or Routine LCR Tap M/R
Is Health Based : N
Is Major Violation : N/R
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 217 PIERCE, BIRMINGHAM, 48009
Address Line 2 : SUITE 209
Compliance Status : Returned to Compliance
RTC Date : 09/17/2017
Enforcement Action Description : State Compliance achieved
Admin Name : DARAKJIAN, ARA
Email Address : N/R

RTC Enforcement ID : 2000325
Violation ID : 2000213
Submission Year : 2020
Violation First Reported Date : 03/01/2017
Contaminant Name : Revised Total Coliform Rule
Rule Family : Total Coliform Rules
Rule Group : Microbials
Rule Name : Revised Total Coliform Rule
Violation Type : Monitoring, Routine (RTCR)
Is Health Based : N
Is Major Violation : Y
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 217 PIERCE, BIRMINGHAM, 48009
Address Line 2 : SUITE 209
Compliance Status : Returned to Compliance
RTC Date : 10/31/2016
Enforcement Action Description : State Public Notification requested
Admin Name : DARAKJIAN, ARA
Email Address : N/R

RTC Enforcement ID : 2000328
Violation ID : 2000214
Submission Year : 2020
Violation First Reported Date : 12/05/2019
Contaminant Name : Revised Total Coliform Rule
Rule Family : Total Coliform Rules

Geological Landscape Section Map Findings

2021

Map Id: D15
Direction: WNW
Distance: 0.478 mi.
Actual: 2526.246 ft.
Elevation: 0.148 mi. / 780.299 ft.
Relative: Higher

Site Name : MI0040090 | MI0040357 | MI2047280
217 PIERCE SUITE 209 | 165 - 217 Pierce
Street
BIRMINGHAM | Birmingham, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3339500
EPA ID: N/R

PWS ENF (**cont.**)

Rule Group : Microbials
Rule Name : Revised Total Coliform Rule
Violation Type : Monitoring, Routine (RTCR)
Is Health Based : N
Is Major Violation : Y
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 217 PIERCE, BIRMINGHAM, 48009
Address Line 2 : SUITE 209
Compliance Status : Returned to Compliance
RTC Date : 10/30/2019
Enforcement Action Description : State Public Notification received
Admin Name : DARAKJIAN, ARA
Email Address : N/R

RTC Enforcement ID : N/R
Violation ID : 2000194
Submission Year : 2020
Violation First Reported Date : 06/02/1994
Contaminant Name : Coliform (TCR)
Rule Family : Total Coliform Rules
Rule Group : Microbials
Rule Name : Total Coliform Rule
Violation Type : Monitoring, Routine Major (TCR)
Is Health Based : N
Is Major Violation : N/R
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 217 PIERCE, BIRMINGHAM, 48009
Address Line 2 : SUITE 209
Compliance Status : Known
RTC Date : N/R
Enforcement Action Description : State Public Notification requested
Admin Name : DARAKJIAN, ARA
Email Address : N/R

Map Id: D16
Direction: WNW
Distance: 0.501 mi.
Actual: 2644.520 ft.
Elevation: 0.148 mi. / 780.308 ft.
Relative: Higher

Site Name : MI0000730 | MI2023245
151 MARTIN STREET
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF]

EnviroSite ID: 3312709
EPA ID: N/R

PWS

Facility Address : 151 Martin Street, BIRMINGHAM, MI 48009

PWS ID : MI0000730
PWS Type : Community water system

Map Id: D16
 Direction: WNW
 Distance: 0.501 mi.
 Actual: 2644.520 ft.
 Elevation: 0.148 mi. / 780.308 ft.
 Relative: Higher

Site Name : MI0000730 | MI2023245
 151 MARTIN STREET
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3312709
EPA ID: N/R

PWS (**cont.**)

PWS Name :	BIRMINGHAM
Activity Status :	Active
Primary Source :	Surface water purchased
Submission Year :	2020
Submission Year Quarter :	2020Q3
Population Served Count :	20,472
Service Connections Count :	8484
Population Category 2 :	10,000+
Population Category 3 :	3,301-50,000
Population Category 4 :	10K-49,999
Population Category 5 :	10,001-100,000
Population Category 11 :	10,001-50,000
Submission Quarter :	3
Submission Status Code :	Y
First Reported Date :	02/03/1981
Last Reported Date :	09/23/2020
Deactivation Date :	N/R
GW or SW :	Surface water
Is Grant Eligible :	Y
Is Outstanding Performer :	N/R
Is School or Daycare :	N
Is Source Water Protected :	Y
Primacy Agency :	Michigan
Primacy Type :	State
Org Name :	FLETCHER, AUSTIN
EPA Region :	Region 5
Admin Name :	FLETCHER, AUSTIN
Owner Type :	Local government
Phone Number :	248-530-1839
Phone Ext Number :	N/R
Alt Phone Number :	N/R
Email Address :	AFLETCHER@BHAMGOV.ORG
Fax Number :	N/R
Is Wholesaler :	N
LT2 Schedule Category :	Schedule 1
NPM Candidate :	Y
CDS ID :	1324
DBPR Schedule Category :	System serving 100K or more people OR systems that are connected to a system serving 100K or more
Outstanding Performer Date :	N/R
Season Begin Date :	N/R
Season End Date :	N/R
Source Water Protection Date :	03/01/2004
Seasonal Startup System :	N/R
Reduced Monitoring Begin Date :	N/R
Reduced Monitoring End Date :	N/R
Reduced RTCR Monitoring :	N/R
Last Date in Agency List :	10/26/2020
Facility Address :	151 Martin Street, BIRMINGHAM, MI 48009
PWS ID :	MI2023245
PWS Type :	Transient non-community system

Map Id: D16
 Direction: WNW
 Distance: 0.501 mi.
 Actual: 2644.520 ft.
 Elevation: 0.148 mi. / 780.308 ft.
 Relative: Higher

Site Name : MI0000730 | MI2023245
 151 MARTIN STREET
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3312709
EPA ID: N/R

PWS (**cont.**)

PWS Name :	GRUMPY'S MARKET
Activity Status :	Active
Primary Source :	Ground water
Submission Year :	2020
Submission Year Quarter :	2020Q3
Population Served Count :	400
Service Connections Count :	1
Population Category 2 :	<10,000
Population Category 3 :	<=3300
Population Category 4 :	<10K
Population Category 5 :	<=500
Population Category 11 :	101-500
Submission Quarter :	3
Submission Status Code :	Y
First Reported Date :	06/10/1999
Last Reported Date :	09/17/2020
Deactivation Date :	N/R
GW or SW :	Groundwater
Is Grant Eligible :	Y
Is Outstanding Performer :	N/R
Is School or Daycare :	N
Is Source Water Protected :	-
Primacy Agency :	Michigan
Primacy Type :	State
Org Name :	FLETCHER, AUSTIN
EPA Region :	Region 5
Admin Name :	FLETCHER, AUSTIN
Owner Type :	Private
Phone Number :	248-530-1839
Phone Ext Number :	N/R
Alt Phone Number :	N/R
Email Address :	AFLETCHER@BHAMGOV.ORG
Fax Number :	N/R
Is Wholesaler :	N
LT2 Schedule Category :	N/R
NPM Candidate :	Y
CDS ID :	N/R
DBPR Schedule Category :	N/R
Outstanding Performer Date :	N/R
Season Begin Date :	01-01
Season End Date :	12-31
Source Water Protection Date :	N/R
Seasonal Startup System :	N/R
Reduced Monitoring Begin Date :	N/R
Reduced Monitoring End Date :	N/R
Reduced RTRC Monitoring :	N/R
Last Date in Agency List :	10/26/2020

PWS ENF

Facility Address :	151 Martin Street, BIRMINGHAM, MI 48009
PWS ID :	MI0000730
PWS Name :	BIRMINGHAM
EPA Region :	Region 5
Primacy Agency :	Michigan

Map Id: D16
 Direction: WNW
 Distance: 0.501 mi.
 Actual: 2644.520 ft.
 Elevation: 0.148 mi. / 780.308 ft.
 Relative: Higher

Site Name : MI0000730 | MI2023245
 151 MARTIN STREET
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3312709
EPA ID: N/R

PWS ENF (**cont.**)

PWS Type :	Community water system
Primacy Type :	State
Primary Source :	Surface water purchased
Activity Status :	Active
Deactivation Date :	N/R
Owner Type :	Local government
Phone Number :	248-530-1839
Last Date in Agency List :	10/26/2020

Violation Details

RTC Enforcement ID :	4009101
Violation ID :	4000901
Submission Year :	2020
Violation First Reported Date :	01/17/2002
Contaminant Name :	Consumer Confidence Rule
Rule Family :	Consumer Confidence Rule
Rule Group :	Other
Rule Name :	Consumer Confidence Rule
Violation Type :	Consumer Confidence Report Complete Failure to Report
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	151 Martin Street, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	09/04/2001
Enforcement Action Description :	State Compliance achieved
Admin Name :	FLETCHER, AUSTIN
Email Address :	AFLETCHER@BHAMGOV.ORG

RTC Enforcement ID :	4009103
Violation ID :	4000902
Submission Year :	2020
Violation First Reported Date :	03/01/2018
Contaminant Name :	Lead and Copper Rule
Rule Family :	Lead and Copper Rule
Rule Group :	Chemicals
Rule Name :	Lead and Copper Rule
Violation Type :	Lead Consumer Notice
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	151 Martin Street, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	09/26/2017
Enforcement Action Description :	State Violation/Reminder Notice
Admin Name :	FLETCHER, AUSTIN
Email Address :	AFLETCHER@BHAMGOV.ORG

Geological Landscape Section Map Findings

2021

Map Id: E17
Direction: E
Distance: 0.514 mi.
Actual: 2715.025 ft.
Elevation: 0.14 mi. / 741.732 ft.
Relative: Lower

Site Name : MI0002340 | MI2196863 | MI2276563
851 S ETON
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF]

EnviroSite ID: 3351529
EPA ID: N/R

PWS

Facility Address : 851 S ETON, BIRMINGHAM, MI 48009

PWS ID : MI6322765
PWS Type : Transient non-community system
PWS Name : SPRINGDALE MAINTENANCE
Activity Status : Active
Primary Source : Ground water
Submission Year : 2019
Submission Year Quarter : 2019Q1
Population Served Count : 50
Service Connections Count : 2
Population Category 2 : <10,000
Population Category 3 : <=3300
Population Category 4 : <10K
Population Category 5 : <=500
Population Category 11 : <=100
Submission Quarter : 1
Submission Status Code : Y
First Reported Date : 12/13/2003
Last Reported Date : 03/28/2019
Deactivation Date : N/R
GW or SW : Groundwater
Is Grant Eligible : Y
Is Outstanding Performer : N/R
Is School or Daycare : N
Is Source Water Protected : N/R
Primacy Agency : Michigan
Primacy Type : State
Org Name : 2276563
EPA Region : Region 5
Admin Name : CITY OF BIRMINGHAM - JACKIE
Owner Type : Private
Phone Number : 2486440480
Phone Ext Number : N/R
Alt Phone Number : N/R
Email Address : N/R
Fax Number : N/R
Is Wholesaler : N
LT2 Schedule Category : N/R
NPM Candidate : Y
CDS ID : N/R
DBPR Schedule Category : N/R
Outstanding Performer Date : N/R
Season Begin Date : 1-Jan
Season End Date : 31-Dec
Source Water Protection Date : N/R
Seasonal Startup System : N/R
Reduced Monitoring Begin Date : N/R
Reduced Monitoring End Date : N/R
Reduced RTRC Monitoring : N/R
Last Date in Agency List : 05/16/2019

Facility Address : 851 S ETON, BIRMINGHAM, MI 48009

Map Id: E17
 Direction: E
 Distance: 0.514 mi.
 Actual: 2715.025 ft.
 Elevation: 0.14 mi. / 741.732 ft.
 Relative: Lower

Site Name : MI0002340 | MI2196863 | MI2276563
 851 S ETON
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3351529
EPA ID: N/R

PWS (**cont.**)

PWS ID :	MI6321968
PWS Type :	Transient non-community system
PWS Name :	SPRINGDALE GOLF COURSE
Activity Status :	Active
Primary Source :	Ground water
Submission Year :	2019
Submission Year Quarter :	2019Q1
Population Served Count :	100
Service Connections Count :	1
Population Category 2 :	<10,000
Population Category 3 :	<=3300
Population Category 4 :	<10K
Population Category 5 :	<=500
Population Category 11 :	<=100
Submission Quarter :	1
Submission Status Code :	Y
First Reported Date :	01/25/1993
Last Reported Date :	03/28/2019
Deactivation Date :	N/R
GW or SW :	Groundwater
Is Grant Eligible :	Y
Is Outstanding Performer :	N/R
Is School or Daycare :	N
Is Source Water Protected :	N/R
Primacy Agency :	Michigan
Primacy Type :	State
Org Name :	2196863
EPA Region :	Region 5
Admin Name :	CITY OF BIRMINGHAM - JACKIE
Owner Type :	Private
Phone Number :	2486442254
Phone Ext Number :	N/R
Alt Phone Number :	N/R
Email Address :	N/R
Fax Number :	N/R
Is Wholesaler :	N
LT2 Schedule Category :	N/R
NPM Candidate :	Y
CDS ID :	N/R
DBPR Schedule Category :	N/R
Outstanding Performer Date :	N/R
Season Begin Date :	1-Jan
Season End Date :	31-Dec
Source Water Protection Date :	N/R
Seasonal Startup System :	N/R
Reduced Monitoring Begin Date :	N/R
Reduced Monitoring End Date :	N/R
Reduced RTCR Monitoring :	N/R
Last Date in Agency List :	05/16/2019

Facility Address : 851 S ETON, BIRMINGHAM, MI 48009

PWS ID :	MI0002340
PWS Type :	Community water system
PWS Name :	FLUSHING, CITY OF

Map Id: E17
 Direction: E
 Distance: 0.514 mi.
 Actual: 2715.025 ft.
 Elevation: 0.14 mi. / 741.732 ft.
 Relative: Lower

Site Name : MI0002340 | MI2196863 | MI2276563
 851 S ETON
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3351529
EPA ID: N/R

PWS (**cont.**)

Activity Status :	Active
Primary Source :	Surface water purchased
Submission Year :	2019
Submission Year Quarter :	2019Q4
Population Served Count :	8,389
Service Connections Count :	3706
Population Category 2 :	<10,000
Population Category 3 :	3,301-50,000
Population Category 4 :	<10K
Population Category 5 :	3,301-10,000
Population Category 11 :	3,301-10,000
Submission Quarter :	4
Submission Status Code :	Y
First Reported Date :	02/03/1981
Last Reported Date :	12/05/2019
Deactivation Date :	N/R
GW or SW :	Surface water
Is Grant Eligible :	Y
Is Outstanding Performer :	N/R
Is School or Daycare :	N
Is Source Water Protected :	Y
Primacy Agency :	Michigan
Primacy Type :	State
Org Name :	JACKIE, CITY OF BIRMINGHAM
EPA Region :	Region 5
Admin Name :	JACKIE, CITY OF BIRMINGHAM
Owner Type :	Local government
Phone Number :	248-644-0480
Phone Ext Number :	N/R
Alt Phone Number :	N/R
Email Address :	N/R
Fax Number :	N/R
Is Wholesaler :	N
LT2 Schedule Category :	Schedule 1
NPM Candidate :	Y
CDS ID :	1324
DBPR Schedule Category :	System serving 100K or more people OR systems that are connected to a system serving 100K or more
Outstanding Performer Date :	N/R
Season Begin Date :	N/R
Season End Date :	N/R
Source Water Protection Date :	03/01/2004
Seasonal Startup System :	N/R
Reduced Monitoring Begin Date :	N/R
Reduced Monitoring End Date :	N/R
Reduced RTCR Monitoring :	N/R
Last Date in Agency List :	02/20/2020
Facility Address :	851 S ETON, BIRMINGHAM, MI 48009
PWS ID :	MI2196863
PWS Type :	Transient non-community system
PWS Name :	SPRINGDALE GOLF COURSE

Map Id: E17
 Direction: E
 Distance: 0.514 mi.
 Actual: 2715.025 ft.
 Elevation: 0.14 mi. / 741.732 ft.
 Relative: Lower

Site Name : MI0002340 | MI2196863 | MI2276563
 851 S ETON
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3351529
EPA ID: N/R

PWS (**cont.**)

Activity Status :	Active
Primary Source :	Ground water
Submission Year :	2020
Submission Year Quarter :	2020Q3
Population Served Count :	100
Service Connections Count :	1
Population Category 2 :	<10,000
Population Category 3 :	<=3300
Population Category 4 :	<10K
Population Category 5 :	<=500
Population Category 11 :	<=100
Submission Quarter :	3
Submission Status Code :	Y
First Reported Date :	01/25/1993
Last Reported Date :	09/17/2020
Deactivation Date :	N/R
GW or SW :	Groundwater
Is Grant Eligible :	Y
Is Outstanding Performer :	N/R
Is School or Daycare :	N
Is Source Water Protected :	-
Primacy Agency :	Michigan
Primacy Type :	State
Org Name :	JACKIE, CITY OF BIRMINGHAM
EPA Region :	Region 5
Admin Name :	JACKIE, CITY OF BIRMINGHAM
Owner Type :	Private
Phone Number :	248-417-7774
Phone Ext Number :	N/R
Alt Phone Number :	N/R
Email Address :	N/R
Fax Number :	N/R
Is Wholesaler :	N
LT2 Schedule Category :	N/R
NPM Candidate :	Y
CDS ID :	N/R
DBPR Schedule Category :	N/R
Outstanding Performer Date :	N/R
Season Begin Date :	01-01
Season End Date :	12-31
Source Water Protection Date :	N/R
Seasonal Startup System :	N/R
Reduced Monitoring Begin Date :	N/R
Reduced Monitoring End Date :	N/R
Reduced RTCR Monitoring :	N/R
Last Date in Agency List :	10/26/2020
Facility Address :	851 S ETON, BIRMINGHAM, MI 48009
PWS ID :	MI2276563
PWS Type :	Transient non-community system
PWS Name :	SPRINGDALE MAINTENANCE
Activity Status :	Active
Primary Source :	Ground water
Submission Year :	2019

Map Id: E17
 Direction: E
 Distance: 0.514 mi.
 Actual: 2715.025 ft.
 Elevation: 0.14 mi. / 741.732 ft.
 Relative: Lower

Site Name : MI0002340 | MI2196863 | MI2276563
 851 S ETON
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3351529
EPA ID: N/R

PWS (**cont.**)

Submission Year Quarter :	2019Q4
Population Served Count :	50
Service Connections Count :	2
Population Category 2 :	<10,000
Population Category 3 :	<=3300
Population Category 4 :	<10K
Population Category 5 :	<=500
Population Category 11 :	<=100
Submission Quarter :	4
Submission Status Code :	Y
First Reported Date :	12/13/2003
Last Reported Date :	12/19/2019
Deactivation Date :	N/R
GW or SW :	Groundwater
Is Grant Eligible :	Y
Is Outstanding Performer :	N/R
Is School or Daycare :	N
Is Source Water Protected :	N/R
Primacy Agency :	Michigan
Primacy Type :	State
Org Name :	JACKIE, CITY OF BIRMINGHAM
EPA Region :	Region 5
Admin Name :	JACKIE, CITY OF BIRMINGHAM
Owner Type :	Private
Phone Number :	248-644-0480
Phone Ext Number :	N/R
Alt Phone Number :	N/R
Email Address :	N/R
Fax Number :	N/R
Is Wholesaler :	N
LT2 Schedule Category :	N/R
NPM Candidate :	Y
CDS ID :	N/R
DBPR Schedule Category :	N/R
Outstanding Performer Date :	N/R
Season Begin Date :	01-01
Season End Date :	12-31
Source Water Protection Date :	N/R
Seasonal Startup System :	N/R
Reduced Monitoring Begin Date :	N/R
Reduced Monitoring End Date :	N/R
Reduced RTCR Monitoring :	N/R
Last Date in Agency List :	02/20/2020

PWS ENF

Facility Address : 851 S ETON, BIRMINGHAM, MI 48009

PWS ID :	MI6322765
PWS Name :	SPRINGDALE MAINTENANCE
EPA Region :	Region 5
Primacy Agency :	Michigan
PWS Type :	Transient non-community system
Primacy Type :	State
Primary Source :	Ground water
Activity Status :	Active

Geological Landscape Section Map Findings

2021

Map Id: E17
Direction: E
Distance: 0.514 mi.
Actual: 2715.025 ft.
Elevation: 0.14 mi. / 741.732 ft.
Relative: Lower

Site Name : MI0002340 | MI2196863 | MI2276563
851 S ETON
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3351529
EPA ID: N/R

PWS ENF (**cont.**)

Deactivation Date : N/R
Owner Type : Private
Phone Number : 2486440480
Last Date in Agency List : 05/16/2019

Violation Details

RTC Enforcement ID : 074000777
Violation ID : 0740083
Submission Year : 2019
Violation First Reported Date : 12/15/2010
Contaminant Name : Coliform (TCR)
Rule Family : Total Coliform Rules
Rule Group : Microbials
Rule Name : Total Coliform Rule
Violation Type : Maximum Contaminant Level Violation, Monthly (TCR)
Is Health Based : Y
Is Major Violation : N/R
Severity Indicator Count : N/R
Public Notification Tier : 2
Address Line 1 : 851 S ETON, BIRMINGHAM, 48009
Address Line 2 : N/R
Compliance Status : Returned to Compliance
RTC Date : 08/30/2007
Enforcement Action Description : State Compliance achieved
Admin Name : CITY OF BIRMINGHAM - JACKIE
Email Address : N/R

RTC Enforcement ID : 151000334
Violation ID : 1440104
Submission Year : 2019
Violation First Reported Date : 11/25/2014
Contaminant Name : Coliform (TCR)
Rule Family : Total Coliform Rules
Rule Group : Microbials
Rule Name : Total Coliform Rule
Violation Type : Maximum Contaminant Level Violation, Monthly (TCR)
Is Health Based : Y
Is Major Violation : N/R
Severity Indicator Count : N/R
Public Notification Tier : 2
Address Line 1 : 851 S ETON, BIRMINGHAM, 48009
Address Line 2 : N/R
Compliance Status : Returned to Compliance
RTC Date : 10/13/2014
Enforcement Action Description : State Compliance achieved
Admin Name : CITY OF BIRMINGHAM - JACKIE
Email Address : N/R

Facility Address : 851 S ETON, BIRMINGHAM, MI 48009

PWS ID : MI6321968
PWS Name : SPRINGDALE GOLF COURSE

Map Id: E17
 Direction: E
 Distance: 0.514 mi.
 Actual: 2715.025 ft.
 Elevation: 0.14 mi. / 741.732 ft.
 Relative: Lower

Site Name : MI0002340 | MI2196863 | MI2276563
 851 S ETON
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3351529
EPA ID: N/R

PWS ENF (**cont.**)

EPA Region :	Region 5
Primacy Agency :	Michigan
PWS Type :	Transient non-community system
Primacy Type :	State
Primary Source :	Ground water
Activity Status :	Active
Deactivation Date :	N/R
Owner Type :	Private
Phone Number :	2486442254
Last Date in Agency List :	05/16/2019

Violation Details

RTC Enforcement ID :	012000299
Violation ID :	9641322
Submission Year :	2019
Violation First Reported Date :	12/11/1996
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Monitoring, Routine Major (TCR)
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	851 S ETON, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	01/01/2001
Enforcement Action Description :	State Compliance achieved
Admin Name :	CITY OF BIRMINGHAM - JACKIE
Email Address :	N/R

RTC Enforcement ID :	024001343
Violation ID :	0240372
Submission Year :	2019
Violation First Reported Date :	11/28/2002
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Maximum Contaminant Level Violation, Monthly (TCR)
Is Health Based :	Y
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	2
Address Line 1 :	851 S ETON, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	07/18/2002
Enforcement Action Description :	State Compliance achieved
Admin Name :	CITY OF BIRMINGHAM - JACKIE
Email Address :	N/R

Map Id: E17
 Direction: E
 Distance: 0.514 mi.
 Actual: 2715.025 ft.
 Elevation: 0.14 mi. / 741.732 ft.
 Relative: Lower

Site Name : MI0002340 | MI2196863 | MI2276563
 851 S ETON
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3351529
EPA ID: N/R

PWS ENF (**cont.**)

RTC Enforcement ID : 991002314
 Violation ID : 9813589
 Submission Year : 2019
 Violation First Reported Date : 04/01/1998
 Contaminant Name : Nitrate
 Rule Family : Inorganic Chemicals
 Rule Group : Chemicals
 Rule Name : Nitrates
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 851 S ETON, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 12/07/1998
 Enforcement Action Description : State Compliance achieved
 Admin Name : CITY OF BIRMINGHAM - JACKIE
 Email Address : N/R

RTC Enforcement ID : 991002362
 Violation ID : 9714381
 Submission Year : 2019
 Violation First Reported Date : 03/11/1997
 Contaminant Name : Nitrate
 Rule Family : Inorganic Chemicals
 Rule Group : Chemicals
 Rule Name : Nitrates
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 851 S ETON, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 12/07/1998
 Enforcement Action Description : State Compliance achieved
 Admin Name : CITY OF BIRMINGHAM - JACKIE
 Email Address : N/R

RTC Enforcement ID : 994000009
 Violation ID : 9940649
 Submission Year : 2019
 Violation First Reported Date : 12/08/1999
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Maximum Contaminant Level Violation, Monthly (TCR)
 Is Health Based : Y
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 2

Geological Landscape Section Map Findings

2021

Map Id: E17
Direction: E
Distance: 0.514 mi.
Actual: 2715.025 ft.
Elevation: 0.14 mi. / 741.732 ft.
Relative: Lower

Site Name : MI0002340 | MI2196863 | MI2276563
851 S ETON
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3351529
EPA ID: N/R

PWS ENF (**cont.**)

Address Line 1 : 851 S ETON, BIRMINGHAM, 48009
Address Line 2 : N/R
Compliance Status : Returned to Compliance
RTC Date : 08/09/1999
Enforcement Action Description : State Compliance achieved
Admin Name : CITY OF BIRMINGHAM - JACKIE
Email Address : N/R

Facility Address : N/R

PWS ID : MI0002340
PWS Name : FLUSHING, CITY OF
EPA Region : Region 5
Primacy Agency : Michigan
PWS Type : Community water system
Primacy Type : State
Primary Source : Surface water purchased
Activity Status : Active
Deactivation Date : N/R
Owner Type : Local government
Phone Number : 248-644-0480
Last Date in Agency List : 02/20/2020

Violation Details

RTC Enforcement ID : 2000294
Violation ID : 2000194
Submission Year : 2019
Violation First Reported Date : 06/02/1994
Contaminant Name : Coliform (TCR)
Rule Family : Total Coliform Rules
Rule Group : Microbials
Rule Name : Total Coliform Rule
Violation Type : Monitoring, Routine Minor (TCR)
Is Health Based : N
Is Major Violation : -
Severity Indicator Count : -
Public Notification Tier : 3
Address Line 1 : 851 S ETON, BIRMINGHAM, 48009
Address Line 2 : -
Compliance Status : Returned to Compliance
RTC Date : 03/31/1994
Enforcement Action Description : State Compliance achieved
Admin Name : JACKIE, CITY OF BIRMINGHAM
Email Address : -

RTC Enforcement ID : 2000298
Violation ID : 2000195
Submission Year : 2019
Violation First Reported Date : 11/23/2010
Contaminant Name : Coliform (TCR)
Rule Family : Total Coliform Rules
Rule Group : Microbials

Geological Landscape Section Map Findings

2021

Map Id: E17
Direction: E
Distance: 0.514 mi.
Actual: 2715.025 ft.
Elevation: 0.14 mi. / 741.732 ft.
Relative: Lower

Site Name : MI0002340 | MI2196863 | MI2276563
851 S ETON
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3351529
EPA ID: N/R

PWS ENF (**cont.**)

Rule Name :	Total Coliform Rule
Violation Type :	Maximum Contaminant Level Violation, Monthly (TCR)
Is Health Based :	Y
Is Major Violation :	-
Severity Indicator Count :	-
Public Notification Tier :	2
Address Line 1 :	851 S ETON, BIRMINGHAM, 48009
Address Line 2 :	-
Compliance Status :	Returned to Compliance
RTC Date :	09/30/2010
Enforcement Action Description :	State Compliance achieved
Admin Name :	JACKIE, CITY OF BIRMINGHAM
Email Address :	-

Facility Address : 851 S ETON, BIRMINGHAM, MI 48009

PWS ID :	MI2196863
PWS Name :	SPRINGDALE GOLF COURSE
EPA Region :	Region 5
Primacy Agency :	Michigan
PWS Type :	Transient non-community system
Primacy Type :	State
Primary Source :	Ground water
Activity Status :	Active
Deactivation Date :	N/R
Owner Type :	Private
Phone Number :	248-417-7774
Last Date in Agency List :	10/26/2020

Violation Details

RTC Enforcement ID :	12000299
Violation ID :	9641322
Submission Year :	2020
Violation First Reported Date :	12/11/1996
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Monitoring, Routine Major (TCR)
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	851 S ETON, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	01/01/2001
Enforcement Action Description :	State Compliance achieved
Admin Name :	JACKIE, CITY OF BIRMINGHAM
Email Address :	N/R

Map Id: E17
 Direction: E
 Distance: 0.514 mi.
 Actual: 2715.025 ft.
 Elevation: 0.14 mi. / 741.732 ft.
 Relative: Lower

Site Name : MI0002340 | MI2196863 | MI2276563
 851 S ETON
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3351529
EPA ID: N/R

PWS ENF (**cont.**)

RTC Enforcement ID : 24001343
 Violation ID : 240372
 Submission Year : 2020
 Violation First Reported Date : 11/28/2002
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Maximum Contaminant Level Violation, Monthly (TCR)
 Is Health Based : Y
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 2
 Address Line 1 : 851 S ETON, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 07/18/2002
 Enforcement Action Description : State Compliance achieved
 Admin Name : JACKIE, CITY OF BIRMINGHAM
 Email Address : N/R

RTC Enforcement ID : 991002314
 Violation ID : 9813589
 Submission Year : 2020
 Violation First Reported Date : 04/01/1998
 Contaminant Name : Nitrate
 Rule Family : Inorganic Chemicals
 Rule Group : Chemicals
 Rule Name : Nitrates
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 851 S ETON, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 12/07/1998
 Enforcement Action Description : State Compliance achieved
 Admin Name : JACKIE, CITY OF BIRMINGHAM
 Email Address : N/R

RTC Enforcement ID : 991002362
 Violation ID : 9714381
 Submission Year : 2020
 Violation First Reported Date : 03/11/1997
 Contaminant Name : Nitrate
 Rule Family : Inorganic Chemicals
 Rule Group : Chemicals
 Rule Name : Nitrates
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3

Map Id: E17
 Direction: E
 Distance: 0.514 mi.
 Actual: 2715.025 ft.
 Elevation: 0.14 mi. / 741.732 ft.
 Relative: Lower

Site Name : MI0002340 | MI2196863 | MI2276563
 851 S ETON
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3351529
EPA ID: N/R

PWS ENF (**cont.**)

Address Line 1 :	851 S ETON, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	12/07/1998
Enforcement Action Description :	State Compliance achieved
Admin Name :	JACKIE, CITY OF BIRMINGHAM
Email Address :	N/R
RTC Enforcement ID :	994000009
Violation ID :	9940649
Submission Year :	2020
Violation First Reported Date :	12/08/1999
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Maximum Contaminant Level Violation, Monthly (TCR)
Is Health Based :	Y
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	2
Address Line 1 :	851 S ETON, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	08/09/1999
Enforcement Action Description :	State Compliance achieved
Admin Name :	JACKIE, CITY OF BIRMINGHAM
Email Address :	N/R
Facility Address :	N/R
PWS ID :	MI2276563
PWS Name :	SPRINGDALE MAINTENANCE
EPA Region :	Region 5
Primacy Agency :	Michigan
PWS Type :	Transient non-community system
Primacy Type :	State
Primary Source :	Ground water
Activity Status :	Active
Deactivation Date :	N/R
Owner Type :	Private
Phone Number :	248-644-0480
Last Date in Agency List :	02/20/2020

Violation Details

RTC Enforcement ID :	151000334
Violation ID :	1440104
Submission Year :	2019
Violation First Reported Date :	11/25/2014
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials

Geological Landscape Section Map Findings

2021

Map Id: E17
Direction: E
Distance: 0.514 mi.
Actual: 2715.025 ft.
Elevation: 0.14 mi. / 741.732 ft.
Relative: Lower

Site Name : MI0002340 | MI2196863 | MI2276563
851 S ETON
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3351529
EPA ID: N/R

PWS ENF (**cont.**)

Rule Name :	Total Coliform Rule
Violation Type :	Maximum Contaminant Level Violation, Monthly (TCR)
Is Health Based :	Y
Is Major Violation :	-
Severity Indicator Count :	-
Public Notification Tier :	2
Address Line 1 :	851 S ETON, BIRMINGHAM, 48009
Address Line 2 :	-
Compliance Status :	Returned to Compliance
RTC Date :	10/13/2014
Enforcement Action Description :	State Compliance achieved
Admin Name :	JACKIE, CITY OF BIRMINGHAM
Email Address :	-

RTC Enforcement ID :	74000777
Violation ID :	740083
Submission Year :	2019
Violation First Reported Date :	12/15/2010
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Maximum Contaminant Level Violation, Monthly (TCR)
Is Health Based :	Y
Is Major Violation :	-
Severity Indicator Count :	-
Public Notification Tier :	2
Address Line 1 :	851 S ETON, BIRMINGHAM, 48009
Address Line 2 :	-
Compliance Status :	Returned to Compliance
RTC Date :	08/30/2007
Enforcement Action Description :	State Compliance achieved
Admin Name :	JACKIE, CITY OF BIRMINGHAM
Email Address :	-

Map Id: D18
Direction: WNW
Distance: 0.526 mi.
Actual: 2775.918 ft.
Elevation: 0.148 mi. / 782.044 ft.
Relative: Higher

Site Name : AMERICAN CHAIN & CABLE CO., INC. |
MI2017540 | MI4020175
139 W. MAPLE RD #E | 139 W. MAPLE
ROAD
BIRMINGHAM, MI | IN 48009
Database(s) : [PWS]

EnviroSite ID: 3352109
EPA ID: N/R

PWS

Facility Address : 139 W. MAPLE RD #E, BIRMINGHAM, MI 48009

PWS ID : MI4020175
PWS Type : Transient non-community system

Map Id: D18
 Direction: WNW
 Distance: 0.526 mi.
 Actual: 2775.918 ft.
 Elevation: 0.148 mi. / 782.044 ft.
 Relative: Higher

Site Name : AMERICAN CHAIN & CABLE CO., INC. |
 MI2017540 | MI4020175
 139 W. MAPLE RD #E | 139 W. MAPLE
 ROAD
 BIRMINGHAM, MI | IN 48009
Database(s) : [PWS] (**cont.**)

Envirosite ID: 3352109
EPA ID: N/R

PWS (**cont.**)

PWS Name : CAMP TANUGA
 Activity Status : Inactive
 Primary Source : Ground water
 Submission Year : 2019
 Submission Year Quarter : 2019Q1
 Population Served Count : 100
 Service Connections Count : 1
 Population Category 2 : <10,000
 Population Category 3 : <=3300
 Population Category 4 : <10K
 Population Category 5 : <=500
 Population Category 11 : <=100
 Submission Quarter : 1
 Submission Status Code : Y
 First Reported Date : 09/09/1997
 Last Reported Date : 03/28/2019
 Deactivation Date : 08/14/2006
 GW or SW : Groundwater
 Is Grant Eligible : N
 Is Outstanding Performer : N/R
 Is School or Daycare : N
 Is Source Water Protected : N/R
 Primacy Agency : Michigan
 Primacy Type : State
 Org Name : 2017540
 EPA Region : Region 5
 Admin Name : CAMP TANUGA
 Owner Type : Private
 Phone Number : 8102589150
 Phone Ext Number : N/R
 Alt Phone Number : N/R
 Email Address : N/R
 Fax Number : N/R
 Is Wholesaler : N
 LT2 Schedule Category : N/R
 NPM Candidate : N
 CDS ID : N/R
 DBPR Schedule Category : N/R
 Outstanding Performer Date : N/R
 Season Begin Date : 1-Apr
 Season End Date : 30-Sep
 Source Water Protection Date : N/R
 Seasonal Startup System : N/R
 Reduced Monitoring Begin Date : N/R
 Reduced Monitoring End Date : N/R
 Reduced RTRC Monitoring : N/R
 Last Date in Agency List : 05/16/2019

Facility Address : 139 W. MAPLE RD #E, BIRMINGHAM, MI 48009

PWS ID : MI2017540
 PWS Type : Transient non-community system
 PWS Name : CAMP TANUGA

Map Id: D18
 Direction: WNW
 Distance: 0.526 mi.
 Actual: 2775.918 ft.
 Elevation: 0.148 mi. / 782.044 ft.
 Relative: Higher

Site Name : AMERICAN CHAIN & CABLE CO., INC. |
 MI2017540 | MI4020175
 139 W. MAPLE RD #E | 139 W. MAPLE
 ROAD
 BIRMINGHAM, MI | IN 48009
Database(s) : [PWS] (**cont.**)

EnviroSite ID: 3352109
EPA ID: N/R

PWS (**cont.**)

Activity Status :	Inactive
Primary Source :	Ground water
Submission Year :	2020
Submission Year Quarter :	2020Q3
Population Served Count :	100
Service Connections Count :	1
Population Category 2 :	<10,000
Population Category 3 :	<=3300
Population Category 4 :	<10K
Population Category 5 :	<=500
Population Category 11 :	<=100
Submission Quarter :	3
Submission Status Code :	Y
First Reported Date :	09/09/1997
Last Reported Date :	06/03/2020
Deactivation Date :	08/14/2006
GW or SW :	Groundwater
Is Grant Eligible :	N
Is Outstanding Performer :	N/R
Is School or Daycare :	N
Is Source Water Protected :	-
Primacy Agency :	Michigan
Primacy Type :	State
Org Name :	2017540
EPA Region :	Region 5
Admin Name :	CAMP TANUGA
Owner Type :	Private
Phone Number :	8102589150
Phone Ext Number :	N/R
Alt Phone Number :	N/R
Email Address :	N/R
Fax Number :	N/R
Is Wholesaler :	N
LT2 Schedule Category :	N/R
NPM Candidate :	N
CDS ID :	N/R
DBPR Schedule Category :	N/R
Outstanding Performer Date :	N/R
Season Begin Date :	04-01
Season End Date :	09-30
Source Water Protection Date :	N/R
Seasonal Startup System :	N/R
Reduced Monitoring Begin Date :	N/R
Reduced Monitoring End Date :	N/R
Reduced RTRC Monitoring :	N/R
Last Date in Agency List :	10/26/2020

Geological Landscape Section Map Findings

2021

Map Id: 19
Direction: ESE
Distance: 0.536 mi.
Actual: 2827.525 ft.
Elevation: 0.14 mi. / 738.622 ft.
Relative: Lower

Site Name : 63000000181 | 63000004359 |
63000026129
42.539683, -83.195642
MI
Database(s) : [WELLS - MI]

Envirosite ID: 11811181
EPA ID: N/R

WELLS - MI

Well ID :	63000000181
County :	Oakland
Permit Number :	N/R
Township :	Troy
Section/Township/Range :	SEC: 31, TWP: 02N, RNG: 11E
Owner Name :	CLOVERHILL PARK CEMETARY
Well Address :	3607 W 14 MILE RD, TROY, 48084
Well Depth (Feet) :	220
Well Type :	Other
Other Well Type :	Abandoned
Well Status :	N/R
Other Well Status :	N/R
Water Supply Serial Number :	0
Well Number :	N/R
Driller ID :	63-0025
Drilling Method :	Rotary
Other Method :	N/R
Construction Date :	1996-10-04
Case Type :	Unknown
Other Case Type :	N/R
Well Casing Diameter (Inches) :	0
Depth of Casing (Feet) :	0
Screen Start Depth (Feet) :	N/R
Screen End Depth (Feet) :	N/R
Static Water Level (Feet) :	999.99
Flowing :	Not a flowing well
Aquifer Type :	Well draws water from the bedrock
Test Depth (Feet) :	0
Test Hours (Hour) :	0
Test Rate (Gallons per Minute) :	0
Test Method :	UNK
Other Test Method :	N/R
Grouted :	Y
Pump Capacity (Gallons per Minute) :	0
Method of Collection	
(Latitude/Longitude):	027
Elevation (Feet) :	0
Method of Collection (Elevation) :	N/R
Within :	Y
Within Section :	Yes, well point is within the stated land survey section
Location Match :	Yes, well point is within the stated Tier/Range
Section Distance :	The well point is within 200 ft of the stated land survey section
Elevation (DEM) :	738
Elevation Difference (Feet) :	0
Landsystem Group Polygon :	LACUSTRINE FINE
Depth Flag :	N/R
Elevation Flag :	N/R
SWL Flag :	3
Specific Capacity :	N/R
Aquifer Code :	Drift (Glacial) Well
Rock Top (Feet) :	N/R
Thickness of All Drift Strata :	N/R
Confined Horizontal Hydraulic :	N/R
Confined Vertical Hydraulic :	N/R
Confined Transmissivity :	N/R
Thickness of All Drift Strata 2 :	N/R

Geological Landscape Section Map Findings

2021

Map Id: 19
Direction: ESE
Distance: 0.536 mi.
Actual: 2827.525 ft.
Elevation: 0.14 mi. / 738.622 ft.
Relative: Lower

Site Name : 63000000181 | 63000004359 |
63000026129
42.539683, -83.195642
MI
Database(s) : [WELLS - MI] (**cont.**)

Envirosite ID: 11811181
EPA ID: N/R

WELLS - MI (**cont.**)

Unconfined Horizontal Hydraulic :	N/R
Unconfined Vertical Hydraulic :	N/R
Unconfined Transmissivity :	N/R
Thickness of All Bedrock Strata :	N/R
Horizontal Hydraulic (Bedrock) :	N/R
Vertical Hydraulic (Bedrock) :	N/R
Transmissivity for Bedrock Units :	N/R
Thickness of All Drift Strata (Ground Surface):	N/R
Horizontal Hydraulic (Drift) :	N/R
Vertical Hydraulic (Drift) :	N/R
Transmissivity :	N/R
Latitude :	42.539683
Longitude :	-83.195642
Last Date in Agency List :	2020-03-19
Well ID :	63000004359
County :	Oakland
Permit Number :	N/R
Township :	Troy
Section/Township/Range :	SEC: 31, TWP: 02N, RNG: 11E
Owner Name :	CLOVERHILL PARK CEMETARY
Well Address :	3607 W. 14 MILE, TROY, 48084
Well Depth (Feet) :	304
Well Type :	Irrigation
Other Well Type :	N/R
Well Status :	N/R
Other Well Status :	N/R
Water Supply Serial Number :	0
Well Number :	N/R
Driller ID :	63-0025
Drilling Method :	Cable Tool
Other Method :	N/R
Construction Date :	1990-08-07
Case Type :	Steel-black
Other Case Type :	N/R
Well Casing Diameter (Inches) :	8
Depth of Casing (Feet) :	278
Screen Start Depth (Feet) :	275.5
Screen End Depth (Feet) :	304
Static Water Level (Feet) :	2
Flowing :	Not a flowing well
Aquifer Type :	Well draws water from the glacial drift
Test Depth (Feet) :	125
Test Hours (Hour) :	8
Test Rate (Gallons per Minute) :	305
Test Method :	UNK
Other Test Method :	N/R
Grouted :	Y
Pump Capacity (Gallons per Minute) :	0
Method of Collection (Latitude/Longitude):	027
Elevation (Feet) :	0
Method of Collection (Elevation) :	N/R
Within :	Y

Geological Landscape Section Map Findings

2021

Map Id: 19
Direction: ESE
Distance: 0.536 mi.
Actual: 2827.525 ft.
Elevation: 0.14 mi. / 738.622 ft.
Relative: Lower

Site Name : 63000000181 | 63000004359 |
63000026129
42.539683, -83.195642
MI
Database(s) : [WELLS - MI] (*cont.*)

Envirosite ID: 11811181
EPA ID: N/R

WELLS - MI (*cont.*)

Within Section :	Yes, well point is within the stated land survey section
Location Match :	Yes, well point is within the stated Tier/Range
Section Distance :	The well point is within 200 ft of the stated land survey section
Elevation (DEM) :	738
Elevation Difference (Feet) :	0
Landsystem Group Polygon :	LACUSTRINE FINE
Depth Flag :	N/R
Elevation Flag :	N/R
SWL Flag :	N/R
Specific Capacity :	N/R
Aquifer Code :	Drift (Glacial) Well
Rock Top (Feet) :	N/R
Thickness of All Drift Strata :	40
Confined Horizontal Hydraulic :	50
Confined Vertical Hydraulic :	50
Confined Transmissivity :	2000
Thickness of All Drift Strata 2 :	40
Unconfined Horizontal Hydraulic :	50
Unconfined Vertical Hydraulic :	50
Unconfined Transmissivity :	2000
Thickness of All Bedrock Strata :	N/R
Horizontal Hydraulic (Bedrock) :	N/R
Vertical Hydraulic (Bedrock) :	N/R
Transmissivity for Bedrock Units :	N/R
Thickness of All Drift Strata (Ground Surface):	40
Horizontal Hydraulic (Drift) :	50
Vertical Hydraulic (Drift) :	50
Transmissivity :	2000
Latitude :	42.539683
Longitude :	-83.195642
Last Date in Agency List :	2020-03-19

Well ID :	63000026129
County :	Oakland
Permit Number :	20405000002
Township :	Troy
Section/Township/Range :	SEC: 31, TWP: 02N, RNG: 11E
Owner Name :	CLOVER HILL PARK CEMETERY
Well Address :	2306 E FOURTEEN MILE, BIRMINGHAM, 480090
Well Depth (Feet) :	198
Well Type :	Household
Other Well Type :	N/R
Well Status :	Plugged / Abandoned
Other Well Status :	N/R
Water Supply Serial Number :	0
Well Number :	N/R
Driller ID :	63-0025
Drilling Method :	Rotary
Other Method :	N/R
Construction Date :	2006-04-18
Case Type :	Unknown
Other Case Type :	N/R
Well Casing Diameter (Inches) :	0
Depth of Casing (Feet) :	0

Map Id: 19
 Direction: ESE
 Distance: 0.536 mi.
 Actual: 2827.525 ft.
 Elevation: 0.14 mi. / 738.622 ft.
 Relative: Lower

Site Name : 63000000181 | 63000004359 |
 63000026129
 42.539683, -83.195642
 MI

Database(s) : [WELLS - MI] **(cont.)**

Envirosite ID: 11811181
EPA ID: N/R

WELLS - MI **(cont.)**

Screen Start Depth (Feet) :	N/R
Screen End Depth (Feet) :	N/R
Static Water Level (Feet) :	0
Flowing :	Not a flowing well
Aquifer Type :	Well draws water from the bedrock
Test Depth (Feet) :	0
Test Hours (Hour) :	0
Test Rate (Gallons per Minute) :	0
Test Method :	UNK
Other Test Method :	N/R
Grouted :	N
Pump Capacity (Gallons per Minute) :	0
Method of Collection	
(Latitude/Longitude):	027
Elevation (Feet) :	0
Method of Collection (Elevation) :	N/R
Within :	Y
Within Section :	Yes, well point is within the stated land survey section
Location Match :	Yes, well point is within the stated Tier/Range
Section Distance :	The well point is within 200 ft of the stated land survey section
Elevation (DEM) :	738
Elevation Difference (Feet) :	0
Landsystem Group Polygon :	LACUSTRINE FINE
Depth Flag :	N/R
Elevation Flag :	N/R
SWL Flag :	1
Specific Capacity :	N/R
Aquifer Code :	Drift (Glacial) Well
Rock Top (Feet) :	N/R
Thickness of All Drift Strata :	N/R
Confined Horizontal Hydraulic :	N/R
Confined Vertical Hydraulic :	N/R
Confined Transmissivity :	N/R
Thickness of All Drift Strata 2 :	N/R
Unconfined Horizontal Hydraulic :	N/R
Unconfined Vertical Hydraulic :	N/R
Unconfined Transmissivity :	N/R
Thickness of All Bedrock Strata :	N/R
Horizontal Hydraulic (Bedrock) :	N/R
Vertical Hydraulic (Bedrock) :	N/R
Transmissivity for Bedrock Units :	N/R
Thickness of All Drift Strata (Ground Surface):	N/R
Horizontal Hydraulic (Drift) :	N/R
Vertical Hydraulic (Drift) :	N/R
Transmissivity :	N/R
Latitude :	42.539683
Longitude :	-83.195642
Last Date in Agency List :	2020-03-19

Map Id: E20
Direction: E
Distance: 0.539 mi.
Actual: 2843.601 ft.
Elevation: 0.141 mi. / 746.303 ft.
Relative: Lower

Site Name : T-L TWR
42.542467, -83.195086
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3325653
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026443
Obstacle Type : T-L TWR
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00047
Above Mean Sea Level Height (Feet) : 00794
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 32.88N
Longitude : 083 11 42.31W

Map Id: E21
Direction: E
Distance: 0.542 mi.
Actual: 2862.335 ft.
Elevation: 0.141 mi. / 743.251 ft.
Relative: Lower

Site Name : T-L TWR
42.541756, -83.195011
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3327305
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026471
Obstacle Type : T-L TWR
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00044
Above Mean Sea Level Height (Feet) : 00786
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 30.32N
Longitude : 083 11 42.04W

Geological Landscape Section Map Findings

2021

Map Id: 22
Direction: NW
Distance: 0.544 mi.
Actual: 2871.751 ft.
Elevation: 0.147 mi. / 775.84 ft.
Relative: Higher

Site Name : MI2091147 | MI4720911 | THE MAGNI
GROUP, INC.
390 PARK ST, STE 210 | 390 PARK STREET
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF]

Envirosite ID: 3355213
EPA ID: N/R

PWS

Facility Address : 390 PARK ST, STE 210, BIRMINGHAM, MI 48009

PWS ID : MI4720911
PWS Type : Transient non-community system
PWS Name : THE VILLAGE OF HAMBURG LLC / CVS PHARM
Activity Status : Inactive
Primary Source : Ground water
Submission Year : 2019
Submission Year Quarter : 2019Q1
Population Served Count : 25
Service Connections Count : 2
Population Category 2 : <10,000
Population Category 3 : <=3300
Population Category 4 : <10K
Population Category 5 : <=500
Population Category 11 : <=100
Submission Quarter : 1
Submission Status Code : Y
First Reported Date : 02/20/2008
Last Reported Date : 03/28/2019
Deactivation Date : 07/23/2018
GW or SW : Groundwater
Is Grant Eligible : N
Is Outstanding Performer : N/R
Is School or Daycare : N
Is Source Water Protected : N/R
Primacy Agency : Michigan
Primacy Type : State
Org Name : 2091147
EPA Region : Region 5
Admin Name : THE VILLAGE OF HAMBURG LLC
Owner Type : Private
Phone Number : 2486452200
Phone Ext Number : N/R
Alt Phone Number : N/R
Email Address : N/R
Fax Number : N/R
Is Wholesaler : N
LT2 Schedule Category : N/R
NPM Candidate : Y
CDS ID : N/R
DBPR Schedule Category : N/R
Outstanding Performer Date : N/R
Season Begin Date : 1-Jan
Season End Date : 31-Dec
Source Water Protection Date : N/R
Seasonal Startup System : N/R
Reduced Monitoring Begin Date : N/R
Reduced Monitoring End Date : N/R
Reduced RTRC Monitoring : N/R
Last Date in Agency List : 05/16/2019

Facility Address : 390 PARK ST, STE 210, BIRMINGHAM, MI 48009

Geological Landscape Section Map Findings

2021

Map Id: 22
Direction: NW
Distance: 0.544 mi.
Actual: 2871.751 ft.
Elevation: 0.147 mi. / 775.84 ft.
Relative: Higher

Site Name : MI2091147 | MI4720911 | THE MAGNI
GROUP, INC.
390 PARK ST, STE 210 | 390 PARK STREET
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3355213
EPA ID: N/R

PWS (**cont.**)

PWS ID :	MI2091147
PWS Type :	Transient non-community system
PWS Name :	THE VILLAGE OF HAMBURG LLC / CVS PHARM
Activity Status :	Inactive
Primary Source :	Ground water
Submission Year :	2020
Submission Year Quarter :	2020Q3
Population Served Count :	25
Service Connections Count :	2
Population Category 2 :	<10,000
Population Category 3 :	<=3300
Population Category 4 :	<10K
Population Category 5 :	<=500
Population Category 11 :	<=100
Submission Quarter :	3
Submission Status Code :	Y
First Reported Date :	02/20/2008
Last Reported Date :	06/03/2020
Deactivation Date :	07/23/2018
GW or SW :	Groundwater
Is Grant Eligible :	N
Is Outstanding Performer :	N/R
Is School or Daycare :	N
Is Source Water Protected :	-
Primacy Agency :	Michigan
Primacy Type :	State
Org Name :	2091147
EPA Region :	Region 5
Admin Name :	THE VILLAGE OF HAMBURG LLC
Owner Type :	Private
Phone Number :	2486452200
Phone Ext Number :	N/R
Alt Phone Number :	N/R
Email Address :	N/R
Fax Number :	N/R
Is Wholesaler :	N
LT2 Schedule Category :	N/R
NPM Candidate :	N
CDS ID :	N/R
DBPR Schedule Category :	N/R
Outstanding Performer Date :	N/R
Season Begin Date :	01-01
Season End Date :	12-31
Source Water Protection Date :	N/R
Seasonal Startup System :	N/R
Reduced Monitoring Begin Date :	N/R
Reduced Monitoring End Date :	N/R
Reduced RTCR Monitoring :	N/R
Last Date in Agency List :	10/26/2020

PWS ENF

Facility Address : 390 PARK ST, STE 210, BIRMINGHAM, MI 48009

Geological Landscape Section Map Findings

2021

Map Id: 22
Direction: NW
Distance: 0.544 mi.
Actual: 2871.751 ft.
Elevation: 0.147 mi. / 775.84 ft.
Relative: Higher

Site Name : MI2091147 | MI4720911 | THE MAGNI GROUP, INC.
390 PARK ST, STE 210 | 390 PARK STREET
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3355213
EPA ID: N/R

PWS ENF (**cont.**)

PWS ID :	MI4720911
PWS Name :	THE VILLAGE OF HAMBURG LLC / CVS PHARM
EPA Region :	Region 5
Primacy Agency :	Michigan
PWS Type :	Transient non-community system
Primacy Type :	State
Primary Source :	Ground water
Activity Status :	Inactive
Deactivation Date :	07/23/2018
Owner Type :	Private
Phone Number :	2486452200
Last Date in Agency List :	05/16/2019

Violation Details

RTC Enforcement ID :	N/R
Violation ID :	0920063
Submission Year :	2019
Violation First Reported Date :	06/02/2009
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Monitoring, Routine Major (TCR)
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	390 PARK ST, STE 210, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	System Inactive
RTC Date :	07/23/2018
Enforcement Action Description :	State Violation/Reminder Notice
Admin Name :	THE VILLAGE OF HAMBURG LLC
Email Address :	N/R

Facility Address : 390 PARK ST, STE 210, BIRMINGHAM, MI 48009

PWS ID :	MI2091147
PWS Name :	THE VILLAGE OF HAMBURG LLC / CVS PHARM
EPA Region :	Region 5
Primacy Agency :	Michigan
PWS Type :	Transient non-community system
Primacy Type :	State
Primary Source :	Ground water
Activity Status :	Inactive
Deactivation Date :	07/23/2018
Owner Type :	Private
Phone Number :	2486452200
Last Date in Agency List :	10/26/2020

Map Id: 22
 Direction: NW
 Distance: 0.544 mi.
 Actual: 2871.751 ft.
 Elevation: 0.147 mi. / 775.84 ft.
 Relative: Higher

Site Name : MI2091147 | MI4720911 | THE MAGNI GROUP, INC.
 390 PARK ST, STE 210 | 390 PARK STREET
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3355213
EPA ID: N/R

PWS ENF (**cont.**)

Violation Details

RTC Enforcement ID :	N/R
Violation ID :	920063
Submission Year :	2020
Violation First Reported Date :	06/02/2009
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Monitoring, Routine Major (TCR)
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	390 PARK ST, STE 210, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	System Inactive
RTC Date :	07/23/2018
Enforcement Action Description :	State Violation/Reminder Notice
Admin Name :	THE VILLAGE OF HAMBURG LLC
Email Address :	N/R

Map Id: F23
 Direction: E
 Distance: 0.547 mi.
 Actual: 2887.499 ft.
 Elevation: 0.142 mi. / 747.451 ft.
 Relative: Lower

Site Name : T-L TWR
 42.543711, -83.195108
 TROY, MI
Database(s) : [DIGITAL OBSTACLE]

EnviroSite ID: 3326502
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-08-07
Action :	Add
FAA Study Number :	N/R
OBS Number :	26-026424
Obstacle Type :	T-L TWR
City Name :	TROY
State Identifier :	MI
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00039
Above Mean Sea Level Height (Feet) :	00786
Horizontal Accuracy :	+50'
Vertical Accuracy :	+20'
Latitude :	42 32 37.36N
Longitude :	083 11 42.39W

Map Id: F24
Direction: E
Distance: 0.551 mi.
Actual: 2908.562 ft.
Elevation: 0.141 mi. / 746.903 ft.
Relative: Lower

Site Name : BLDG
42.544222, -83.195183
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3323253
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-08-07
Action :	Add
FAA Study Number :	N/R
OBS Number :	26-026358
Obstacle Type :	BLDG
City Name :	TROY
State Identifier :	MI
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00052
Above Mean Sea Level Height (Feet) :	00799
Horizontal Accuracy :	+ -50'
Vertical Accuracy :	+ -20'
Latitude :	42 32 39.20N
Longitude :	083 11 42.66W

Map Id: 25
Direction: ENE
Distance: 0.569 mi.
Actual: 3002.689 ft.
Elevation: 0.142 mi. / 747.687 ft.
Relative: Lower

Site Name : BLDG
42.545308, -83.1953
BIRMINGHAM, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3371487
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2018-01-24
Action :	Add
FAA Study Number :	2015AGL03168OE
OBS Number :	26-102378
Obstacle Type :	BLDG
City Name :	BIRMINGHAM
State Identifier :	MI
Country Identifier :	USA
Type of Lighting :	Red
Verification Status :	Unverified
Quantity :	1
Mark Indicator :	None
Above Ground Level Height (Feet) :	00055
Above Mean Sea Level Height (Feet) :	00807
Horizontal Accuracy :	+ -250'
Vertical Accuracy :	+ -50'
Latitude :	42 32 43.11N
Longitude :	083 11 43.08W

Map Id: G26
Direction: E
Distance: 0.569 mi.
Actual: 3006.954 ft.
Elevation: 0.141 mi. / 746.991 ft.
Relative: Lower

Site Name : BLDG
42.543786, -83.194675
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3323322
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026368
Obstacle Type : BLDG
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00052
Above Mean Sea Level Height (Feet) : 00798
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 37.63N
Longitude : 083 11 40.83W

Map Id: G27
Direction: E
Distance: 0.580 mi.
Actual: 3059.776 ft.
Elevation: 0.141 mi. / 747.1 ft.
Relative: Lower

Site Name : BLDG
42.543511, -83.194411
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3323358
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026369
Obstacle Type : BLDG
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00051
Above Mean Sea Level Height (Feet) : 00798
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 36.64N
Longitude : 083 11 39.88W

Map Id: G28
Direction: E
Distance: 0.583 mi.
Actual: 3080.052 ft.
Elevation: 0.141 mi. / 747.001 ft.
Relative: Lower

Site Name : BLDG
42.544239, -83.194531
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3323141
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-08-07
Action :	Add
FAA Study Number :	N/R
OBS Number :	26-026357
Obstacle Type :	BLDG
City Name :	TROY
State Identifier :	MI
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00051
Above Mean Sea Level Height (Feet) :	00798
Horizontal Accuracy :	+ -50'
Vertical Accuracy :	+ -20'
Latitude :	42 32 39.26N
Longitude :	083 11 40.31W

Map Id: G29
Direction: E
Distance: 0.589 mi.
Actual: 3109.021 ft.
Elevation: 0.142 mi. / 747.188 ft.
Relative: Lower

Site Name : BLDG
42.543272, -83.194181
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3325203
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-08-07
Action :	Add
FAA Study Number :	N/R
OBS Number :	26-026370
Obstacle Type :	BLDG
City Name :	TROY
State Identifier :	MI
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00053
Above Mean Sea Level Height (Feet) :	00799
Horizontal Accuracy :	+ -50'
Vertical Accuracy :	+ -20'
Latitude :	42 32 35.78N
Longitude :	083 11 39.05W

Map Id: G30
Direction: ENE
Distance: 0.592 mi.
Actual: 3124.638 ft.
Elevation: 0.142 mi. / 747.385 ft.
Relative: Lower

Site Name : BLDG
42.544533, -83.194464
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3323254
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026356
Obstacle Type : BLDG
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00051
Above Mean Sea Level Height (Feet) : 00798
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 40.32N
Longitude : 083 11 40.07W

Map Id: G31
Direction: E
Distance: 0.594 mi.
Actual: 3135.957 ft.
Elevation: 0.142 mi. / 747.582 ft.
Relative: Lower

Site Name : BLDG
42.543869, -83.194208
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3323340
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026360
Obstacle Type : BLDG
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00051
Above Mean Sea Level Height (Feet) : 00798
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 37.93N
Longitude : 083 11 39.15W

Geological Landscape Section Map Findings

2021

Map Id: H32
Direction: E
Distance: 0.598 mi.
Actual: 3156.659 ft.
Elevation: 0.141 mi. / 742.828 ft.
Relative: Lower

Site Name : T-L TWR
42.541783, -83.193914
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

EnviroSite ID: 3326554
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026472
Obstacle Type : T-L TWR
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00038
Above Mean Sea Level Height (Feet) : 00780
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 30.42N
Longitude : 083 11 38.09W

Map Id: I33
Direction: E
Distance: 0.602 mi.
Actual: 3180.544 ft.
Elevation: 0.141 mi. / 745.463 ft.
Relative: Lower

Site Name : BLDG
42.542953, -83.193869
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

EnviroSite ID: 3323357
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026371
Obstacle Type : BLDG
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00053
Above Mean Sea Level Height (Feet) : 00798
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 34.63N
Longitude : 083 11 37.93W

Geological Landscape Section Map Findings

2021

Map Id: G34
Direction: E
Distance: 0.606 mi.
Actual: 3199.540 ft.
Elevation: 0.142 mi. / 747.428 ft.
Relative: Lower

Site Name : BLDG
42.543661, -83.193917
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

EnviroSite ID: 3323364
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026359
Obstacle Type : BLDG
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00053
Above Mean Sea Level Height (Feet) : 00799
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 37.18N
Longitude : 083 11 38.10W

Map Id: G35
Direction: E
Distance: 0.607 mi.
Actual: 3206.298 ft.
Elevation: 0.141 mi. / 747.077 ft.
Relative: Lower

Site Name : BLDG
42.544139, -83.194017
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

EnviroSite ID: 3323382
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026372
Obstacle Type : BLDG
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00052
Above Mean Sea Level Height (Feet) : 00798
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 38.90N
Longitude : 083 11 38.46W

Map Id: H36
Direction: E
Distance: 0.613 mi.
Actual: 3237.269 ft.
Elevation: 0.141 mi. / 743.077 ft.
Relative: Lower

Site Name : T-L TWR
42.541592, -83.193625
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3326200
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026473
Obstacle Type : T-L TWR
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00050
Above Mean Sea Level Height (Feet) : 00793
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 29.73N
Longitude : 083 11 37.05W

Map Id: G37
Direction: E
Distance: 0.619 mi.
Actual: 3269.258 ft.
Elevation: 0.141 mi. / 745.922 ft.
Relative: Lower

Site Name : BLDG
42.543353, -83.193594
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3323380
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026355
Obstacle Type : BLDG
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00053
Above Mean Sea Level Height (Feet) : 00799
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 36.07N
Longitude : 083 11 36.94W

Map Id: G38
Direction: E
Distance: 0.621 mi.
Actual: 3280.740 ft.
Elevation: 0.141 mi. / 745.942 ft.
Relative: Lower

Site Name : BLDG
42.543886, -83.193664
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3325166
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026361
Obstacle Type : BLDG
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00053
Above Mean Sea Level Height (Feet) : 00799
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 37.99N
Longitude : 083 11 37.19W

Map Id: G39
Direction: E
Distance: 0.635 mi.
Actual: 3354.002 ft.
Elevation: 0.141 mi. / 746.106 ft.
Relative: Lower

Site Name : BLDG
42.544144, -83.193456
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3324417
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026373
Obstacle Type : BLDG
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00047
Above Mean Sea Level Height (Feet) : 00793
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 38.92N
Longitude : 083 11 36.44W

Map Id: G40
Direction: ENE
Distance: 0.641 mi.
Actual: 3382.184 ft.
Elevation: 0.142 mi. / 750.446 ft.
Relative: Lower

Site Name : T-L TWR
42.544642, -83.193511
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3331195
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026367
Obstacle Type : T-L TWR
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00102
Above Mean Sea Level Height (Feet) : 00851
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 40.71N
Longitude : 083 11 36.64W

Map Id: J41
Direction: E
Distance: 0.642 mi.
Actual: 3390.845 ft.
Elevation: 0.141 mi. / 742.52 ft.
Relative: Lower

Site Name : T-L TWR
42.541789, -83.193042
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3330406
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026470
Obstacle Type : T-L TWR
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00041
Above Mean Sea Level Height (Feet) : 00783
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 30.44N
Longitude : 083 11 34.95W

Map Id: I42
Direction: E
Distance: 0.644 mi.
Actual: 3398.096 ft.
Elevation: 0.141 mi. / 742.71 ft.
Relative: Lower

Site Name : POLE
42.542319, -83.193014
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3325118
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-08-07
Action :	Add
FAA Study Number :	N/R
OBS Number :	26-026455
Obstacle Type :	POLE
City Name :	TROY
State Identifier :	MI
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00043
Above Mean Sea Level Height (Feet) :	00785
Horizontal Accuracy :	+ -50'
Vertical Accuracy :	+ -20'
Latitude :	42 32 32.35N
Longitude :	083 11 34.85W

Map Id: G43
Direction: E
Distance: 0.646 mi.
Actual: 3408.693 ft.
Elevation: 0.141 mi. / 744.203 ft.
Relative: Lower

Site Name : POLE
42.543339, -83.193069
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3325285
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-08-07
Action :	Add
FAA Study Number :	N/R
OBS Number :	26-026441
Obstacle Type :	POLE
City Name :	TROY
State Identifier :	MI
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00038
Above Mean Sea Level Height (Feet) :	00781
Horizontal Accuracy :	+ -50'
Vertical Accuracy :	+ -20'
Latitude :	42 32 36.02N
Longitude :	083 11 35.05W

Map Id: K44
Direction: ENE
Distance: 0.647 mi.
Actual: 3415.386 ft.
Elevation: 0.142 mi. / 749.682 ft.
Relative: Lower

Site Name : TOWER
42.545139, -83.193583
BIRMINGHAM, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3375916
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2018-06-14
Action :	Add
FAA Study Number :	2016AGL15233OE
OBS Number :	26-113498
Obstacle Type :	TOWER
City Name :	BIRMINGHAM
State Identifier :	MI
Country Identifier :	USA
Type of Lighting :	None
Verification Status :	Verified
Quantity :	1
Mark Indicator :	None
Above Ground Level Height (Feet) :	00065
Above Mean Sea Level Height (Feet) :	00816
Horizontal Accuracy :	+ -250'
Vertical Accuracy :	+ -50'
Latitude :	42 32 42.50N
Longitude :	083 11 36.90W

Map Id: K45
Direction: ENE
Distance: 0.649 mi.
Actual: 3424.376 ft.
Elevation: 0.141 mi. / 744.679 ft.
Relative: Lower

Site Name : TOWER
42.545278, -83.193611
BIRMINGHAM, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3329755
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2017-12-21
Action :	Change
FAA Study Number :	2017AGL00644OE
OBS Number :	26-002055
Obstacle Type :	TOWER
City Name :	BIRMINGHAM
State Identifier :	MI
Country Identifier :	USA
Type of Lighting :	Red
Verification Status :	Verified
Quantity :	1
Mark Indicator :	None
Above Ground Level Height (Feet) :	00131
Above Mean Sea Level Height (Feet) :	00874
Horizontal Accuracy :	+ -250'
Vertical Accuracy :	+ -50'
Latitude :	42 32 43.00N
Longitude :	083 11 37.00W

Geological Landscape Section Map Findings

2021

Map Id: 46
Direction: ENE
Distance: 0.656 mi.
Actual: 3466.239 ft.
Elevation: 0.142 mi. / 748.622 ft.
Relative: Lower

Site Name : BLDG
42.546653, -83.194247
BIRMINGHAM, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3371488
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2018-01-25
Action :	Add
FAA Study Number :	2016AGL095940E
OBS Number :	26-103302
Obstacle Type :	BLDG
City Name :	BIRMINGHAM
State Identifier :	MI
Country Identifier :	USA
Type of Lighting :	None
Verification Status :	Unverified
Quantity :	1
Mark Indicator :	None
Above Ground Level Height (Feet) :	00035
Above Mean Sea Level Height (Feet) :	00783
Horizontal Accuracy :	+ -250'
Vertical Accuracy :	+ -50'
Latitude :	42 32 47.95N
Longitude :	083 11 39.29W

Map Id: 47
Direction: NW
Distance: 0.657 mi.
Actual: 3466.370 ft.
Elevation: 0.145 mi. / 765.128 ft.
Relative: Higher

Site Name : MI2034447 | MI2292463 | MI4720344
380 N OLD WOODWARD
BIRMINGHAM, MI 48009
Database(s) : [PWS]

Envirosite ID: 3349931
EPA ID: N/R

PWS

Facility Address : 380 N OLD WOODWARD, BIRMINGHAM, MI 48009

PWS ID :	MI4720344
PWS Type :	Transient non-community system
PWS Name :	BRIGHTON SHOPPING CENTER
Activity Status :	Inactive
Primary Source :	Ground water
Submission Year :	2019
Submission Year Quarter :	2019Q1
Population Served Count :	25
Service Connections Count :	1
Population Category 2 :	<10,000
Population Category 3 :	<=3300
Population Category 4 :	<10K
Population Category 5 :	<=500
Population Category 11 :	<=100
Submission Quarter :	1
Submission Status Code :	Y
First Reported Date :	05/26/1989
Last Reported Date :	03/28/2019
Deactivation Date :	05/18/2004
GW or SW :	Groundwater
Is Grant Eligible :	N

Map Id: 47
 Direction: NW
 Distance: 0.657 mi.
 Actual: 3466.370 ft.
 Elevation: 0.145 mi. / 765.128 ft.
 Relative: Higher

Site Name : MI2034447 | MI2292463 | MI4720344
 380 N OLD WOODWARD
 BIRMINGHAM, MI 48009
Database(s) : [PWS] (**cont.**)

EnviroSite ID: 3349931
EPA ID: N/R

PWS (**cont.**)

Is Outstanding Performer : N/R
 Is School or Daycare : N
 Is Source Water Protected : N/R
 Primacy Agency : Michigan
 Primacy Type : State
 Org Name : N/R
 EPA Region : Region 5
 Admin Name : LMW MANAGEMENT
 Owner Type : Private
 Phone Number : 248-645-8700
 Phone Ext Number : N/R
 Alt Phone Number : N/R
 Email Address : N/R
 Fax Number : N/R
 Is Wholesaler : N
 LT2 Schedule Category : N/R
 NPM Candidate : N
 CDS ID : N/R
 DBPR Schedule Category : N/R
 Outstanding Performer Date : N/R
 Season Begin Date : 1-Jan
 Season End Date : 31-Dec
 Source Water Protection Date : N/R
 Seasonal Startup System : N/R
 Reduced Monitoring Begin Date : N/R
 Reduced Monitoring End Date : N/R
 Reduced RTRC Monitoring : N/R
 Last Date in Agency List : 05/16/2019

Facility Address : 380 N OLD WOODWARD, BIRMINGHAM, MI 48009

PWS ID : MI6322924
 PWS Type : Non-Transient non-community system
 PWS Name : PURE FOODS KITCHEN LLC
 Activity Status : Active
 Primary Source : Ground water
 Submission Year : 2019
 Submission Year Quarter : 2019Q1
 Population Served Count : 103
 Service Connections Count : 1
 Population Category 2 : <10,000
 Population Category 3 : <=3300
 Population Category 4 : <10K
 Population Category 5 : <=500
 Population Category 11 : 101-500
 Submission Quarter : 1
 Submission Status Code : Y
 First Reported Date : 03/09/2018
 Last Reported Date : 03/28/2019
 Deactivation Date : N/R
 GW or SW : Groundwater
 Is Grant Eligible : Y
 Is Outstanding Performer : N/R
 Is School or Daycare : Y
 Is Source Water Protected : N/R

Map Id: 47
 Direction: NW
 Distance: 0.657 mi.
 Actual: 3466.370 ft.
 Elevation: 0.145 mi. / 765.128 ft.
 Relative: Higher

Site Name : MI2034447 | MI2292463 | MI4720344
 380 N OLD WOODWARD
 BIRMINGHAM, MI 48009
Database(s) : [PWS] (**cont.**)

EnviroSite ID: 3349931
EPA ID: N/R

PWS (**cont.**)

Primacy Agency :	Michigan
Primacy Type :	State
Org Name :	2292463
EPA Region :	Region 5
Admin Name :	PURE FOODS KITCHEN LLC
Owner Type :	Private
Phone Number :	2483218329
Phone Ext Number :	N/R
Alt Phone Number :	N/R
Email Address :	mark@mssphd.com
Fax Number :	N/R
Is Wholesaler :	N
LT2 Schedule Category :	N/R
NPM Candidate :	Y
CDS ID :	N/R
DBPR Schedule Category :	N/R
Outstanding Performer Date :	N/R
Season Begin Date :	1-Jan
Season End Date :	31-Dec
Source Water Protection Date :	N/R
Seasonal Startup System :	N/R
Reduced Monitoring Begin Date :	N/R
Reduced Monitoring End Date :	N/R
Reduced RTRC Monitoring :	N/R
Last Date in Agency List :	05/16/2019

Facility Address : 380 N OLD WOODWARD, BIRMINGHAM, MI 48009

PWS ID :	MI2034447
PWS Type :	Transient non-community system
PWS Name :	BRIGHTON SHOPPING CENTER
Activity Status :	Inactive
Primary Source :	Ground water
Submission Year :	2019
Submission Year Quarter :	2019Q4
Population Served Count :	25
Service Connections Count :	1
Population Category 2 :	<10,000
Population Category 3 :	<=3300
Population Category 4 :	<10K
Population Category 5 :	<=500
Population Category 11 :	<=100
Submission Quarter :	4
Submission Status Code :	Y
First Reported Date :	05/26/1989
Last Reported Date :	09/04/2019
Deactivation Date :	12/11/2003
GW or SW :	Groundwater
Is Grant Eligible :	N
Is Outstanding Performer :	N/R
Is School or Daycare :	N
Is Source Water Protected :	N/R
Primacy Agency :	Michigan
Primacy Type :	State
Org Name :	N/R

Map Id: 47
 Direction: NW
 Distance: 0.657 mi.
 Actual: 3466.370 ft.
 Elevation: 0.145 mi. / 765.128 ft.
 Relative: Higher

Site Name : MI2034447 | MI2292463 | MI4720344
 380 N OLD WOODWARD
 BIRMINGHAM, MI 48009
Database(s) : [PWS] (**cont.**)

EnviroSite ID: 3349931
EPA ID: N/R

PWS (**cont.**)

EPA Region :	Region 5
Admin Name :	LMW MANAGEMENT
Owner Type :	Private
Phone Number :	248-645-8700
Phone Ext Number :	N/R
Alt Phone Number :	N/R
Email Address :	N/R
Fax Number :	N/R
Is Wholesaler :	N
LT2 Schedule Category :	N/R
NPM Candidate :	N
CDS ID :	N/R
DBPR Schedule Category :	N/R
Outstanding Performer Date :	N/R
Season Begin Date :	01-01
Season End Date :	12-31
Source Water Protection Date :	N/R
Seasonal Startup System :	N/R
Reduced Monitoring Begin Date :	N/R
Reduced Monitoring End Date :	N/R
Reduced RTRC Monitoring :	N/R
Last Date in Agency List :	02/20/2020

PWS ID :	MI2034447
PWS Type :	Transient non-community system
PWS Name :	BRIGHTON SHOPPING CENTER
Activity Status :	Inactive
Primary Source :	Ground water
Submission Year :	2020
Submission Year Quarter :	2020Q3
Population Served Count :	25
Service Connections Count :	1
Population Category 2 :	<10,000
Population Category 3 :	<=3300
Population Category 4 :	<10K
Population Category 5 :	<=500
Population Category 11 :	<=100
Submission Quarter :	3
Submission Status Code :	Y
First Reported Date :	05/26/1989
Last Reported Date :	06/03/2020
Deactivation Date :	05/18/2004
GW or SW :	Groundwater
Is Grant Eligible :	N
Is Outstanding Performer :	N/R
Is School or Daycare :	N
Is Source Water Protected :	-
Primacy Agency :	Michigan
Primacy Type :	State
Org Name :	-
EPA Region :	Region 5
Admin Name :	LMW MANAGEMENT
Owner Type :	Private
Phone Number :	248-645-8700
Phone Ext Number :	N/R
Alt Phone Number :	N/R

Map Id: 47
 Direction: NW
 Distance: 0.657 mi.
 Actual: 3466.370 ft.
 Elevation: 0.145 mi. / 765.128 ft.
 Relative: Higher

Site Name : MI2034447 | MI2292463 | MI4720344
 380 N OLD WOODWARD
 BIRMINGHAM, MI 48009
Database(s) : [PWS] (**cont.**)

Envirosite ID: 3349931
EPA ID: N/R

PWS (**cont.**)

Email Address : N/R
 Fax Number : N/R
 Is Wholesaler : N
 LT2 Schedule Category : N/R
 NPM Candidate : N
 CDS ID : N/R
 DBPR Schedule Category : N/R
 Outstanding Performer Date : N/R
 Season Begin Date : 01-01
 Season End Date : 12-31
 Source Water Protection Date : N/R
 Seasonal Startup System : N/R
 Reduced Monitoring Begin Date : N/R
 Reduced Monitoring End Date : N/R
 Reduced RTCR Monitoring : N/R
 Last Date in Agency List : 10/26/2020

Facility Address : 380 N OLD WOODWARD, BIRMINGHAM, MI 48009

PWS ID : MI2292463
 PWS Type : Non-Transient non-community system
 PWS Name : PURE FOODS KITCHEN LLC
 Activity Status : Active
 Primary Source : Ground water
 Submission Year : 2020
 Submission Year Quarter : 2020Q3
 Population Served Count : 103
 Service Connections Count : 1
 Population Category 2 : <10,000
 Population Category 3 : <=3300
 Population Category 4 : <10K
 Population Category 5 : <=500
 Population Category 11 : 101-500
 Submission Quarter : 3
 Submission Status Code : Y
 First Reported Date : 03/09/2018
 Last Reported Date : 09/17/2020
 Deactivation Date : N/R
 GW or SW : Groundwater
 Is Grant Eligible : Y
 Is Outstanding Performer : N/R
 Is School or Daycare : Y
 Is Source Water Protected : -
 Primacy Agency : Michigan
 Primacy Type : State
 Org Name : FOODS KITCHEN LLC, PURE
 EPA Region : Region 5
 Admin Name : FOODS KITCHEN LLC, PURE
 Owner Type : Private
 Phone Number : 248-321-8329
 Phone Ext Number : N/R
 Alt Phone Number : N/R
 Email Address : N/R
 Fax Number : N/R
 Is Wholesaler : N

Map Id: 47
 Direction: NW
 Distance: 0.657 mi.
 Actual: 3466.370 ft.
 Elevation: 0.145 mi. / 765.128 ft.
 Relative: Higher

Site Name : MI2034447 | MI2292463 | MI4720344
 380 N OLD WOODWARD
 BIRMINGHAM, MI 48009
Database(s) : [PWS] (**cont.**)

EnviroSite ID: 3349931
EPA ID: N/R

PWS (**cont.**)

LT2 Schedule Category :	N/R
NPM Candidate :	Y
CDS ID :	N/R
DBPR Schedule Category :	N/R
Outstanding Performer Date :	N/R
Season Begin Date :	01-01
Season End Date :	12-31
Source Water Protection Date :	N/R
Seasonal Startup System :	N/R
Reduced Monitoring Begin Date :	N/R
Reduced Monitoring End Date :	N/R
Reduced RTCR Monitoring :	N/R
Last Date in Agency List :	10/26/2020

Map Id: 148
 Direction: E
 Distance: 0.657 mi.
 Actual: 3471.128 ft.
 Elevation: 0.141 mi. / 742.621 ft.
 Relative: Lower

Site Name : POLE
 42.542939, -83.192783
 TROY, MI
Database(s) : [DIGITAL OBSTACLE]

EnviroSite ID: 3325067
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-08-07
Action :	Add
FAA Study Number :	N/R
OBS Number :	26-026448
Obstacle Type :	POLE
City Name :	TROY
State Identifier :	MI
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00041
Above Mean Sea Level Height (Feet) :	00782
Horizontal Accuracy :	+ -50'
Vertical Accuracy :	+ -20'
Latitude :	42 32 34.58N
Longitude :	083 11 34.02W

Map Id: G49
Direction: E
Distance: 0.662 mi.
Actual: 3493.798 ft.
Elevation: 0.142 mi. / 748.661 ft.
Relative: Lower

Site Name : T-L TWR
42.543986, -83.192883
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3325654
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026366
Obstacle Type : T-L TWR
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00091
Above Mean Sea Level Height (Feet) : 00839
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 38.35N
Longitude : 083 11 34.38W

Map Id: J50
Direction: E
Distance: 0.663 mi.
Actual: 3502.886 ft.
Elevation: 0.141 mi. / 742.32 ft.
Relative: Lower

Site Name : T-L TWR
42.541789, -83.192625
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3333341
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026469
Obstacle Type : T-L TWR
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00044
Above Mean Sea Level Height (Feet) : 00786
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 30.44N
Longitude : 083 11 33.45W

Map Id: I51
Direction: E
Distance: 0.670 mi.
Actual: 3536.908 ft.
Elevation: 0.14 mi. / 741.499 ft.
Relative: Lower

Site Name : POLE
42.542533, -83.192508
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3326336
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026447
Obstacle Type : POLE
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00044
Above Mean Sea Level Height (Feet) : 00785
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 33.12N
Longitude : 083 11 33.03W

Map Id: I52
Direction: E
Distance: 0.674 mi.
Actual: 3559.185 ft.
Elevation: 0.142 mi. / 747.356 ft.
Relative: Lower

Site Name : T-L TWR
42.543628, -83.192556
BIRMINGHAM, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3326530
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2017-03-17
Action : Add
FAA Study Number : 2015AGL03117OE
OBS Number : 26-028000
Obstacle Type : T-L TWR
City Name : BIRMINGHAM
State Identifier : MI
Country Identifier : USA
Type of Lighting : Red
Verification Status : Verified
Quantity : 1
Mark Indicator : Orange or Orange And White Paint
Above Ground Level Height (Feet) : 00079
Above Mean Sea Level Height (Feet) : 00826
Horizontal Accuracy : +-250'
Vertical Accuracy : +-50'
Latitude : 42 32 37.06N
Longitude : 083 11 33.20W

Geological Landscape Section Map Findings

2021

Map Id: 53
Direction: SE
Distance: 0.679 mi.
Actual: 3582.873 ft.
Elevation: 0.14 mi. / 740.469 ft.
Relative: Lower

Site Name : 63000004360
42.533939, -83.197849
MI
Database(s) : [WELLS - MI]

Envirosite ID: 11797737
EPA ID: N/R

WELLS - MI

Well ID :	63000004360
County :	Oakland
Permit Number :	N/R
Township :	Troy
Section/Township/Range :	SEC: 31, TWP: 02N, RNG: 11E
Owner Name :	MILES BENTLEY
Well Address :	3607 W. 14 MILE, TROY, 48084
Well Depth (Feet) :	315
Well Type :	Irrigation
Other Well Type :	N/R
Well Status :	N/R
Other Well Status :	N/R
Water Supply Serial Number :	0
Well Number :	N/R
Driller ID :	78-1607
Drilling Method :	Rotary
Other Method :	N/R
Construction Date :	1997-08-29
Case Type :	PVC Plastic
Other Case Type :	N/R
Well Casing Diameter (Inches) :	8
Depth of Casing (Feet) :	300
Screen Start Depth (Feet) :	300
Screen End Depth (Feet) :	315
Static Water Level (Feet) :	35
Flowing :	Not a flowing well
Aquifer Type :	Well draws water from the glacial drift
Test Depth (Feet) :	315
Test Hours (Hour) :	3
Test Rate (Gallons per Minute) :	500
Test Method :	UNK
Other Test Method :	N/R
Grouted :	Y
Pump Capacity (Gallons per Minute) :	0
Method of Collection	
(Latitude/Longitude):	036
Elevation (Feet) :	0
Method of Collection (Elevation) :	N/R
Within :	Y
Within Section :	Yes, well point is within the stated land survey section
Location Match :	Yes, well point is within the stated Tier/Range
Section Distance :	The well point is within 200 ft of the stated land survey section
Elevation (DEM) :	738
Elevation Difference (Feet) :	0
Landsystem Group Polygon :	LACUSTRINE FINE
Depth Flag :	N/R
Elevation Flag :	N/R
SWL Flag :	N/R
Specific Capacity :	N/R
Aquifer Code :	Drift (Glacial) Well
Rock Top (Feet) :	N/R
Thickness of All Drift Strata :	30
Confined Horizontal Hydraulic :	25.5
Confined Vertical Hydraulic :	1.96078431
Confined Transmissivity :	765
Thickness of All Drift Strata 2 :	30
Unconfined Horizontal Hydraulic :	25.5

Geological Landscape Section Map Findings

2021

Map Id: 53
Direction: SE
Distance: 0.679 mi.
Actual: 3582.873 ft.
Elevation: 0.14 mi. / 740.469 ft.
Relative: Lower

Site Name : 63000004360
42.533939, -83.197849
MI
Database(s) : [WELLS - MI] (**cont.**)

Envirosite ID: 11797737
EPA ID: N/R

WELLS - MI (**cont.**)

Unconfined Vertical Hydraulic :	1.96078431
Unconfined Transmissivity :	765
Thickness of All Bedrock Strata :	N/R
Horizontal Hydraulic (Bedrock) :	N/R
Vertical Hydraulic (Bedrock) :	N/R
Transmissivity for Bedrock Units :	N/R
Thickness of All Drift Strata (Ground Surface):	30
Horizontal Hydraulic (Drift) :	25.5
Vertical Hydraulic (Drift) :	1.96078431
Transmissivity :	765
Latitude :	42.533939
Longitude :	-83.197849
Last Date in Agency List :	2020-03-19

Map Id: J54
Direction: E
Distance: 0.683 mi.
Actual: 3603.837 ft.
Elevation: 0.14 mi. / 741.778 ft.
Relative: Lower

Site Name : POLE
42.542056, -83.192244
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3330108
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-08-07
Action :	Add
FAA Study Number :	N/R
OBS Number :	26-026461
Obstacle Type :	POLE
City Name :	TROY
State Identifier :	MI
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00039
Above Mean Sea Level Height (Feet) :	00780
Horizontal Accuracy :	+50'
Vertical Accuracy :	+20'
Latitude :	42 32 31.40N
Longitude :	083 11 32.08W

Map Id: I55
Direction: E
Distance: 0.683 mi.
Actual: 3605.084 ft.
Elevation: 0.141 mi. / 745.2 ft.
Relative: Lower

Site Name : CATENARY
42.543394, -83.192342
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3324107
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026354
Obstacle Type : CATENARY
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00074
Above Mean Sea Level Height (Feet) : 00820
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 36.22N
Longitude : 083 11 32.43W

Map Id: I56
Direction: E
Distance: 0.689 mi.
Actual: 3638.713 ft.
Elevation: 0.141 mi. / 745.276 ft.
Relative: Lower

Site Name : POLE
42.543231, -83.192192
BIRMINGHAM, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3325284
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2017-02-16
Action : Add
FAA Study Number : 2015AGL03115OE
OBS Number : 26-027999
Obstacle Type : POLE
City Name : BIRMINGHAM
State Identifier : MI
Country Identifier : USA
Type of Lighting : Red
Verification Status : Verified
Quantity : 1
Mark Indicator : Orange or Orange And White Paint
Above Ground Level Height (Feet) : 00079
Above Mean Sea Level Height (Feet) : 00824
Horizontal Accuracy : +-250'
Vertical Accuracy : +-50'
Latitude : 42 32 35.63N
Longitude : 083 11 31.89W

Map Id: L57
Direction: E
Distance: 0.696 mi.
Actual: 3675.688 ft.
Elevation: 0.141 mi. / 743.602 ft.
Relative: Lower

Site Name : UTILITY POLE
42.543814, -83.192156
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3335656
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2017-08-09
Action : Add
FAA Study Number : 2015AGL03125OE
OBS Number : 26-028001
Obstacle Type : UTILITY POLE
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Red
Verification Status : Verified
Quantity : 1
Mark Indicator : None
Above Ground Level Height (Feet) : 00079
Above Mean Sea Level Height (Feet) : 00822
Horizontal Accuracy : +-250'
Vertical Accuracy : +-50'
Latitude : 42 32 37.73N
Longitude : 083 11 31.76W

Map Id: M58
Direction: E
Distance: 0.708 mi.
Actual: 3739.139 ft.
Elevation: 0.141 mi. / 744.209 ft.
Relative: Lower

Site Name : T-L TWR
42.542764, -83.191769
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3326500
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026365
Obstacle Type : T-L TWR
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00088
Above Mean Sea Level Height (Feet) : 00831
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 33.95N
Longitude : 083 11 30.37W

Map Id: L59
Direction: E
Distance: 0.710 mi.
Actual: 3748.293 ft.
Elevation: 0.141 mi. / 743.409 ft.
Relative: Lower

Site Name : T-L TWR
42.543428, -83.191811
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3335439
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2017-05-25
Action : Add
FAA Study Number : 2015AGL03119OE
OBS Number : 26-028270
Obstacle Type : T-L TWR
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Red
Verification Status : Verified
Quantity : 1
Mark Indicator : None
Above Ground Level Height (Feet) : 00072
Above Mean Sea Level Height (Feet) : 00815
Horizontal Accuracy : +-250'
Vertical Accuracy : +-50'
Latitude : 42 32 36.34N
Longitude : 083 11 30.52W

Map Id: M60
Direction: E
Distance: 0.713 mi.
Actual: 3766.666 ft.
Elevation: 0.141 mi. / 746.473 ft.
Relative: Lower

Site Name : BRIDGE
42.542594, -83.191656
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3372432
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2018-01-24
Action : Add
FAA Study Number : 2012AGL04548OE
OBS Number : 26-101635
Obstacle Type : BRIDGE
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : None
Verification Status : Unverified
Quantity : 1
Mark Indicator : None
Above Ground Level Height (Feet) : 00054
Above Mean Sea Level Height (Feet) : 00794
Horizontal Accuracy : +-250'
Vertical Accuracy : +-50'
Latitude : 42 32 33.34N
Longitude : 083 11 29.96W

Map Id: L61
Direction: E
Distance: 0.716 mi.
Actual: 3778.608 ft.
Elevation: 0.141 mi. / 743.314 ft.
Relative: Lower

Site Name : T-L TWR
42.543481, -83.191706
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3335440
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2017-05-25
Action :	Add
FAA Study Number :	2015AGL031210E
OBS Number :	26-028271
Obstacle Type :	T-L TWR
City Name :	TROY
State Identifier :	MI
Country Identifier :	USA
Type of Lighting :	Red
Verification Status :	Verified
Quantity :	1
Mark Indicator :	None
Above Ground Level Height (Feet) :	00071
Above Mean Sea Level Height (Feet) :	00814
Horizontal Accuracy :	+ -250'
Vertical Accuracy :	+ -50'
Latitude :	42 32 36.53N
Longitude :	083 11 30.14W

Map Id: M62
Direction: E
Distance: 0.722 mi.
Actual: 3810.432 ft.
Elevation: 0.141 mi. / 745.929 ft.
Relative: Lower

Site Name : CATENARY
42.542411, -83.191483
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3323004
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-08-07
Action :	Add
FAA Study Number :	N/R
OBS Number :	26-026353
Obstacle Type :	CATENARY
City Name :	TROY
State Identifier :	MI
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00073
Above Mean Sea Level Height (Feet) :	00816
Horizontal Accuracy :	+ -50'
Vertical Accuracy :	+ -20'
Latitude :	42 32 32.68N
Longitude :	083 11 29.34W

Map Id: M63
Direction: E
Distance: 0.734 mi.
Actual: 3874.179 ft.
Elevation: 0.14 mi. / 740.046 ft.
Relative: Lower

Site Name : T-L TWR
42.542736, -83.191264
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3331439
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026442
Obstacle Type : T-L TWR
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00034
Above Mean Sea Level Height (Feet) : 00774
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 33.85N
Longitude : 083 11 28.55W

Map Id: M64
Direction: E
Distance: 0.738 mi.
Actual: 3894.979 ft.
Elevation: 0.141 mi. / 744.879 ft.
Relative: Lower

Site Name : T-L TWR
42.542017, -83.191161
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3326526
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026364
Obstacle Type : T-L TWR
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00077
Above Mean Sea Level Height (Feet) : 00819
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 31.26N
Longitude : 083 11 28.18W

Map Id: N65
Direction: E
Distance: 0.738 mi.
Actual: 3897.538 ft.
Elevation: 0.14 mi. / 741.65 ft.
Relative: Lower

Site Name : TOWER
42.541456, -83.191175
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3328867
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026352
Obstacle Type : TOWER
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00093
Above Mean Sea Level Height (Feet) : 00833
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 29.24N
Longitude : 083 11 28.23W

Map Id: L66
Direction: E
Distance: 0.742 mi.
Actual: 3916.272 ft.
Elevation: 0.14 mi. / 738.57 ft.
Relative: Lower

Site Name : POLE
42.543044, -83.191133
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3329145
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026439
Obstacle Type : POLE
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00039
Above Mean Sea Level Height (Feet) : 00777
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 34.96N
Longitude : 083 11 28.08W

Map Id: L67
Direction: E
Distance: 0.745 mi.
Actual: 3932.348 ft.
Elevation: 0.14 mi. / 737.782 ft.
Relative: Lower

Site Name : POLE
42.543636, -83.191156
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3325339
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026440
Obstacle Type : POLE
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00041
Above Mean Sea Level Height (Feet) : 00780
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 37.09N
Longitude : 083 11 28.16W

Map Id: M68
Direction: E
Distance: 0.746 mi.
Actual: 3940.452 ft.
Elevation: 0.141 mi. / 742.123 ft.
Relative: Lower

Site Name : T-L TWR
42.542433, -83.191
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3331435
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026451
Obstacle Type : T-L TWR
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00046
Above Mean Sea Level Height (Feet) : 00786
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 32.76N
Longitude : 083 11 27.60W

Map Id: 69
Direction: SSW
Distance: 0.747 mi.
Actual: 3941.994 ft.
Elevation: 0.142 mi. / 751.138 ft.
Relative: Lower

Site Name : TANK
42.531203, -83.210903
BEVERLY HILLS, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3326652
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2007-05-03
Action :	Change
FAA Study Number :	2006AGL02963OE
OBS Number :	26-003189
Obstacle Type :	TANK
City Name :	BEVERLY HILLS
State Identifier :	MI
Country Identifier :	USA
Type of Lighting :	None
Verification Status :	Verified
Quantity :	1
Mark Indicator :	None
Above Ground Level Height (Feet) :	00147
Above Mean Sea Level Height (Feet) :	00898
Horizontal Accuracy :	+ -20'
Vertical Accuracy :	+ -3'
Latitude :	42 31 52.33N
Longitude :	083 12 39.25W

Map Id: L70
Direction: E
Distance: 0.750 mi.
Actual: 3962.039 ft.
Elevation: 0.14 mi. / 738.629 ft.
Relative: Lower

Site Name : POLE
42.544114, -83.191144
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3329683
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-08-07
Action :	Add
FAA Study Number :	N/R
OBS Number :	26-026418
Obstacle Type :	POLE
City Name :	TROY
State Identifier :	MI
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00039
Above Mean Sea Level Height (Feet) :	00776
Horizontal Accuracy :	+ -50'
Vertical Accuracy :	+ -20'
Latitude :	42 32 38.81N
Longitude :	083 11 28.12W

Map Id: M71
Direction: E
Distance: 0.763 mi.
Actual: 4030.150 ft.
Elevation: 0.14 mi. / 741.818 ft.
Relative: Lower

Site Name : T-L TWR
42.542028, -83.190658
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

EnviroSite ID: 3330806
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-08-07
Action :	Add
FAA Study Number :	N/R
OBS Number :	26-026457
Obstacle Type :	T-L TWR
City Name :	TROY
State Identifier :	MI
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00040
Above Mean Sea Level Height (Feet) :	00779
Horizontal Accuracy :	+50'
Vertical Accuracy :	+20'
Latitude :	42 32 31.30N
Longitude :	083 11 26.37W

Map Id: L72
Direction: E
Distance: 0.771 mi.
Actual: 4069.323 ft.
Elevation: 0.14 mi. / 737.995 ft.
Relative: Lower

Site Name : POLE
42.543064, -83.190564
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

EnviroSite ID: 3325120
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-08-07
Action :	Add
FAA Study Number :	N/R
OBS Number :	26-026438
Obstacle Type :	POLE
City Name :	TROY
State Identifier :	MI
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00039
Above Mean Sea Level Height (Feet) :	00777
Horizontal Accuracy :	+50'
Vertical Accuracy :	+20'
Latitude :	42 32 35.03N
Longitude :	083 11 26.03W

Map Id: L73
Direction: E
Distance: 0.772 mi.
Actual: 4075.491 ft.
Elevation: 0.14 mi. / 738.041 ft.
Relative: Lower

Site Name : POLE
42.543653, -83.190622
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3326339
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026427
Obstacle Type : POLE
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00039
Above Mean Sea Level Height (Feet) : 00777
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 37.15N
Longitude : 083 11 26.24W

Map Id: L74
Direction: E
Distance: 0.775 mi.
Actual: 4094.520 ft.
Elevation: 0.14 mi. / 737.277 ft.
Relative: Lower

Site Name : POLE
42.544017, -83.190622
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3330134
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026417
Obstacle Type : POLE
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00039
Above Mean Sea Level Height (Feet) : 00775
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 38.46N
Longitude : 083 11 26.24W

Geological Landscape Section Map Findings

2021

Map Id: N75
Direction: E
Distance: 0.779 mi.
Actual: 4113.745 ft.
Elevation: 0.14 mi. / 737.589 ft.
Relative: Lower

Site Name : T-L TWR
42.541678, -83.190356
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

EnviroSite ID: 3327304
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-08-07
Action :	Add
FAA Study Number :	N/R
OBS Number :	26-026467
Obstacle Type :	T-L TWR
City Name :	TROY
State Identifier :	MI
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00040
Above Mean Sea Level Height (Feet) :	00776
Horizontal Accuracy :	+/-50'
Vertical Accuracy :	+/-20'
Latitude :	42 32 30.04N
Longitude :	083 11 25.28W

Map Id: 76
Direction: SW
Distance: 0.780 mi.
Actual: 4117.092 ft.
Elevation: 0.142 mi. / 751.424 ft.
Relative: Lower

Site Name : MI2002872 | MI7220028
1990 PIERCE
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF]

EnviroSite ID: 3394760
EPA ID: N/R

PWS

Facility Address : 1990 Pierce, Birmingham, MI 48009

PWS ID :	MI7220028
PWS Type :	Transient non-community system
PWS Name :	Blakes on the Lake
Activity Status :	Active
Primary Source :	Ground water
Submission Year :	2019
Submission Year Quarter :	2019Q1
Population Served Count :	25
Service Connections Count :	7
Population Category 2 :	<10,000
Population Category 3 :	<=3300
Population Category 4 :	<10K
Population Category 5 :	<=500
Population Category 11 :	<=100
Submission Quarter :	1
Submission Status Code :	Y
First Reported Date :	01/18/1984
Last Reported Date :	03/28/2019
Deactivation Date :	N/R
GW or SW :	Groundwater
Is Grant Eligible :	Y

Map Id: 76
 Direction: SW
 Distance: 0.780 mi.
 Actual: 4117.092 ft.
 Elevation: 0.142 mi. / 751.424 ft.
 Relative: Lower

Site Name : MI2002872 | MI7220028
 1990 PIERCE
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3394760
EPA ID: N/R

PWS (**cont.**)

Is Outstanding Performer : N/R
 Is School or Daycare : N
 Is Source Water Protected : N/R
 Primacy Agency : Michigan
 Primacy Type : State
 Org Name : 2002872
 EPA Region : Region 5
 Admin Name : Blake Kolo
 Owner Type : Private
 Phone Number : 9893665122
 Phone Ext Number : N/R
 Alt Phone Number : N/R
 Email Address : christina.kolo@yahoo.com
 Fax Number : N/R
 Is Wholesaler : N
 LT2 Schedule Category : N/R
 NPM Candidate : Y
 CDS ID : N/R
 DBPR Schedule Category : N/R
 Outstanding Performer Date : N/R
 Season Begin Date : 1-Jan
 Season End Date : 31-Dec
 Source Water Protection Date : N/R
 Seasonal Startup System : N/R
 Reduced Monitoring Begin Date : N/R
 Reduced Monitoring End Date : N/R
 Reduced RTRC Monitoring : N/R
 Last Date in Agency List : 05/16/2019

Facility Address : 1990 PIERCE, BIRMINGHAM, MI 48009

PWS ID : MI2002872
 PWS Type : Transient non-community system
 PWS Name : BLAKES ON THE LAKE
 Activity Status : Active
 Primary Source : Ground water
 Submission Year : 2020
 Submission Year Quarter : 2020Q3
 Population Served Count : 25
 Service Connections Count : 7
 Population Category 2 : <10,000
 Population Category 3 : <=3300
 Population Category 4 : <10K
 Population Category 5 : <=500
 Population Category 11 : <=100
 Submission Quarter : 3
 Submission Status Code : Y
 First Reported Date : 01/18/1984
 Last Reported Date : 09/17/2020
 Deactivation Date : N/R
 GW or SW : Groundwater
 Is Grant Eligible : Y
 Is Outstanding Performer : N/R
 Is School or Daycare : N
 Is Source Water Protected : -

Map Id: 76
 Direction: SW
 Distance: 0.780 mi.
 Actual: 4117.092 ft.
 Elevation: 0.142 mi. / 751.424 ft.
 Relative: Lower

Site Name : MI2002872 | MI7220028
 1990 PIERCE
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3394760
EPA ID: N/R

PWS (**cont.**)

Primacy Agency :	Michigan
Primacy Type :	State
Org Name :	KOLO, BLAKE
EPA Region :	Region 5
Admin Name :	KOLO, BLAKE
Owner Type :	Private
Phone Number :	989-366-5122
Phone Ext Number :	N/R
Alt Phone Number :	N/R
Email Address :	N/R
Fax Number :	N/R
Is Wholesaler :	N
LT2 Schedule Category :	N/R
NPM Candidate :	Y
CDS ID :	N/R
DBPR Schedule Category :	N/R
Outstanding Performer Date :	N/R
Season Begin Date :	01-01
Season End Date :	12-31
Source Water Protection Date :	N/R
Seasonal Startup System :	N/R
Reduced Monitoring Begin Date :	N/R
Reduced Monitoring End Date :	N/R
Reduced RTCR Monitoring :	N/R
Last Date in Agency List :	10/26/2020

PWS ENF

Facility Address :	1990 Pierce, Birmingham, MI 48009
PWS ID :	MI7220028
PWS Name :	Blakes on the Lake
EPA Region :	Region 5
Primacy Agency :	Michigan
PWS Type :	Transient non-community system
Primacy Type :	State
Primary Source :	Ground water
Activity Status :	Active
Deactivation Date :	N/R
Owner Type :	Private
Phone Number :	9893665122
Last Date in Agency List :	05/16/2019

Violation Details

RTC Enforcement ID :	041015771
Violation ID :	9613495
Submission Year :	2019
Violation First Reported Date :	03/28/1996
Contaminant Name :	Coliform (TCR)
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Total Coliform Rule
Violation Type :	Monitoring, Routine Major (TCR)
Is Health Based :	N

Map Id: 76
 Direction: SW
 Distance: 0.780 mi.
 Actual: 4117.092 ft.
 Elevation: 0.142 mi. / 751.424 ft.
 Relative: Lower

Site Name : MI2002872 | MI7220028
 1990 PIERCE
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3394760
EPA ID: N/R

PWS ENF (**cont.**)

Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 1990 Pierce, Birmingham, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 12/01/2003
 Enforcement Action Description : State Compliance achieved
 Admin Name : Blake Kolo
 Email Address : christina.kolo@yahoo.com

RTC Enforcement ID : 183002240
 Violation ID : 1720521
 Submission Year : 2019
 Violation First Reported Date : 09/15/2017
 Contaminant Name : Revised Total Coliform Rule
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Revised Total Coliform Rule
 Violation Type : Monitoring, Routine (RTCR)
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 1990 Pierce, Birmingham, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 05/15/2018
 Enforcement Action Description : State Compliance achieved
 Admin Name : Blake Kolo
 Email Address : christina.kolo@yahoo.com

RTC Enforcement ID : 183002241
 Violation ID : 1730210
 Submission Year : 2019
 Violation First Reported Date : 09/15/2017
 Contaminant Name : Revised Total Coliform Rule
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Revised Total Coliform Rule
 Violation Type : Monitoring, Routine (RTCR)
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 1990 Pierce, Birmingham, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 05/15/2018
 Enforcement Action Description : State Compliance achieved
 Admin Name : Blake Kolo
 Email Address : christina.kolo@yahoo.com

Map Id: 76
 Direction: SW
 Distance: 0.780 mi.
 Actual: 4117.092 ft.
 Elevation: 0.142 mi. / 751.424 ft.
 Relative: Lower

Site Name : MI2002872 | MI7220028
 1990 PIERCE
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3394760
EPA ID: N/R

PWS ENF (**cont.**)

RTC Enforcement ID : 984002646
 Violation ID : 9613496
 Submission Year : 2019
 Violation First Reported Date : 03/28/1996
 Contaminant Name : Nitrate
 Rule Family : Inorganic Chemicals
 Rule Group : Chemicals
 Rule Name : Nitrates
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 1990 Pierce, Birmingham, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 09/21/1998
 Enforcement Action Description : State Compliance achieved
 Admin Name : Blake Kolo
 Email Address : christina.kolo@yahoo.com

RTC Enforcement ID : N/R
 Violation ID : 1911284
 Submission Year : 2019
 Violation First Reported Date : 03/12/2019
 Contaminant Name : Revised Total Coliform Rule
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Revised Total Coliform Rule
 Violation Type : Monitoring, Routine (RTCR)
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 1990 Pierce, Birmingham, 48009
 Address Line 2 : N/R
 Compliance Status : Known
 RTC Date : N/R
 Enforcement Action Description : N/R
 Admin Name : Blake Kolo
 Email Address : christina.kolo@yahoo.com

Facility Address : 1990 PIERCE, BIRMINGHAM, MI 48009

PWS ID : MI2002872
 PWS Name : BLAKES ON THE LAKE
 EPA Region : Region 5
 Primacy Agency : Michigan
 PWS Type : Transient non-community system
 Primacy Type : State
 Primary Source : Ground water
 Activity Status : Active
 Deactivation Date : N/R
 Owner Type : Private

Geological Landscape Section Map Findings

2021

Map Id: 76
Direction: SW
Distance: 0.780 mi.
Actual: 4117.092 ft.
Elevation: 0.142 mi. / 751.424 ft.
Relative: Lower

Site Name : MI2002872 | MI7220028
1990 PIERCE
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3394760
EPA ID: N/R

PWS ENF (**cont.**)

Phone Number : 989-366-5122
Last Date in Agency List : 10/26/2020

Violation Details

RTC Enforcement ID : 183002240
Violation ID : 1720521
Submission Year : 2020
Violation First Reported Date : 09/15/2017
Contaminant Name : Revised Total Coliform Rule
Rule Family : Total Coliform Rules
Rule Group : Microbials
Rule Name : Revised Total Coliform Rule
Violation Type : Monitoring, Routine (RTCR)
Is Health Based : N
Is Major Violation : Y
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 1990 PIERCE, BIRMINGHAM, 48009
Address Line 2 : N/R
Compliance Status : Returned to Compliance
RTC Date : 05/15/2018
Enforcement Action Description : State Compliance achieved
Admin Name : KOLO, BLAKE
Email Address : N/R

RTC Enforcement ID : 183002241
Violation ID : 1730210
Submission Year : 2020
Violation First Reported Date : 09/15/2017
Contaminant Name : Revised Total Coliform Rule
Rule Family : Total Coliform Rules
Rule Group : Microbials
Rule Name : Revised Total Coliform Rule
Violation Type : Monitoring, Routine (RTCR)
Is Health Based : N
Is Major Violation : Y
Severity Indicator Count : N/R
Public Notification Tier : 3
Address Line 1 : 1990 PIERCE, BIRMINGHAM, 48009
Address Line 2 : N/R
Compliance Status : Returned to Compliance
RTC Date : 05/15/2018
Enforcement Action Description : State Compliance achieved
Admin Name : KOLO, BLAKE
Email Address : N/R

RTC Enforcement ID : 192002923
Violation ID : 1911284
Submission Year : 2020
Violation First Reported Date : 03/12/2019
Contaminant Name : Revised Total Coliform Rule
Rule Family : Total Coliform Rules
Rule Group : Microbials

Geological Landscape Section Map Findings

2021

Map Id: 76
Direction: SW
Distance: 0.780 mi.
Actual: 4117.092 ft.
Elevation: 0.142 mi. / 751.424 ft.
Relative: Lower

Site Name : MI2002872 | MI7220028
1990 PIERCE
BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3394760
EPA ID: N/R

PWS ENF (**cont.**)

Rule Name :	Revised Total Coliform Rule
Violation Type :	Monitoring, Routine (RTCR)
Is Health Based :	N
Is Major Violation :	Y
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	1990 PIERCE, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	03/28/2019
Enforcement Action Description :	State Compliance achieved
Admin Name :	KOLO, BLAKE
Email Address :	N/R

RTC Enforcement ID :	201000116
Violation ID :	1930637
Submission Year :	2020
Violation First Reported Date :	09/04/2019
Contaminant Name :	Revised Total Coliform Rule
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Revised Total Coliform Rule
Violation Type :	Monitoring, Routine (RTCR)
Is Health Based :	N
Is Major Violation :	Y
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	1990 PIERCE, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	10/01/2019
Enforcement Action Description :	State Compliance achieved
Admin Name :	KOLO, BLAKE
Email Address :	N/R

RTC Enforcement ID :	201000915
Violation ID :	1940701
Submission Year :	2020
Violation First Reported Date :	12/04/2019
Contaminant Name :	Revised Total Coliform Rule
Rule Family :	Total Coliform Rules
Rule Group :	Microbials
Rule Name :	Revised Total Coliform Rule
Violation Type :	Monitoring, Routine (RTCR)
Is Health Based :	N
Is Major Violation :	Y
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	1990 PIERCE, BIRMINGHAM, 48009
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	10/01/2019
Enforcement Action Description :	State Public Notification requested
Admin Name :	KOLO, BLAKE
Email Address :	N/R

Map Id: 76
 Direction: SW
 Distance: 0.780 mi.
 Actual: 4117.092 ft.
 Elevation: 0.142 mi. / 751.424 ft.
 Relative: Lower

Site Name : MI2002872 | MI7220028
 1990 PIERCE
 BIRMINGHAM, MI 48009
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3394760
EPA ID: N/R

PWS ENF (**cont.**)

RTC Enforcement ID : 41015771
 Violation ID : 9613495
 Submission Year : 2020
 Violation First Reported Date : 03/28/1996
 Contaminant Name : Coliform (TCR)
 Rule Family : Total Coliform Rules
 Rule Group : Microbials
 Rule Name : Total Coliform Rule
 Violation Type : Monitoring, Routine Major (TCR)
 Is Health Based : N
 Is Major Violation : N/R
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 1990 PIERCE, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 12/01/2003
 Enforcement Action Description : State Compliance achieved
 Admin Name : KOLO, BLAKE
 Email Address : N/R

RTC Enforcement ID : 984002646
 Violation ID : 9613496
 Submission Year : 2020
 Violation First Reported Date : 03/28/1996
 Contaminant Name : Nitrate
 Rule Family : Inorganic Chemicals
 Rule Group : Chemicals
 Rule Name : Nitrates
 Violation Type : Monitoring, Regular
 Is Health Based : N
 Is Major Violation : Y
 Severity Indicator Count : N/R
 Public Notification Tier : 3
 Address Line 1 : 1990 PIERCE, BIRMINGHAM, 48009
 Address Line 2 : N/R
 Compliance Status : Returned to Compliance
 RTC Date : 09/21/1998
 Enforcement Action Description : State Compliance achieved
 Admin Name : KOLO, BLAKE
 Email Address : N/R

Map Id: N77
Direction: E
Distance: 0.781 mi.
Actual: 4123.358 ft.
Elevation: 0.14 mi. / 739.226 ft.
Relative: Lower

Site Name : T-L TWR
42.541061, -83.190372
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3330702
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026363
Obstacle Type : T-L TWR
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00093
Above Mean Sea Level Height (Feet) : 00831
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 27.82N
Longitude : 083 11 25.34W

Map Id: O78
Direction: E
Distance: 0.787 mi.
Actual: 4155.543 ft.
Elevation: 0.14 mi. / 738.376 ft.
Relative: Lower

Site Name : POLE
42.542825, -83.190222
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3330120
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026445
Obstacle Type : POLE
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00039
Above Mean Sea Level Height (Feet) : 00777
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 34.17N
Longitude : 083 11 24.80W

Geological Landscape Section Map Findings

2021

Map Id: N79
Direction: E
Distance: 0.796 mi.
Actual: 4200.392 ft.
Elevation: 0.14 mi. / 737.972 ft.
Relative: Lower

Site Name : T-L TWR
42.541314, -83.190058
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

EnviroSite ID: 3326553
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026468
Obstacle Type : T-L TWR
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00039
Above Mean Sea Level Height (Feet) : 00776
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 28.73N
Longitude : 083 11 24.21W

Map Id: O80
Direction: E
Distance: 0.814 mi.
Actual: 4299.867 ft.
Elevation: 0.14 mi. / 738.609 ft.
Relative: Lower

Site Name : BLDG
42.543567, -83.189767
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

EnviroSite ID: 3323365
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026362
Obstacle Type : BLDG
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00041
Above Mean Sea Level Height (Feet) : 00779
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 36.84N
Longitude : 083 11 23.16W

2021

Envirosite ID: 3325235
EPA ID: N/R

Date of Action :	2013-08-07
Action :	Add
FAA Study Number :	N/R
OBS Number :	26-026433
Obstacle Type :	POLE
City Name :	TROY
State Identifier :	MI
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00039
Above Mean Sea Level Height (Feet) :	00776
Horizontal Accuracy :	+50'
Vertical Accuracy :	+20'
Latitude :	42 32 34.61N
Longitude :	083 11 22.16W

Envirosite ID: 11671990
EPA ID: N/R

[illegible]

Map Id: 82
 Direction: SSE
 Distance: 0.828 mi.
 Actual: 4371.652 ft.
 Elevation: 0.141 mi. / 743.894 ft.
 Relative: Lower

Site Name : 423147083121301
 42.529757, -83.2035405
 MI
Database(s) : [NWIS] (*cont.*)

Envirosite ID: 11671990
EPA ID: N/R

NWIS (*cont.*)

Data Reliability :	Data have been checked by the reporting agency.
Data-other GW Files :	YNNNNNNN
National Aquifer :	Sand and gravel aquifers (glaciated regions)
Local Aquifer :	Pleistocene Series
Local Aquifer Type :	N/R
Well Depth :	194
Hole Depth :	N/R
Source of Depth Data :	N/R
Project Number :	N/R
Real-Time Data Flag :	0
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	0
Water-Quality Data Begin Date :	N/R
Water-Quality Data End Date :	N/R
Water-Quality Data Count :	1
Field Water-Level Data Begin Date :	--
Field Water-Level Data End Date :	--
Field Water-Level Data Count :	0
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	0
Latitude :	42.52975700
Longitude :	-83.20354050
Last Date in Agency List :	03/27/2020

Map Id: P83
 Direction: E
 Distance: 0.831 mi.
 Actual: 4388.713 ft.
 Elevation: 0.14 mi. / 737.871 ft.
 Relative: Lower

Site Name : BLDG
 42.542636, -83.189342
 TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3323137
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-08-07
Action :	Add
FAA Study Number :	N/R
OBS Number :	26-026449
Obstacle Type :	BLDG
City Name :	TROY
State Identifier :	MI
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00037
Above Mean Sea Level Height (Feet) :	00774
Horizontal Accuracy :	+ -50'
Vertical Accuracy :	+ -20'
Latitude :	42 32 33.49N

Map Id: P83
 Direction: E
 Distance: 0.831 mi.
 Actual: 4388.713 ft.
 Elevation: 0.14 mi. / 737.871 ft.
 Relative: Lower

Site Name : BLDG
 42.542636, -83.189342
 TROY, MI
Database(s) : [DIGITAL OBSTACLE] (**cont.**)

Envirosite ID: 3323137
EPA ID: N/R

DIGITAL OBSTACLE (**cont.**)

Longitude : 083 11 21.63W

Map Id: Q84
 Direction: E
 Distance: 0.841 mi.
 Actual: 4440.353 ft.
 Elevation: 0.14 mi. / 737.123 ft.
 Relative: Lower

Site Name : POLE
 42.542342, -83.189136
 TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3329241
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
 Action : Add
 FAA Study Number : N/R
 OBS Number : 26-026452
 Obstacle Type : POLE
 City Name : TROY
 State Identifier : MI
 Country Identifier : USA
 Type of Lighting : Unknown
 Verification Status : Verified
 Quantity : 1
 Mark Indicator : Unknown
 Above Ground Level Height (Feet) : 00039
 Above Mean Sea Level Height (Feet) : 00776
 Horizontal Accuracy : +-50'
 Vertical Accuracy : +-20'
 Latitude : 42 32 32.43N
 Longitude : 083 11 20.89W

Map Id: O85
 Direction: E
 Distance: 0.842 mi.
 Actual: 4445.045 ft.
 Elevation: 0.14 mi. / 737.198 ft.
 Relative: Lower

Site Name : POLE
 42.543261, -83.189183
 TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3325056
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
 Action : Add
 FAA Study Number : N/R
 OBS Number : 26-026434
 Obstacle Type : POLE
 City Name : TROY
 State Identifier : MI
 Country Identifier : USA

Map Id: O85
 Direction: E
 Distance: 0.842 mi.
 Actual: 4445.045 ft.
 Elevation: 0.14 mi. / 737.198 ft.
 Relative: Lower

Site Name : POLE
 42.543261, -83.189183
 TROY, MI
Database(s) : [DIGITAL OBSTACLE] (**cont.**)

Envirosite ID: 3325056
EPA ID: N/R

DIGITAL OBSTACLE (**cont.**)

Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00039
Above Mean Sea Level Height (Feet) :	00776
Horizontal Accuracy :	+ -50'
Vertical Accuracy :	+ -20'
Latitude :	42 32 35.74N
Longitude :	083 11 21.06W

Map Id: R86
 Direction: E
 Distance: 0.844 mi.
 Actual: 4457.840 ft.
 Elevation: 0.14 mi. / 737.136 ft.
 Relative: Lower

Site Name : POLE
 42.543769, -83.189208
 TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3325077
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-08-07
Action :	Add
FAA Study Number :	N/R
OBS Number :	26-026425
Obstacle Type :	POLE
City Name :	TROY
State Identifier :	MI
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00039
Above Mean Sea Level Height (Feet) :	00776
Horizontal Accuracy :	+ -50'
Vertical Accuracy :	+ -20'
Latitude :	42 32 37.57N
Longitude :	083 11 21.15W

Geological Landscape Section Map Findings

2021

Map Id: 87
Direction: SE
Distance: 0.845 mi.
Actual: 4459.579 ft.
Elevation: 0.14 mi. / 737.175 ft.
Relative: Lower

Site Name : MI2012347 | MI4720123
32820 WOODWARD AVE
ROYAL OAK, MI 48073
Database(s) : [PWS, PWS ENF]

EnviroSite ID: 3352541
EPA ID: N/R

PWS

Facility Address : 32820 WOODWARD AVE, ROYAL OAK, MI 48073

PWS ID : MI4720123
PWS Type : Non-Transient non-community system
PWS Name : BRIGHTON GATE COMMONS
Activity Status : Active
Primary Source : Ground water
Submission Year : 2019
Submission Year Quarter : 2019Q1
Population Served Count : 600
Service Connections Count : 10
Population Category 2 : <10,000
Population Category 3 : <=3300
Population Category 4 : <10K
Population Category 5 : 501-3,300
Population Category 11 : 501-1,000
Submission Quarter : 1
Submission Status Code : Y
First Reported Date : 01/18/1984
Last Reported Date : 03/28/2019
Deactivation Date : N/R
GW or SW : Groundwater
Is Grant Eligible : Y
Is Outstanding Performer : N/R
Is School or Daycare : N
Is Source Water Protected : N/R
Primacy Agency : Michigan
Primacy Type : State
Org Name : 2012347
EPA Region : Region 5
Admin Name : NAJIB SAMONA - SAMONA PROPERTIES
Owner Type : Private
Phone Number : 2485658582
Phone Ext Number : N/R
Alt Phone Number : N/R
Email Address : N/R
Fax Number : N/R
Is Wholesaler : N
LT2 Schedule Category : N/R
NPM Candidate : Y
CDS ID : N/R
DBPR Schedule Category : N/R
Outstanding Performer Date : N/R
Season Begin Date : 1-Jan
Season End Date : 31-Dec
Source Water Protection Date : N/R
Seasonal Startup System : N/R
Reduced Monitoring Begin Date : N/R
Reduced Monitoring End Date : N/R
Reduced RTCR Monitoring : N/R
Last Date in Agency List : 05/16/2019

Facility Address : 32820 WOODWARD AVE, ROYAL OAK, MI 48073

Map Id: 87
 Direction: SE
 Distance: 0.845 mi.
 Actual: 4459.579 ft.
 Elevation: 0.14 mi. / 737.175 ft.
 Relative: Lower

Site Name : MI2012347 | MI4720123
 32820 WOODWARD AVE
 ROYAL OAK, MI 48073
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3352541
EPA ID: N/R

PWS (**cont.**)

PWS ID :	MI2012347
PWS Type :	Non-Transient non-community system
PWS Name :	BRIGHTON GATE COMMONS
Activity Status :	Active
Primary Source :	Ground water
Submission Year :	2020
Submission Year Quarter :	2020Q3
Population Served Count :	600
Service Connections Count :	10
Population Category 2 :	<10,000
Population Category 3 :	<=3300
Population Category 4 :	<10K
Population Category 5 :	501-3,300
Population Category 11 :	501-1,000
Submission Quarter :	3
Submission Status Code :	Y
First Reported Date :	01/18/1984
Last Reported Date :	09/17/2020
Deactivation Date :	N/R
GW or SW :	Groundwater
Is Grant Eligible :	Y
Is Outstanding Performer :	N/R
Is School or Daycare :	N
Is Source Water Protected :	-
Primacy Agency :	Michigan
Primacy Type :	State
Org Name :	SAMONA PROPERTIES, NAJIB SAMONA
EPA Region :	Region 5
Admin Name :	SAMONA PROPERTIES, NAJIB SAMONA
Owner Type :	Private
Phone Number :	248-565-8582
Phone Ext Number :	14
Alt Phone Number :	N/R
Email Address :	N/R
Fax Number :	N/R
Is Wholesaler :	N
LT2 Schedule Category :	N/R
NPM Candidate :	Y
CDS ID :	N/R
DBPR Schedule Category :	N/R
Outstanding Performer Date :	N/R
Season Begin Date :	01-01
Season End Date :	12-31
Source Water Protection Date :	N/R
Seasonal Startup System :	N/R
Reduced Monitoring Begin Date :	N/R
Reduced Monitoring End Date :	N/R
Reduced RTCR Monitoring :	N/R
Last Date in Agency List :	10/26/2020

PWS ENF

Facility Address :	32820 WOODWARD AVE, ROYAL OAK, MI 48073
PWS ID :	MI4720123
PWS Name :	BRIGHTON GATE COMMONS

Map Id: 87
 Direction: SE
 Distance: 0.845 mi.
 Actual: 4459.579 ft.
 Elevation: 0.14 mi. / 737.175 ft.
 Relative: Lower

Site Name : MI2012347 | MI4720123
 32820 WOODWARD AVE
 ROYAL OAK, MI 48073
Database(s) : [PWS, PWS ENF] (**cont.**)

EnviroSite ID: 3352541
EPA ID: N/R

PWS ENF (**cont.**)

EPA Region :	Region 5
Primacy Agency :	Michigan
PWS Type :	Non-Transient non-community system
Primacy Type :	State
Primary Source :	Ground water
Activity Status :	Active
Deactivation Date :	N/R
Owner Type :	Private
Phone Number :	2485658582
Last Date in Agency List :	05/16/2019

Violation Details

RTC Enforcement ID :	021001941
Violation ID :	0112720
Submission Year :	2019
Violation First Reported Date :	03/14/2001
Contaminant Name :	Lead and Copper Rule
Rule Family :	Lead and Copper Rule
Rule Group :	Chemicals
Rule Name :	Lead and Copper Rule
Violation Type :	Initial Tap Sampling for Pb and Cu
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	32820 WOODWARD AVE, ROYAL OAK, 48073
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	12/05/2001
Enforcement Action Description :	State Compliance achieved
Admin Name :	NAJIB SAMONA - SAMONA PROPERTIES
Email Address :	N/R

Facility Address : 32820 WOODWARD AVE, ROYAL OAK, MI 48073

PWS ID :	MI2012347
PWS Name :	BRIGHTON GATE COMMONS
EPA Region :	Region 5
Primacy Agency :	Michigan
PWS Type :	Non-Transient non-community system
Primacy Type :	State
Primary Source :	Ground water
Activity Status :	Active
Deactivation Date :	N/R
Owner Type :	Private
Phone Number :	248-565-8582
Last Date in Agency List :	10/26/2020

Violation Details

RTC Enforcement ID :	21001941
Violation ID :	112720

Map Id: 87
 Direction: SE
 Distance: 0.845 mi.
 Actual: 4459.579 ft.
 Elevation: 0.14 mi. / 737.175 ft.
 Relative: Lower

Site Name : MI2012347 | MI4720123
 32820 WOODWARD AVE
 ROYAL OAK, MI 48073
Database(s) : [PWS, PWS ENF] (**cont.**)

Envirosite ID: 3352541
EPA ID: N/R

PWS ENF (**cont.**)

Submission Year :	2020
Violation First Reported Date :	03/14/2001
Contaminant Name :	Lead and Copper Rule
Rule Family :	Lead and Copper Rule
Rule Group :	Chemicals
Rule Name :	Lead and Copper Rule
Violation Type :	Initial Tap Sampling for Pb and Cu
Is Health Based :	N
Is Major Violation :	N/R
Severity Indicator Count :	N/R
Public Notification Tier :	3
Address Line 1 :	32820 WOODWARD AVE, ROYAL OAK, 48073
Address Line 2 :	N/R
Compliance Status :	Returned to Compliance
RTC Date :	12/05/2001
Enforcement Action Description :	State Compliance achieved
Admin Name :	SAMONA PROPERTIES, NAJIB SAMONA
Email Address :	N/R

Map Id: P88
 Direction: E
 Distance: 0.845 mi.
 Actual: 4462.531 ft.
 Elevation: 0.14 mi. / 737.123 ft.
 Relative: Lower

Site Name : POLE
 42.542864, -83.189081
 TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3330128
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-08-07
Action :	Add
FAA Study Number :	N/R
OBS Number :	26-026444
Obstacle Type :	POLE
City Name :	TROY
State Identifier :	MI
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00038
Above Mean Sea Level Height (Feet) :	00775
Horizontal Accuracy :	+50'
Vertical Accuracy :	+20'
Latitude :	42 32 34.31N
Longitude :	083 11 20.69W

Map Id: Q89
Direction: E
Distance: 0.847 mi.
Actual: 4473.916 ft.
Elevation: 0.14 mi. / 737.651 ft.
Relative: Lower

Site Name : BLDG
42.541306, -83.189039
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

EnviroSite ID: 3323377
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026479
Obstacle Type : BLDG
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00054
Above Mean Sea Level Height (Feet) : 00791
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 28.70N
Longitude : 083 11 20.54W

Map Id: Q90
Direction: E
Distance: 0.858 mi.
Actual: 4531.856 ft.
Elevation: 0.139 mi. / 736.391 ft.
Relative: Lower

Site Name : POLE
42.542175, -83.188792
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

EnviroSite ID: 3330119
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026460
Obstacle Type : POLE
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00037
Above Mean Sea Level Height (Feet) : 00773
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 31.83N
Longitude : 083 11 19.65W

Map Id: R91
Direction: E
Distance: 0.861 mi.
Actual: 4543.929 ft.
Elevation: 0.139 mi. / 736.463 ft.
Relative: Lower

Site Name : POLE
42.543947, -83.188917
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

EnviroSite ID: 3325237
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-08-07
Action :	Add
FAA Study Number :	N/R
OBS Number :	26-026416
Obstacle Type :	POLE
City Name :	TROY
State Identifier :	MI
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00036
Above Mean Sea Level Height (Feet) :	00771
Horizontal Accuracy :	+/-50'
Vertical Accuracy :	+/-20'
Latitude :	42 32 38.21N
Longitude :	083 11 20.10W

Map Id: R92
Direction: E
Distance: 0.867 mi.
Actual: 4575.917 ft.
Elevation: 0.139 mi. / 736.44 ft.
Relative: Lower

Site Name : POLE
42.544461, -83.188908
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

EnviroSite ID: 3330135
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-08-07
Action :	Add
FAA Study Number :	N/R
OBS Number :	26-026405
Obstacle Type :	POLE
City Name :	TROY
State Identifier :	MI
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00036
Above Mean Sea Level Height (Feet) :	00772
Horizontal Accuracy :	+/-50'
Vertical Accuracy :	+/-20'
Latitude :	42 32 40.06N
Longitude :	083 11 20.07W

Map Id: Q93
Direction: E
Distance: 0.873 mi.
Actual: 4607.315 ft.
Elevation: 0.14 mi. / 737.057 ft.
Relative: Lower

Site Name : POLE
42.542528, -83.188522
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3329137
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026446
Obstacle Type : POLE
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00036
Above Mean Sea Level Height (Feet) : 00772
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 33.10N
Longitude : 083 11 18.68W

Map Id: Q94
Direction: E
Distance: 0.874 mi.
Actual: 4613.024 ft.
Elevation: 0.14 mi. / 737.52 ft.
Relative: Lower

Site Name : POLE
42.541847, -83.188492
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3325231
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026478
Obstacle Type : POLE
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00037
Above Mean Sea Level Height (Feet) : 00773
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 30.65N
Longitude : 083 11 18.57W

Map Id: R95
Direction: E
Distance: 0.874 mi.
Actual: 4615.189 ft.
Elevation: 0.14 mi. / 737.871 ft.
Relative: Lower

Site Name : POLE
42.543281, -83.18855
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

EnviroSite ID: 3330205
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026435
Obstacle Type : POLE
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00037
Above Mean Sea Level Height (Feet) : 00774
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 35.81N
Longitude : 083 11 18.78W

Map Id: R96
Direction: E
Distance: 0.878 mi.
Actual: 4637.991 ft.
Elevation: 0.14 mi. / 737.671 ft.
Relative: Lower

Site Name : POLE
42.543789, -83.188536
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

EnviroSite ID: 3329246
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026426
Obstacle Type : POLE
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00036
Above Mean Sea Level Height (Feet) : 00773
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 37.64N
Longitude : 083 11 18.73W

Geological Landscape Section Map Findings

2021

Map Id: S97
Direction: WNW
Distance: 0.880 mi.
Actual: 4646.258 ft.
Elevation: 0.137 mi. / 722.257 ft.
Relative: Lower

Site Name : 04166000
42.5458678, -83.2235418
MI
Database(s) : [NWIS]

Envirosite ID: 11668785
EPA ID: N/R

NWIS

Site Identification Number :	04166000
Site Type :	Stream
Station Name :	RIVER ROUGE AT BIRMINGHAM, MI
Agency :	U.S. Geological Survey
District :	Michigan
State :	MI
County :	Oakland County
Country :	USA
Land Net Location :	NWS36 T02N R10E M
Name of Location Map :	BIRMINGHAM
Scale of Location Map :	24000
Altitude of Gage/Land Surface :	715.94
Method Altitude Determined :	Level or other surveyed method.
Altitude Accuracy :	.01
Altitude Datum :	National Geodetic Vertical Datum of 1929
Hydrologic Unit :	Detroit
Drainage Basin :	N/R
Topographic Setting :	N/R
Flags for the Type of Data Collected:	ANNINNNNNNNNNNNNNNNNNNNNNNNNNNNNNNA
Flags for Instruments at Site :	YNNNYNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Date of First Construction :	N/R
Date Site Established or Inventoried:	N/R
Drainage Area :	33.3
Contributing Drainage Area :	N/R
Data Reliability :	N/R
Data-other GW Files :	NYNNNNNNN
National Aquifer :	N/R
Local Aquifer :	N/R
Local Aquifer Type :	N/R
Well Depth :	N/R
Hole Depth :	N/R
Source of Depth Data :	N/R
Project Number :	442600100
Real-Time Data Flag :	1
Peak-Streamflow Data Begin Date :	12/07/1950
Peak-Streamflow Data End Date :	08/13/2019
Peak-Streamflow Data Count :	69
Water-Quality Data Begin Date :	04/14/1966
Water-Quality Data End Date :	06/28/2017
Water-Quality Data Count :	26
Field Water-Level Data Begin Date :	--
Field Water-Level Data End Date :	--
Field Water-Level Data Count :	0
Site-Visit Data Begin Date :	05/10/1956
Site-Visit Data End Date :	03/03/2020
Site-Visit Data Count :	283
Latitude :	42.54586780
Longitude :	-83.22354180
Last Date in Agency List :	03/27/2020

Map Id: R98
Direction: E
Distance: 0.883 mi.
Actual: 4663.680 ft.
Elevation: 0.14 mi. / 737.618 ft.
Relative: Lower

Site Name : POLE
42.5443, -83.188539
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3325124
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026406
Obstacle Type : POLE
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00038
Above Mean Sea Level Height (Feet) : 00774
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 39.48N
Longitude : 083 11 18.74W

Map Id: Q99
Direction: E
Distance: 0.884 mi.
Actual: 4664.959 ft.
Elevation: 0.14 mi. / 737.461 ft.
Relative: Lower

Site Name : POLE
42.542192, -83.188297
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3329710
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026459
Obstacle Type : POLE
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00031
Above Mean Sea Level Height (Feet) : 00768
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 31.89N
Longitude : 083 11 17.87W

2021

Site Name : 423246083132501
42.54614559, -83.2235418
MI

Database(s) : [NWIS]

Envirosite ID: 11671156
EPA ID: N/R

NWIS

[illegible]

2021

Site Name : 423153083114402
42.53142369, -83.1954848
MI

Database(s) : [NWIS]

Envirosite ID: 11670789
EPA ID: N/R

NWIS

[illegible]

Map Id: Q102
Direction: E
Distance: 0.890 mi.
Actual: 4697.407 ft.
Elevation: 0.139 mi. / 735.102 ft.
Relative: Lower

Site Name : POLE
42.541128, -83.188222
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3325301
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-08-07
Action :	Add
FAA Study Number :	N/R
OBS Number :	26-026483
Obstacle Type :	POLE
City Name :	TROY
State Identifier :	MI
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00040
Above Mean Sea Level Height (Feet) :	00775
Horizontal Accuracy :	+ -50'
Vertical Accuracy :	+ -20'
Latitude :	42 32 28.06N
Longitude :	083 11 17.60W

Map Id: R103
Direction: E
Distance: 0.899 mi.
Actual: 4744.520 ft.
Elevation: 0.14 mi. / 736.631 ft.
Relative: Lower

Site Name : POLE
42.544478, -83.188275
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3325127
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-08-07
Action :	Add
FAA Study Number :	N/R
OBS Number :	26-026411
Obstacle Type :	POLE
City Name :	TROY
State Identifier :	MI
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00040
Above Mean Sea Level Height (Feet) :	00776
Horizontal Accuracy :	+ -50'
Vertical Accuracy :	+ -20'
Latitude :	42 32 40.12N
Longitude :	083 11 17.79W

Map Id: Q104
Direction: E
Distance: 0.899 mi.
Actual: 4748.817 ft.
Elevation: 0.139 mi. / 735.574 ft.
Relative: Lower

Site Name : POLE
42.542372, -83.187989
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3325055
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026454
Obstacle Type : POLE
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00030
Above Mean Sea Level Height (Feet) : 00765
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 32.54N
Longitude : 083 11 16.76W

Map Id: R105
Direction: E
Distance: 0.900 mi.
Actual: 4751.836 ft.
Elevation: 0.139 mi. / 736.198 ft.
Relative: Lower

Site Name : POLE
42.543458, -83.188061
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3329243
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026436
Obstacle Type : POLE
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00028
Above Mean Sea Level Height (Feet) : 00764
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 36.45N
Longitude : 083 11 17.02W

Map Id: Q106
Direction: E
Distance: 0.900 mi.
Actual: 4752.164 ft.
Elevation: 0.139 mi. / 734.974 ft.
Relative: Lower

Site Name : POLE
42.541603, -83.187983
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

EnviroSite ID: 3325047
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026477
Obstacle Type : POLE
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00039
Above Mean Sea Level Height (Feet) : 00775
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 29.77N
Longitude : 083 11 16.74W

Map Id: R107
Direction: E
Distance: 0.902 mi.
Actual: 4760.989 ft.
Elevation: 0.14 mi. / 736.726 ft.
Relative: Lower

Site Name : POLE
42.543969, -83.188106
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

EnviroSite ID: 3330130
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026415
Obstacle Type : POLE
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00028
Above Mean Sea Level Height (Feet) : 00763
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 38.29N
Longitude : 083 11 17.18W

2021

Site Name : 423242083132801
42.5450345, -83.22437508
MI

Database(s) : [NWIS]

Envirosite ID: 31324967
EPA ID: N/R

NWIS

[illegible]

Map Id: R109
Direction: E
Distance: 0.914 mi.
Actual: 4828.050 ft.
Elevation: 0.139 mi. / 736.093 ft.
Relative: Lower

Site Name : POLE
42.543286, -83.187756
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3325076
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026437
Obstacle Type : POLE
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00025
Above Mean Sea Level Height (Feet) : 00762
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 35.83N
Longitude : 083 11 15.92W

Map Id: T110
Direction: E
Distance: 0.915 mi.
Actual: 4830.379 ft.
Elevation: 0.14 mi. / 736.729 ft.
Relative: Lower

Site Name : BLDG
42.540794, -83.187764
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3323338
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026480
Obstacle Type : BLDG
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00058
Above Mean Sea Level Height (Feet) : 00793
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 26.86N
Longitude : 083 11 15.95W

Map Id: Q111
Direction: E
Distance: 0.918 mi.
Actual: 4846.160 ft.
Elevation: 0.139 mi. / 734.452 ft.
Relative: Lower

Site Name : POLE
42.542311, -83.187625
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3329240
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026453
Obstacle Type : POLE
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00026
Above Mean Sea Level Height (Feet) : 00761
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 32.32N
Longitude : 083 11 15.45W

Map Id: 112
Direction: ENE
Distance: 0.919 mi.
Actual: 4851.245 ft.
Elevation: 0.14 mi. / 738.543 ft.
Relative: Lower

Site Name : BLDG
42.545931, -83.188325
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3323262
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026376
Obstacle Type : BLDG
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00052
Above Mean Sea Level Height (Feet) : 00792
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 45.35N
Longitude : 083 11 17.97W

Map Id: R113
Direction: E
Distance: 0.921 mi.
Actual: 4862.663 ft.
Elevation: 0.14 mi. / 737.913 ft.
Relative: Lower

Site Name : POLE
42.544322, -83.187794
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3330206
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026407
Obstacle Type : POLE
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00026
Above Mean Sea Level Height (Feet) : 00763
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 39.56N
Longitude : 083 11 16.06W

Map Id: T114
Direction: E
Distance: 0.935 mi.
Actual: 4937.630 ft.
Elevation: 0.139 mi. / 734.469 ft.
Relative: Lower

Site Name : POLE
42.541417, -83.187303
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3329263
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action : 2013-08-07
Action : Add
FAA Study Number : N/R
OBS Number : 26-026476
Obstacle Type : POLE
City Name : TROY
State Identifier : MI
Country Identifier : USA
Type of Lighting : Unknown
Verification Status : Verified
Quantity : 1
Mark Indicator : Unknown
Above Ground Level Height (Feet) : 00040
Above Mean Sea Level Height (Feet) : 00773
Horizontal Accuracy : +-50'
Vertical Accuracy : +-20'
Latitude : 42 32 29.10N
Longitude : 083 11 14.29W

Map Id: T115
Direction: E
Distance: 0.936 mi.
Actual: 4944.618 ft.
Elevation: 0.139 mi. / 735.266 ft.
Relative: Lower

Site Name : POLE
42.541989, -83.187256
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

EnviroSite ID: 3326333
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-08-07
Action :	Add
FAA Study Number :	N/R
OBS Number :	26-026458
Obstacle Type :	POLE
City Name :	TROY
State Identifier :	MI
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00031
Above Mean Sea Level Height (Feet) :	00765
Horizontal Accuracy :	+50'
Vertical Accuracy :	+20'
Latitude :	42 32 31.16N
Longitude :	083 11 14.12W

Map Id: U116
Direction: E
Distance: 0.944 mi.
Actual: 4986.842 ft.
Elevation: 0.139 mi. / 735.656 ft.
Relative: Lower

Site Name : POLE
42.544647, -83.1874
TROY, MI
Database(s) : [DIGITAL OBSTACLE]

EnviroSite ID: 3325129
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-08-07
Action :	Add
FAA Study Number :	N/R
OBS Number :	26-026408
Obstacle Type :	POLE
City Name :	TROY
State Identifier :	MI
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00039
Above Mean Sea Level Height (Feet) :	00774
Horizontal Accuracy :	+50'
Vertical Accuracy :	+20'
Latitude :	42 32 40.73N
Longitude :	083 11 14.64W

Map Id: V117
 Direction: NE
 Distance: 0.945 mi.
 Actual: 4992.190 ft.
 Elevation: 0.145 mi. / 763.146 ft.
 Relative: Higher

Site Name : 63000004358
 42.554096, -83.19635
 MI
Database(s) : [WELLS - MI]

Envirosite ID: 12492783
EPA ID: N/R

WELLS - MI

Well ID :	63000004358
County :	Oakland
Permit Number :	N/R
Township :	Troy
Section/Township/Range :	SEC: 30, TWP: 02N, RNG: 11E
Owner Name :	GRACE EVANGELICAL FREE CHURCH
Well Address :	2898 N ADAMS, BIRMINGHAM, 48008
Well Depth (Feet) :	111.3
Well Type :	Household
Other Well Type :	N/R
Well Status :	N/R
Other Well Status :	N/R
Water Supply Serial Number :	0
Well Number :	N/R
Driller ID :	63-0025
Drilling Method :	Cable Tool
Other Method :	N/R
Construction Date :	1986-04-15
Case Type :	Unknown
Other Case Type :	N/R
Well Casing Diameter (Inches) :	4
Depth of Casing (Feet) :	105.7
Screen Start Depth (Feet) :	103.42
Screen End Depth (Feet) :	111.33
Static Water Level (Feet) :	40
Flowing :	Not a flowing well
Aquifer Type :	Well draws water from the glacial drift
Test Depth (Feet) :	75
Test Hours (Hour) :	1
Test Rate (Gallons per Minute) :	20
Test Method :	UNK
Other Test Method :	N/R
Grouted :	N
Pump Capacity (Gallons per Minute) :	0
Method of Collection	
(Latitude/Longitude):	027
Elevation (Feet) :	0
Method of Collection (Elevation) :	N/R
Within :	Y
Within Section :	Yes, well point is within the stated land survey section
Location Match :	Yes, well point is within the stated Tier/Range
Section Distance :	The well point is within 200 ft of the stated land survey section
Elevation (DEM) :	764
Elevation Difference (Feet) :	0
Landsystem Group Polygon :	ICE-MARGINAL TILL
Depth Flag :	N/R
Elevation Flag :	N/R
SWL Flag :	N/R
Specific Capacity :	N/R
Aquifer Code :	Drift (Glacial) Well
Rock Top (Feet) :	N/R
Thickness of All Drift Strata :	N/R
Confined Horizontal Hydraulic :	N/R
Confined Vertical Hydraulic :	N/R
Confined Transmissivity :	N/R
Thickness of All Drift Strata 2 :	N/R
Unconfined Horizontal Hydraulic :	N/R

2021

Envirosite ID: 12492783
EPA ID: N/R

Unconfined Vertical Hydraulic :	N/R
Unconfined Transmissivity :	N/R
Thickness of All Bedrock Strata :	N/R
Horizontal Hydraulic (Bedrock) :	N/R
Vertical Hydraulic (Bedrock) :	N/R
Transmissivity for Bedrock Units :	N/R
Thickness of All Drift Strata (Ground Surface):	N/R
Horizontal Hydraulic (Drift) :	N/R
Vertical Hydraulic (Drift) :	N/R
Transmissivity :	N/R
Latitude :	42.554096
Longitude :	-83.19635
Last Date in Agency List :	2020-03-19

Envirosite ID: 11679449
EPA ID: N/R

[illegible]

Map Id: V118
 Direction: NE
 Distance: 0.952 mi.
 Actual: 5025.228 ft.
 Elevation: 0.145 mi. / 763.901 ft.
 Relative: Higher

Site Name : 423314083114501
 42.5539233, -83.1957634
 MI
Database(s) : [NWIS] (*cont.*)

Envirosite ID: 11679449
EPA ID: N/R

NWIS (*cont.*)

Local Aquifer Type :	N/R
Well Depth :	240
Hole Depth :	N/R
Source of Depth Data :	N/R
Project Number :	N/R
Real-Time Data Flag :	0
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	0
Water-Quality Data Begin Date :	01/14/1947
Water-Quality Data End Date :	01/14/1947
Water-Quality Data Count :	1
Field Water-Level Data Begin Date :	1928-09-01
Field Water-Level Data End Date :	1928-09-01
Field Water-Level Data Count :	1
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	0
Latitude :	42.55392330
Longitude :	-83.19576340
Last Date in Agency List :	03/27/2020

Map Id: R119
 Direction: E
 Distance: 0.954 mi.
 Actual: 5039.631 ft.
 Elevation: 0.139 mi. / 733.806 ft.
 Relative: Lower

Site Name : POLE
 42.543989, -83.187064
 TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3325313
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-08-07
Action :	Add
FAA Study Number :	N/R
OBS Number :	26-026419
Obstacle Type :	POLE
City Name :	TROY
State Identifier :	MI
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00028
Above Mean Sea Level Height (Feet) :	00764
Horizontal Accuracy :	+ -50'
Vertical Accuracy :	+ -20'
Latitude :	42 32 38.36N
Longitude :	083 11 13.43W

2021

Envirosite ID: 3325281
EPA ID: N/R

Date of Action :	2013-08-07
Action :	Add
FAA Study Number :	N/R
OBS Number :	26-026475
Obstacle Type :	POLE
City Name :	TROY
State Identifier :	MI
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00040
Above Mean Sea Level Height (Feet) :	00775
Horizontal Accuracy :	+ -50'
Vertical Accuracy :	+ -20'
Latitude :	42 32 29.30N
Longitude :	083 11 11.53W

Envirosite ID: 11673639
EPA ID: N/R

[illegible]

Map Id: 121
 Direction: SE
 Distance: 0.975 mi.
 Actual: 5148.588 ft.
 Elevation: 0.139 mi. / 735.335 ft.
 Relative: Lower

Site Name : 423147083114501
 42.52975705, -83.19576249
 MI
Database(s) : [NWIS] (**cont.**)

Envirosite ID: 11673639
EPA ID: N/R

NWIS (**cont.**)

Data Reliability :	Data have been checked by the reporting agency.
Data-other GW Files :	YNNNNNNN
National Aquifer :	Sand and gravel aquifers (glaciated regions)
Local Aquifer :	Pleistocene Series
Local Aquifer Type :	N/R
Well Depth :	194
Hole Depth :	N/R
Source of Depth Data :	N/R
Project Number :	N/R
Real-Time Data Flag :	0
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	0
Water-Quality Data Begin Date :	09/30/1952
Water-Quality Data End Date :	09/30/1952
Water-Quality Data Count :	1
Field Water-Level Data Begin Date :	--
Field Water-Level Data End Date :	--
Field Water-Level Data Count :	0
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	0
Latitude :	42.52975705
Longitude :	-83.19576249
Last Date in Agency List :	03/27/2020

Map Id: U122
 Direction: E
 Distance: 0.975 mi.
 Actual: 5149.933 ft.
 Elevation: 0.139 mi. / 733.041 ft.
 Relative: Lower

Site Name : POLE
 42.544669, -83.186789
 TROY, MI
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 3325130
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2013-08-07
Action :	Add
FAA Study Number :	N/R
OBS Number :	26-026409
Obstacle Type :	POLE
City Name :	TROY
State Identifier :	MI
Country Identifier :	USA
Type of Lighting :	Unknown
Verification Status :	Verified
Quantity :	1
Mark Indicator :	Unknown
Above Ground Level Height (Feet) :	00040
Above Mean Sea Level Height (Feet) :	00773
Horizontal Accuracy :	+ -50'
Vertical Accuracy :	+ -20'
Latitude :	42 32 40.81N

Geological Landscape Section Map Findings

2021

Map Id: U122
Direction: E
Distance: 0.975 mi.
Actual: 5149.933 ft.
Elevation: 0.139 mi. / 733.041 ft.
Relative: Lower

Site Name : POLE
42.544669, -83.186789
TROY, MI
Database(s) : [DIGITAL OBSTACLE] (**cont.**)

Envirosite ID: 3325130
EPA ID: N/R

DIGITAL OBSTACLE (**cont.**)

Longitude : 083 11 12.44W

Map Id: W123
Direction: NNW
Distance: 0.992 mi.
Actual: 5238.712 ft.
Elevation: 0.149 mi. / 785.226 ft.
Relative: Higher

Site Name : 63000004244
42.555991, -83.213175
MI
Database(s) : [WELLS - MI]

Envirosite ID: 12378146
EPA ID: N/R

WELLS - MI

Well ID :	63000004244
County :	Oakland
Permit Number :	N/R
Township :	Bloomfield
Section/Township/Range :	SEC: 25, TWP: 02N, RNG: 10E
Owner Name :	DR SAMIR M RAGHEB
Well Address :	1130 OXFORD, BLOOMFIELD HILLS, 48304
Well Depth (Feet) :	116
Well Type :	Household
Other Well Type :	N/R
Well Status :	N/R
Other Well Status :	N/R
Water Supply Serial Number :	0
Well Number :	N/R
Driller ID :	63-0025
Drilling Method :	Cable Tool
Other Method :	N/R
Construction Date :	1969-02-05
Case Type :	Unknown
Other Case Type :	N/R
Well Casing Diameter (Inches) :	6
Depth of Casing (Feet) :	113.3
Screen Start Depth (Feet) :	111
Screen End Depth (Feet) :	116
Static Water Level (Feet) :	48
Flowing :	Not a flowing well
Aquifer Type :	Well draws water from the glacial drift
Test Depth (Feet) :	100
Test Hours (Hour) :	5
Test Rate (Gallons per Minute) :	55
Test Method :	UNK
Other Test Method :	N/R
Grouted :	N
Pump Capacity (Gallons per Minute) :	0
Method of Collection	
(Latitude/Longitude):	Address Matching-House Number
Elevation (Feet) :	748
Method of Collection (Elevation) :	Topographic Map Interpolation
Within :	Y
Within Section :	Yes, well point is within the stated land survey section
Location Match :	Yes, well point is within the stated Tier/Range

Geological Landscape Section Map Findings

2021

Map Id: W123
Direction: NNW
Distance: 0.992 mi.
Actual: 5238.712 ft.
Elevation: 0.149 mi. / 785.226 ft.
Relative: Higher

Site Name : 63000004244
42.555991, -83.213175
MI
Database(s) : [WELLS - MI] (**cont.**)

Envirosite ID: 12378146
EPA ID: N/R

WELLS - MI (**cont.**)

Section Distance :	The well point is within 200 ft of the stated land survey section
Elevation (DEM) :	781
Elevation Difference (Feet) :	33
Landsystem Group Polygon :	LACUSTRINE FINE
Depth Flag :	N/R
Elevation Flag :	N/R
SWL Flag :	N/R
Specific Capacity :	N/R
Aquifer Code :	Drift (Glacial) Well
Rock Top (Feet) :	N/R
Thickness of All Drift Strata :	6
Confined Horizontal Hydraulic :	17
Confined Vertical Hydraulic :	0.74626866
Confined Transmissivity :	102
Thickness of All Drift Strata 2 :	6
Unconfined Horizontal Hydraulic :	17
Unconfined Vertical Hydraulic :	0.74626866
Unconfined Transmissivity :	102
Thickness of All Bedrock Strata :	N/R
Horizontal Hydraulic (Bedrock) :	N/R
Vertical Hydraulic (Bedrock) :	N/R
Transmissivity for Bedrock Units :	N/R
Thickness of All Drift Strata (Ground Surface):	23
Horizontal Hydraulic (Drift) :	5.17391304
Vertical Hydraulic (Drift) :	0.91853035
Transmissivity :	119
Latitude :	42.55599085
Longitude :	-83.21317482
Last Date in Agency List :	2020-03-19

Map Id: W124
Direction: NNW
Distance: 0.994 mi.
Actual: 5246.488 ft.
Elevation: 0.148 mi. / 779.639 ft.
Relative: Higher

Site Name : 63000032902
42.555848, -83.213803
MI
Database(s) : [WELLS - MI]

Envirosite ID: 11871015
EPA ID: N/R

WELLS - MI

Well ID :	63000032902
County :	Oakland
Permit Number :	D6301900000
Township :	Bloomfield
Section/Township/Range :	SEC: 25, TWP: 02N, RNG: 10E
Owner Name :	Eric Vogler Construction
Well Address :	275 Abbey St., Birmingham, 48009
Well Depth (Feet) :	163
Well Type :	Household
Other Well Type :	N/R
Well Status :	Active
Other Well Status :	N/R

Map Id: W124
 Direction: NNW
 Distance: 0.994 mi.
 Actual: 5246.488 ft.
 Elevation: 0.148 mi. / 779.639 ft.
 Relative: Higher

Site Name : 63000032902
 42.555848, -83.213803
 MI
Database(s) : [WELLS - MI] (**cont.**)

Envirosite ID: 11871015
EPA ID: N/R

WELLS - MI (**cont.**)

Water Supply Serial Number :	0
Well Number :	N/R
Driller ID :	63-0025
Drilling Method :	Rotary
Other Method :	N/R
Construction Date :	1999-06-23
Case Type :	PVC Plastic
Other Case Type :	N/R
Well Casing Diameter (Inches) :	5
Depth of Casing (Feet) :	155
Screen Start Depth (Feet) :	155
Screen End Depth (Feet) :	163
Static Water Level (Feet) :	50
Flowing :	Not a flowing well
Aquifer Type :	Well draws water from the glacial drift
Test Depth (Feet) :	120
Test Hours (Hour) :	2
Test Rate (Gallons per Minute) :	16
Test Method :	Air
Other Test Method :	N/R
Grouted :	Y
Pump Capacity (Gallons per Minute) :	10
Method of Collection	
(Latitude/Longitude):	Address Matching-House Number
Elevation (Feet) :	0
Method of Collection (Elevation) :	N/R
Within :	Y
Within Section :	Yes, well point is within the stated land survey section
Location Match :	Yes, well point is within the stated Tier/Range
Section Distance :	The well point is within 200 ft of the stated land survey section
Elevation (DEM) :	781
Elevation Difference (Feet) :	0
Landsystem Group Polygon :	LACUSTRINE FINE
Depth Flag :	N/R
Elevation Flag :	N/R
SWL Flag :	N/R
Specific Capacity :	N/R
Aquifer Code :	Drift (Glacial) Well
Rock Top (Feet) :	N/R
Thickness of All Drift Strata :	10
Confined Horizontal Hydraulic :	1
Confined Vertical Hydraulic :	1
Confined Transmissivity :	10
Thickness of All Drift Strata 2 :	32
Unconfined Horizontal Hydraulic :	1
Unconfined Vertical Hydraulic :	1
Unconfined Transmissivity :	32
Thickness of All Bedrock Strata :	N/R
Horizontal Hydraulic (Bedrock) :	N/R
Vertical Hydraulic (Bedrock) :	N/R
Transmissivity for Bedrock Units :	N/R
Thickness of All Drift Strata (Ground Surface):	43
Horizontal Hydraulic (Drift) :	1
Vertical Hydraulic (Drift) :	1
Transmissivity :	43
Latitude :	42.555848

Map Id: W124
Direction: NNW
Distance: 0.994 mi.
Actual: 5246.488 ft.
Elevation: 0.148 mi. / 779.639 ft.
Relative: Higher

Site Name : 63000032902
42.555848, -83.213803
MI
Database(s) : [WELLS - MI] (**cont.**)

Envirosite ID: 11871015
EPA ID: N/R

WELLS - MI (**cont.**)

Longitude : -83.213803
Last Date in Agency List : 2020-03-19

RADON DATA:

STATE SOURCE: No Available Data

FEDERAL AREA RADON INFORMATION FOR: 48009

NUMBER OF SAMPLE SITES: 5

<u>Area:</u>	<u>Average Activity:</u>	<u>% <4 pCi/L:</u>	<u>% 4-20 pCi/L:</u>	<u>% >20 pCi/L:</u>
basement	1.78 pCi/L	100%	0%	0%

HIST PWS ENF

Historical Public Water Supply locations with Enforcement Violations

Environmental Protection Agency

(800) 426-4791

List of Safe Drinking Water Information Systems (SDWIS) with enforcement violations that are no longer in current agency list.

NWIS

National Water Information Systems

United States Geological Society

(703) 648-5953

Information on all water resources for the United States. This database contains all current and historical data for the nation.

PWS

Public Water Supply

Environmental Protection Agency

(800) 426-4791

Safe drinking water information Systems

PWS ENF

Public Water Supply locations with Enforcement Violations

Environmental Protection Agency

(800) 426-4791

Safe drinking water information Systems with enforcement violations

WELLS - MI

Registered Water Wells

Michigan Department of Environmental Quality

989-705-3420

State Registered Water Wells

FLOOD Q3

Flood data

Environmental Protection Agency

(202) 566-1667

Q3 Flood Data

HYDROLOGIC UNIT

Hydrologic Unit Maps

USGS

The United States Geological Survey created a hierarchical system of hydrologic units originally called regions, sub-regions, accounting units, and cataloging units. Each unit was assigned a unique Hydrologic Unit Code (HUC). As first implemented the system had 21 regions, 221 subregions, 378 accounting units, and 2,264 cataloging units. Over time the system was changed and expanded. As of 2010 there are six levels in the hierarchy, represented by hydrologic unit codes from 2 to 12 digits long, called regions, subregions, basins, subbasins, watersheds, and subwatersheds. The table below describes the system's hydrologic unit levels and their characteristics, along with example names and codes.

WETLANDS NWI

National Wetland Inventory

U.S. Fish and Wildlife Service

(703) 358-2171

Wetland Inventory for the United States

SSURGO

Detailed Soil Data Map

Natural Resources Conservation Service: U.S. Department of Agriculture
(202) 690-4985

Detailed Soil Data Map

STATSGO & MUI

General Soil Data Map

Natural Resources Conservation Service: U.S. Department of Agriculture
(202) 690-4985

General Soil Data Map

USGS GEOLOGIC AGE

USGS Digital Data Series DDS

Natural Resources Conservation Service: U.S. Department of Agriculture
(202) 690-4985

USGS Digital Data Series DDS: Geologic Age and Rock Stratigraphic Unit

OIL & GAS WELLS - MI

Oil and Gas Wells

Michigan Department of Environmental Quality

517-241-1515

Listing of oil and gas well locations

RADON

National Radon Database

USGS

703-605-6008

A study of the EPA/State Residential Radon Survey and the National Residential Radon Survey.

AIRPORT FACILITIES

Airport landing facilities

Federal Aviation Administration

(866) 835-5322

Airport landing facilities

BASINS

Better Assessment Science Integrating point & Non-point Sources

U.S. Environmental Protection Agency

855-246-3642

Integrated geographical information system national watershed data and environmental assessment known as Better Assessment Science Integrating point & Non-point Sources

DIGITAL OBSTACLE

Obstacles of interest to aviation users

Federal Aviation Administration

855-379-6518

The Digital Obstacle File describes all known obstacles of interest to aviation users in the U.S. with limited coverage of the Pacific the Caribbean Canada and Mexico. The obstacles are assigned unique numerical identifiers; accuracy codes and listed in order of ascending latitude within each state or area by FAA Region.

EPICENTERS

National Geographical Data Center

National Geographical Data Center

303-497-6826

List of recent and historic earthquakes and information.

FLOOD DFIRM

National Flood Hazard Layer Database

Federal Emergency Management Agency

The National Flood Hazard Layer Database (NFHL) is a computer database that contains the flood hazard map information from FEMA's Flood Map Modernization program. These map data are from Digital Flood Insurance Rate Map (DFIRM) databases and Letters of Map Revision.

APPENDIX H
RECORDS DOCUMENTATION

1000 HAYNES AVE BIRMINGHAM, MI 48009-6778 (Property Address)

Parcel Number: 08-19-36-283-024 Account Number: 10139-11212

Property Owner: CITIZENS BANK/CHARTER ONE BANK**Summary Information**

- > Commercial/Industrial Building Summary
 - Yr Built: 1978
 - # of Buildings: 2
 - Total Sq.Ft.: 12,320
- > Assessed Value: \$2,329,070 | Taxable Value: \$1,441,190
- > Property Tax information found
- > Utility Billing information found
- > 11 Special Assessments found
- > 22 Building Department records found
- > 2 Invoices Found, Amount Due: 0.00

Owner and Taxpayer Information

Owner	CITIZENS BANK/CHARTER ONE BANK PO BOX 460049 HOUSTON, TX 77056-8049	Taxpayer SEE OWNER INFORMATION

General Information for Tax Year 2020

Property Class	201 Bus Imp	Unit	08 City of Birmingham
School District	BIRMINGHAM CITY SCHOOL DIST	Assessed Value	\$2,329,070
ITOnly	POST	Taxable Value	\$1,441,190
PPBusCode	0	State Equalized Value	\$2,329,070
User Alpha 1	Not Available	Date of Last Name Change	08/06/2013
User Alpha 3	Not Available	Notes	Not Available
Historical District	Not Available	Census Block Group	Not Available
User Alpha 2	Not Available	Exemption	No Data to Display

Principal Residence Exemption Information**Homestead Date** No Data to Display

Principal Residence Exemption	June 1st	Final
2020	0.0000 %	0.0000 %

Previous Year Information

Year	MBOR Assessed	Final SEV	Final Taxable
2019	\$2,308,840	\$2,308,840	\$1,414,320
2018	\$2,128,570	\$2,128,570	\$1,381,180
2017	\$1,918,430	\$1,918,430	\$1,352,780

Land Information

Zoning Code	BI	Total Acres	1.421
Land Value	\$2,678,520	Land Improvements	\$46,790
Renaissance Zone	No	Renaissance Zone Expiration Date	No Data to Display
ECF Neighborhood	E.C.F. Table BNK	Mortgage Code	00000
Lot Dimensions/Comments	No Data to Display	Neighborhood Enterprise Zone	No

Lot(s)	Frontage	Depth
Lot 1	1.00 ft	0.00 ft
Total Frontage: 1.00 ft		Average Depth: 0.00 ft

Legal Description

T2N, R10E, SEC 36 RURAL SUB LOTS 5 TO 11 INCL, ALSO LOTS 11 & 14 OF 'O E SHATTUCK SUB'

Land Division Act Information

Date of Last Split/Combine	No Data to Display	Number of Splits Left	0
Date Form Filed	No Data to Display	Unallocated Div.s of Parent	0
Date Created	No Data to Display	Unallocated Div.s Transferred	0
Acreage of Parent	0.00	Rights Were Transferred	Not Available
Split Number	0	Courtesy Split	Not Available
Parent Parcel	No Data to Display		

Sale History

Sale Date	Sale Price	Instrument	Grantor	Grantee	Terms of Sale	Liber/Page
No sales history found.						

Building Information - 6702 sq ft Banks - Central (Commercial)

Floor Area	6,702 sq ft	Estimated TCV	Not Available
Occupancy	Banks - Central	Class	C
Stories Above Ground	1	Average Story Height	14 ft
Basement Wall Height	0 ft	Identical Units	Not Available
Year Built	1978	Year Remodeled	No Data to Display
Percent Complete	100%	Heat	Zoned A.C. Warm & Cooled Air
Physical Percent Good	40%	Functional Percent Good	100%
Economic Percent Good	100%	Effective Age	49 yrs

Building Information - 5618 sq ft Banks - Central (Commercial)

Floor Area	5,618 sq ft	Estimated TCV	Not Available
Occupancy	Banks - Central	Class	C
Stories Above Ground	1	Average Story Height	15 ft
Basement Wall Height	0 ft	Identical Units	Not Available
Year Built	1978	Year Remodeled	No Data to Display
Percent Complete	100%	Heat	Zoned A.C. Warm & Cooled Air
Physical Percent Good	40%	Functional Percent Good	100%
Economic Percent Good	100%	Effective Age	49 yrs

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1000 HAYNES AVE BIRMINGHAM, MI 48009-6778 (Property Address)

Parcel Number: 08-19-36-283-024 Account Number: 10139-11212

Property Owner: CITIZENS BANK/CHARTER ONE BANK**Summary Information**

- > Commercial/Industrial Building Summary
 - Yr Built: 1978
 - # of Buildings: 2
 - Total Sq.Ft.: 12,320
- > 11 Special Assessments found
- > 22 Building Department records found
- > 2 Invoices Found, Amount Due: 0.00
- > Assessed Value: \$2,329,070 | Taxable Value: \$1,441,190
- > Property Tax information found
- > Utility Billing information found

Owner Information

CITIZENS BANK/CHARTER ONE BANK
 PO BOX 460049
 HOUSTON, TX 77056-8049

Permits

To request an inspection or pay on a record, click View

Permit Type	Permit Number	Associated Project	Status	Date Issued	Last Inspection	
Administrative App	PAA15-0022	JAAD15-0011	FINALED	3/27/2015	3/27/2015	View
Building	PB02-00769-00	J020769	FINALED	11/12/2002	4/11/2003	View
Building	PB10-01211-00	J101211	FINALED	9/10/2010	11/2/2010	View
Building	PB13-0472	JRRC13-0014	FINALED	8/6/2013	8/20/2013	View
Electrical	PE02-00769-00	J020769	FINALED	1/10/2003	2/5/2003	View
Electrical	PE05-00907-00	J050907	FINALED	7/21/2005	8/2/2005	View
Electrical	PE09-00602-00	J090602	FINALED	7/8/2009	10/7/2009	View
Electrical	PE10-01211-00	J101211	FINALED	9/10/2010	11/2/2010	View
Mechanical	PM02-00769-00	J020769	FINALED	1/17/2003	4/9/2003	View
Mechanical	PM09-00602-00	J090602	FINALED	6/9/2009	9/11/2009	View

1 2

Displaying items 1 - 10 of 18

[Apply for a Permit](#)**Enforcements**

To pay on a record, click View

Enforcement Type	Enforcement Number	Status	Filed Date	Last Inspection	
Enforcement - DPS-FORESTRY	E14-1443	CLOSED	9/22/2014	9/29/2014	View
Enforcement - Sign Violation - Residential	EN04-37107758	IN COMPLIANCE	4/6/2004	4/7/2004	View
Enforcement - Property Maintenance - Comm.	EN07-37117935	ACTIVE	11/20/2007	11/20/2007	View
Enforcement - Sign Violation - Residential	EN10-37123183	IN COMPLIANCE	12/30/2010	12/30/2010	View

1

Displaying items 1 - 4 of 4

Attachments

Date Created	Title	Record
No records to display.		

Displaying items 0 - 0 of 0

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1000 HAYNES ST BIRMINGHAM, MI 48009 (Property Address)

Parcel Number: 08-19-36-283-024 Account Number: 10139-11212

Property Owner: CITIZENS BANK/CHARTER ONE BANK UB Customer Name: CITIZENS BANK

Summary Information

- > Commercial/Industrial Building Summary

- Yr Built: 1978

- # of Buildings: 2

- Total Sq.Ft.: 12,320
- > Assessed Value: \$2,329,070 | Taxable Value: \$1,441,190

> Property Tax information found

> Utility Billing information found
- > 11 Special Assessments found
- > 22 Building Department records found
- > 2 Invoices Found, Amount Due: 0.00

Customer Information

Name	CITIZENS BANK	Parcel Number	08-19-36-283-024
Address	1000 HAYNES ST BIRMINGHAM, MI 48009	Account Number	10139-11212

Amount Due

Total Amount Due **\$845.96**
[Pay Now](#)

Current Bill

[Click here for a printer friendly version](#)

Amount Due	\$845.96	Bill From	08/15/2020
Due Date	01/22/2021	Bill To	11/15/2020

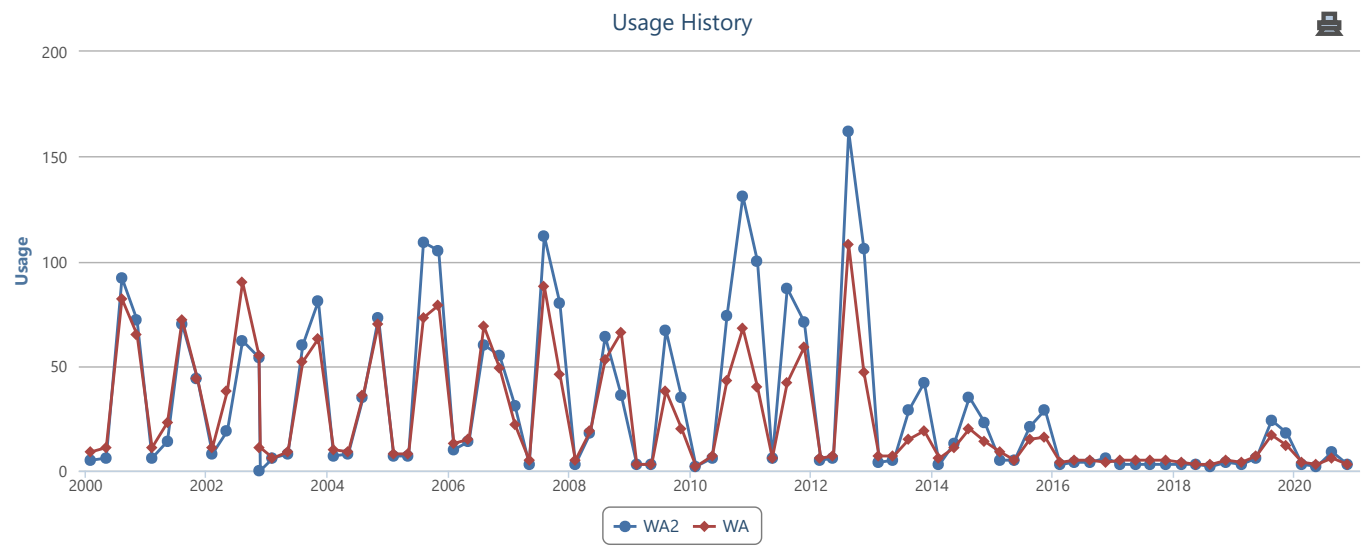
Billing Item	Previous Amount	Current Amount	Penalties & Interest	Balance
BASE METER CHARGE	\$16.00	\$0.00	\$0.00	\$16.00
INDUSTRIAL WASTE	\$82.80	\$0.00	\$0.00	\$82.80
SEWER	\$49.26	\$0.00	\$0.00	\$49.26
STORM WATER SO	\$668.20	\$0.00	\$0.00	\$668.20
WATER	\$29.70	\$0.00	\$0.00	\$29.70
	\$845.96	\$0.00	\$0.00	\$845.96

History (292 Items Found)

Starting Date Ending Date [Click here for a printer friendly version](#)

Posted	Action	Other Info	Read Type	Read	Usage	Amount	Balance
12/22/2020	Bill Calculated	08/15/20-11/15/20		0.00	0.00	\$845.96	\$845.96
11/15/2020	Meter Read	WA	Auto Read	605.00	3.00	\$0.00	\$0.00
11/15/2020	Meter Read	WA2	Auto Read	946.00	3.00	\$0.00	\$0.00
10/20/2020	Payment Posted	R20-331982		0.00	0.00	(\$964.40)	\$0.00
9/18/2020	Bill Calculated	05/15/20-08/15/20		0.00	0.00	\$964.40	\$964.40
8/15/2020	Meter Read	WA	Auto Read	602.00	6.00	\$0.00	\$0.00
8/15/2020	Meter Read	WA2	Auto Read	943.00	9.00	\$0.00	\$0.00
7/21/2020	Payment Posted	R20-323449		0.00	0.00	(\$813.17)	\$0.00
6/22/2020	Bill Calculated	02/15/20-05/15/20		0.00	0.00	\$813.17	\$813.17
5/15/2020	Meter Read	WA	Auto Read	596.00	3.00	\$0.00	\$0.00
5/15/2020	Meter Read	WA2	Auto Read	934.00	2.00	\$0.00	\$0.00
4/21/2020	Payment Posted	R20-315096		0.00	0.00	(\$838.55)	\$0.00
3/18/2020	Bill Calculated	11/15/19-02/15/20		0.00	0.00	\$838.55	\$838.55

Usage History Chart



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APPENDIX I

INTERVIEW DOCUMENTATION

RECORD OF INTERVIEW

For interviews with site owner/occupant/manager, municipal offices, fire department, city assessor, building department, health department, utilities, regulatory staff

Date: 1/29/21/ Job Number: 20086

Conducted by: Al Longyear Client: ARJA Haynes LLC

Talked with: Mr. Peter Abdo Of: Branch Manager Citizens Bank

Location of interview: On Site

Main subject of interview: Mr. Abdo provided access to the subject site and information regarding the current and former use of the subject site.

[illegible]

APPENDIX J
MISCELLANEOUS

Site Inspection Environmental Checklist

Customer Information <i>APTA Haynes, LLC</i>			
Name:		Inspector Name: <i>Al Longgar</i>	
Facility Name: <i>Citizens Bank</i>		Site Contact Name: <i>Peter Abdo</i>	Weather Conditions? <i>clear 25°</i>
Address: <i>1000 Haynes St</i>		Site Contact Present? ☒ Yes ☐ No	Date: <i>1/29/21</i>
City, State: <i>Birmingham AL</i>	Zip Code: <i>35205</i>	Property Zoning: Residential ☐ <u>Commercial</u> ☐ Industrial ☐ Other	
Describe the Nature of the Business: <i>Bank Branch Facility</i>			
Describe the Products Produced: <i>NA</i>			
Describe the Services Conducted at the Facility: <i>General Offices, Banking</i>			
General Site Conditions			
General Facility Condition: Exterior ☒ Good ☐ Fair ☐ Poor			
Distressed vegetation, stained surfaces or disturbed soils:	Yes or No	Location	Comments
	<i>No</i>		
Fill material, mounds, sinks or depressions:	Yes or No	Location	Comments
	<i>No</i>		
Ponds, pits, lagoons:	Yes or No	Location	Comments
	<i>No</i>		
Unexplained pipes, caps or vents:	Yes or No	Location	Comments
	<i>No</i>		
Petroleum and Chemical Storage Areas			
Are ASTs present? Yes ☐ <u>No</u> ☒			Number:
Contents and Size:	Inside diked areas? Yes ☐ No ☐	Secondary Containments? Yes ☐ No ☐	Are spills or leaks evident? Yes ☐ No ☐
Location:			
Condition of Tanks: Good ☐ Acceptable ☐ Poor ☐			Comments:

Are drums present? Yes <u>No</u>			Number:	
Contents:		Hazardous Wastes? Yes <u>No</u>	Drums stored neatly? Yes No	Are spills or leaks evident? Yes No
Location:				
Condition of Drums: Good Acceptable Poor				Comments
Are there USTs present? Yes <u>No</u>				Number:
Contents and Size:		Vent pipes or fill ports visible? Yes No	Evidence of spills or leaks around pipes or service pumps? Yes No	
Are USTs in use? Yes No		Evidence of UST upgrades? Yes No		
UST monitoring system present? Yes No		Model type and number:		
Monitoring records present? Yes No		Auto Leak Reports present? Yes No		
Notes:				
Waste Handling Operations				
Hazardous Waste Storage present? Yes <u>No</u>			Are Floor Drains Present? Yes No	
Signs Posted? Yes No	Containers Tight? Yes No	Spill control availability? Yes No	SPCC? Diking? CB's?	Excessive waste storage? Yes No
Are hazardous wastes being discharged on site? Yes No If yes, describe:				
Are Oil/Water Separator's Present? Yes No Are Trench Drains present? Yes No				
Non-Hazardous Process Waste and Trash Storage Areas				
Description	Good	Acceptable	Poor	N/A and/or Comments
Waste Storage Area	✓			
Trash/Garbage Area	✓			
Scrap Metal Area				N/A
Sludge Storage Area				N/A
Waste Piles				N/A



Description	Good	Acceptable	Poor	N/A and/or Comments
Drum Storage				N/A
Floor Drains	✓			
Other				

Wastewater and Storm Water Handling

Wastewater Treatment System present? Yes ☒ No

Source of waste water treated on site:

Discharge Location:

Description:	Good	Acceptable	Poor	Comments
Equipment Appearance				
Housekeeping				
Chemical Storage				
Oil/Water Separator(s)				

Are there any steam cleaning operations on-site? Yes No If yes, state discharge location:

Storm Water System:

Retained on site or diverted to storm sewer intake along street

Description:	Good	Acceptable	Poor	Comments
Production Areas	✓			
Perimeter Areas	✓			
Off Site Areas	✓			
Drainage Ditches				N/A
Sediment Trap(s)				N/A

Storm Water Retention or Detention Ponds on Site:

No

Notes:

Air Emissions

Control Systems: Are there air emission systems? Yes ☒ No ☐ If yes, continue

Visible emissions? Yes No

Odors? Yes No

Description:	Good	Acceptable	Poor	Comments
Equipment Operational				
Equipment Condition				

Asbestos / Polychlorinated Biphenyls (PCBs) / Lead Based Paint

Asbestos: Are any of the following potential asbestos-containing materials on-site? Yes No If yes, continue

Non-Scrap No friable identified

Description:	Yes	No	Comments/Conditions
Sprayed on fireproofing, soundproofing or insulation		☒	
Decorative plaster	☒		
Pipe, boiler or air duct wrapping	☒		
Ceiling or floor tile	☒		
Do they plan to renovate or demolish the building(s)?	☒		

PCBs: are any of the following potential PCB-containing equipment on-site? ☒ Yes ☐ No If yes, continue

Description:	Yes	No	Labeled	Spills or Leaks Evident
Oil filled electrical transformers	☒			<i>No</i>
Oil filled electrical capacitors				
Hydraulic systems	☒			<i>No one elevator 1978 const.</i>
Waste oil tanks				
Pole mounted				

Lead-Based Paint: Are any of the following conditions present at the site? Yes No If Yes, continue

N/A

Description:	Yes	No	Comments/Conditions
Cracked, blistered or peeling paint?			
Industrial or commercial structures w/exposed beams			
Building(s) constructed in or before 1978?			



Wetlands

Does property or adjacent site contain any of the following ecological characteristics? Yes ☒ No ☐ If yes, continue

Description:	Yes	No	Location and appearance
Dense woods or vegetation			
Marshes, swamps or bogs			
Rivers, streams, ponds or lakes			

Adjoining Sites

Are any adjacent sites in the following categories? Yes ☐ No ☐ If yes, continue

Description:	Yes	No	Location and appearance
Gasoline station, auto or motor repairs	☒		heart of gas & service plant station
Dry cleaning, photo developing or junkyard		☒	
Landfill or waste treatment storage or disposal facilities		☒	
Commercial printing or other industrial uses		☒	

Description of the General Vicinity

Description:	West	North	South	East
Residential				
Commercial	☒	☒	☒	☒
Industrial				
Agricultural				
Undeveloped				
Lake or Pond				
River or stream				
School, Church, daycare or playground				
Animal refuge, park or nature area				

Notes:



Conclusion (Inspector's Remarks and Comments)

Other:

Production area toured?	Outside toured?	Property perimeter toured?	Off site area toured?	Complete Access?
☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No
Description:	Good	Acceptable	Poor	Comments
Overall Building Condition	✓			
Overall Site Condition	✓			
Overall Site Operations	✓			
Overall Housekeeping	✓			

Recommendations

Potential REC's observed?	Yes ☐ No ☒	UST Testing Needed?	Yes ☐ No ☒
Asbestos Inspection Needed?	☒ Yes ☐ No <i>Prior to Demo.</i>	PCB Equipment Testing Needed?	☒ Yes ☐ No <i>Elemental equipment prior to demo</i>
Compliance Audit Needed?	Yes ☐ No ☒	Wetland Survey Needed?	Yes ☒ No ☐ <i>demo</i>

Notes:

Signature:

Date:

1/27/21

4.7 Geotechnical Investigation

McDowell & Associates

Geotechnical, Environmental & Hydrogeological Services • Materials Testing & Inspection

21355 Hatcher Avenue • Ferndale, MI 48220

Phone: (248) 399-2066 • Fax: (248) 399-2157

www.mcdowasc.com

January 20, 2020

770 South Adams, LLC
36400 Woodward Avenue
Bloomfield Hills, Michigan 48304

Job No. 19-366

Attention: Mr. John Shekerjian

Subject: Soils Investigation
Proposed Six-Story Building
770 South Adams Street
Birmingham, Michigan

Gentlemen:

In accordance with your request, we have made a Soils Investigation at the subject project.

Field Work and Laboratory Testing

Five Soil Test Borings, designated as 1 through 5, were performed at the subject property at the approximate locations shown on the Soil Boring Location Plan which accompanies this report. The boring locations and depths were selected by others and field located by our drillers. The borings were advanced to depths of about fifty feet (50') or sixty feet (60') below the existing ground surface at the boring locations. All Standard Penetration Tests (SPTs) were performed with an automatic hammer.

Soil descriptions, groundwater observations and the results of field and laboratory tests are to be found on the accompanying Logs of Soil Test Borings and summary sheet of Atterberg Limits results.

The borings encountered a few inches of asphalt followed by fill soils followed by granular base fill to depths ranging from one foot (1') to two feet two inches (2'2"). In Borings 1, 2 and 4, the granular base fill was underlain by fill and possible fill soils consisting of soft to stiff silty clay and a layer of compact sand and gravel in Boring 4. The apparent native soils encountered in each boring generally consisted of stiff to extremely stiff silty to silty sandy clay with occasional lenses to seams of wet sand or silt.

Soil descriptions and depths shown on the boring logs are approximate indications of change from one soil type to another and are not intended to represent an area of exact geologic change or stratification. Also, the site shows some signs of modification which could indicate fill and soil conditions different from those encountered at the boring locations.

It appears that the relatively shallow groundwater encountered in most of the borings is perched on the underlying clay. Groundwater was encountered in Borings 1, 3, 4 and 5 at initial depths ranging from eleven inches (11") to fifty feet six inches (50'6") below the existing ground surface. Upon completion of drilling, Borings 1, 3 and 5 were dry and Boring 4 had caved in at a depth of forty six feet six inches (46'6"). Groundwater was not encountered in Boring 2. It should be noted that short-term groundwater observations may not provide a reliable indication of the depth of the water table. In clay soils, this is due to the slow rate of infiltration of water into the borehole as well as the potential for water to become trapped in overlying layers of granular soils during periods of heavy rainfall. It should be expected that groundwater fluctuations could occur on a seasonal basis and that seams of water-bearing sands or silts could be found within the various clay strata at the site.

SPTs made during the sampling operation indicate that the fill soils have variable strengths and densities while the native site soils generally have good to very good strengths and densities. The tests at a depth of two feet six inches (2'6") resulted in penetration indices ranging from 3 to 8 blows per foot. The five foot (5') penetration indices varied from 4 to 13 blows per foot. At a depth of seven feet six inches (7'6") and below, penetration indices ranged from 9 to 30 blows per foot. It should be noted that an automatic hammer was used for all SPTs. Considering our drilling equipment and procedures, it has been seen that blow counts with an automatic hammer should be increased by a factor of about 1.4 to be comparable with typical blow counts using a safety hammer.

Project Description

It is understood that the project will consist of demolishing the existing building and constructing a new six-story building with one level of underground parking. It is understood that the first floor will be used primarily for retail and the other five floors will be for single-family apartments. It is understood that the basement floor will extend roughly twelve feet (12') below the existing ground surface and it is anticipated that the basement footings will extend roughly two feet (2') below the basement floor. It is understood that the column loads will range from 100 to 600 kip dead load and 25 to 125 kip live load.

Foundation Recommendations

Based on the project information provided and the results of field and laboratory tests, the indications are that the structure could be supported by conventional spread or strip footings. All exterior footings should be constructed at, or below, a minimum frost penetration depth of three feet six inches (3'6") below finished grade. All interior and exterior load-bearing footings should extend through non-engineered fill soils, soils containing significant amounts of organic substances, or excessively weak soils. All strip footings should be continuously reinforced in order to minimize any noticeable effects of differential settlement.

If the basement excavation is to be performed with sloped banks, adequate and stable slopes must be provided. Pertinent OSHA requirements must be followed and adequate protection for workers must be provided. Also, extreme care must be taken to avoid undermining existing buildings, utilities and pavements with the basement excavation. Based on the size of the proposed structure and the limited size of the site, it is expected that a temporary earth retention system (TERS) may be required to

facilitate the basement excavation. A TERS analysis and design is beyond the scope of this report but could be performed upon request.

Based on the indications from the borings, basement footings constructed at a minimum depth of seven feet six inches (7'6") and a maximum depth of fifteen feet (15') could be proportioned for an allowable bearing pressure of 4,000 psf. Potential foundations above seven feet six inches (7'6") could be proportioned for an allowable bearing pressure of 3,000 psf at the boring locations provided the foundations bear on natural, non-organic soils. Higher design soil pressures are available at various depths in some of the borings and could be detailed, if desired.

Based on the results from field and laboratory tests along with experience with similar loading conditions and construction procedures, we expect that total settlement could be a little over one inch (1") and differential settlement a little under one inch (1").

Seismic Site Class

Based on the limited data obtained from the borings, we recommend considering a seismic site class of D at the subject site. This recommendation was developed in accordance with ASCE 7-16 (Table 20.3-1).

Groundwater Considerations

Basement footing excavations are expected to be above groundwater elevations measured upon completion of drilling. Based on the indication from the borings, we expect that the shallow groundwater encountered in Borings 1, 3 and 4 is perched on the underlying clay. Water seepage from perched water or from wet sand or silt seams is not expected to be a major issue, but if significant should be manageable with construction pumping and sumps. However, this is not known for certain. If large volumes of water or saturated granular soils are encountered, special dewatering techniques may be required. Extreme care must be exercised during any dewatering operation if nearby buildings or utilities are sensitive to settlement.

The basement should be provided with an adequate drainage system to protect the floors and walls from the possible effects of hydrostatic pressure. The drainage system should be designed and installed to minimize the potential for soil fines to erode into the underdrainage system.

Floor Slabs

A few inches of asphalt followed by fill and possible fill soils was encountered in each of the borings to depths ranging from one foot (1') to five feet eight inches (5'8"). If the possibility of more than normal differential settlement can be tolerated, slab-on-grade floors or floor-supporting backfill could be placed near the present grade in the vicinity of the borings. The existing asphalt along with any existing topsoil or other obviously objectionable materials should be removed and the subgrade should then be thoroughly proof-compacted. If, during the proof-compaction operation, areas are found where the soils yield excessively, the yielding materials should be scarified, dried, and recompacted or removed and replaced with engineered fill. Where fill or backfill is required to raise

the subgrade for concrete floors or backfill utility trenches, it is suggested that clean, well-graded granular soils be used. If clay material is utilized, it should be placed within 3% of its optimum moisture content. The fill should be deposited in horizontal lifts not to exceed nine inches (9") in thickness with each lift being compacted uniformly to a minimum density of 95% of its maximum value as determined by the Modified Proctor Test (ASTM D-1557).

Existing structures should be entirely removed from the proposed building area. Buried utilities should be removed or grouted in place. Resulting excavations should be backfilled with engineered fill meeting the requirements outlined above.

To minimize capillary action under floor slabs, we suggest placing at least six inches (6") of clean granular material on the subgrade followed by a suitable plastic vapor barrier between the clean material and the concrete slab. The clean granular material could consist of pea stone, MDOT Class I sand, 2NS sand or 6AA crushed stone. The subgrade soils should be slightly crowned so that any accumulation of water in the granular soil will run into the basement drainage system.

Lateral Earth Pressure

If plans call for the basement wall to be rigidly fixed at the top, then the wall should be designed on the basis of "at rest" earth pressure conditions. An equivalent fluid pressure of 55 psf per foot of depth could be used if adequate drainage and free draining granular backfill are provided behind the walls. If the walls are not restrained at the top, "active" earth pressure can be used for design. On this basis, equivalent fluid pressures of 40 psf per foot of depth should be used if adequate drainage and free draining granular backfill are provided. Recognize that some movement of the below-grade soils is needed before the active pressure develops. Generally, the amount of movement required to activate "active" conditions is approximately equal to 0.002 times the height of the wall. The fill placed against below-grade walls should consist of granular soils with less than 7% passing the #200 Sieve. If free draining soil and adequate drainage are not provided, the accumulation of hydrostatic pressures should be accounted for. We suggest that an equivalent fluid pressure of 85 psf per foot of depth be considered for the "active" case and 100 psf per foot of wall height be considered for the "at rest" case. It should be noted that surcharge loads applied behind walls can impose additional lateral pressures on the walls. If the basement wall is subjected to such surcharge loading, it should be considered in the wall design. Furthermore, only small compactors should be utilized during fill placement adjacent to walls to prevent wall movement or damage during construction. A design passive earth pressure of 150 psf per foot of depth could be used for well compacted or native soils. This passive pressure assumes a factor of safety of 1.5. A coefficient of sliding between concrete and the soils at the site would be on the order of 0.3. It is recommended that provisions be made to allow water to drain from behind the walls to prevent the build-up of hydrostatic water pressure.

Closing

Experience indicates that actual subsurface conditions at the site could vary from those found at the five test borings made at specific locations. It is, therefore, essential that McDowell & Associates be notified of any variation of soil conditions to determine their effects on the recommendations presented in this report. The evaluations and recommendations presented in this report have been

formulated on the basis of reported or assumed data relating to the proposed project. Any significant change in the final design plans should be brought to our attention for review and evaluation with respect to the prevailing subsoil conditions.

It is recommended that the services of McDowell & Associates be engaged to observe the soils in the footing excavations prior to concreting in order to test the soils for the required bearing capacities. Testing should also be performed to check that suitable materials are being used for controlled fills and that they are properly placed and compacted.

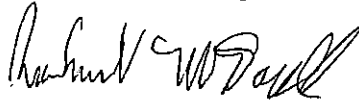
If we can be of any further service, please feel free to call.

Very truly yours,

McDOWELL & ASSOCIATES



David Quintal, M.S., P.E.
Geotechnical Engineer



Robert McDowell, M.S., P.E.
CEO McDowell & Associates

DQ/



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JOB NO. 19-366

LOG OF SOIL
BORING NO. 1

PROJECT

Soils Investigation -
Proposed Six-Story Building

LOCATION

770 South Adams Street

SURFACE ELEV.

DATE 1/13/20

Birmingham, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
			0'3 1/2" ASPHALT						
	1								
			Medium compact moist to wet brown gravelly SAND, fill						
A	2			1					
UL			2'0"	2					
	3			1					
	4		Soft moist variegated to discolored silty CLAY with pebbles, fill						
B				1					
UL	5			2	21.6	119			
				2			*	(2000)	
	6								
			5'8"						
			Stiff moist variegated silty sandy CLAY with trace of pebbles						
C	7			4					
UL			7'6"	5	16.9	128			
	8			10			*	(5000)	
	9		Very stiff moist brown silty sandy CLAY with trace of pebbles						
D				7					
UL	10			13	13.9	135			
				17			*	(9000)	
	11								
	12		Extremely stiff moist variegated silty sandy CLAY with pebbles						
	13								
			13'0"						
	14								
E				4					
UL	15			7	13.2	141		3825	
				7			*	(5500)	
	16								
			Very stiff moist blue silty sandy CLAY with pebbles and occasional moist clayey silt seams						
	17								
	18								
	19								
F				4					
UL	20			6	11.8	143		4055	
				7			*	(7000)	
	21								
	22		Very stiff moist blue silty sandy CLAY with pebbles						
	23								
	24								
G				9					
UL	25			7	12.5	136			
			24'6"	6			*	(3200)	
			Very stiff moist blue silty sandy CLAY with pebbles and occasional wet gray sand seams						

TYPE OF SAMPLE
D. - DISTURBED
U.L. - UNDIST. LINER
S.T. - SHELBY TUBE
S.S. - SPLIT SPOON
R.C. - ROCK CORE
() - PENETROMETER

REMARKS:

*Calibrated Penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1' With
140# Hammer Falling 30". Count Made at 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT 1 FT. 10 INS.
G.W. ENCOUNTERED AT 30 FT. 0 INS.
G.W. AFTER COMPLETION Dry FT. INS.
G.W. AFTER HRS. FT. INS.
G.W. VOLUMES Light



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LOG OF SOIL

BORING NO. 1 (continued)

PROJECT Soils Investigation –
Proposed Six-Story Building

JOB NO. 19-366

LOCATION 770 South Adams Street

SURFACE ELEV. DATE 1/13/20

Birmingham, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
	26								
	27								
	28								
	29								
H UL	30		Very stiff moist blue silty sandy CLAY with pebbles and occasional wet gray sand seams	5					
	31			7					
	32			7					
	33								
	34								
I UL	35		34'0"	6					
	36			8					
	37		Extremely stiff moist blue silty sandy CLAY with pebbles	10					
	38								
	39								
J UL	40		39'0"	4					
	41			7					
	42			9					
	43								
	44								
K UL	45		Very stiff moist blue silty sandy CLAY with pebbles	4					
	46			6					
	47			9					
	48								
	49								
L UL	50			5					
				7					
				9					

TYPE OF SAMPLE
D. - DISTURBED
U.L. - UNDIST. LINER
S.T. - SHELBY TUBE
S.S. - SPLIT SPOON
R.C. - ROCK CORE
() - PENETROMETER

REMARKS:

Standard Penetration Test - Driving 2" OD Sampler 1' With
140# Hammer Falling 30": Count Made at 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT 1 FT. 10 INS.
G.W. ENCOUNTERED AT 30 FT. 0 INS.
G.W. AFTER COMPLETION Dry FT. INS.
G.W. AFTER HRS. FT. INS.
G.W. VOLUMES Light



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LOG OF SOIL
BORING NO. 1 (continued)
PROJECT Soils Investigation -
Proposed Six-Story Building

JOB NO. 19-366

LOCATION 770 South Adams Street

SURFACE ELEV. _____ DATE 1/13/20

Birmingham, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	Moisture %	Natural Wt. P.C.F.	Dry Den WL P.C.F.	Unc. Comp. Strength PSF.	Sir. %
	51								
	52								
	53								
	54								
M									
UL	55		Very stiff moist blue silty sandy CLAY with pebbles	3					
	56			4					
	57			9					
	58								
	59								
N									
UL	60			5					
	61		60'6"	7					
	62			7					
	63								
	64								
	65								
	66		Notes:						
	67		1) Used automatic hammer.						
	68		2) Patched boring upon completion with cold patch asphalt.						
	69								
	70								
	71								
	72								
	73								
	74								
	75								

TYPE OF SAMPLE
D. - DISTURBED
U.L. - UNDIST. LINER
S.T. - SHELBY TUBE
S.S. - SPLIT SPOON
R.C. - ROCK CORE
() - PENETROMETER

REMARKS:

Standard Penetration Test - Driving 2" OD Sampler 1' With
140# Hammer Falling 30". Count Made at 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT 1 FT. 10 INS.
G.W. ENCOUNTERED AT 30 FT. 0 INS.
G.W. AFTER COMPLETION 30 FT. 0 INS.
G.W. AFTER HRS. Dry FT. INS.
G.W. VOLUMES Light



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LOG OF SOIL
BORING NO. 2

PROJECT

Soils Investigation –
Proposed Six-Story Building

JOB NO. 19-366

LOCATION

770 South Adams Street

SURFACE ELEV.

DATE 1/14/20

Birmingham, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
	1		0'4" BROKEN ASPHALT (parking area)						
	2		Medium compact moist brown gravelly SAND, fill						
A UL	3		2'1" Stiff moist variegated silty CLAY with dark brown streaks and trace of vegetation, possible fill	3	18.0				
	4		2'9" Stiff moist variegated silty CLAY with trace of pebbles	3			*	(5300)	
B UL	5		5'0" Stiff moist brown silty CLAY with trace of pebbles	3	20.1	126			
	6		6'0" Stiff moist brown silty CLAY with trace of pebbles	4			*	(4000)	
C UL	7			7					
	8		Extremely stiff moist brown silty sandy CLAY with pebbles	10					
	9			15					
D UL	10		9'0" Extremely stiff moist variegated silty sandy CLAY with pebbles	6	14.3	137			
	11			11			*	(9000+)	
	12			14					
	13								
	14								
E UL	15			5					
	16			7	14.5	134		4055	
	17			9			*	(4200)	
	18								
	19								
F UL	20		Very stiff moist blue silty sandy CLAY with pebbles	4					
	21			7					
	22			9					
	23								
	24								
G UL	25			3	13.4	138		3670	
				5			*	(4000)	
				7					

TYPE OF SAMPLE
D. - DISTURBED
U.L. - UNDIST. LINER
S.T. - SHELBY TUBE
S.S. - SPLIT SPOON
R.C. - ROCK CORE
() - PENETROMETER

REMARKS:

*Calibrated Penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1' With
140# Hammer Falling 30": Count Made at 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT FT. INS.
G.W. ENCOUNTERED AT FT. INS.
G.W. AFTER COMPLETION FT. INS.
G.W. AFTER HRS. FT. INS.
G.W. VOLUMES None



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LOG OF SOIL
BORING NO. 2 (continued)
Soils Investigation -
PROJECT Proposed Six-Story Building

JOB NO. 19-366

LOCATION 770 South Adams Street

SURFACE ELEV. _____ DATE 1/14/20

Birmingham, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
	26								
	27								
	28								
	29								
H UL	30			4					
	31			6					
	32			8					
	33								
	34								
I UL	35			3					
	36			6	14.3	134			
	37			7			*	(2100-2500)	
	38		Very stiff moist blue silty sandy CLAY with pebbles						
	39								
J UL	40			4					
	41			7					
	42			8					
	43								
	44								
K UL	45			4					
	46			5	15.0	138			
	47			8			*	(3000)	
	48								
	49								
L UL	50			4					
				6					
				7					

Notes:

- 1) Used automatic hammer.
- 2) Patched boring upon completion with cold patch asphalt.

50'6"

TYPE OF SAMPLE
D. - DISTURBED
U.L. - UNDIST. LINER
S.T. - SHELBY TUBE
S.S. - SPLIT SPOON
R.C. - ROCK CORE
() - PENETROMETER

REMARKS:

*Calibrated Penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1' With
140# Hammer Falling 30": Count Made at 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT FT. INS.
G.W. ENCOUNTERED AT FT. INS.
G.W. AFTER COMPLETION FT. INS.
G.W. AFTER HRS. FT. INS.
G.W. VOLUMES None



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LOG OF SOIL
BORING NO. 3

PROJECT

Soils Investigation -
Proposed Six-Story Building

JOB NO. 19-366

LOCATION 770 South Adams Street

SURFACE ELEV. _____ DATE 1/14/20

Birmingham, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	Moisture %	Natural WL P.C.F.	Dry Den WL P.C.F.	Unc. Comp. Strength PSF.	Str. %
			0'4" ASPHALT						
	1								
A	2		Medium compact moist to wet brown gravelly SAND, fill						
UL	3		2'0"	2					
	4			4	15.3	132			
	5			4			*	(5000)	
B	6								
UL	7		Stiff moist variegated silty CLAY with trace of pebbles	3					
	8			3					
	9			5					
C	10		7'0"	7					
UL	11			12	14.7	136			
	12		Extremely stiff moist brown silty CLAY with trace of pebbles	17			*	(9000+)	
D	13								
UL	14		10'0"	7					
	15			11					
	16			15					
	17		Extremely stiff moist variegated silty sandy CLAY with pebbles						
	18								
	19								
E	20		13'0"	4					
UL	21			6	14.7	136		4130	
	22			8			*	(5000)	
	23								
	24								
	25		Very stiff moist blue silty sandy CLAY with pebbles						
F	26			4					
UL	27			6	14.0	138		4815	
	28			8			*	(3600)	
	29								
	30								
	31								
G	32			4					
UL	33			6	14.0	133			
	34			8			*	(3500-4000)	

TYPE OF SAMPLE
D. - DISTURBED
UL. - UNDIST. LINER
S.T. - SHELBY TUBE
S.S. - SPLIT SPOON
R.C. - ROCK CORE
() - PENETROMETER

REMARKS:

*Calibrated Penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1' With
140# Hammer Falling 30": Count Made at 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT 1 FT. 6 INS.
G.W. ENCOUNTERED AT FT. INS.
G.W. AFTER COMPLETION Dry FT. INS.
G.W. AFTER HRS. FT. INS.
G.W. VOLUMES Light



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LOG OF SOIL
BORING NO. 3 (continued)
PROJECT Soils Investigation –
Proposed Six-Story Building

JOB NO. 19-366

LOCATION 770 South Adams Street

SURFACE ELEV. DATE 1/14/20

Birmingham, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	Moisture %	Natural WL P.C.F.	Dry Den WL P.C.F.	Unc. Comp. Strength PSF.	Str. %
	26								
	27								
	28								
	29								
H UL	30			4					
	31			6					
	32			8					
	33								
	34		Very stiff moist blue silty sandy CLAY with pebbles						
I UL	35			5					
	36			7	14.7	134			
	37			7			*	(3600-4000)	
	38								
	39								
J UL	40			4					
	41			6					
	42			7					
	43								
	44								
K UL	45		Stiff moist blue silty sandy CLAY with pebbles and moist gray sand lens at 45'6"	4					
	46			5	14.2	138			
	47			6			*	(2000)	
	48		Notes:						
	49		1) Offset boring 10' south of planned location due to parked cars.						
	50		2) Used automatic hammer.						
L UL	50		3) Patched boring upon completion with cold patch asphalt.	4					
				5					
				7					

42'0"

50'6"

TYPE OF SAMPLE
D. - DISTURBED
U.L. - UNDIST. LINER
S.T. - SHELBY TUBE
S.S. - SPLIT SPOON
R.C. - ROCK CORE
() - PENETROMETER

REMARKS:

*Calibrated Penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1' With
140# Hammer Falling 30"; Count Made at 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT 1 FT. 6 INS.
G.W. ENCOUNTERED AT FT. INS.
G.W. AFTER COMPLETION Dry FT. INS.
G.W. AFTER HRS. FT. INS.
G.W. VOLUMES Light



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LOG OF SOIL

BORING NO. 4

Soils Investigation -
Proposed Six-Story Building

PROJECT

LOCATION 770 South Adams Street

JOB NO. 19-366

SURFACE ELEV. _____ DATE 1/13/20

Birmingham, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
	1		0'4" ASPHALT						
A	2		Medium compact moist to wet brown SAND & GRAVEL with some stones, fill	2					
UL	3		2'2" Stiff moist variegated silty CLAY with traces of sand and pebbles, fill	3	15.5				
	4		3'6" Compact wet brown SAND & GRAVEL with occasional variegated silty clay seams, fill	5			*	(6500)	
B	5		4'10" Very stiff brown silty sandy CLAY with wet sand seams	4					
UL	6		6'0" Extremely stiff moist brown silty CLAY with sand and pebbles and occasional moist brown silt seams	6	13.2	142			
	7		8'6" Very stiff moist variegated silty CLAY with occasional moist brown fine sand seams	7			*	(4000)	
C	8			3					
UL	9			4	14.1	137		6730	
	10			10			*	(9000+)	
D	11			6					
UL	12			7	27.0	123		2155	
	13			9			*	(3700)	
	14								
E	15			3					
UL	16			4	12.1	141		2000	
	17			6			*	(3500)	
	18								
	19								
F	20			2					
UL	21			3	13.9	134		3210	
	22			6			*	(4000)	
	23								
	24								
G	25			3					
UL				4					
				10					

TYPE OF SAMPLE
D. - DISTURBED
U.L. - UNDIST. LINER
S.T. - SHELBY TUBE
S.S. - SPLIT SPOON
R.C. - ROCK CORE
() - PENETROMETER

REMARKS:

*Calibrated Penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1' With
140# Hammer Falling 30": Count Made at 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT 0 FT. 11 INS.
G.W. ENCOUNTERED AT 3 FT. 6 INS.
G.W. AFTER COMPLETION 46 FT. 6 INS.
G.W. AFTER HRS. 46 FT. 6 INS.
G.W. VOLUMES Medium Cave-in at 46'6"



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LOG OF SOIL

BORING NO. 5

Soils Investigation -
Proposed Six-Story Building

PROJECT

LOCATION 770 South Adams Street

JOB NO. 19-366

SURFACE ELEV. DATE 1/13/20

Birmingham, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	Moisture %	Natural WL P.C.F.	Dry Den WL P.C.F.	Unc. Comp. Strength PSF.	Str. %
			0'5" ASPHALT						
	1		1'0" Moist brown SAND & GRAVEL, aggregate fill						
A	2			2					
UL				3	19.0	126			
	3		Stiff moist variegated silty CLAY	3			*	(5000)	
	4								
B				3					
UL	5		5'0"	5	15.2	133		5580	
	6		Very stiff moist brown silty CLAY with sand and pebbles	7			*	(5000)	
	7								
C				6					
UL	8		7'0"	12					
				16					
	9								
D				8					
UL	10		Extremely stiff moist variegated silty sandy CLAY with pebbles	12					
				15					
	11								
	12		12'0"						
	13								
	14								
E				4					
UL	15			6	14.6	135		3900	
				8			*	(3700)	
	16								
	17								
	18								
	19		Very stiff moist blue silty sandy CLAY with pebbles						
F				5					
UL	20			7					
				10					
	21								
	22								
	23								
	24								
G				4					
UL	25			6	15.2	136		3060	
				7			*	(2700)	

TYPE OF SAMPLE
D. - DISTURBED
UL - UNDIST. LINER
S.T. - SHELBY TUBE
S.S. - SPLIT SPOON
R.C. - ROCK CORE
() - PENETROMETER

REMARKS:
*Calibrated Penetrometer
Standard Penetration Test - Driving 2" OD Sampler 1' With
140# Hammer Falling 30": Count Made at 6" Intervals

GROUND WATER OBSERVATIONS
G.W. ENCOUNTERED AT 50 FT. 6 INS.
G.W. ENCOUNTERED AT FT. INS.
G.W. AFTER COMPLETION Dry FT. INS.
G.W. AFTER HRS. FT. INS.
G.W. VOLUMES Light



McDOWELL & ASSOCIATES
Geotechnical, Environmental, & Hydrogeologic Services
21355 Hatcher Avenue • Ferndale, MI 48220
Phone: (248) 399-2066 • Fax: (248) 399-2157

LOG OF SOIL

BORING NO. 5 (continued)
PROJECT Soils Investigation -
Proposed Six-Story Building

JOB NO. 19-366

LOCATION 770 South Adams Street

SURFACE ELEV. _____ DATE 1/13/20

Birmingham, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
	26								
	27								
	28								
	29								
H									
UL	30		Very stiff moist blue silty sandy CLAY with pebbles	4					
				5					
	31			7					
	32								
	33								
	34		33'0"						
I									
UL	35			4					
				5	15.6	133		2065	
	36		Stiff moist blue silty CLAY with sand and pebbles	6			*	(3200)	
	37								
	38								
	39		38'0"						
J									
UL	40			4					
				5					
	41			7					
	42								
	43								
	44								
K									
UL	45		Very stiff moist blue silty sandy CLAY with pebbles	4					
				6					
	46			7					
	47								
	48								
	49								
L									
UL	50			4					
				6					
				9					

TYPE OF SAMPLE
D. - DISTURBED
U.L. - UNDIST. LINER
S.T. - SHELBY TUBE
S.S. - SPLIT SPOON
R.C. - ROCK CORE
() - PENETROMETER

REMARKS:

*Calibrated Penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1' With
140# Hammer Falling 30"; Count Made at 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT 50 FT. 6 INS.
G.W. ENCOUNTERED AT FT. INS.
G.W. AFTER COMPLETION Dry FT. INS.
G.W. AFTER HRS. FT. INS.
G.W. VOLUMES Light



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LOG OF SOIL BORING NO. 5 (continued)
PROJECT Soils Investigation - Proposed Six-Story Building

JOB NO. 19-366

LOCATION 770 South Adams Street

SURFACE ELEV. DATE 1/13/20

Birmingham, Michigan

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
	51		Very stiff moist blue silty sandy CLAY with pebbles						
	52								
	53								
	54								
M UL	55		Stiff moist blue silty sandy CLAY with pebbles and wet gray sand lens at 50'6"	4					
	56			4					
	57			7					
	58								
	59		Extremely stiff moist blue silty sandy CLAY with pebbles						
N UL	60			5					
	61			9					
	62			9					
	63		Notes: 1) Used automatic hammer. 2) Patched boring upon completion with cold patch asphalt.						
	64								
	65								
	66								
	67								
	68								
	69								
	70								
	71								
	72								
	73								
	74								
	75								

TYPE OF SAMPLE
D. - DISTURBED
U.L. - UNDIST. LINER
S.T. - SHELBY TUBE
S.S. - SPLIT SPOON
R.C. - ROCK CORE
() - PENETROMETER

REMARKS:

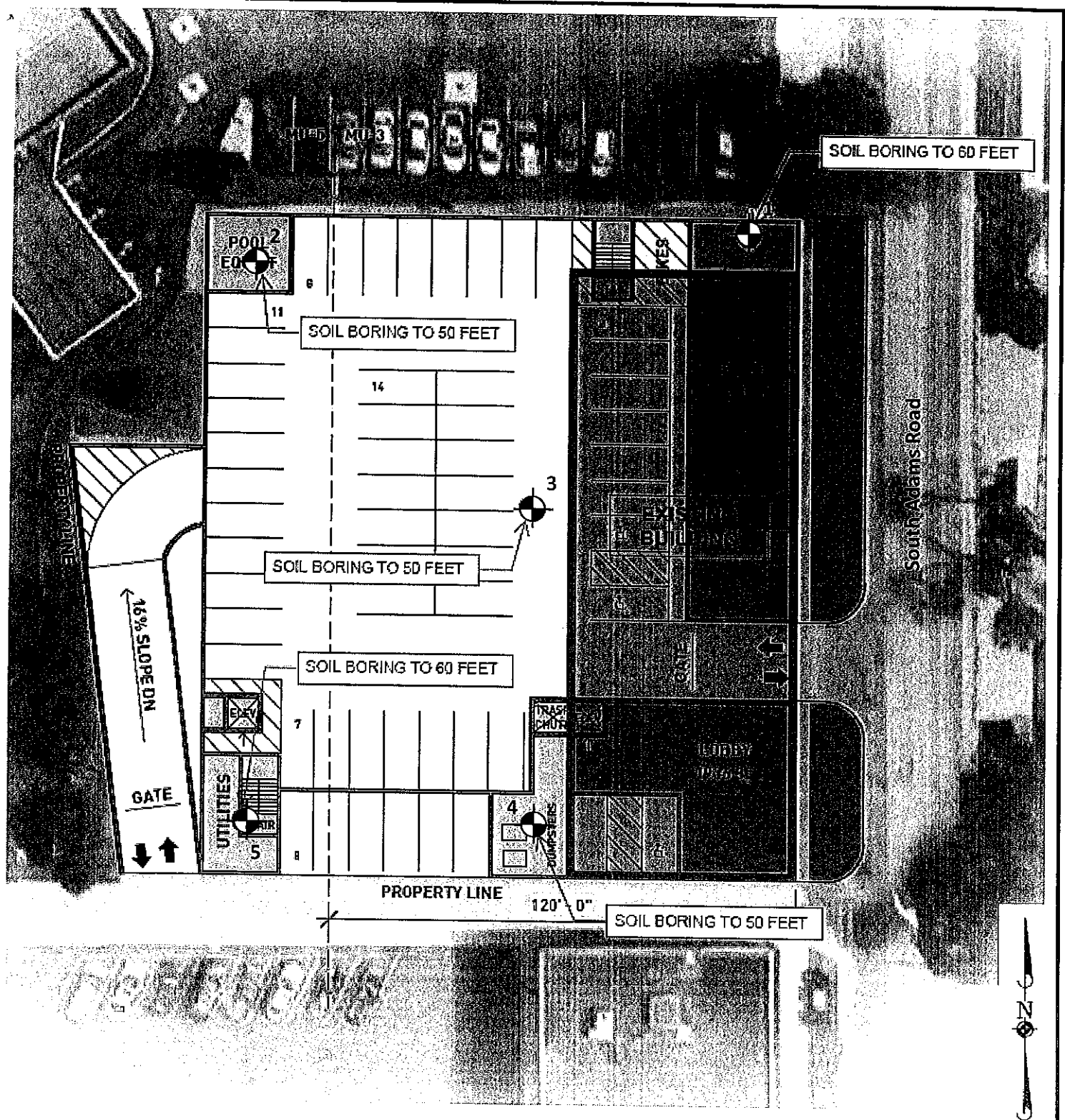
Standard Penetration Test - Driving 2" OD Sampler 1' With
140# Hammer Falling 30": Count Made at 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT 50 FT. 6 INS.
G.W. ENCOUNTERED AT FT. INS.
G.W. AFTER COMPLETION Dry FT. INS.
G.W. AFTER HRS. FT. INS.
G.W. VOLUMES Light

ATTERBERG LIMITS

<u>Boring</u>	<u>Sample</u>	<u>Liquid Limit (%)</u>	<u>Plastic Limit (%)</u>	<u>Plasticity Index (%)</u>
1	E	18.6	13.1	5.5
2	G	20.8	12.7	8.1
3	E	23.8	14.3	9.5
	G	23.8	13.9	9.9



Note: Base drawing prepared by others.

LEGEND



Soil Boring Locations, 1 through 5:
Drilled by McDowell & Associates



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Soil Boring Location Plan

Job No. 19-366

McDowell & Associates

Geotechnical, Environmental & Hydrogeological Services • Materials Testing & Inspection

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www.mcdowasc.com

February 11, 2021

ANJA Holding, LLC
36400 Woodward Avenue, Suite 109
Bloomfield Hills, Michigan 48304

Job No. 21-020

Attention: Mr. John Shekerjian

Subject: Soils Investigation
Proposed Six-Story Building
1000 Haynes Street
Birmingham, Michigan

Gentlemen:

In accordance with your request, we have made a Soils Investigation at the subject project.

Field Work and Laboratory Testing

Five Soil Test Borings, designated as 1 through 5, were performed at the subject property at the approximate locations shown on the Soil Boring Location Plan which accompanies this report. The boring locations and depths were selected by others and field located by our drillers. The borings were advanced to depths of about fifty feet (50') or sixty feet (60') below the existing ground surface at the boring locations. All Standard Penetration Tests (SPTs) were performed with an automatic hammer.

Soil descriptions, groundwater observations and the results of field and laboratory tests are to be found on the accompanying Logs of Soil Test Borings and summary sheet of Atterberg Limits results.

Borings 1, 3 and 5 encountered three inches (3") to eight inches (8") of asphalt followed by stone, sand and gravel or sand base fill extending to depths ranging from one foot three inches (1'3") to three feet (3') followed by clay fill extending to depths ranging from two feet three inches (2'3") to three feet seven inches (3'7"). Borings 2 and 4 encountered nine inches (9") to one foot seven inches (1'7") of topsoil followed by clay fill extending to depths of about three feet six inches (3'6"). In each of the five borings, the apparent natural soils generally consisted of stiff to extremely stiff silty to sandy clay.

Soil descriptions and depths shown on the boring logs are approximate indications of change from one soil type to another and are not intended to represent an area of exact geologic change or stratification. Also, the site shows some signs of modification which could indicate fill and soil conditions different from those encountered at the boring locations.

Groundwater was encountered in seams of sand or silt in Borings 2 through 5 at initial depths ranging from six feet two inches (6'2") to forty three feet two inches (43'2") below the existing ground surface. Upon completion of drilling, the water level in Boring 2 was measured at fifty feet five inches (50'5") below the existing ground surface. Groundwater was not encountered in Boring 1 and Borings 3 through 5 were dry upon completion of drilling. It should be noted that short-term groundwater observations may not provide a reliable indication of the depth of the water table. In clay soils, this is due to the slow rate of infiltration of water into the borehole as well as the potential for water to become trapped in overlying layers of granular soils during periods of heavy rainfall. It should be expected that groundwater fluctuations could occur on a seasonal basis and that seams of water-bearing sands or silts could be found within the various clay strata at the site.

SPTs made during the sampling operation indicate that the site soils generally have good to very good strengths and densities except for fair strength soil encountered at about five feet (5') in Boring 5. The tests at depths of two feet six inches (2'6") and five feet (5') resulted in penetration indices ranging from 7 to 20 blows per foot except for the five foot (5') drive in Boring 5 where the penetration index was 5 blows per foot. At a depth of seven feet six inches (7'6") and below, penetration indices ranged from 10 to 36 blows per foot except for the forty foot (40') drive in Boring 1 where the penetration index was 8 blows per foot. It should be noted that an automatic hammer was used for all SPTs. Considering our drilling equipment and procedures, it has been seen that blow counts with an automatic hammer should be increased by a factor of about 1.4 to be comparable with typical blow counts using a safety hammer.

Project Description

It is understood that the project will consist of demolishing the existing building and constructing a new six-story building with one level of underground parking. It is understood that the first floor will be used primarily for retail and the other five floors will be for single-family apartments. It is understood that the basement floor will extend roughly twelve feet (12') below the existing ground surface and it is anticipated that the basement footings will extend roughly two feet (2') below the basement floor. It is understood that the anticipated column loads will range from 100 to 600 kip dead load and 25 to 125 kip live load.

Foundation Recommendations

Based on the project information provided and the results of field and laboratory tests, the indications are that the structure could be supported by conventional spread or strip footings. All exterior footings should be constructed at, or below, a minimum frost penetration depth of three feet six inches (3'6") below finished grade. All interior and exterior load-bearing footings should extend through non-engineered fill soils, soils containing significant amounts of organic substances, or excessively weak soils. All strip footings should be continuously reinforced in order to minimize any noticeable effects of differential settlement.

If the basement excavation is to be performed with sloped banks, adequate and stable slopes must be provided. Pertinent OSHA requirements must be followed and adequate protection for workers must be provided. Also, extreme care must be taken to avoid undermining existing buildings, utilities and pavements with the basement excavation. Based on the size of the proposed structure and the limited size of the site, it is expected that a temporary earth retention system (TERS) may be required to

facilitate the basement excavation. A TERS analysis and design is beyond the scope of this report but could be performed upon request.

Based on the indications from the borings, basement footings constructed at a minimum depth of seven feet six inches (7'6") and a maximum depth of fifteen feet (15') could be proportioned for an allowable bearing pressure of 4,500 psf. Potential foundations above seven feet six inches (7'6") could be proportioned for an allowable bearing pressure of 3,000 psf at Borings 1 through 4 and 2,000 psf at Boring 5 provided the foundations bear on natural, non-organic soils. Higher design soil pressures are available at various depths in some of the borings and could be detailed, if desired.

Based on the results from field and laboratory tests along with experience with similar loading conditions and construction procedures, we expect that total settlement could be a little over one inch (1") and differential settlement a little under one inch (1").

Seismic Site Class

Based on the limited data obtained from the borings, we suggest considering a seismic site class of D at the subject site. This recommendation was developed in accordance with ASCE 7-16 (Table 20.3-1).

Groundwater Considerations

Basement footing excavations are expected to be above groundwater elevations measured upon completion of drilling. Based on the indication from the borings, we expect that the shallow groundwater encountered in Boring 5 is from a seam of wet silt or sand. Water seepage from perched water or from wet sand or silt seams is not expected to be a major issue, but if significant should be manageable with construction pumping and sumps. However, this is not known for certain. If large volumes of water or saturated granular soils are encountered, special dewatering techniques may be required. Extreme care must be exercised during any dewatering operation if nearby buildings or utilities are sensitive to settlement.

The basement should be provided with an adequate drainage system to protect the floor and walls from the possible effects of hydrostatic pressure. The drainage system should be designed and installed to minimize the potential for soil fines to erode into the underdrainage system.

Floor Slabs

The borings encountered asphalt or topsoil at the ground surface followed by fill soils extending to depths ranging from two foot three inches (2'3") to three feet seven inches (3'7"). If the possibility of more than normal differential settlement can be tolerated, slab-on-grade floors or floor-supporting backfill could be placed near the present grade in the vicinity of the borings. The existing asphalt or topsoil along with any other obviously objectionable materials should be removed and the subgrade should then be thoroughly proof-compacted. If, during the proof-compaction operation, areas are found where the soils yield excessively, the yielding materials should be scarified, dried, and recompacted or removed and replaced with engineered fill. Where fill or backfill is required to raise

the subgrade for concrete floors or backfill utility trenches, it is suggested that clean, well-graded granular soils be used. If clay material is utilized, it should be placed within 3% of its optimum moisture content. The fill should be deposited in horizontal lifts not to exceed nine inches (9") in thickness with each lift being compacted uniformly to a minimum density of 95% of its maximum value as determined by the Modified Proctor Test (ASTM D-1557).

Existing structures should be entirely removed from the proposed building area. Buried utilities should be removed or grouted in place. Resulting excavations should be backfilled with engineered fill meeting the requirements outlined above.

To minimize capillary action under floor slabs, we suggest placing at least six inches (6") of clean granular material on the subgrade followed by a suitable plastic vapor barrier between the clean material and the concrete slab. The clean granular material could consist of pea stone, MDOT Class I sand, 2NS sand or 6AA crushed stone. The subgrade soils should be slightly crowned so that any accumulation of water in the granular soil will run into the basement drainage system.

Lateral Earth Pressure

If plans call for the basement walls to be rigidly fixed at the top, then the walls should be designed on the basis of "at rest" earth pressure conditions. An equivalent fluid pressure of 55 psf per foot of depth could be used if adequate drainage and free draining granular backfill are provided behind the walls. If the walls are not restrained at the top, "active" earth pressure can be used for design. On this basis, equivalent fluid pressures of 40 psf per foot of depth should be used if adequate drainage and free draining granular backfill are provided. Recognize that some movement of the below-grade soils is needed before the active pressure develops. Generally, the amount of movement required to activate "active" conditions is approximately equal to 0.002 times the height of the wall. The fill placed against below-grade walls should consist of granular soils with less than 7% passing the #200 Sieve. If free draining soil and adequate drainage are not provided, the accumulation of hydrostatic pressures should be accounted for. We suggest that an equivalent fluid pressure of 85 psf per foot of depth be considered for the "active" case and 100 psf per foot of wall height be considered for the "at rest" case. It should be noted that surcharge loads applied behind walls can impose additional lateral pressures on the walls. If the basement walls are subjected to such surcharge loading, it should be considered in the wall design. Furthermore, only small compactors should be utilized during fill placement adjacent to walls to prevent wall movement or damage during construction. A design passive earth pressure of 150 psf per foot of depth could be used for well compacted or native soils. This passive pressure assumes a factor of safety of 1.5. A coefficient of sliding between concrete and the soils at the site would be on the order of 0.3. It is recommended that provisions be made to allow water to drain from behind the walls to prevent the build-up of hydrostatic water pressure.

Closing

Experience indicates that actual subsurface conditions at the site could vary from those found at the five test borings made at specific locations. It is, therefore, essential that McDowell & Associates be notified of any variation of soil conditions to determine their effects on the recommendations presented in this report. The evaluations and recommendations presented in this report have been formulated on the basis of reported or assumed data relating to the proposed project. Any significant

change in the final design plans should be brought to our attention for review and evaluation with respect to the prevailing subsoil conditions.

It is recommended that the services of McDowell & Associates be engaged to observe the soils in the footing excavations prior to concreting in order to test the soils for the required bearing capacities. Testing should also be performed to check that suitable materials are being used for controlled fills and that they are properly placed and compacted.

If we can be of any further service, please feel free to call.

Very truly yours,

McDOWELL & ASSOCIATES



David Quintal, M.S., P.E.
Geotechnical Engineer



Robert McDowell, M.S., P.E.
CEO McDowell & Associates

DQ/



McDOWELL & ASSOCIATES
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LOG OF SOIL
BORING NO. 1

PROJECT Soils Investigation

LOCATION Proposed 6-Story Building

1000 Haynes Street

Birmingham, Michigan

JOB NO. 21-020

SURFACE ELEV. _____ DATE 2-3-2021

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
			0'3" ASPHALT						
	1		Moist gray crushed STONE, aggregate fill						
A	2		1'3" Firm moist variegated silty CLAY with trace of						
UL			sand and pebbles and topsoil streaks, fill	2					
	3			4	17.1	124			
				7			*	(4000)	
	4		Stiff moist variegated silty CLAY with traces of						
B			sand and pebbles						
UL	5		4'6"	5					
				9	15.5	133			
	6		Very stiff moist variegated silty CLAY with	9			*	(9000+)	
			traces of sand and pebbles						
C	7		6'10"	7					
UL				11					
	8		Extremely stiff moist brown silty CLAY with	12					
			traces of sand and pebbles and occasional						
	9		stones						
D			9'5"	5					
UL	10			7	14.2	134			
				9			*	(5500)	
	11								
	12								
	13								
	14								
E				3					
UL	15			5	14.9	137		3440	
				7			*	(4100)	
	16		Very stiff moist blue silty CLAY with sand and						
			pebbles						
	17								
	18								
	19								
F				3					
UL	20			5					
				8					
	21								
	22								
	23		23'0"						
	24								
G			Stiff moist blue silty CLAY with sand and	2					
UL	25		pebbles and occasional stones	5	14.3	137			
				7			*	(3600)	

TYPE OF SAMPLE
D. - DISTURBED
UL. - UNDIST. LINER
S.T. - SHELBY TUBE
S.S. - SPLIT SPOON
R.C. - ROCK CORE
() - PENETROMETER

REMARKS: *Calibrated penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1" With
140# Hammer Falling 30"; Count Made at 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT	FT.	INS.
G.W. ENCOUNTERED AT	FT.	INS.
G.W. AFTER COMPLETION	FT.	NONE
G.W. AFTER	HRS.	FT.
G.W. VOLUMES		INS.



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JOB NO. 21-020

LOG OF SOIL BORING NO. 1 cont.

PROJECT Soils Investigation

LOCATION Proposed 6-Story Building

1000 Haynes Street

Birmingham, Michigan

SURFACE ELEV. DATE 2-3-2021

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	Moisture %	Natural WL P.C.F.	Dry Den WL P.C.F.	Unc. Comp. Strength PSF.	Str. %
	26								
	27								
	28								
	29								
H	30			3					
UL	30			5	13.7	138			
	31			7			*	(3000)	
	32								
	33								
	34								
I	35		Stiff moist blue silty CLAY with sand and pebbles and occasional stones	2					
UL	35			4					
	36			6					
	37								
	38								
	39								
J	40			2					
UL	40			3	13.1	141			
	41			5			*	(2000)	
	42		42'0"						
	43								
	44								
K	45			2					
UL	45			5					
	46			8					
	47		Very stiff moist blue silty CLAY with sand and pebbles and occasional stones						
	48								
	49		Notes:						
L	50		1) Used automatic hammer.	3					
UL	50		2) Patched boring upon completion with cold patch asphalt.	5	15.6	136			
				8			*	(2700)	
			50'6"						

TYPE OF SAMPLE
D. - DISTURBED
U.L. - UNDIST. LINER
S.T. - SHELBY TUBE
S.S. - SPLIT SPOON
R.C. - ROCK CORE
() - PENETROMETER

REMARKS: *Calibrated penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1" With 140# Hammer Falling 30". Count Made at 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT	FT.	INS.
G.W. ENCOUNTERED AT	FT.	INS.
G.W. AFTER COMPLETION	FT.	NONE
G.W. AFTER HRS.	FT.	INS.
G.W. VOLUMES		



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LOG OF SOIL
BORING NO. 2

PROJECT Soils Investigation

LOCATION Proposed 6-Story Building

1000 Haynes Street

Birmingham, Michigan

JOB NO. 21-020

SURFACE ELEV. _____ DATE 2-2-2021

Birmingham, Michigan									
Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	Moisture %	Natural WL P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
	1		Moist dark brown sandy TOPSOIL, fill						
A	2		1'7"	6					
UL	3			9	19.5	117			
	4			11					
	5		3'6"						
B	6		6'0"	3					
UL	7			3	14.7	---			
	8			4			*	(7000)	
	9		13'0"						
C	10			6					
UL	11			9					
	12		22'0"	13					
	13								
	14								
D	15		22'0"	9					
UL	16			14	13.1	138			
	17			22			*	(9000+)	
	18		22'0"						
	19								
	20								
E	21		22'0"	4					
UL	22			8	12.7	137			
	23			10			*	4055 (4000)	
	24		22'0"						
	25								
	26								
	27		22'0"						
	28								
	29								
	30		22'0"						
	31								
	32								
	33		22'0"						
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	36		22'0"						
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	108		22'0"						
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	110								
	111		22'0"						
	112								
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	126		22'0"						
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	150		22'0"						
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	198		22'0"						
	199								
	200								
	201		22'0"						
	202								
	203								
	204		22'0"						
	205								
	206								
	207		22'0"						
	208								
	209								
	210		22'0"						
	211								
	212								
	213		22'0"						



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JOB NO. 21-020

LOG OF SOIL BORING NO. 2 cont.

PROJECT Soils Investigation

LOCATION Proposed 6-Story Building

1000 Haynes Street

Birmingham, Michigan

SURFACE ELEV. DATE 2-2-2021

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
	26		Very stiff moist blue silty CLAY with sand and pebbles						
	27								
	28								
	29								
H	30			3					
UL	31			6					
	32			8					
	33								
	34								
I	35		Very stiff moist blue CLAY with sand and pebbles and occasional stones	5					
UL	36			7	15.1	138			
	37			9			*	(3100)	
	38								
	39								
J	40			6					
UL	41			7					
	42			9					
	43								
	44								
K	45		Very stiff moist blue CLAY with sand and pebbles and occasional wet sand seams	3					
UL	46			6	10.9	141			
	47			7			*	(6000)	
	48								
	49								
L	50		Stiff moist blue sandy CLAY with pebbles	4					
UL				5					
				6					

TYPE OF SAMPLE
D. - DISTURBED
U.L. - UNDIST. LINER
S.T. - SHELBY TUBE
S.S. - SPLIT SPOON
R.C. - ROCK CORE
() - PENETROMETER

REMARKS: *Calibrated penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1" With
140# Hammer Falling 30": Count Made at 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT 43 FT. 2 INS.
G.W. ENCOUNTERED AT FT. INS.
G.W. AFTER COMPLETION 50 FT. 5 INS.
G.W. AFTER HRS. FT. INS.
G.W. VOLUMES LIGHT



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LOG OF SOIL
BORING NO. _____

2 cont.

PROJECT _____

Soils Investigation

LOCATION _____

Proposed 6-Story Building

1000 Haynes Street

Birmingham, Michigan

JOB NO. _____ 21-020

SURFACE ELEV. _____

DATE 2-2-2021

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Sr. %
	51		Stiff moist blue sandy CLAY with pebbles						
	52								
	53								
	54								
M UL	55			5					
	56		Very stiff moist blue silty CLAY with pebbles	7					
	57			9					
	58								
	59								
N UL	60			4					
	61		Note: Used Automatic Hammer.	6					
	62			10					
	63								
	64								
	65								
	66								
	67								
	68								
	69								
	70								
	71								
	72								
	73								
	74								
	75								

TYPE OF SAMPLE
D. - DISTURBED
U.L. - UNDIST. LINER
S.T. - SHELBY TUBE
S.S. - SPLIT SPOON
R.C. - ROCK CORE
() - PENETROMETER

REMARKS:

Standard Penetration Test - Driving 2" OD Sampler 1' With
140# Hammer Falling 30". Count Made at 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT 43 FT. 2 INS.
G.W. ENCOUNTERED AT FT. INS.
G.W. AFTER COMPLETION 50 FT. 5 INS.
G.W. AFTER HRS. FT. INS.
G.W. VOLUMES LIGHT



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LOG OF SOIL
BORING NO. 3

PROJECT Soils Investigation

LOCATION Proposed 6-Story Building

1000 Haynes Street

Birmingham, Michigan

JOB NO. 21-020

SURFACE ELEV. _____ DATE 2-2-2021

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF	Str. %
	1		0'8" ASPHALT						
			Moist dark brown SAND & GRAVEL, aggregate fill						
A	2		1'9"	2					
UL				4					
	3		Stiff moist brown sandy CLAY with gravel and discolored streaks, fill	5					
	4		3'7"						
B				3					
UL	5		Stiff moist variegated silty CLAY with sand and pebbles	5	15.8	127			
	6			7			*	(7000)	
C	7		7'0"	4					
UL				8	14.3	135			
	8			16			*	(7800)	
	9								
D			Extremely stiff moist brown silt CLAY with sand and pebbles	7					
UL	10			11	13.3	135			
	11			20			*	(9000+)	
	12		11'6"						
	13		Extremely stiff moist variegated silty CLAY with sand and pebbles						
	14		13'6"						
E				4					
UL	15			6	14.4	138		4895	
	16			8			*	(5200)	
	17								
	18								
	19								
F				4					
UL	20		Very stiff moist blue silty CLAY with sand and pebbles	6					
				10					
	21								
	22								
	23								
	24								
G				5					
UL	25			7	15.2	135			
				8			*	(4500)	

TYPE OF SAMPLE
D. - DISTURBED
U.L. - UNDIST. LINER
S.T. - SHELBY TUBE
S.S. - SPLIT SPOON
R.C. - ROCK CORE
() - PENETROMETER

REMARKS: *Calibrated penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1" With
140# Hammer Falling 30". Count Made at 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT 36 FT. 9 INS.
G.W. ENCOUNTERED AT FT. INS.
G.W. AFTER COMPLETION DRY FT. INS.
G.W. AFTER HRS. FT. INS.
G.W. VOLUMES LIGHT



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LOG OF SOIL
BORING NO. 3 cont.

PROJECT Soils Investigation

LOCATION Proposed 6-Story Building

1000 Haynes Street

Birmingham, Michigan

JOB NO. 21-020

SURFACE ELEV. DATE 2-2-2021

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF	Str. %
	26								
	27								
	28								
	29								
H UL	30			4					
	31		Very stiff moist blue silty CLAY with sand and pebbles	6					
	32			8					
	33								
	34								
I UL	35			4					
	36			5	14.5	---			
	37			8			*	(3100)	
	38								
	39								
J UL	40			4					
	41			7					
	42			8					
	43								
	44								
K UL	45		Very stiff moist blue silty CLAY with sand and pebbles and occasional wet silt lenses	4					
	46			5					
	47			7					
	48								
	49								
L UL	50			5					
				5					
				8					

TYPE OF SAMPLE
D. - DISTURBED
U.L. - UNDIST. LINER
S.T. - SHELBY TUBE
S.S. - SPLIT SPOON
R.C. - ROCK CORE
() - PENETROMETER

REMARKS: *Calibrated penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1" With
140# Hammer Falling 30": Count Made at 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT 36 FT. 9 INS.
G.W. ENCOUNTERED AT FT. INS.
G.W. AFTER COMPLETION DRY FT. INS.
G.W. AFTER HRS. FT. INS.
G.W. VOLUMES LIGHT



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JOB NO. 21-020

LOG OF SOIL
BORING NO. 3 cont.

PROJECT Soils Investigation

LOCATION Proposed 6-Story Building

1000 Haynes Street

Birmingham, Michigan

SURFACE ELEV. DATE 2-2-2021

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %	
	51		Very stiff moist blue silty CLAY with sand and pebbles and occasional wet silt lenses							
	52									
	53									
	54									
M	55					4				
UL	56					6				
	57					9				
	58									
	59									
N	60					6				
UL	61		60'6"	7						
	62			10						
	63									
	64									
	65									
	66									
	67									
	68									
	69									
	70									
	71									
	72									
	73									
	74									
	75									

Notes:

- Used Automatic Hammer.
- Patched boring upon completion with cold patch asphalt.

TYPE OF SAMPLE

D. - DISTURBED

U.L. - UNDIST. LINER

S.T. - SHELBY TUBE

S.S. - SPLIT SPOON

R.C. - ROCK CORE

() - PENETROMETER

REMARKS:

Standard Penetration Test - Driving 2" OD Sampler 1' With 140# Hammer Falling 30"; Count Made at 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT 36 FT. 9 INS.

G.W. ENCOUNTERED AT FT. INS.

G.W. AFTER COMPLETION DRY FT. INS.

G.W. AFTER HRS. FT. INS.

G.W. VOLUMES LIGHT



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LOG OF SOIL
BORING NO. 4

PROJECT Soils Investigation

LOCATION Proposed 6-Story Building

1000 Haynes Street

Birmingham, Michigan

JOB NO. 21-020

SURFACE ELEV. _____ DATE 2-2021

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	Moisture %	Natural WL P.C.F.	Dry Den WL P.C.F.	Unc. Comp. Strength PSF.	Str. %
	1		0'9" Moist dark brown sandy TOPSOIL, fill						
A	2			2					
UL	3		Firm moist discolored brown silty CLAY with topsoil, gravel and vegetation, fill	3	18.7	121			
	4			4			*	(2600)	
B	5		3'6" Extremely stiff moist variegated silty CLAY with traces of sand and pebbles	4					
UL	6			8	14.5	128			
	7			11			*	(9000+)	
C	8								
UL	9			5					
	10			9					
D	11			12					
UL	12		6'0" Extremely stiff moist brown silty CLAY with sand and pebbles	8					
	13			13	13.5	138		9995	
	14			18			*	(9000+)	
E	15								
UL	16		13'6" Extremely stiff moist blue silty CLAY with sand and pebbles	7					
	17			9	13.8	139			
	18			12			*	(5700)	
F	19								
UL	20			5					
	21			7					
	22			9					
G	23								
UL	24		17'6" Very stiff moist blue silty CLAY with traces of sand and pebbles						
	25			6					
				8	13.7	140			
				9			*	(4500)	

TYPE OF SAMPLE
D. - DISTURBED
U.L. - UNDIST. LINER
S.T. - SHELBY TUBE
S.S. - SPLIT SPOON
R.C. - ROCK CORE
() - PENETROMETER

REMARKS: *Calibrated penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1' With
140# Hammer Falling 30". Count Made at 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT 42 FT. 4 INS.
G.W. ENCOUNTERED AT FT. INS.
G.W. AFTER COMPLETION NONE FT. INS.
G.W. AFTER HRS. FT. INS.
G.W. VOLUMES LIGHT



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JOB NO. 21-020

LOG OF SOIL BORING NO. 4 cont.

PROJECT Soils Investigation

LOCATION Proposed 6-Story Building

1000 Haynes Street

Birmingham, Michigan

SURFACE ELEV. DATE 2-2021

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Str. %
	26								
	27		27'0" Stiff moist blue silty CLAY with traces of sand and pebbles						
	28								
	29								
H									
UL	30		Extremely stiff moist blue silty CLAY with sand and pebbles	6					
	31			8					
	32			12					
	33		32'6"						
	34								
I									
UL	35			6					
	36			7	15.9	137			
	37			8			*	(250)	
	38		Very stiff moist blue silty CLAY with traces of sand and pebbles						
	39								
J									
UL	40			4					
	41			5					
	42			8					
	43		42'6"						
	44								
K									
UL	45		Extremely stiff moist gray clayey SILT with moist silt lenses	6					
	46			10	19.1	128			
	47		46'0"	15			*	(9000)	
	48								
	49		Extremely stiff moist blue silty CLAY with sand and pebbles and moist silt lenses						
L									
UL	50			5					
			50'6" Note: Used automatic hammer.	11					
				14					

TYPE OF SAMPLE
D. - DISTURBED
U.L. - UNDIST. LINER
S.T. - SHELBY TUBE
S.S. - SPLIT SPOON
R.C. - ROCK CORE
() - PENETROMETER

REMARKS: *Calibrated penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1" With
140# Hammer Falling 30"; Count Made at 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT	42	FT.	4	INS.
G.W. ENCOUNTERED AT		FT.		INS.
G.W. AFTER COMPLETION	NONE	FT.		INS.
G.W. AFTER	HRS.	FT.		INS.
G.W. VOLUMES				

LIGHT



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JOB NO. 21-020

LOG OF SOIL BORING NO. 5

PROJECT Soils Investigation

LOCATION Proposed 6-Story Building

1000 Haynes Street

Birmingham, Michigan

SURFACE ELEV. DATE 2-2021

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Sir. %
	1		0'7" ASPHALT						
			Moist brown SAND & GRAVEL, aggregate fill						
A	2		1'8" Compact moist brown gravelly SAND, fill	4					
UL	3		3'0" Moist discolored brown sandy CLAY with asphalt, fill	4	12.6	126			
	4		3'6"	5					
B	5		Firm moist variegated silty CLAY with traces of sand and pebbles	2					
UL	6		6'0"	2	17.4	128			
				3			*	(2000)	
C	7		Very stiff moist brown silty CLAY with traces of sand and pebbles and occasional wet silt seams	5					
UL	8		8'3"	6	13.1	140			
	9			7			*	(5500)	
D	10		Extremely stiff moist brown silty CLAY with traces of sand and pebbles	9					
UL	11			13	14.0	137		8975	
				17			*	(9000+)	
	12		12'0"						
	13								
	14		Very stiff moist brown silty CLAY with sand and pebbles and occasional stones						
E	15			5					
UL	16			5	14.6	---			
				7			*	(4000)	
	17								
	18		18'0"						
	19								
F	20			5					
UL	21		Extremely stiff moist blue silty CLAY with sand and pebbles	8					
				11					
	22								
	23								
	24								
G	25			5					
UL				8	14.6	137		4510	
				10			*	(4000)	

TYPE OF SAMPLE
D. - DISTURBED
U.L. - UNDIST. LINER
S.T. - SHELBY TUBE
S.S. - SPLIT SPOON
R.C. - ROCK CORE
() - PENETROMETER

REMARKS:
Standard Penetration Test - Driving 2" OD Sampler 1" With
140# Hammer Falling 30"; Count Made at 6" Intervals

GROUND WATER OBSERVATIONS
G.W. ENCOUNTERED AT 6 FT. 2 INS.
G.W. ENCOUNTERED AT FT. INS.
G.W. AFTER COMPLETION FT. DRY INS.
G.W. AFTER HRS FT. INS.
G.W. VOLUMES LIGHT



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JOB NO. 21-020

LOG OF SOIL BORING NO. 5 cont.

PROJECT Soils Investigation

LOCATION Proposed 6-Story Building

1000 Haynes Street

Birmingham, Michigan

SURFACE ELEV. DATE 2-2021

Sample & Type	Depth	Legend	SOIL DESCRIPTION	Penetration Blows for 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF.	Sir. %
	26								
	27								
	28								
	29								
H	30			6					
UL	31			11					
	32			13					
	33								
	34								
I	35			6					
UL	36			8	15.0	140			
	37			11			*	(4000)	
	38								
	39								
J	40			4					
UL	41			6					
	42			9					
	43								
	44								
K	45			4					
UL	46			6	14.7	136			
	47			8			*	(3000)	
	48								
	49								
L	50			5					
UL	50'6"			8					
	50'6"			11					

Extremely stiff moist blue silty CLAY with sand and pebbles

27'6"

Extremely stiff moist blue silty CLAY with sand and pebbles and occasional moist fine sand lenses

38'0"

Very stiff moist blue silty CLAY with sand and pebbles

48'6"

Extremely stiff moist blue silty CLAY with traces of sand and pebbles

50'6"

Notes:

- 1) Used automatic hammer.
- 2) Patched boring upon completion with cold patch asphalt

TYPE OF SAMPLE
D. - DISTURBED
U.L. - UNDIST. LINER
S.T. - SHELBY TUBE
S.S. - SPLIT SPOON
R.C. - ROCK CORE
() - PENETROMETER

REMARKS: *Calibrated penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1' With 140# Hammer Falling 30"; Count Made at 6" Intervals

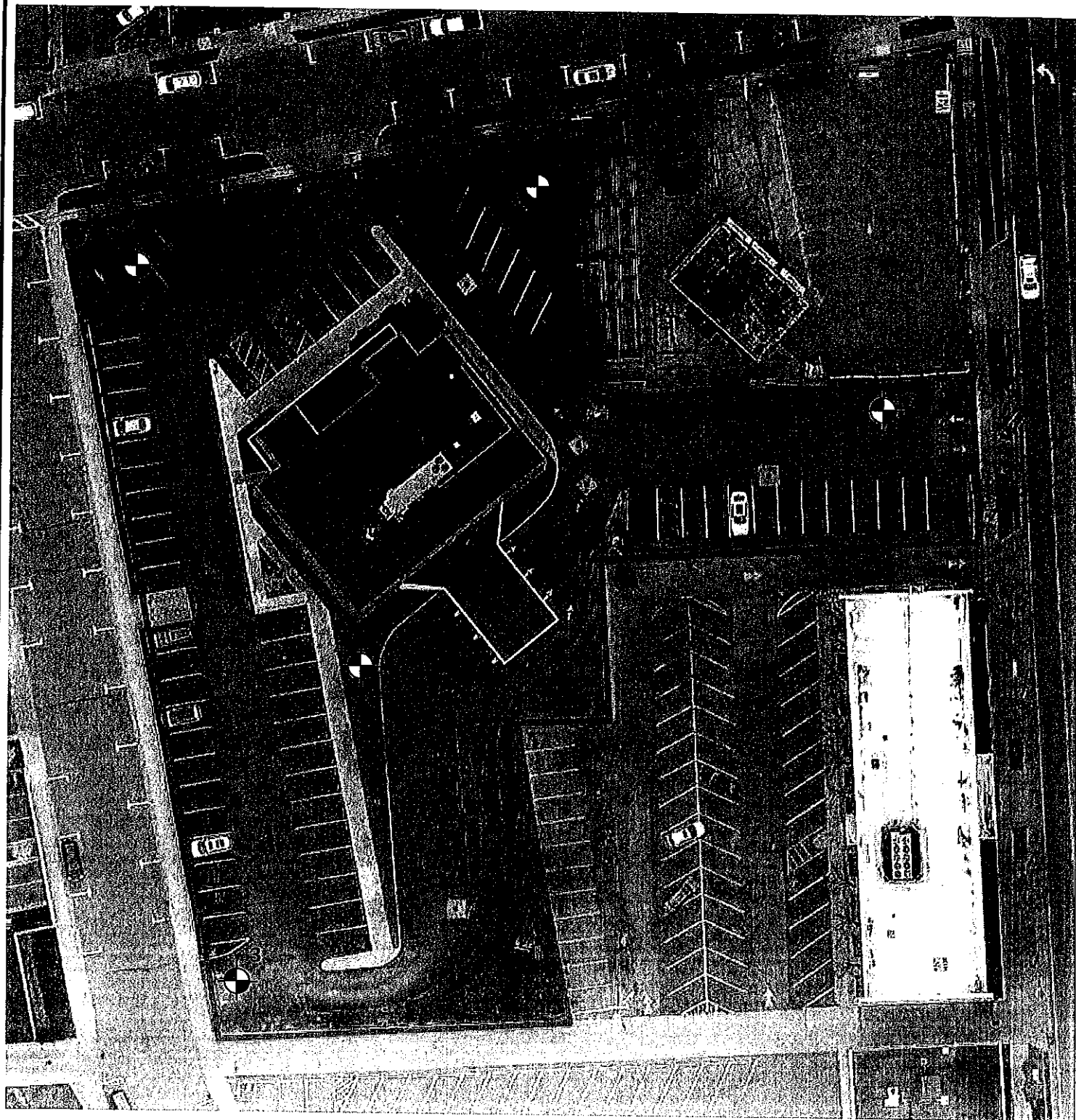
GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT	6	FT.	2	INS.
G.W. ENCOUNTERED AT		FT.		INS.
G.W. AFTER COMPLETION		FT.	DRY	INS.
G.W. AFTER	HRS.	FT.		INS.
G.W. VOLUMES				

LIGHT

ATTERBERG LIMITS

<u>Boring</u>	<u>Sample</u>	<u>Liquid Limit (%)</u>	<u>Plastic Limit (%)</u>	<u>Plasticity Index (%)</u>
4	E	23.4	13.8	9.6
4	G	22.4	12.9	9.5
4	I	22.7	13.8	8.9

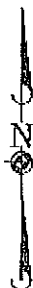


Note: Base drawing from Oakland County website.

LEGEND



Soil Boring Locations, 1 through 5:
Drilled by McDowell & Associates



McDowell & Associates
21355 Hatcher Avenue
Ferndale, Michigan 48220
Phone: (248) 399-2066
Fax: (248) 399-2157

Soil Boring Location Plan

Job No. 21-020

4.8 Air Quality Report



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

AIR QUALITY ANNUAL REPORT

2020



Michigan Department of Environment, Great Lakes, and Energy
Michigan.gov/EGLE | 800-662-9278

Air Quality Annual Report

2020

EXECUTIVE SUMMARY

This report gives an overview of the air quality for 2020. Current data for Michigan can be found on Mlair (deqmiair.org) and Air Quality alerts can be delivered directly to email by signing up for the Michigan EnviroFlash program (<http://miair.enviroflash.info/>). Data in this report are collected by the Michigan Department of Environment, Great Lakes, and Energy (EGLE).

The federal Clean Air Act (CAA) requires the United States Environmental Protection Agency (USEPA) to establish National Ambient Air Quality Standards (NAAQS) for six criteria pollutants considered harmful to public health and the environment.

The six pollutants monitored by EGLE, Air Quality Division (AQD) are:

1. Carbon monoxide (CO)
2. Lead (Pb)
3. Nitrogen dioxide (NO₂)
4. Ozone (O₃)
5. Particulate matter smaller than 10 and 2.5 microns in diameter (PM₁₀ and PM_{2.5}, respectively)
6. Sulfur dioxide (SO₂)

EGLE has established a network of more than 40 monitoring sites throughout the state that monitor for one or more of the criteria pollutants (Figure 1.1 and Table 1.2).

Congress passed the CAA in 1970; however, Michigan has had a long-standing history of environmental awareness well before the Act was established. In 1887, Detroit was the first city in Michigan to adopt an air quality ordinance, which declared that the dense smoke from burning coal was a public nuisance.

The USEPA reviews the criteria pollutant standards every five years. Over time, based upon health data, the standards have been tightened to better protect public health (see Appendix C). Areas that meet the NAAQS are considered in “attainment.” Locations where air pollution levels persistently exceed the NAAQS may be designated as “nonattainment.” The tightening standards are why some areas in the state may be designated to nonattainment from attainment even though monitoring shows that air quality continues to improve.

Since EGLE began monitoring in the early 1970s, criteria pollutant levels have continually decreased (see Chap. 2-7). The air is much cleaner today than when the CAA began. The entire state of Michigan is in attainment for CO, Pb, NO₂, and particulate matter. Although portions of the state are in nonattainment for SO₂ and O₃, as illustrated in the figure, levels of these pollutants are still decreasing. The NAAQS levels have also decreased recently, which prompted these nonattainment areas. EGLE is currently working on State Implementation Plans (SIPs) to reduce pollutants further and bring the entire state into attainment for SO₂ and ozone.

Several changes to the monitoring network occurred during 2020.

- The TSPs were shut down at Allen Park and Grand Rapids since they were no longer required for NCore sites (Chap. 7).
- Several changes were made to the PM_{2.5} network, exchanging Federal Reference Method (FRM) manual filter-based monitors and/or non-regulatory continuous monitors for continuous, federal equivalent method (FEM) monitors due to funding changes. Sites that were affected were Eliza Howell-Near Road (Eliza Howell-NR), Bay City, Holland, Kalamazoo, Lansing, Port Huron, and New Haven. Several of these changes occurred at the end of 2020 and data will not be available until the 2021 report (Chap. 7).
- PM_{2.5}, PM₁₀ and PM coarse measurements at Allen Park, Grand Rapids, and Jenison were switched to T640X instruments that accomplish the same measurements with one instrument.
- The Livonia-Near Road (Livonia-NR) monitor is in the process of moving since site access was lost in July 2019.
- The NO_x monitor at Detroit-E 7 Mile was switched to an NO_y and a NO_x monitor was added to Jenison.
- Sampling continues for the Gordie Howe International Bridge (GHIB) project special study.
- The Detroit-W. Fort St. site name is being changed to Detroit-Southwest (Detroit-SW).

Attainment Status for the National Ambient Air Quality Standards

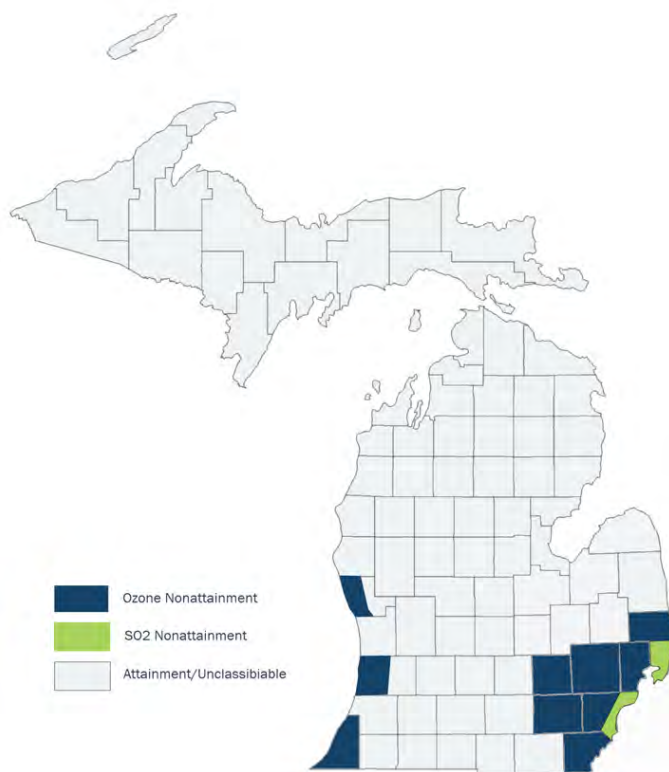


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INTRODUCTION

Air quality regulations in Michigan are based on National Ambient Air Quality Standards (NAAQS) established by United States Environmental Protection Agency (USEPA) based on the federal Clean Air Act (CAA). The NAAQS designates six criteria pollutants considered harmful to public health and the environment. The USEPA must describe the characteristics and potential health and welfare effects for these criteria pollutants. These standards define the maximum permissible concentration of criteria pollutants in the air (see Table 1.1).

The Michigan Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD) monitors the six criteria pollutants, which are:

- Carbon monoxide (CO);
- Lead (Pb);
- Nitrogen dioxide (NO₂);
- Ozone (O₃);
- Particulate matter smaller than 10 and 2.5 microns in diameter (PM₁₀ and PM_{2.5}, respectively); and
- Sulfur dioxide (SO₂).

Chapters 2 through 7 provide information on each of the six criteria pollutants and include:

- Michigan's monitoring requirements for 2020;
- Attainment / nonattainment status;
- Monitoring site locations (tables and maps show all the monitors active in 2020); and
- Air quality trends from 2015-2020 broken down by location.¹

The 2020 data for each criteria pollutant is available in **Appendix A**. COVID-19 did not impact air quality data collection in Michigan.

The AQD also monitors air toxics. Air toxics are other hazardous air pollutants that can affect human health and the environment.² This data can be found in **Appendix B**.

The purpose of this report is to provide a snapshot of Michigan's 2020 air quality data, air quality trends, overview of the monitoring network (available in much greater detail in the [2020 Network Review](#)),³ air toxics monitoring program, and other AQD programs, such as [Mlair](#) and the [Emissions Inventory](#).⁴

¹ Air quality trends are based on actual statewide monitored readings, which are also listed in the USEPA's Air Quality Subsystem Quick Look Report Data at www3.epa.gov/airtrends/.

² [An Overview of Michigan Air Toxic Rules](#) is available on the AQD website at www.michigan.gov/air (select "Permits," then "Toxics Laws and Rules.")

³ Available online at [Michigan's 2020 Ambient Air Monitoring Network Review](#)

⁴ [Online information](#) about criteria pollutants and air toxics, along with this and previous Annual Air Quality Reports, are available via the AQD's website at www.michigan.gov/air (select "Monitoring.")

CHAPTER 1: BACKGROUND INFORMATION

This section summarizes the development of the NAAQS (see **Appendix C** for further details) and how compliance with these standards is determined. Also included is an overview of Michigan's air sampling network, attainment status of the state, and information on Mlair and the Air Quality Index (AQI).

National Ambient Air Quality Standards (NAAQS)

Under the CAA, the USEPA established a primary and secondary NAAQS for each criteria pollutant. The primary standard is designed to protect public health with an adequate margin of safety, including the health of the most susceptible individuals in a population, such as children, the elderly, and those with chronic respiratory ailments. Secondary standards are chosen to protect public welfare (personal comfort and well-being) and the environment.

In addition, the NAAQS have various averaging times to address health impacts. Short averaging times reflect the potential for acute (immediate) effects, whereas long-term averaging times are designed to protect against chronic (long-term) effects.

NAAQS have been established for CO, Pb, NO₂, PM, O₃, and SO₂. **Table 1.1** lists the primary and secondary NAAQS, averaging time, and concentration level for each criteria pollutant in effect in 2020. The concentrations are listed as parts per million (ppm), micrograms per cubic meter (µg/m³), and/or milligrams per cubic meter (mg/m³).

Table 1.1: NAAQS in Effect during 2020 for Criteria Pollutants

Pollutant	Primary (health) Level	Primary Averaging Time	Secondary (welfare) Level	Secondary Averaging Time
CO 8-hour average	9 ppm (10 mg/m ³)	8-hour average, not to be exceeded more than once per year (1971)	None*	None*
CO 1-hour average	35 ppm (40 mg/m ³)	1-hour average, not to be exceeded more than once per year (1971)	None*	None*
Lead	0.15 µg/m ³	Maximum rolling 3-month average (2008)	Same as Primary	Same as Primary
NO ₂ Annual mean	0.053 ppm (100 µg/m ³)	Annual mean (1971)	Same as Primary	Same as Primary
NO ₂ 1-hour average	0.100 ppm	98 th percentile of 1-hour average, averaged over 3 years (2010)	Same as Annual	Same as Annual
PM ₁₀	150 µg/m ³	24-hour average, not to be exceeded more than once per year over 3 years (1987)	Same as Primary	Same as Primary
PM _{2.5} Annual average	12.0 µg/m ³	Annual mean averaged over 3 years (2012)	15.0 µg/m ³	Annual mean
PM _{2.5} 24-hour average	35 µg/m ³	98 th percentile of 24-hour concentration, averaged over 3 years (2006)	Same as Primary	Same as Primary
Ozone	0.070 ppm	Annual 4 th highest 8-hour daily max averaged over 3 years (2015)	Same as Primary	Same as Primary
SO ₂	0.075 ppm	99 th percentile of 1-hour daily max averaged over 3 years (2010)	0.5 ppm	3 hours

*In 1985, the USEPA revoked the secondary standard for CO (for public welfare) due to a lack of evidence of adverse effects on public welfare at or near ambient concentrations.

Michigan Air Sampling Network

EGLE's AQD operates the Michigan Air Sampling Network (MASN), along with other governmental agencies. For instance, the O_3 and $PM_{2.5}$ monitor in Manistee County is a tribal monitor operated by the Little River Band of Ottawa Indians. **Figure 1.1** is a picture of the Lansing site. **Figure 1.2** is a picture of the Military Park (GHIB) site. **Figure 1.3** shows a map of the 2020 MASN monitoring sites.

The MASN consists of federal reference method (FRM) monitors that enable continuous monitoring for the gaseous pollutants CO , NO_2 , O_3 , and SO_2 providing real-time hourly data. PM and Pb monitors measure concentrations over a 24-hour period. In addition, continuous $PM_{2.5}$ and PM_{10} monitors provide real-time hourly data for PM . $PM_{2.5}$ chemical speciation monitors determine the chemical composition of $PM_{2.5}$. The MASN data is also used to provide timely reporting to EGLE's air quality reporting web page ([Mlair](#), see later in this chapter). The types of monitoring conducted in 2020 and the MASN locations are shown in **Table 1.2**.

Figure 1.1: Lansing site



Figure 1.2: Military Park site



The **NCore network** began January 1, 2011, as part of the USEPA's 2006 amended air monitoring requirements. NCore is a multi-pollutant network that integrates several advance measurement systems for particles, pollutant gases, and meteorology. Michigan has two NCore sites, Allen Park and Grand Rapids. Further information on this network is provided in **Chapters 2** through **7**.

The **Near-road Monitoring Network** focuses on vehicle emissions and how they disperse near roadways. Data from these sites are presented in **Chapters 2, 5, and 7**.

Figure 1.3: 2020 MASN Monitoring Sites

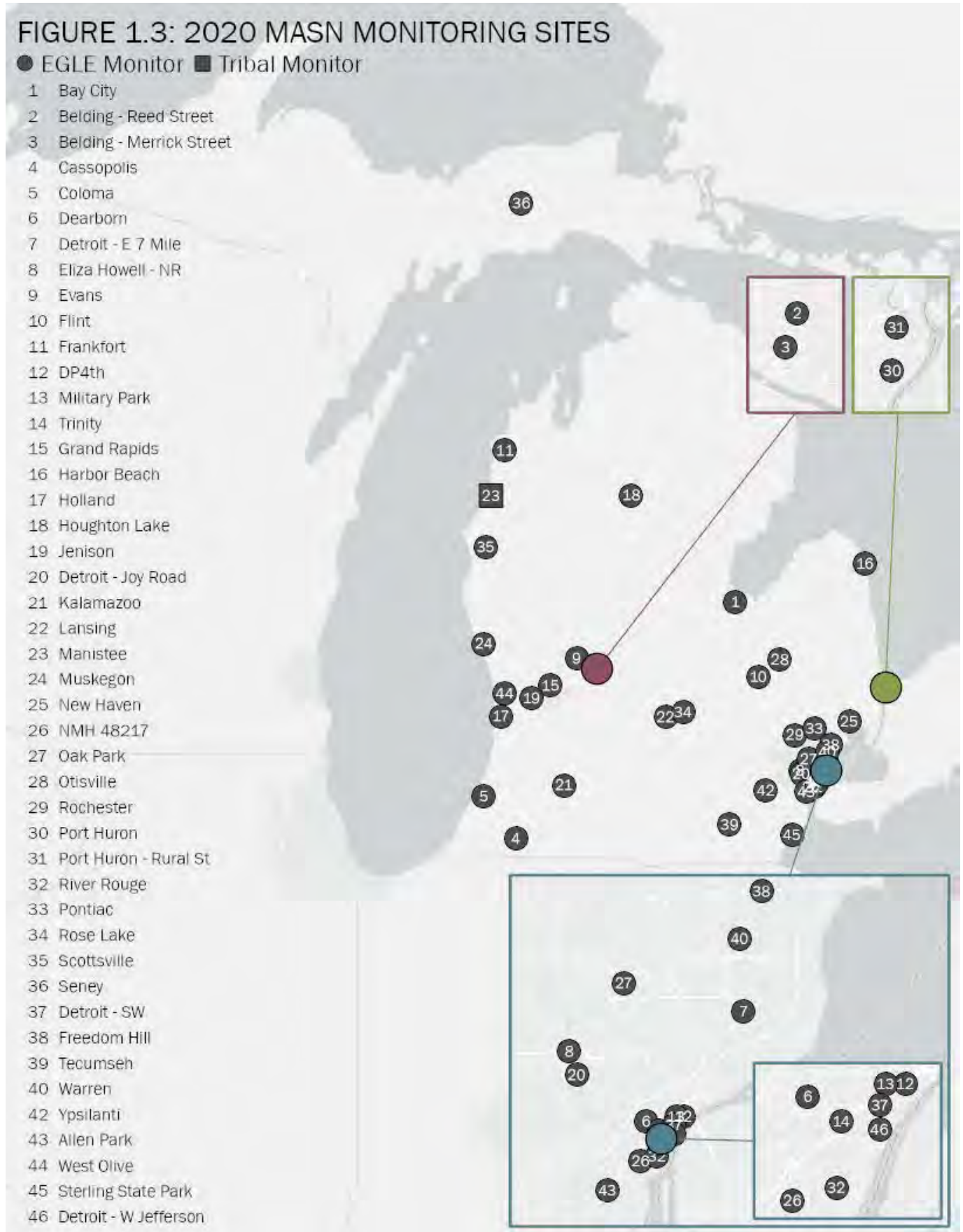


Table 1.2a: Types of Monitoring Conducted in 2020 and MASN Locations in Detroit-Ann Arbor Area.

Airs ID	Site Name	CO	NO ₂	Trace NO _y	O ₃	PM ₁₀	PM _{2.5} FRM	PM _{2.5} Continuous	PM _{2.5} Speciation	SO ₂	VOC	Carbonyls	Trace Metals (As, Cd, Mn, Ni, Pb)	Wind Speed & Direction, Temp.	Relative Humidity	Solar Radiation	Barometric Pressure
260910007	Tecumseh				√			√F						√			√
260990009	New Haven				√		√							√	√	√	
260991003	Warren				√												
261250001	Oak Park				√		√							√			
261470005	Port Huron				√		√	√T		√				√			
261470031	Port Huron-Rural St.												√				
261610008	Ypsilanti				√			√F						√			√
261630001	Allen Park	√*		√	√	√	√	√T	√+A	√*				√	√		√
261630005	River Rouge											√	√	√			
261630015	Detroit-SW ⁵		√			√	√	√F	√+A	√	√	√	√	√	√		√
261630019	Detroit-E 7 Mile			√	√		√							√	√		√
261630027	Detroit-W. Jefferson												√				
261630033	Dearborn					√^	√	√T	√+A		√	√	√#	√	√		√
261630093	Eliza Howell-NR	√	√					√F						√			
261630097	New Mount Herman (NMH) 48217							√T		√			√				
261630098	Detroit Police 4 th Precinct (DP4th)	√	√					√F	A	√			√				
261630099	Trinity	√	√					√F	A	√			√	√			
261630100	Military Park		√					√F	A	√			√				

√ = Data Collected

= 9 additional metals sampled: Ba, Be, Cr, Co, Cu, Fe, Mo, V, Zn

F = FEM continuous PM_{2.5} monitorT = TEOM (non-FEM) continuous PM_{2.5} monitor

* = Trace monitor

^ = Continuous PM₁₀ monitor

A = Aethalometer monitor

⁵ Detroit-SW is renamed from Detroit-W. Fort St., SWHS, Southwestern High School, N. Delray to reflect the site more accurately and maintain some continuity from its previous names.

Table 1.2b: Types of Monitoring Conducted in 2020 and MASN Locations in other Michigan CSAs.

Area (CSA)	Airs ID	Site Name	CO	NO ₂	Trace NO _y	O ₃	PM ₁₀	PM _{2.5} FRM	PM _{2.5} Continuous	PM _{2.5} Speciation	SO ₂	VOC	Carbonyls	Trace Metals (As, Cd, Mn, Ni, Pb)	Wind Speed & Direction, Temp.	Relative Humidity	Solar Radiation	Barometric Pressure
Flint	260490021	Flint				√		√	√F						√			√
Flint	260492001	Otisville				√									√			
Grand Rapids	261390005	Jenison		√		√	√	√							√			
Grand Rapids	261390011	West Olive									√				√			
Grand Rapids	260810020	Grand Rapids	√*		√	√	√	√	√T	√	√*				√			√
Grand Rapids	260810022	Evans				√									√			
Lansing/E. Lansing	260650018	Lansing		√		√		√	√F		√				√			√
Lansing/E. Lansing	260370002	Rose Lake				√												

√ = Data Collected

F = FEM continuous PM_{2.5} monitor

T = TEOM (non-FEM) continuous PM_{2.5} monitor

* = Trace monitor

Table 1.2c: Types of Monitoring Conducted in 2020 and MASN Locations in Michigan Counties.

County	Airs ID	Site Name	CO	NO ₂	Trace NO _y	O ₃	PM ₁₀	PM _{2.5} FRM	PM _{2.5} Continuous	PM _{2.5} Speciation	SO ₂	VOC	Carbonyls	Trace Metals (As, Cd, Mn, Ni, Pb)	Wind Speed & Direction, Temp.	Relative Humidity	Solar Radiation	Barometric Pressure
Monroe	261150006	Sterling State Park									√				√			
Huron	260630007	Harbor Beach				√									√			
Bay	260170014	Bay City							√F						√			
Missaukee	261130001	Houghton Lake		√		√			√F						√			√
Allegan	260050003	Holland				√			√F						√	√	√	√
Benzie	260190003	Frankfort ⁶				√												
Berrien	260210014	Coloma				√									√			
Cass	260270003	Cassopolis				√									√			
Kalamazoo	260770008	Kalamazoo				√		√	√T						√			
Manistee	261010922	Manistee (tribal)				√		√							√		√	√
Mason	261050007	Scottville				√									√			
Muskegon	261210039	Muskegon				√									√			
Schoolcraft	261530001	Seney				√			√F						√	√	√	√
Ionia	260670002	Belding-Reed St.													√			
Ionia	260670003	Belding-Merrick St.												√				

√ = Data Collected

F = FEM continuous PM_{2.5} monitorT = TEOM (non-FEM) continuous PM_{2.5} monitor⁶ Also called Benzonia.

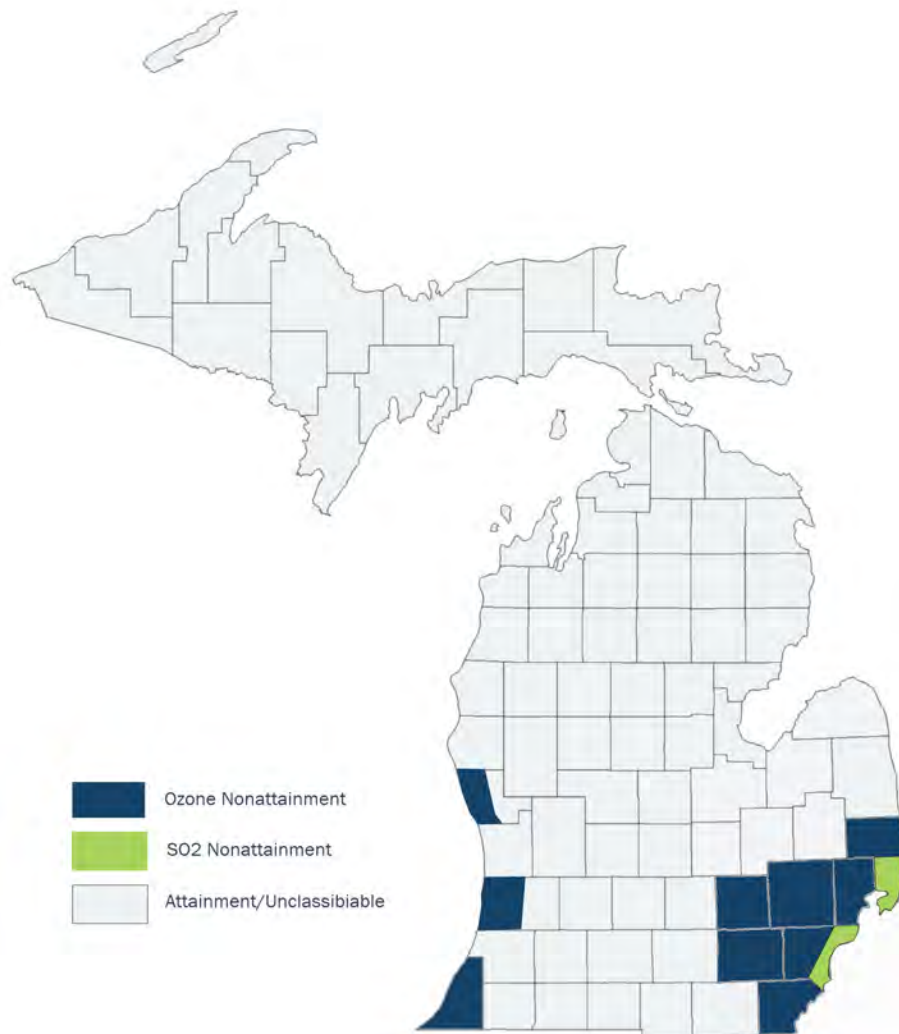
Current Attainment Status

Areas of the state that are below the NAAQS concentration level are called attainment areas. The entire state of Michigan is in attainment for the following pollutants:

- CO
- Pb
- NO₂
- Particulate Matter

Nonattainment areas are those that have been classified by the USEPA as having concentrations over the NAAQS level. Portions of the state are in nonattainment for SO₂ and O₃ (see **Figure 1.4**). The SO₂ nonattainment area includes a portion of Wayne County and a portion of St. Clair County. Ozone nonattainment areas include a portion of Allegan County, all of Berrien County, a portion of Muskegon County and the 7-county area of Southeast Michigan, which includes Livingston, Macomb, Monroe, Oakland, St. Clair, Washtenaw, and Wayne Counties. Nonattainment status for O₃ was effective on August 3, 2019.

Figure 1.4: Attainment Status for the National Ambient Air Quality Standards

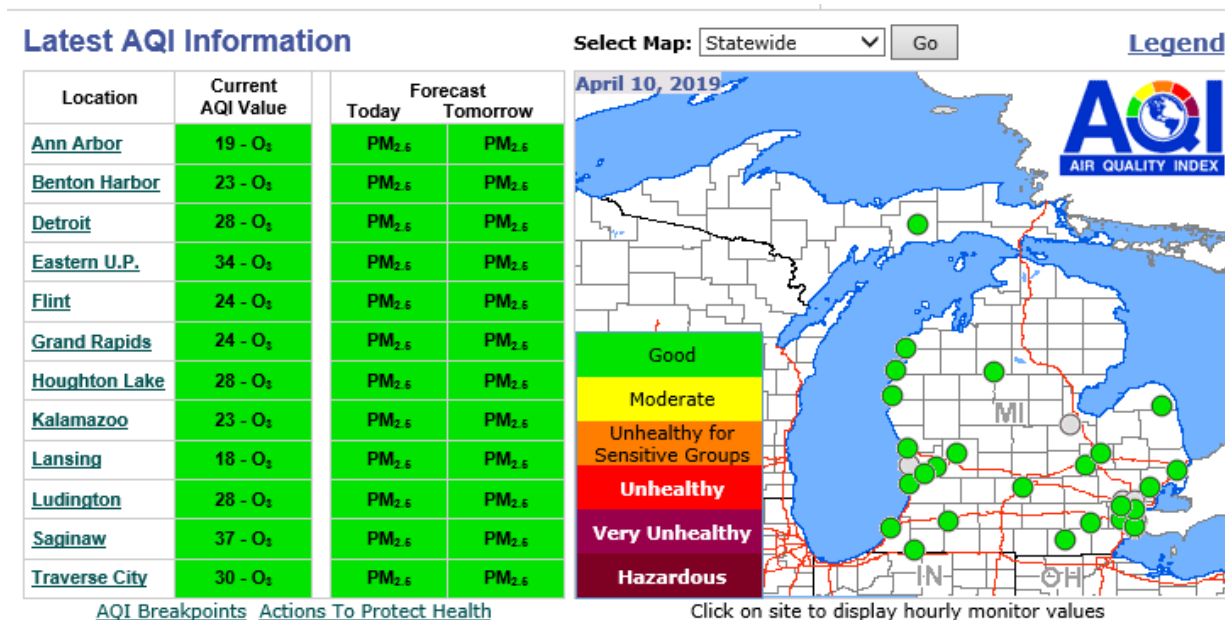


Mlair – Air Quality Information in Real-Time

Mlair is the internet tool that provides real-time air quality information via EGLE's web page. The deqmiar.org hotlink opens to the current Air Quality Index (AQI) map and displays air quality forecasts for "today" and "tomorrow." **Mlair** also hosts EnviroFlash, the automated air quality notification system.

Air Quality Index

The Air Quality Index (AQI) is a simple tool developed to communicate current air quality information to the public. The current day's color-coded AQI values, ranging from Good to Hazardous (see **Table 1.3**), are displayed in a forecast table and as dots on a Michigan map (see example below).



As can be seen from the AQI bar graphs for the Detroit-Warren-Dearborn area (Figure 1.5) and the Grand Rapids-Wyoming area (Figure 1.6), air quality in Michigan is generally in the Good or Moderate range. An area will occasionally fall into the Unhealthy for Sensitive Groups range, but rarely reaches Unhealthy levels.

In the Detroit area, only two days were in the Unhealthy range, both for PM_{2.5} on July 4 and 5, due to fireworks. In the Unhealthy for Sensitive Groups (USG), 15 days were due to ozone, five were due to PM_{2.5} and four were due to SO₂. In Detroit area, PM_{2.5} leads the AQI 220 days, meaning that pollutant has the highest AQI value of all the pollutants measured per day.

In the Grand Rapids area, only one day was in the Unhealthy range, for PM_{2.5} on July 4, due to fireworks. In the Unhealthy for Sensitive Groups (USG), six days were due to ozone, one was due to PM_{2.5} (on July 5th). In Grand Rapids area, ozone leads the AQI 247 days, meaning that pollutant has the highest AQI value of all the pollutants measured per day.

Figure 1.5: 2020 AQI Days per Pollutant for Detroit-Warren-Dearborn MSA, numbers next to categories are for the Overall AQI Value (First Bar on Graph)

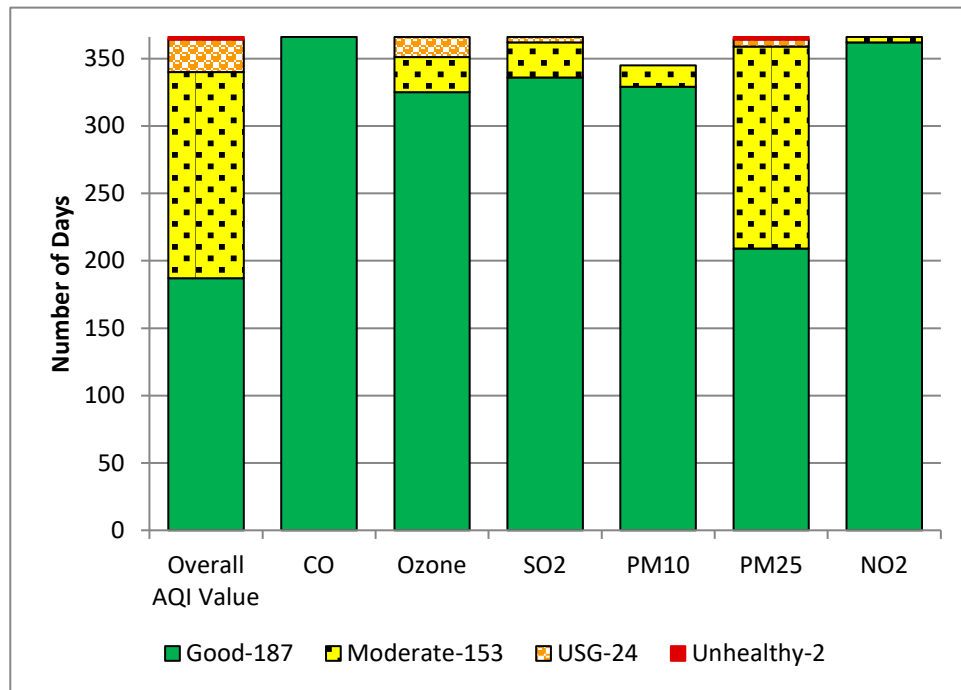
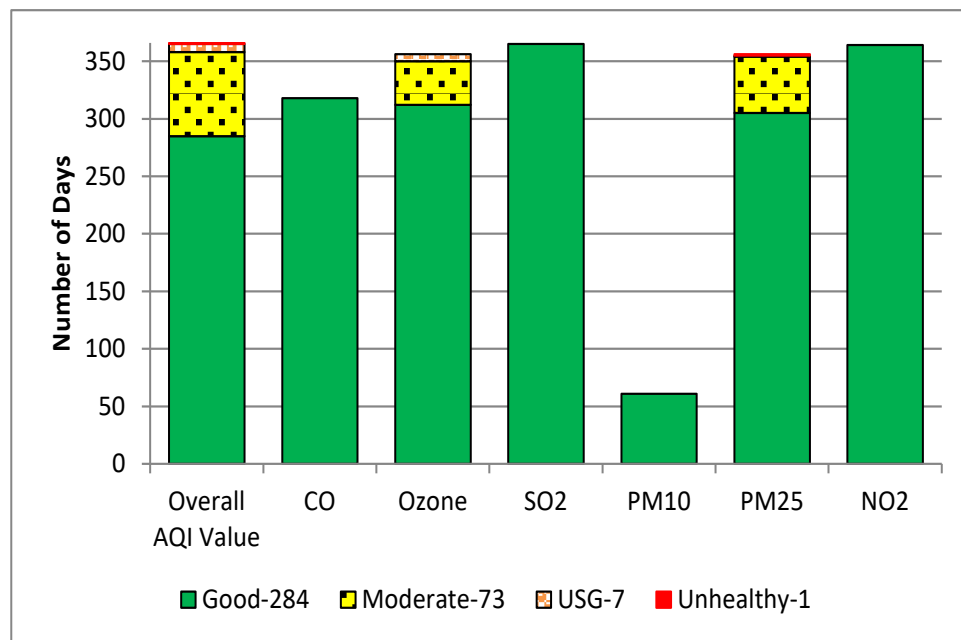


Figure 1.6: 2020 AQI Days Per Pollutant for Grand Rapids-Wyoming MSA, numbers next to categories are for the Overall AQI Value (First Bar on Graph)



Mlair includes an “Air Quality Index Fact Sheet” link: michigan.gov/documents/deq/deq-aqd-aqifacts_273090_7.pdf, which contains activity recommendations based on the AQI levels (also **Table 1.3**).

Table 1.3: AQI Colors and Health Statements

AQI Color, Category and Value	<u>Particulate Matter</u> ($\mu\text{g}/\text{m}^3$) 24-hour	<u>Ozone</u> (ppm) 8-hour / 1-hour	<u>Carbon Monoxide</u> (ppm) 8-hour	<u>Sulfur Dioxide</u> (ppm) 24-hour	<u>Nitrogen Dioxide</u> (ppm) 1-hour
GREEN: Good 1- 50	None	None	None	None	None
YELLOW: Moderate 51- 100	Unusually sensitive people should consider reducing prolonged or heavy exertion.	Unusually sensitive people should consider reducing prolonged or heavy exertion.	None	None	Unusually sensitive people should consider limiting prolonged outdoor exertion
ORANGE: Unhealthy for Sensitive Groups 101- 150	People with heart or lung disease, children, teens, & older adults should reduce prolonged or heavy exertion.	People with heart or lung disease, children, teens, & older adults, and people who are active outdoors should reduce prolonged or heavy exertion.	People with heart disease, such as angina, should reduce heavy exertion & avoid sources of CO, such as heavy traffic.	People with asthma should consider reducing outdoor exertion.	People with lung disease, children, & older adults should limit prolonged outdoor exertion
RED: Unhealthy 151- 200	People with heart or lung disease, children, teen, & older adults should avoid prolonged or heavy exertion. Everyone should reduce prolonged or heavy exertion.	People with heart or lung disease, children, teens & older adults, and people who are active outdoors should avoid prolonged or heavy exertion. Everyone should reduce prolonged or heavy exertion.	People with heart disease, such as angina, should reduce moderate exertion & avoid sources of CO, such as heavy traffic.	Children, asthmatics, & people with heart or lung disease should reduce outdoor exertion.	People with lung disease, children, & older adults should avoid prolonged outdoor exertion. Everyone should limit prolonged outdoor exertion.
PURPLE: Very Unhealthy 201- 300	People with heart or lung disease, children, teens, & older adults should avoid all physical activity outdoors. Everyone else should avoid prolonged or heavy outdoor exertion.	People with heart or lung disease, children & older adults, and people who are active outdoors should avoid all physical activity outdoors. Everyone else should limit outdoor exertion.	People with heart disease, such as angina, should avoid exertion & sources of CO, such as heavy traffic.	Children, asthmatics, & people with heart or lung disease should avoid outdoor exertion. Everyone should reduce outdoor exertion.	People with lung disease, children, & older adults should avoid all outdoor exertion. Everyone else should limit prolonged outdoor exertion.
MAROON: Hazardous 301- 500	People with heart or lung disease, children, teens, & older adults should remain indoors. Everyone should avoid all physical activity outdoors.	People with heart or lung disease, children, and older adults should remain indoors. Everyone should avoid all physical activity outdoors.	People with heart disease, such as angina, should avoid exertion & CO sources, such as heavy traffic. Everyone should limit heavy exertion.	Children, asthmatics, & people with heart or lung disease should remain indoors. Everyone should avoid outdoor exertion.	Children and People with respiratory disease, such as asthma, should avoid outdoor exertion.

Air Quality Forecasts

AQD meteorologists provide air pollution forecasts to alert the public when air pollution levels may become elevated. *Action!* Days are declared when levels are expected to reach or exceed the Unhealthy for Sensitive Groups AQI health indicator. On *Action!* Days, businesses, industry, government, and the public are encouraged to reduce air pollution levels by limiting vehicle use, refueling only after 6 PM, carpooling, walking, biking, or taking public transit, deferring the use of gasoline-powered lawn and recreation equipment, limiting the use of volatile chemicals, and curtailing all burning. More information on voluntary air pollution control measures can be found under the *Action!* Days tab on **Mlair**.

The weather plays a significant role in air quality (see [Chapter 9](#) for an annual weather summary) and can either help increase or decrease the amount of pollution in the air. High temperatures, sun, and longer days (i.e., more daylight hours) are conducive to ozone formation, whereas rain tends to wash pollutants out of the air. *Action!* Days are declared when meteorological conditions are conducive for the formation of elevated ground-level O₃ or PM_{2.5} concentrations.

Table 1.4 shows that there were some *Action!* Days declared during the summer of 2020.

Table 1.4: *Action!* Days Declared During Summer 2020

Location	Year	Number	Dates
Ann Arbor	2020	9	6/18, 6/19, 6/20, 7/5, 7/6, 7/7, 7/8, 7/9, 7/18
Benton Harbor	2020	10	6/18, 6/19, 6/20, 7/5, 7/6, 7/7, 7/8, 7/9, 7/18, 8/26
Detroit	2020	9	6/18, 6/19, 6/20, 7/5, 7/6, 7/7, 7/8, 7/9, 7/18
Flint	2020	2	6/19, 6/20
Grand Rapids	2020	10	6/18, 6/19, 6/20, 7/5, 7/6, 7/7, 7/8, 7/9, 7/18, 8/26
Kalamazoo	2020	2	6/19, 6/20
Ludington	2020	3	6/18, 6/19, 6/20
Traverse City	2020	2	6/19, 6/20

Air Quality Notification

EnviroFlash is a free service that provides automated air quality (AQI) and ultraviolet (UV) forecasts to subscribers. Those enrolled receive email or mobile phone text messages when the health level they select is predicted to occur. AIRNow iPhone and Android applications deliver ozone and fine particle air quality forecasts plus detailed real-time information that can be used to better protect health when planning daily activities. To learn more about this program, select the **Mlair** button from Michigan's Air Quality page Michigan.gov/air. To receive notices, choose the "Air Quality Notification" tab and click the "Enroll in AQI EnviroFlash" link. Michigan's EnviroFlash network has the potential to reach up to 98 percent of the state's population.

AIRNow

EGLE supplies Michigan air monitoring data to AIRNow, the USEPA's nationwide air quality mapping system. Information about AIRNow is available at AirNow.gov or you can select the AIRNow hot link at the bottom of each **Mlair** web page.

CHAPTER 2: CARBON MONOXIDE (CO)

Carbon monoxide is a gas formed during incomplete burning of fuel. CO is colorless, odorless, and tasteless, and is lethal at elevated concentrations. Levels peak during colder months primarily due to cold temperatures that affect combustion efficiency of engines. The CO NAAQS is 9 ppm for the second highest 8-hour average and 35 ppm for the second highest 1-hour average. Its sources and effects are provided below.

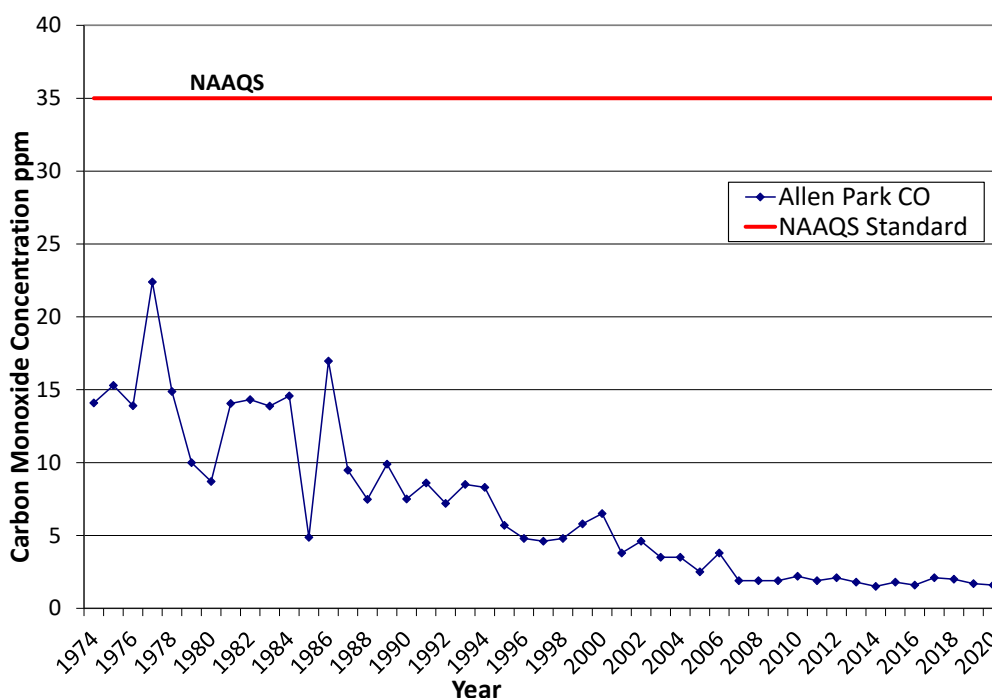
Sources: CO is given off whenever fuel or other carbon-based materials are burned. Outdoor exposure sources include automobile exhaust, industrial processes (metal processing and chemical production), and non-vehicle fuel combustion. Natural sources include volcanos, forest fires, and photochemical reactions in the atmosphere. Indoor exposure sources include wood stoves and fireplaces, gas ranges with continuous pilot flame ignition, unvented gas or kerosene heaters, and cigarette smoke.

Effects: CO enters the bloodstream through the lungs, where it displaces oxygen delivered to the organs and tissues. Elevated levels can cause visual impairment, interfere with mental acuity by reducing learning ability and manual dexterity, and can decrease work performance in the completion of complex tasks. In extreme cases, unconsciousness and death can occur. CO also alters atmospheric photochemistry contributing to the formation of ground-level O₃, which can trigger serious respiratory problems.

Population most at risk: Those who suffer from cardiovascular (heart and respiratory) disease, fetuses, infants, and the elderly are most at risk for exposure to elevated levels of CO. People with angina and peripheral vascular disease are especially at risk, as their circulatory systems are already compromised and less efficient at carrying oxygen; however, elevated CO levels can also affect healthy people.

Historical Trends: Southeast Michigan has been monitoring CO for 45 years. **Figure 2.1** shows the CO trend at Allen Park to be well below the 1-hour standard of 35 ppm. This standard has not changed since 1971.

Figure 2.1: Historical 1-hour CO Averages at Allen Park



Figures 2.2 and 2.3 show CO emission sources and CO emissions by county (courtesy of the USEPA's State and County Emission Summaries).

Figure 2.2: CO Emissions by Source Sector for Michigan 2017 in Tons (NEI 2017)

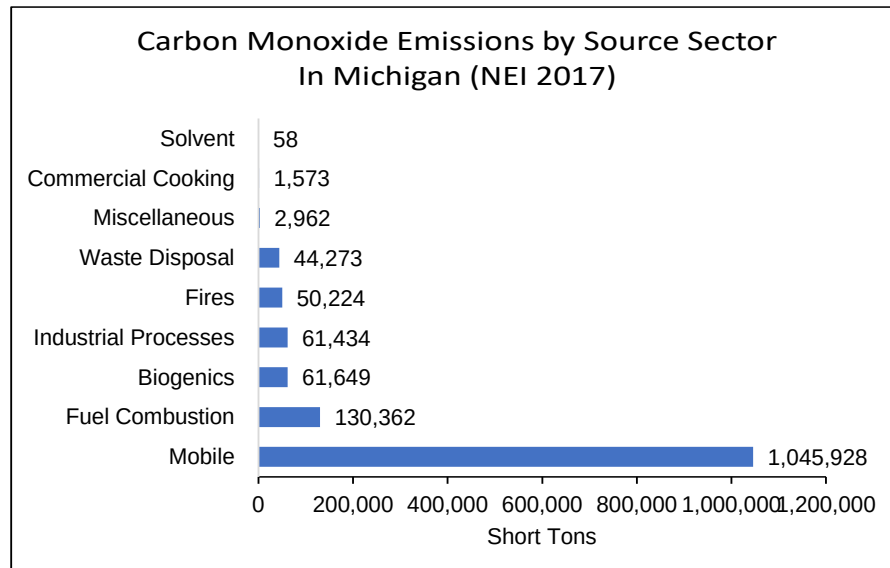


Figure 2.3: CO Emissions in 2017 (NEI)

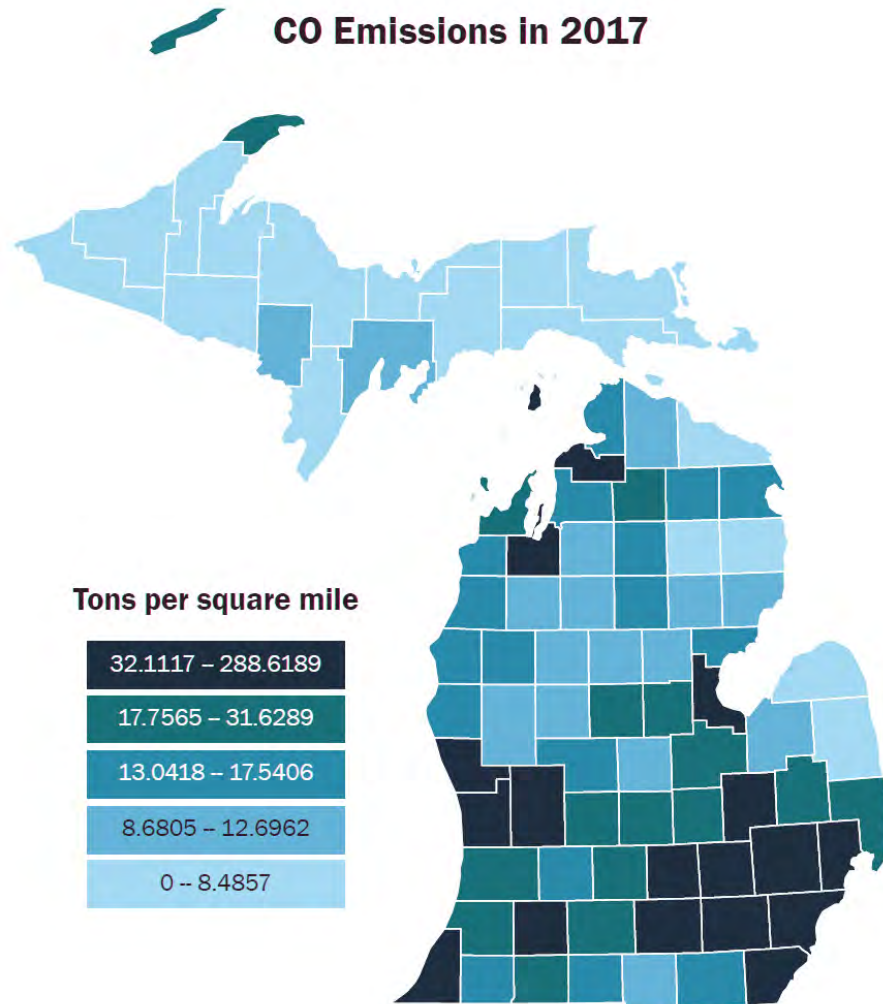


Figure 2.4 shows the location of each CO monitor that operated in 2020.

- Near-roadway network sites: Eliza Howell-NR.
- NCore Network: Grand Rapids and Allen Park measure trace CO (lower detection levels 1-50 ppm).
- Ghib project: DP4th and Trinity, started summer and fall 2018, respectively.

Figure 2.4: CO Monitors in 2020

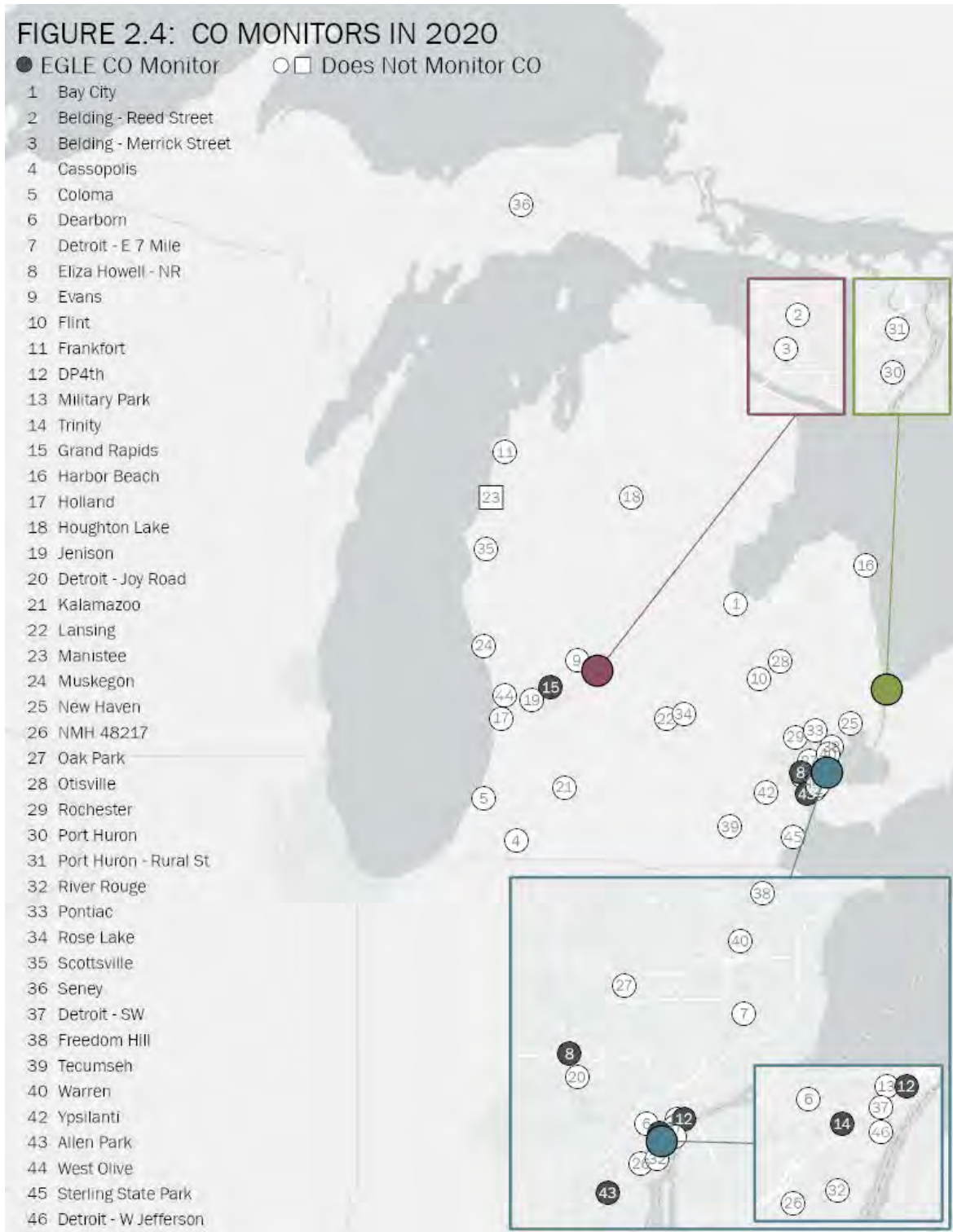


Figure 2.5 shows the second highest 1-hour CO concentrations for Michigan from 2015-2020, which demonstrates there have not been any exceedances of the 1-hour CO NAAQS.

Figure 2.5: CO Levels in Michigan from 2015-2020 (2nd Highest 1-Hour Maximum Values)

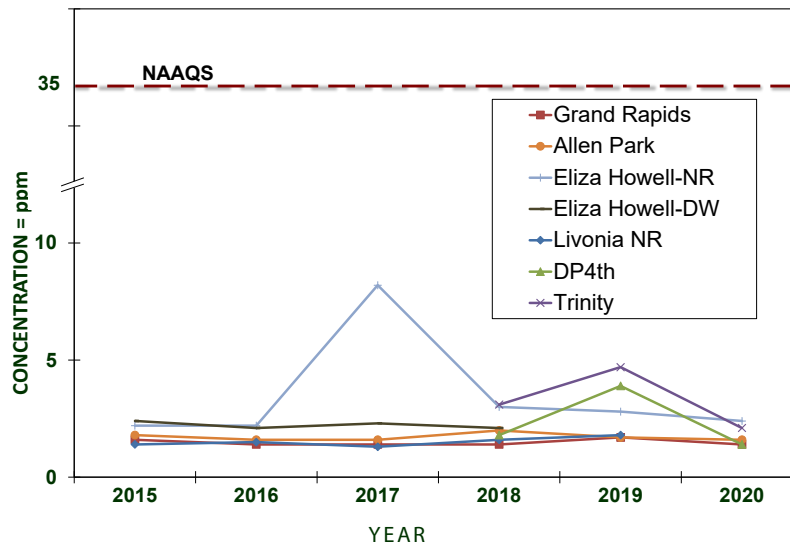
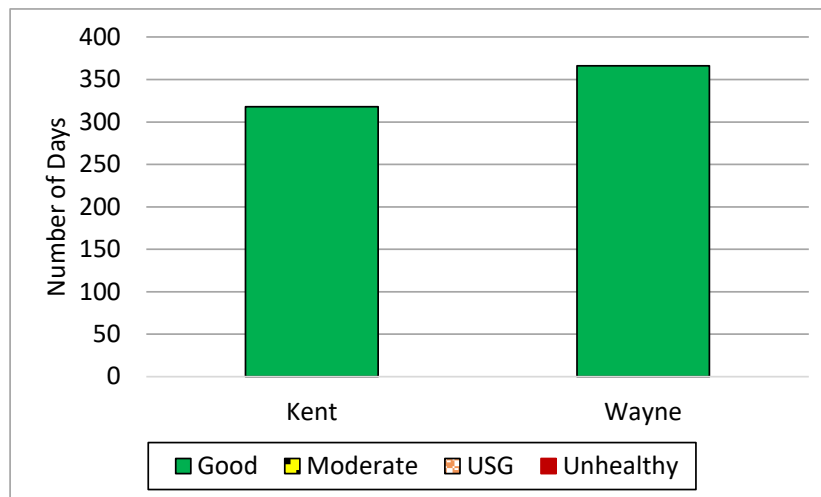


Figure 2.6 shows the AQI values per day in counties where CO is monitored. All days were in the good AQI range.

Figure 2.6: 2020 AQI Days for CO in Michigan Counties



CHAPTER 3: LEAD (PB)

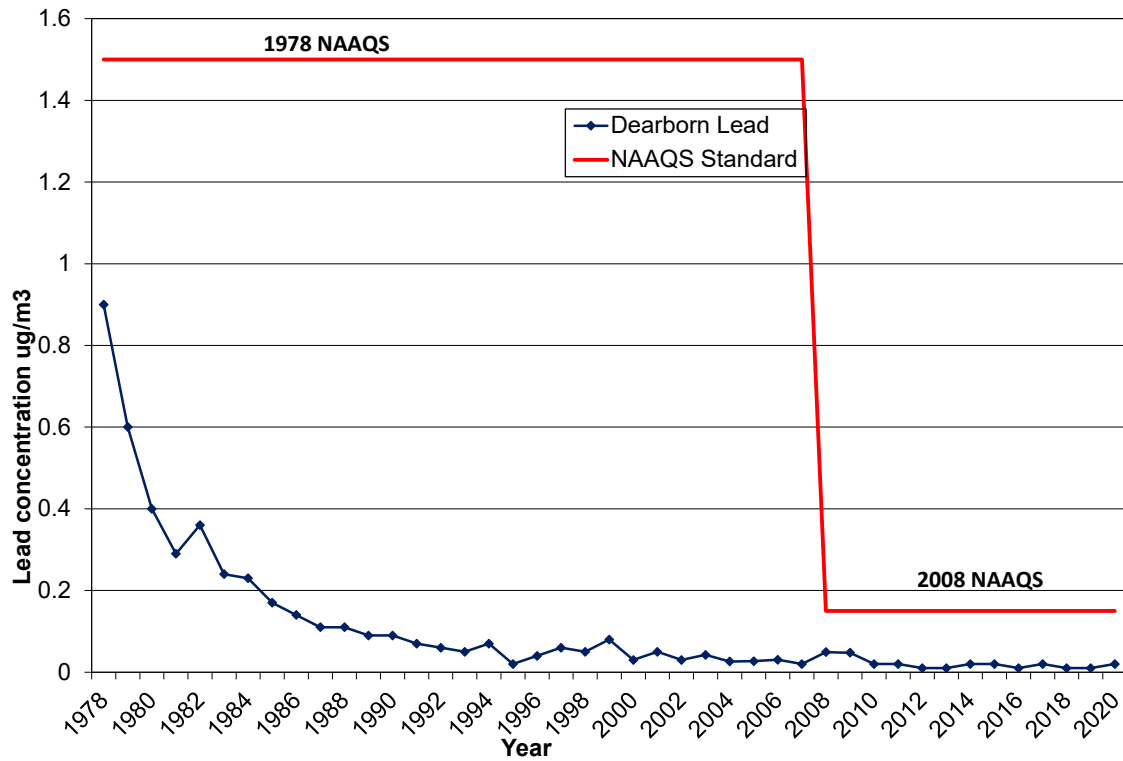
Lead is a highly toxic metal found in coal, oil, and other fuels. It is also found in older paints, municipal solid waste, and sewage sludge, and may be released to the atmosphere during combustion. In 2008, the USEPA lowered the Pb NAAQS from a maximum quarterly average of $1.5 \mu\text{g}/\text{m}^3$ to a 3-month rolling average of $0.15 \mu\text{g}/\text{m}^3$. Its sources and effects are presented below.

Sources: With the phase-out of leaded gas in the 1970s, the major sources of Pb emissions have been due to ore and metals processing and piston-engine aircraft operating on leaded aviation fuel. Other industrial sources include Pb acid battery manufacturers, waste incinerators, and utilities. The highest air concentrations of Pb are usually found near lead smelters.

Effects: Exposure occurs through the inhalation or ingestion of Pb in food, water, soil, or dust particles. Pb primarily accumulates in the body's blood, bones, and soft tissues, and adversely affects the nervous system as well as the cardiovascular system, reproductive system, blood, kidneys, and other organs.

Population most at risk: Fetuses and children are most at risk since low levels of Pb may cause central nervous system damage. Excessive Pb exposure during the early years of life is associated with lower IQ scores and neurological impairment (seizures, mental development, and behavioral disorders). Even at low doses, lead exposure is associated with changes in fundamental enzymatic, metabolic, and homeostatic mechanisms in the body, and Pb may be a factor in high blood pressure and subsequent heart disease.

Historical Trends: Southeast Michigan has been monitoring for lead for 40 years. **Figure 3.1** shows the trend for lead at Dearborn. The largest decrease in Pb in the air is due to the removal of Pb in gasoline. By 1975, most newly manufactured vehicles no longer required leaded gasoline, and as a result, there was a dramatic decrease in ambient Pb levels. In 1996, the USEPA banned the sale of leaded fuel for use in on-road vehicles. The graph also shows the decrease in the Pb standard that occurred in 2008.

Figure 3.1: Historical Quarterly / 3-month Averages for Lead at Dearborn

Figures 3.2 and 3.3 show Pb emission sources and Pb emissions by county (courtesy of the USEPA's State and County Emission Summaries).

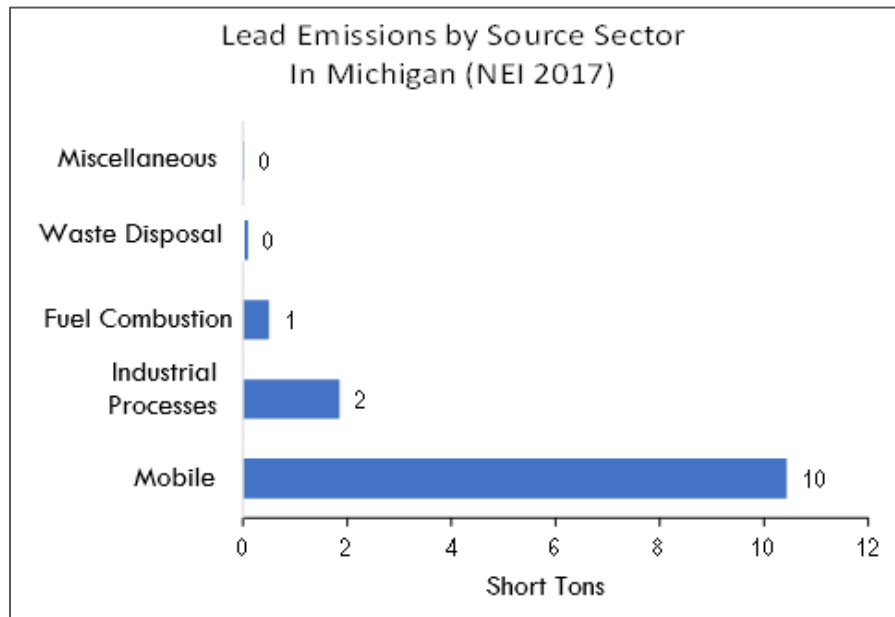
Figure 3.2: Pb Emissions by Source Sector

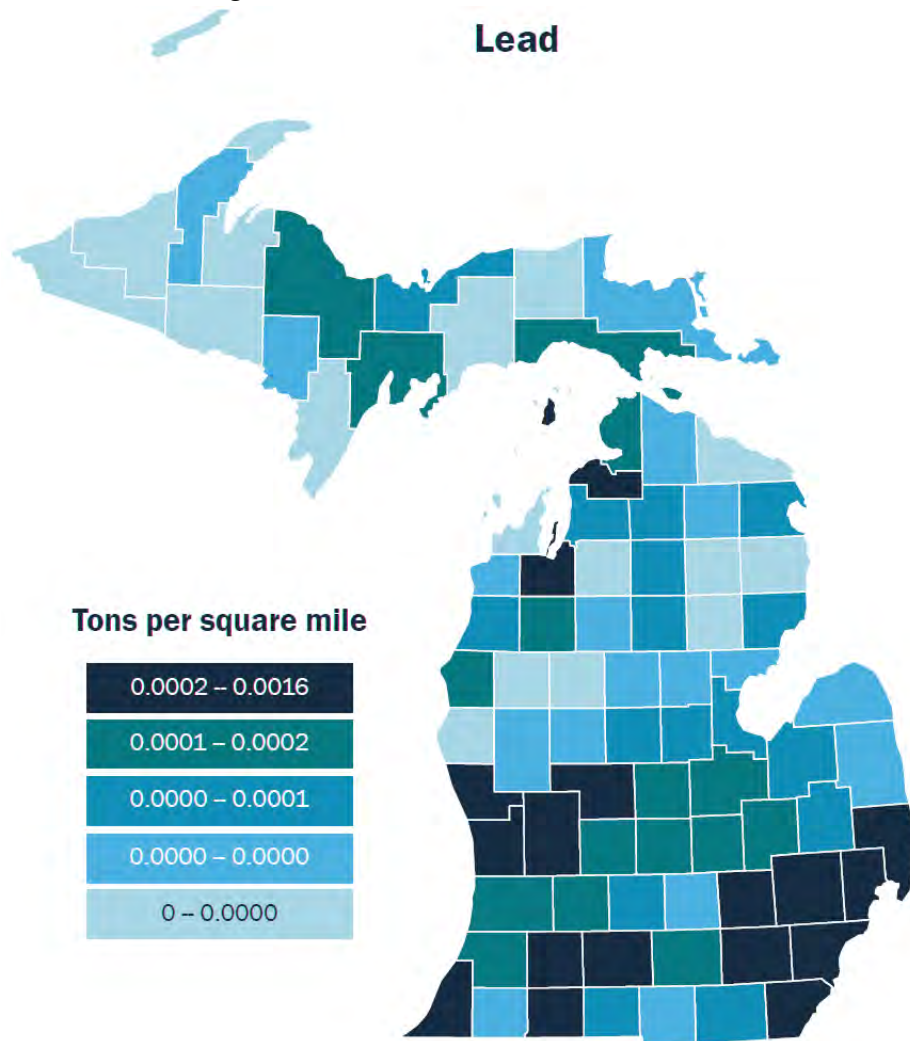
Figure 3.3: Pb Emissions in 2017 (NEI)

Figure 3.4 shows the location of the Pb monitors in the MASN in 2020. When the Pb NAAQS was lowered in 2008, the monitoring network was modified to consist of source-oriented monitors and population-oriented monitors. As part of the 2008 Pb NAAQS, EGLE must monitor near stationary sources emitting more than 1/2 ton of Pb per year.

- Source-oriented sites: Port Huron-Rural St. and Belding-Merrick St. The second site, Belding-Reed St. was shut down on January 1, 2019, since lead levels are below the standard and both sites are no longer necessary. The two sites in Belding previously were above the standard, but values for both the sites have been below the NAAQS for the past five years. Belding was designated to attainment on July 31, 2018.
- National Air Toxics Trend Sites (NATTS): Dearborn lead and trace metals, both as total suspended particulate (TSP) and PM₁₀. Lead measurements as PM_{2.5} are also made throughout the PM_{2.5} speciation network.
- NCore sites: Allen Park and Grand Rapids.
- Network consistency: River Rouge, Detroit-W. Jefferson, NMH 48217, and Detroit-SW. On January 1, 2018, lead sampling was started at all the TSP metals sites to maintain consistency and to be more protective of public health. Many older homes, which often contain lead-based paint, are being demolished in the Detroit area near these monitors.

- Secondary monitor: Port Huron-Rural St. to comply with the USEPA's collocation regulations.
- Gordie Howe International Bridge (GHIB) project: DP4th, Trinity, and Military Park.

Figure 3.4: Lead (Pb) Monitors in 2020

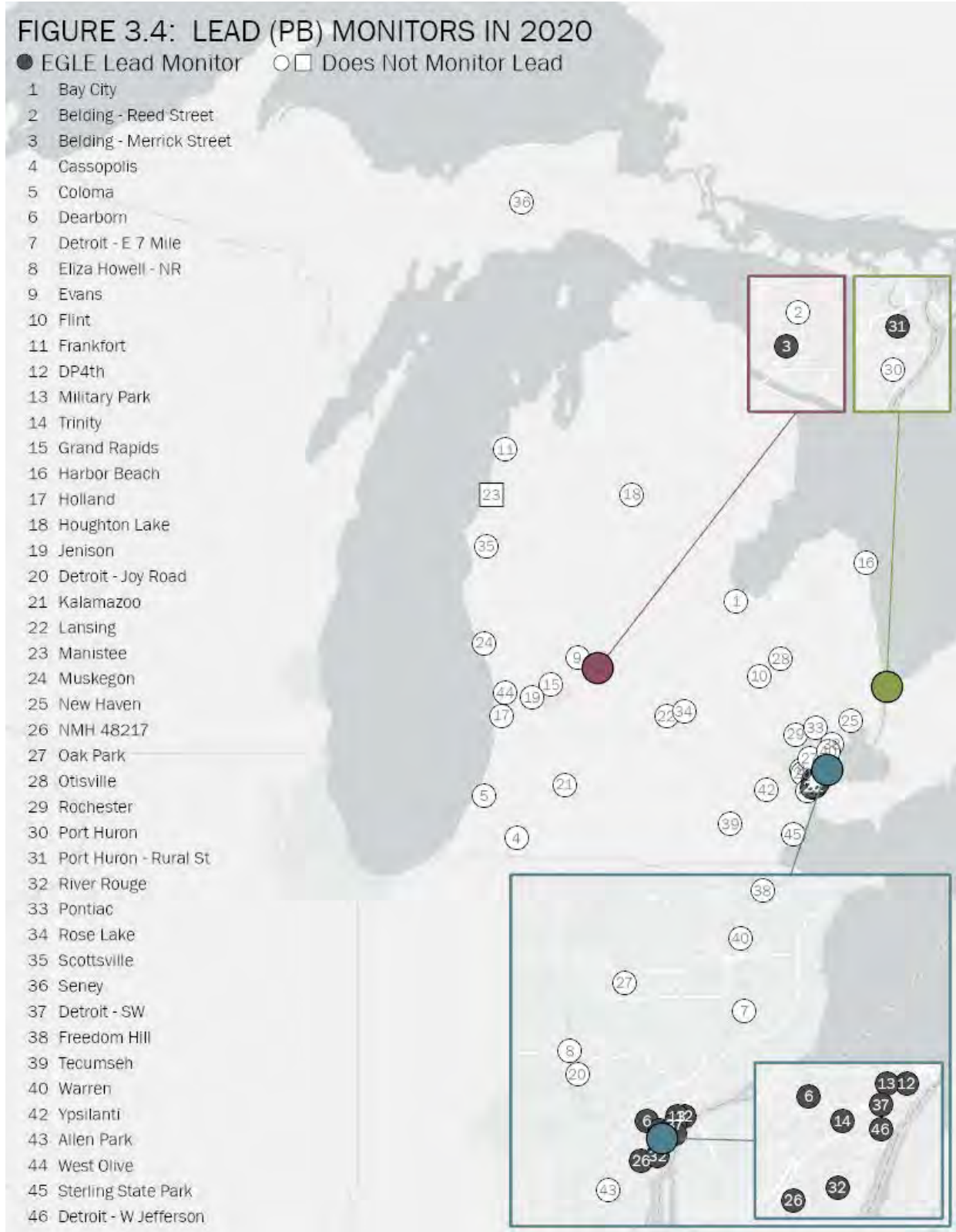
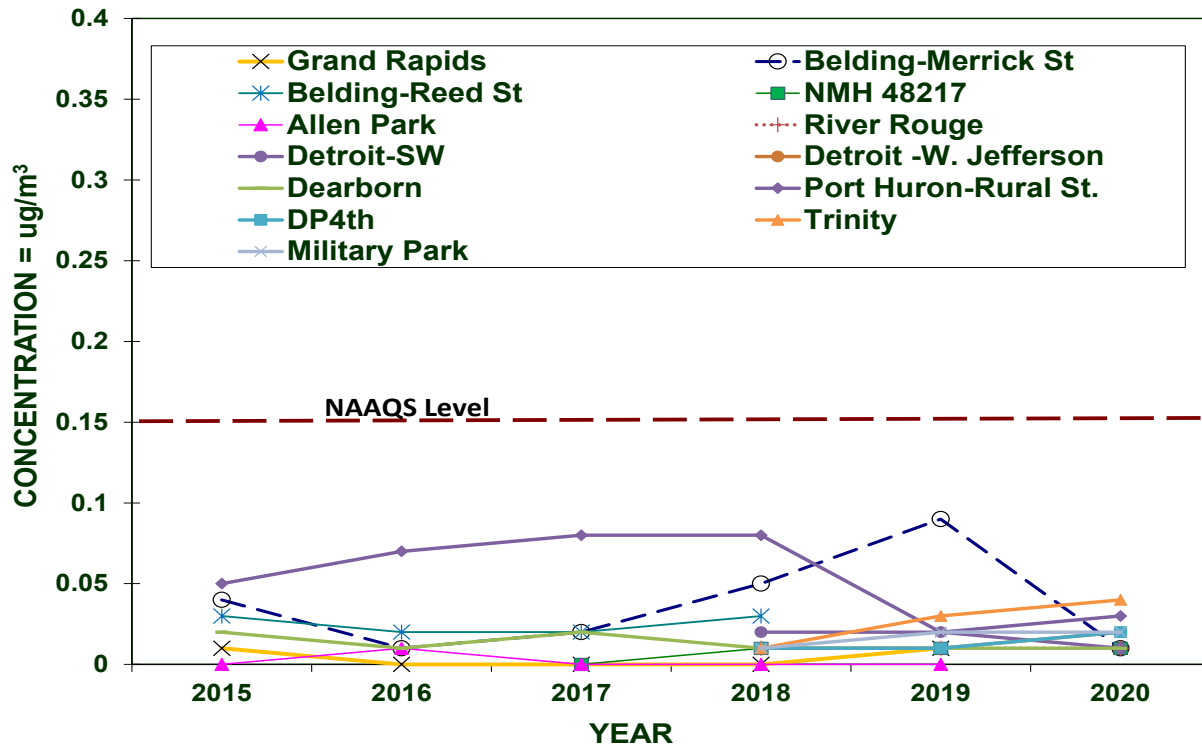


Figure 3.5 shows the maximum 3-month rolling average values for Pb from 2015 to 2020. All Pb monitor sites in Michigan are below the standard.

Figure 3.5: Lead Levels in Michigan from 2015-2020 (Maximum 3-month Average Values)



CHAPTER 4: NITROGEN DIOXIDE (NO₂)

Nitrogen dioxide is a reddish-brown, highly reactive gas formed through oxidation of nitric oxide (NO). Upon dilution, it becomes yellow or invisible. High concentrations produce a pungent odor and lower levels have an odor like bleach. NO_x is the term used to describe the sum of NO, NO₂, and other nitrogen oxides. NO_x can lead to the formation of O₃ and NO₂ and can react with other substances in the atmosphere to form particulate matter or acidic products that are deposited in rain (acid rain), fog, or snow. Since 1971, the primary and secondary standard for NO₂ was an annual mean of 0.053 ppm. In January 2010, the USEPA added a 1-hour NO₂ standard of 100 ppb, taking the form of the 98th percentile averaged over three years. The sources and effects of NO₂ are as follows:

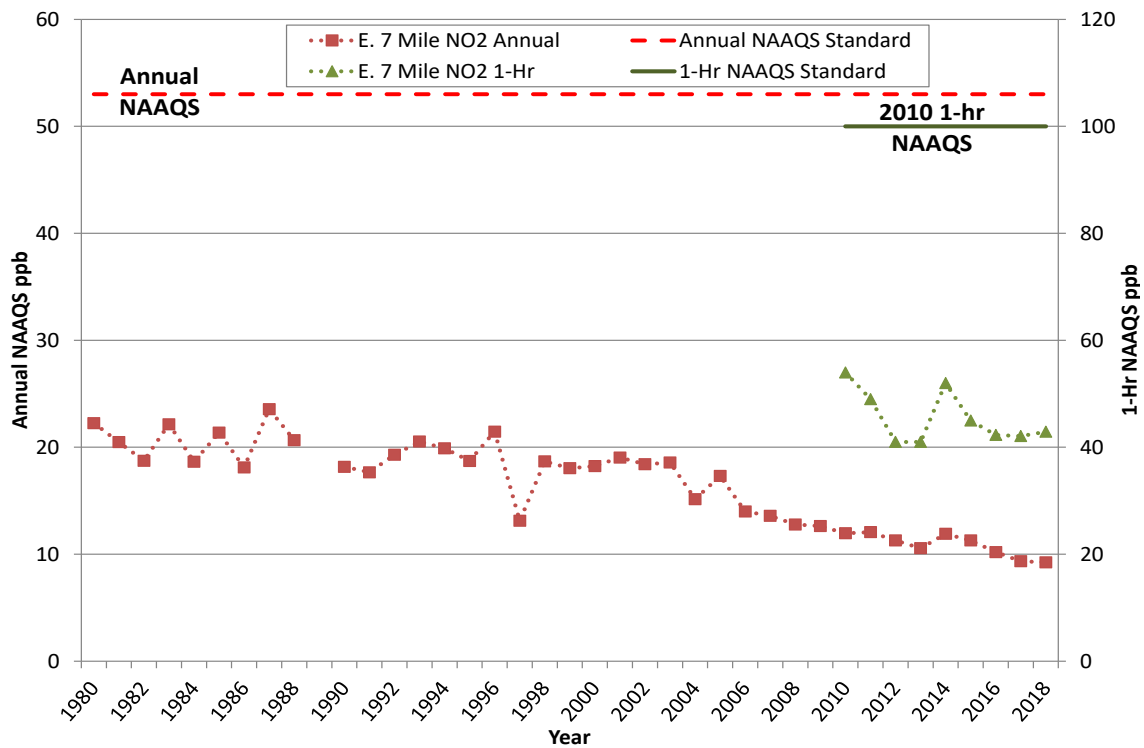
Sources: NO_x compounds and their transformed products occur both naturally and because of human activities. Natural sources of NO_x are lightning, forest fires, bacterial processes in soil, and stratospheric intrusion. Stratospheric intrusion is when the air upper atmosphere (stratosphere) descends towards the surface of the earth and mixes with the air at breathing level. Ammonia and other nitrogen compounds produced naturally are important in the cycling of nitrogen through the ecosystem. The major sources of man-made (anthropogenic) NO_x emissions come from high-temperature combustion processes such as those occurring in automobiles and power plants. Home heaters and gas stoves produce substantial amounts of NO₂ in indoor settings.

Effects: Exposure to NO₂ occurs through the respiratory system, irritating the lungs. Short-term NO₂ exposures (i.e., less than three hours) can produce coughing and changes in airway responsiveness and lung function. Evidence suggests that long-term exposures to NO₂ may lead to increased susceptibility to respiratory infection and may cause structural changes in the lungs. Exercise increases the ventilation rate and hence exposure to NO₂. Nitrate particles and NO₂ can block the transmission of light, resulting in visibility impairment (i.e., smog or haze). Nitrogen deposition can lead to fertilization, excessive nutrient enrichment, or acidification of terrestrial, wetland, and aquatic systems that can upset the delicate balance in those ecosystems.

Population most at risk: Individuals with pre-existing respiratory illnesses and asthmatics are more sensitive to the effects of NO₂ than the general population. Short-term NO₂ exposure can increase respiratory illnesses in children.

Historical Trends: Southeast Michigan has been monitoring for NO₂ for 40 years. **Figure 4.1** shows the trend for NO₂ at Detroit-E 7 Mile Road, which has been well below the annual standard of 53 ppb and shows a downward trend. In 2010, the USEPA added a 1-hour standard for NO₂, which has also remained well below the standard in Michigan. Southeast Michigan is highly industrialized; therefore, it is a good indicator of the air quality improvement for the rest of the state.

Figure 4.1: Historical Annual and 1-hour NO₂ at Detroit-E 7 Mile Road



Figures 4.2 and 4.3 show NO₂ emission sources and NO₂ emissions by county (courtesy of the USEPA's State and County Emission Summaries).

Figure 4.2: Nitrogen Oxide Emissions by Source Sector

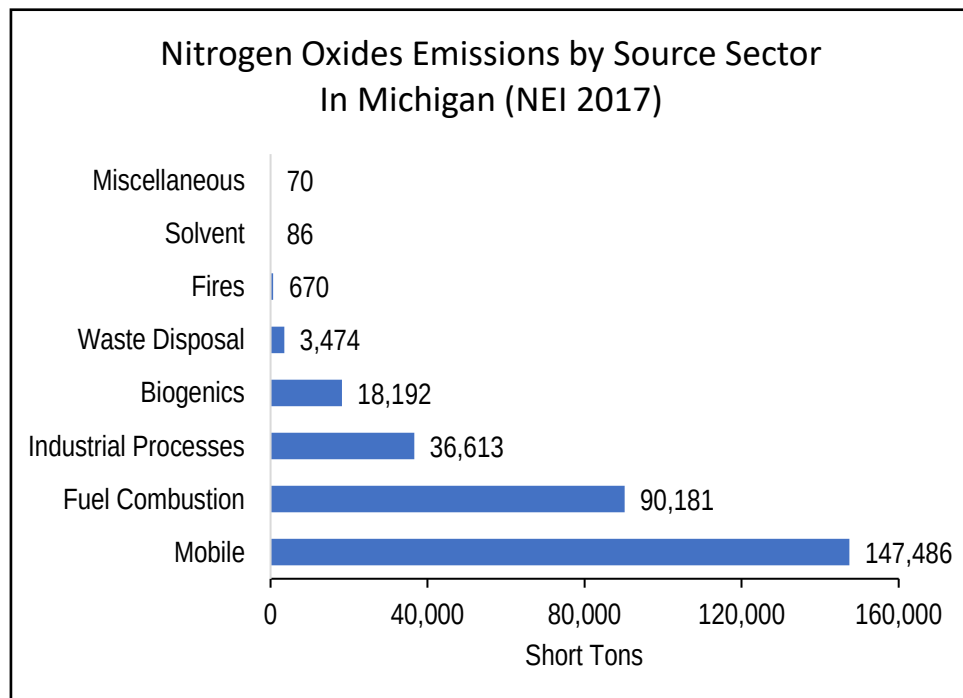


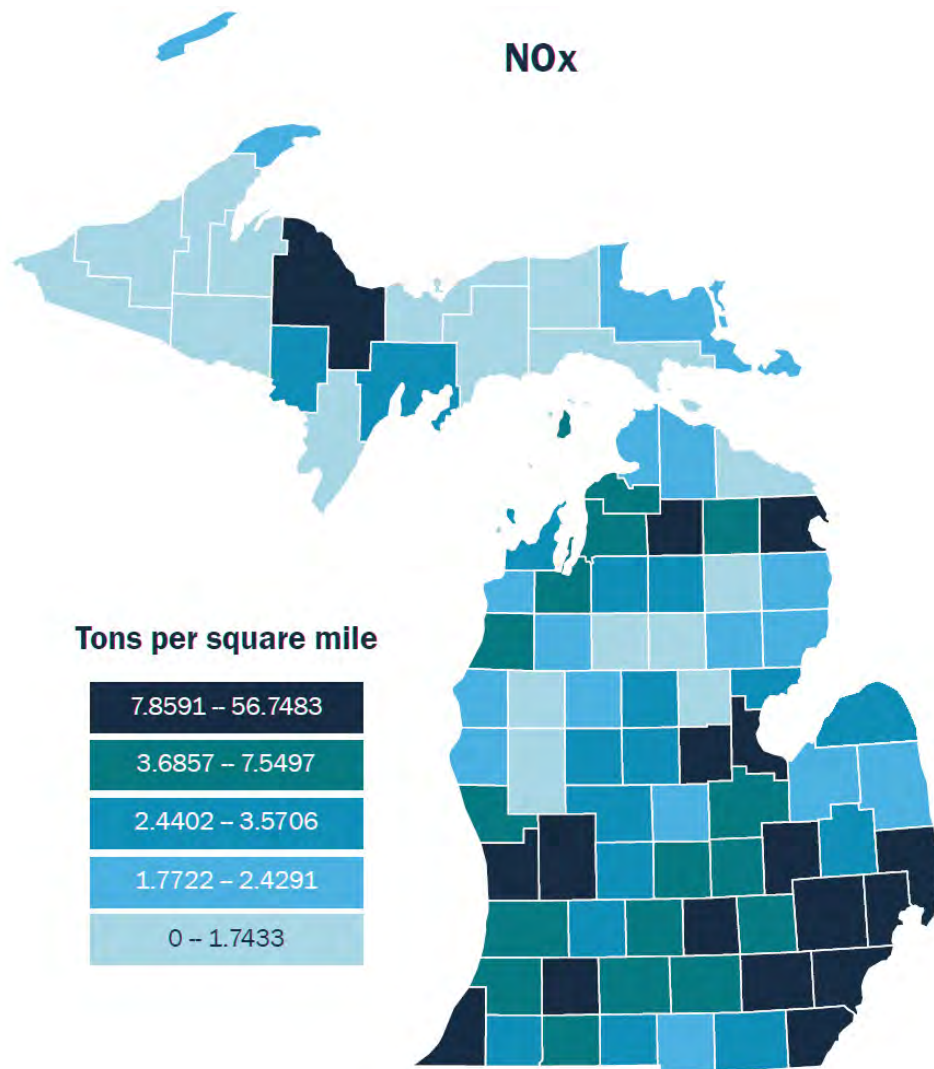
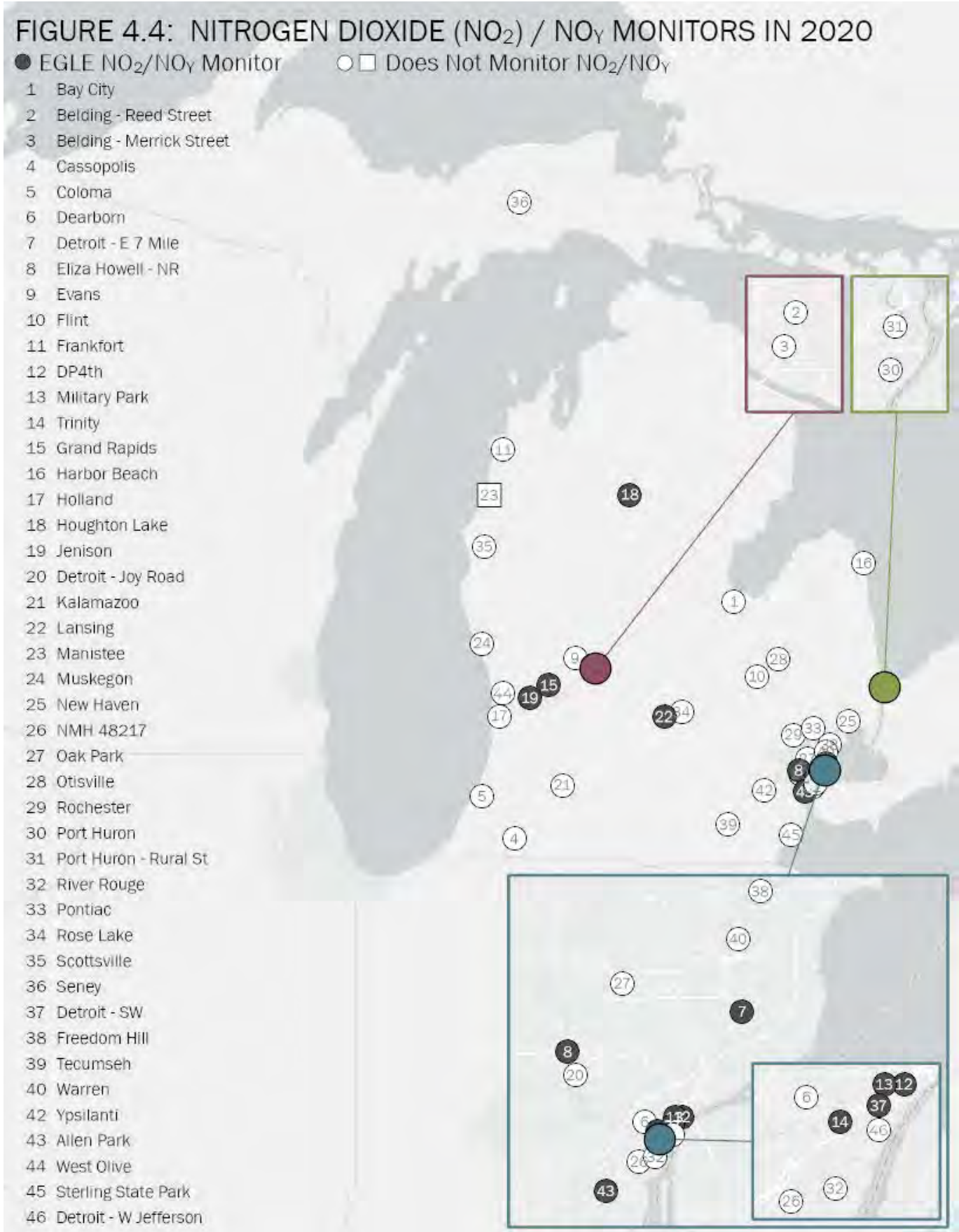
Figure 4.3: Nitrogen Oxide Emissions in 2017 (NEI)

Figure 4.4 shows the location of all NO₂ monitors that operated in 2020.

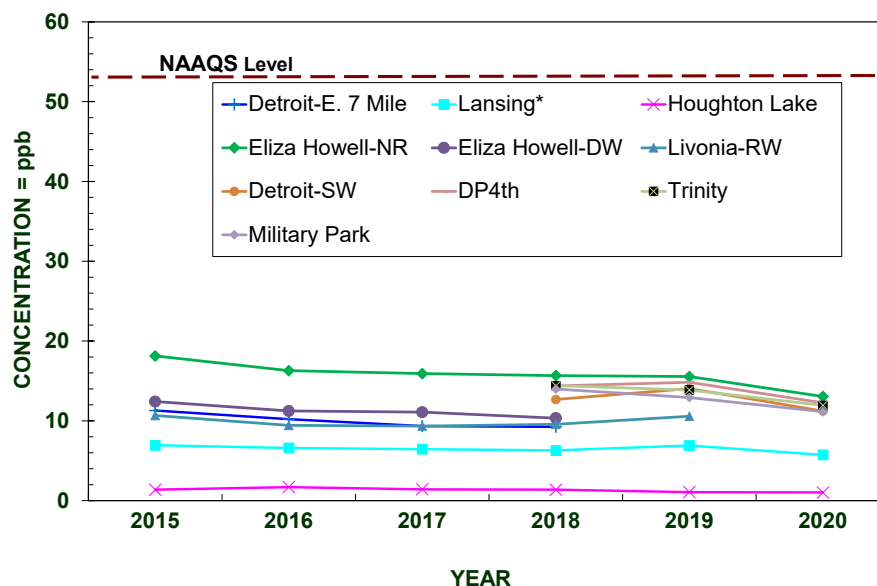
- Downwind urban scale site: Detroit-E 7 Mile in Detroit and Jenison for the Grand Rapids area.
- Near-roadway Network sites: Detroit Eliza Howell-NR site, the downwind site was shut down since it is not necessary for the near-road network. The Livonia roadway site needed to be moved since EGLE lost site access. A suitable replacement has not been found.
- NCore sites: Grand Rapids and Allen Park, monitor NO_y, which includes NO_x, nitric acid, and organic and inorganic nitrates (not used for attainment/nonattainment purposes).
- Photochemical Assessment Monitoring Station (PAMS) Network: The NO_x monitor at Detroit-E 7 Mile was switched to a NO_y for PAMS. Direct NO₂ will also be monitored at Detroit-E 7 Mile when the PAMS network is completely installed at this site.
- Background monitors for modeling: Lansing and Houghton Lake.
- GBIH project: Detroit-SW, DP4th, Trinity, and Military Park.

Figure 4.4: Nitrogen Dioxide (NO₂)/NO_y Monitors in 2020

Michigan's ambient NO₂ levels have always been well below the NAAQS. Since March 3, 1978, all areas in Michigan have been in attainment for the annual NO₂ NAAQS. As shown in **Figure 4.5**, all monitoring sites have had an annual NO₂ concentration at less than half of the 0.053 ppm NAAQS.

Even though there are no nonattainment areas for NO₂ in Michigan and monitoring for attainment purposes is not required, monitors continue to operate to support photochemical model validation work.

Figure 4.5: NO₂ Levels in MI from 2015-2020 (Annual Arithmetic Mean)**

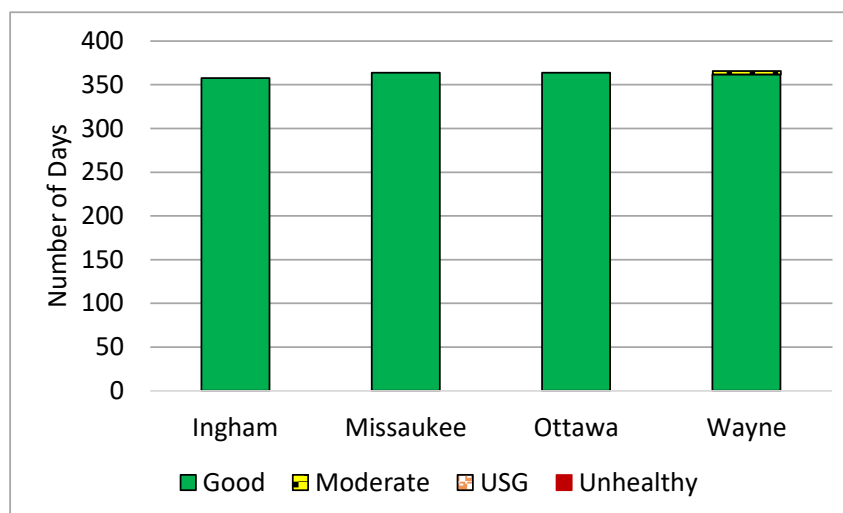


*Indicates site was moved in 2018 and concentrations were averaged together for both locations.

**Since Allen Park and Grand Rapids are monitoring NO_y, those sites are not included in graph.

Figure 4.6 shows the AQI values per day in counties where NO₂ is monitored. All days were in the good AQI range except for four days in Wayne County that were in the moderate AQI range.

Figure 4.6: 2020 AQI Days for NO₂ in Michigan Counties



CHAPTER 5: SULFUR DIOXIDE (SO₂)

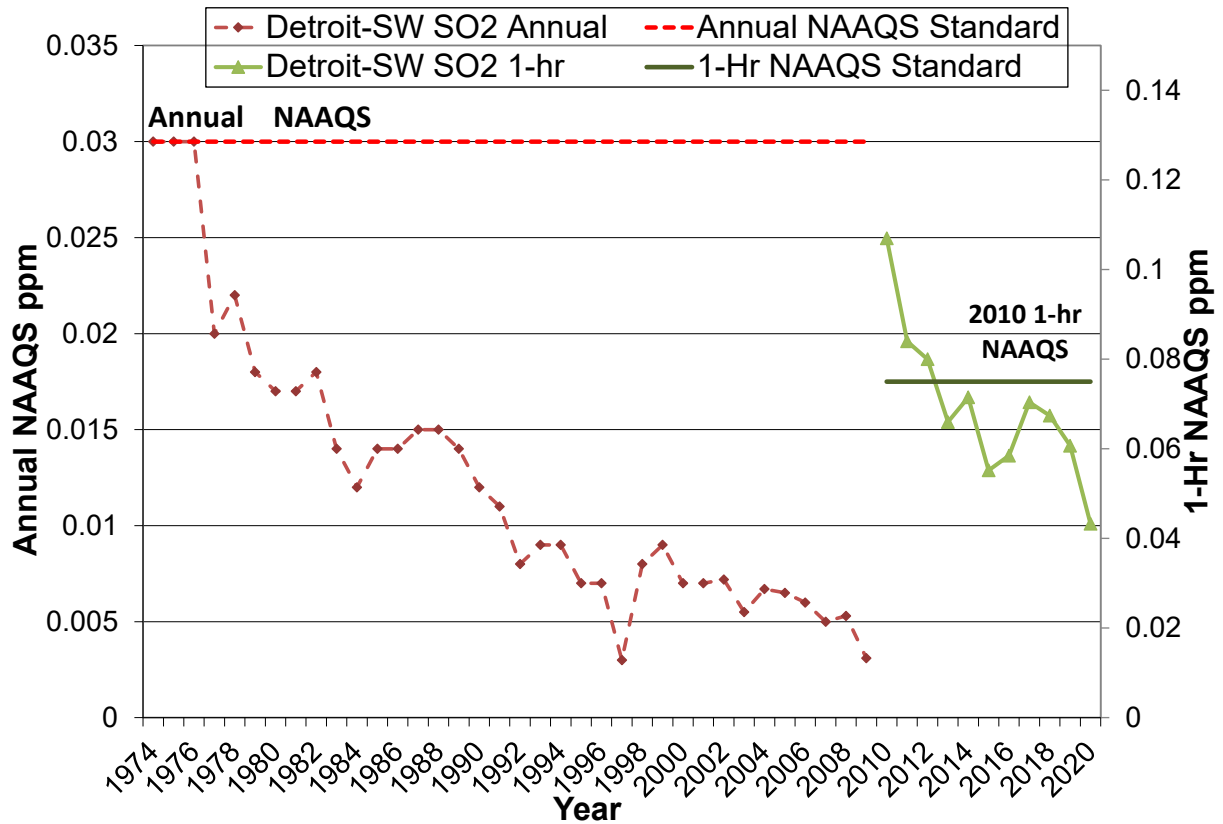
Sulfur dioxide is a gas formed by the burning of sulfur-containing material. Odorless at typical ambient concentrations, SO₂ can react with other atmospheric chemicals to form sulfuric acid. At higher concentrations it has a pungent, irritating odor like a struck match. When sulfur-bearing fuel is burned, the sulfur is oxidized to form SO₂, which then reacts with other pollutants to form aerosols. These aerosols can form particles in the air causing increases in PM_{2.5} levels. In liquid form, it is found in clouds, fog, rain, aerosol particles, and in surface films on these particles. In June 2010, the USEPA changed the primary SO₂ standard to a 99th percentile of 1-hour concentrations not to exceed 0.075 ppm, averaged over a 3-year period. The secondary standard has not changed and is a 3-hour average that cannot exceed 0.5 ppm once per year. Its sources and effects are presented below.

Sources: Coal-burning power plants are the largest source of SO₂ emissions. Other sources include industrial processes such as extracting metal from ore, and non-road transportation sources, and natural sources such as volcanoes. SO₂ and particulate matter are often emitted together.

Effects: Exposure to elevated levels can aggravate symptoms in asthmatics and cause respiratory problems in healthy groups. SO₂ and NO_x together are the major precursors to acid rain and are associated with the acidification of soils, lakes, and streams, as well as accelerated corrosion of buildings and monuments.

Population most at risk: Asthmatics, children, and the elderly are especially sensitive to SO₂ exposure. Asthmatics receiving short-term exposures during moderate exertion may experience reduced lung function and symptoms, such as wheezing, chest tightness, or shortness of breath. Depending on the concentration, SO₂ may also cause symptoms in people who do not have asthma.

Historical Trends: Southeast Michigan has been monitoring for SO₂ for over 45 years. **Figure 5.1** shows the SO₂ trend for the old annual standard and the new 1-hour standard for Detroit-SW. Michigan had been in attainment for SO₂ since 1982 with levels consistently well below the annual SO₂ NAAQS. In 2010, when the USEPA changed the standard from an annual average to a 1-hour standard, a portion of Wayne County was designated nonattainment. In September 2016, a portion of St. Clair County was also designated as nonattainment by the USEPA based on emissions and modeling. Even though the areas are in nonattainment for the 1-hour SO₂ standard, SO₂ concentrations have decreased at these sites and are currently under the NAAQS, although modeling results are not below the NAAQS.

Figure 5.1: Historical Annual and 1-hour SO₂ Averages at Detroit-SW

Figures 5.2 and 5.3 show SO₂ emission sources and SO₂ emissions by county (courtesy of the USEPA's State and County Emission Summaries).

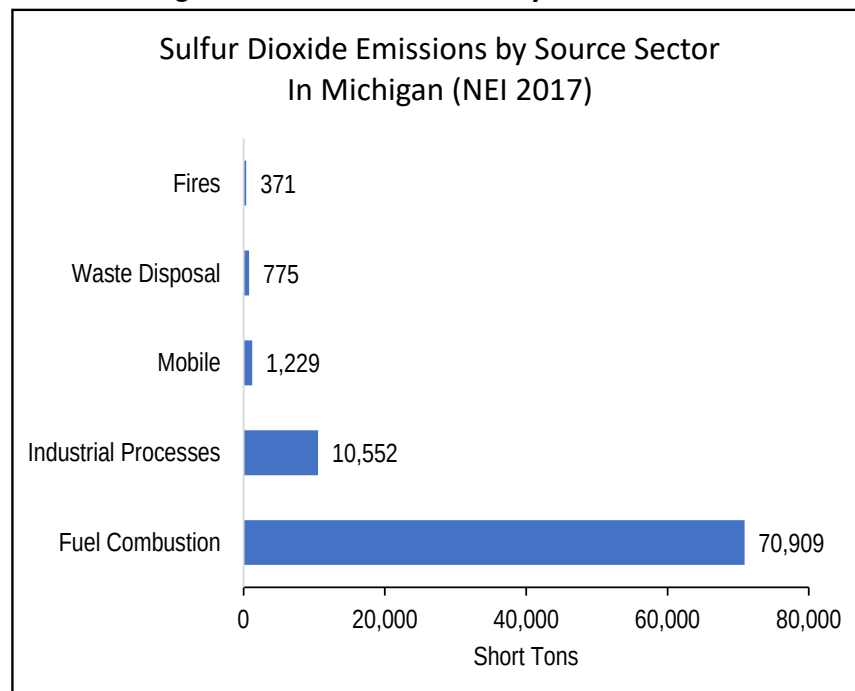
Figure 5.2: SO₂ Emissions by Source Sector

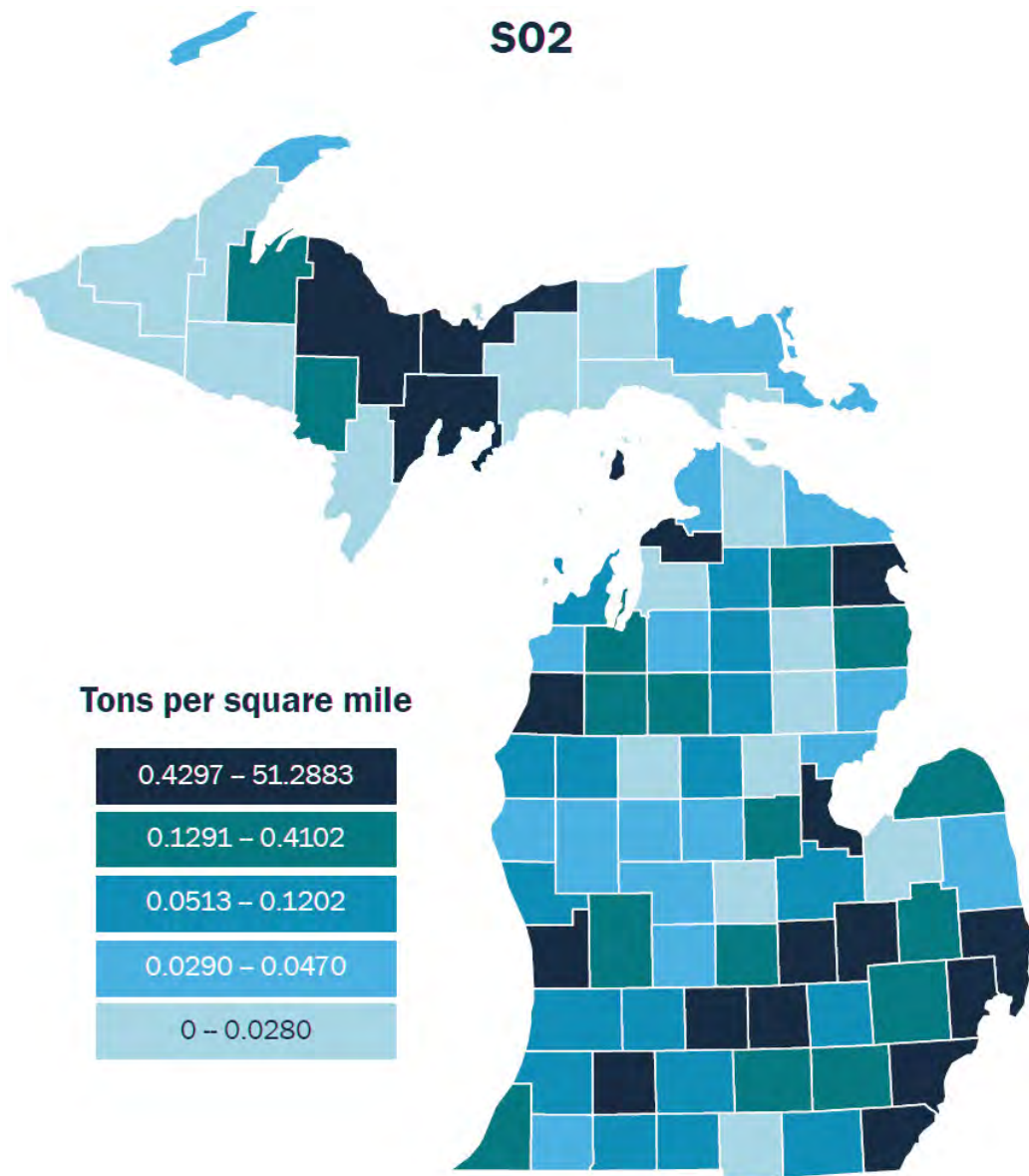
Figure 5.3: SO₂ Emissions in 2017 (NEI)

Figure 5.4 shows the location of each SO₂ monitor that operated in 2020.

- NCore sites: Allen Park and Grand Rapids have trace SO₂ monitors that have lower detection limits than traditional SO₂ monitors.
- Source-oriented sites: Lansing, Port Huron, Detroit-SW, Sterling State Park, West Olive.
- Community monitoring project: NMH 48217.
- GHIB project: DP4th, Trinity, and Military Park.

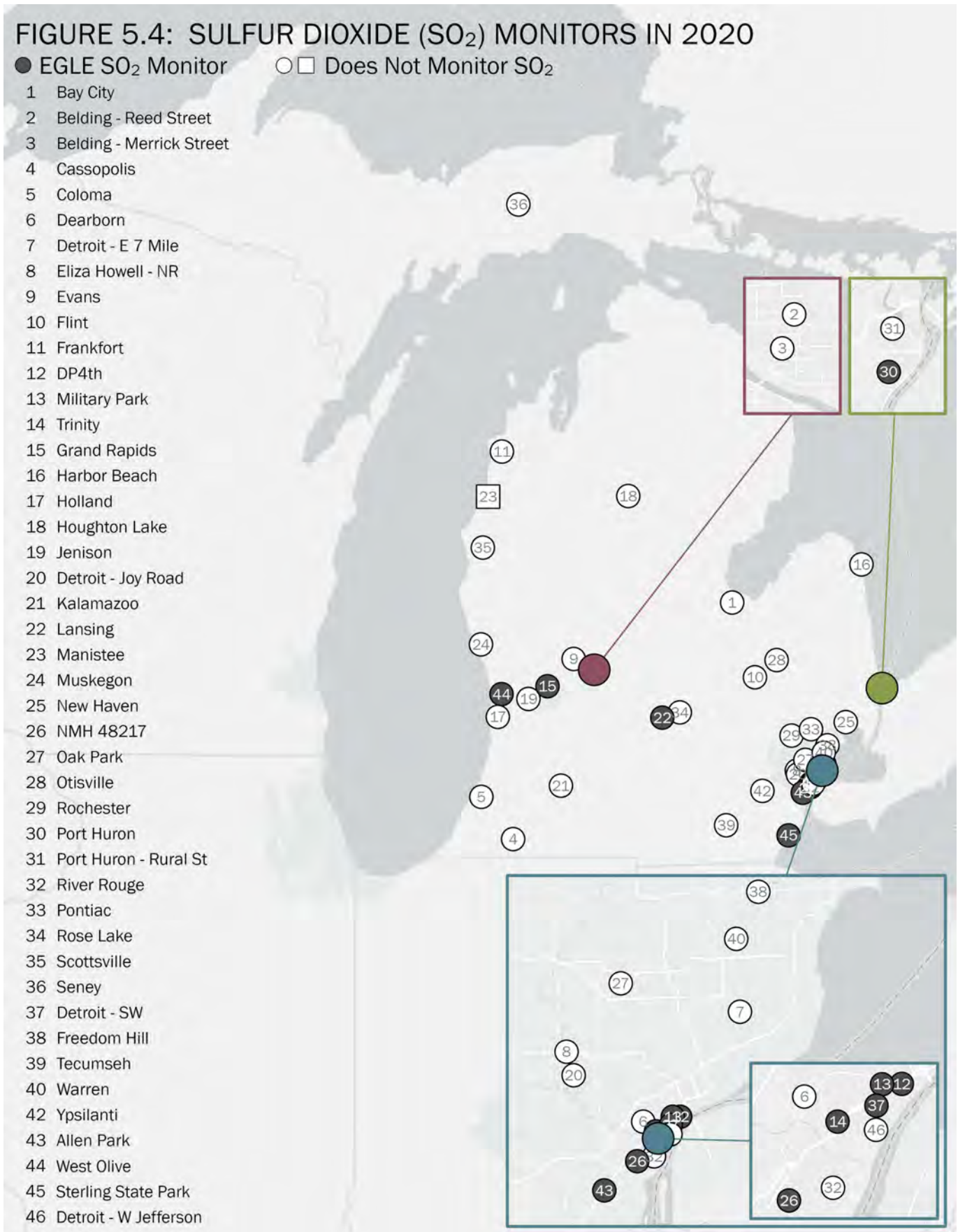
Figure 5.4: Sulfur Dioxide (SO₂) Monitors in 2020

Figure 5.5 shows that all the SO₂ sites in Michigan are below the standard even though there is a nonattainment area for SO₂. The standard is a three-year average, therefore having one point above the NAAQS level line does not mean the monitor is over the standard. SO₂ pollution is extremely variable and would require a large monitoring network to designate areas as attainment. Therefore, SO₂ attainment depends on both emission modeling and monitoring data.

The NCore sites, Grand Rapids and Allen Park, monitor for trace SO₂. For trend purposes, all SO₂ data are graphed together in **Figure 5.5**.

Figure 5.5: SO₂ Level in Michigan from 2015-2020 (1-Hour 99th Percentile)

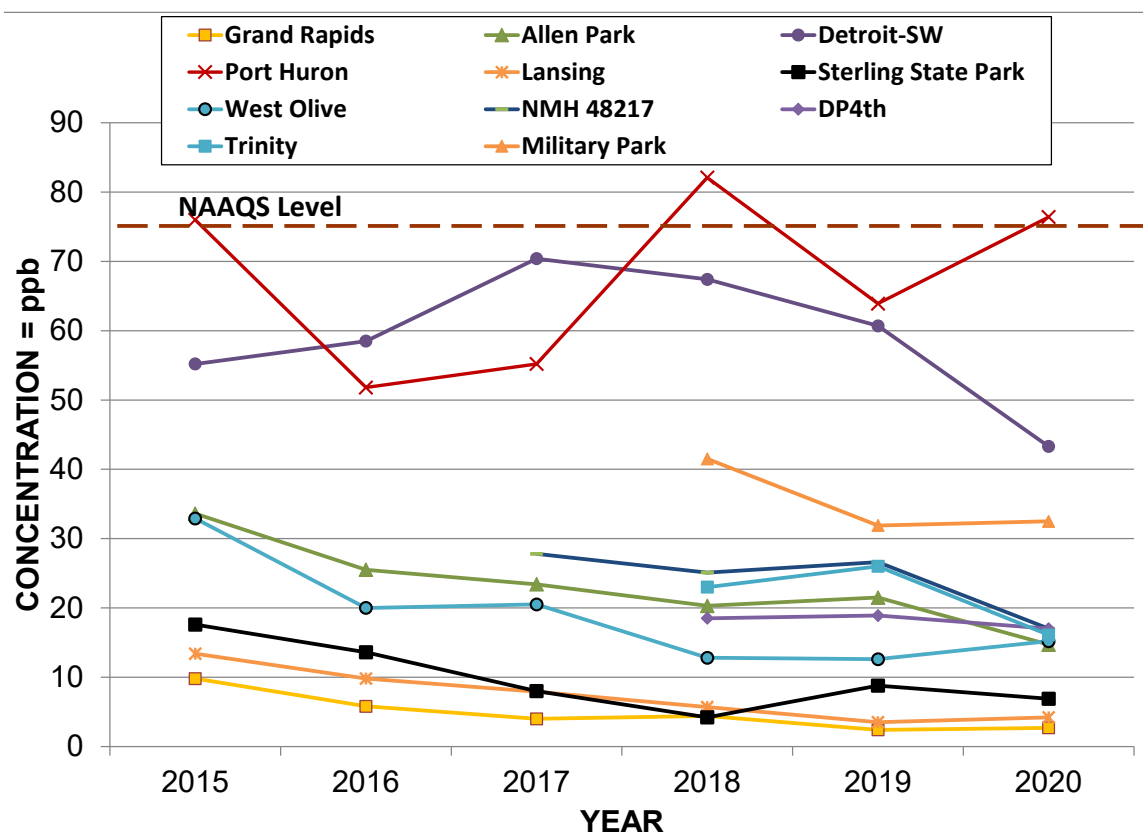
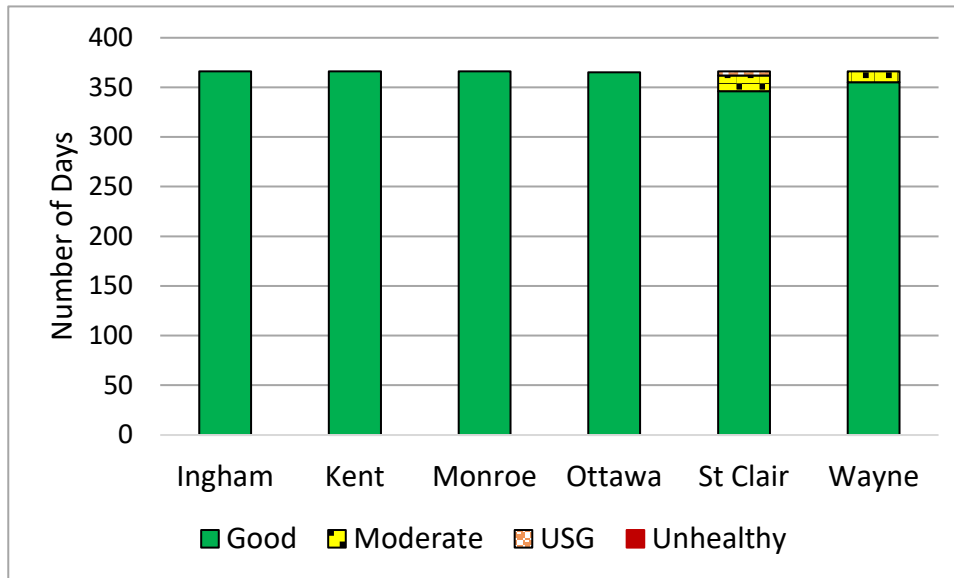


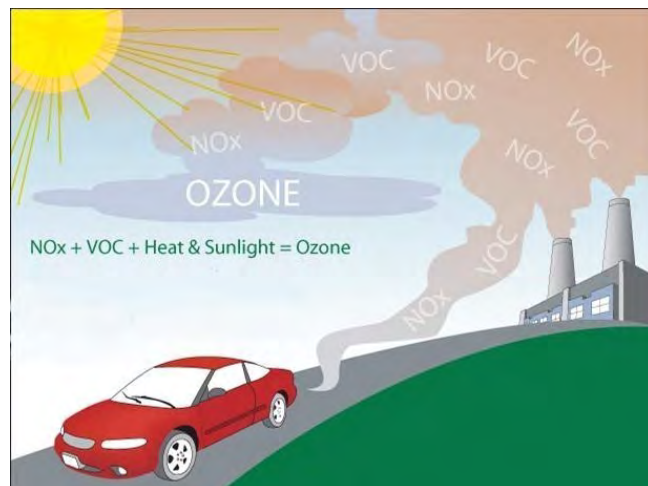
Figure 5.6 shows the AQI values per day in counties where SO₂ is monitored. All days were in the good AQI range except for 27 days in the moderate AQI range in St. Clair and Wayne Counties and four days in the Unsafe for Sensitive Groups (USG) in St. Clair County.

Figure 5.6: 2020 AQI Days for SO₂ in Michigan Counties



CHAPTER 6: OZONE (O₃)

Ground-level O₃ is created by reactions involving nitrogen oxides (NO_x) and volatile organic compounds (VOCs), or hydrocarbons, in the presence of sunlight as the illustration to the right depicts (image courtesy of the USEPA). These reactions usually occur during the hot summer months as ultraviolet radiation from the sun initiates a sequence of photochemical reactions. In Earth's upper atmosphere (the stratosphere), O₃ helps by absorbing much of the sun's ultraviolet radiation, but in the lower atmosphere (the troposphere), ozone is an air pollutant. O₃ is also a key ingredient of urban smog and can be transported hundreds of miles under certain meteorological conditions. Ozone levels are often higher in rural areas than in cities due to transport to regions downwind from the actual emissions of NO_x and VOCs. Shoreline monitors along Lake Michigan often measure high ozone concentrations due to transport from upwind states. The ozone NAAQS was revised by the USEPA and became effective in November 2015. It is a 3-year average of the 4th highest daily maximum 8-hour average concentration that must not exceed 0.070 ppm. The sources and effects of ozone follow.

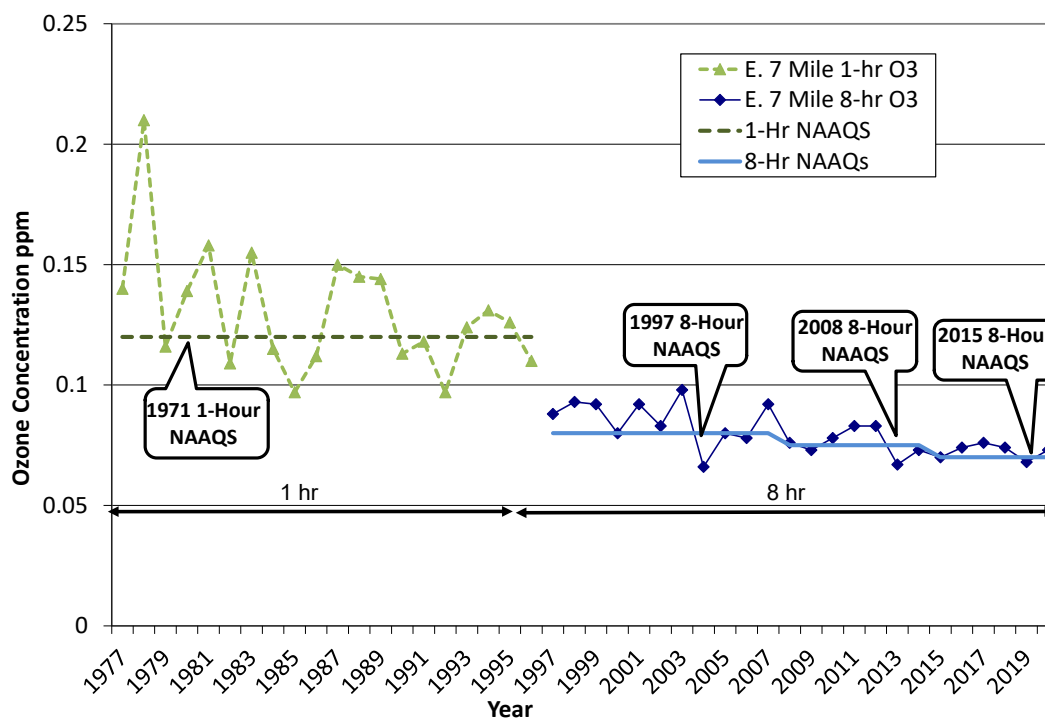


Sources: Major sources of NO_x and VOCs are engine exhaust, emissions from industrial facilities, combustion from power plants, gasoline vapors, chemical solvents, and biogenic emissions from natural sources. Ground-level O₃ can also be transported hundreds of miles under certain wind regimes. As a result, the long-range transport of air pollutants impacts the air quality of regions downwind from the actual area of formation.

Effects: Elevated O₃ exposure can irritate airways, reduce lung function, aggravate asthma and chronic lung diseases like emphysema and bronchitis, and inflame and damage the cells lining the lungs. Other effects include increased respiratory related hospital admissions with symptoms such as chest pain, shortness of breath, throat irritation, and cough. O₃ may also reduce the immune system's ability to fight off bacterial infections in the respiratory system, and long-term, repeated exposure may cause permanent lung damage. O₃ also impacts vegetation and forest ecosystems, including agricultural crop and forest yield reductions, diminished resistance to pests and pathogens, and reduced survivability of tree seedlings.

Population most at risk: Individuals most susceptible to the effects of O₃ exposure include those with a pre-existing or chronic respiratory disease, children who are active outdoors and adults who actively exercise or work outdoors.

Historical Trends: Southeast Michigan has been monitoring for ozone for over 40 years. **Figure 6.1** shows the ozone levels at the Detroit-E 7 Mile Road site. This graph shows how the standard changed from a 1-hour average of 0.120 ppm to an 8-hour average of 0.08 ppm in 1997. The standard was further lowered to 0.075 ppm in 2008 and to 0.070 ppm at the end of 2015. Ozone depends on weather conditions, so ozone concentrations are more variable than other pollutants. Ozone is also monitored primarily in warmer months. In the 2015 NAAQS, the ozone season was extended to by two months to March 1 to October 31.

Figure 6.1: Historical 1-hour and 8-hour Ozone at Detroit-E 7 Mile

Figures 6.2 and 6.3 show VOC emission sources and VOC emissions by county (courtesy of the USEPA's State and County Emission Summaries).

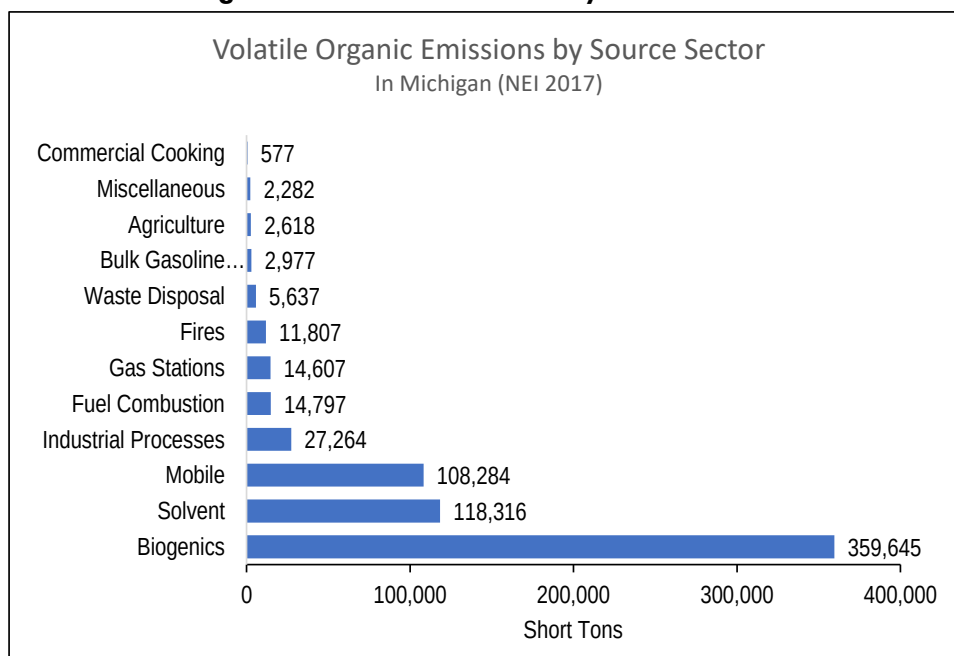
Figure 6.2: VOC Emissions by Source Sector

Figure 6.3: VOC Emissions in 2017

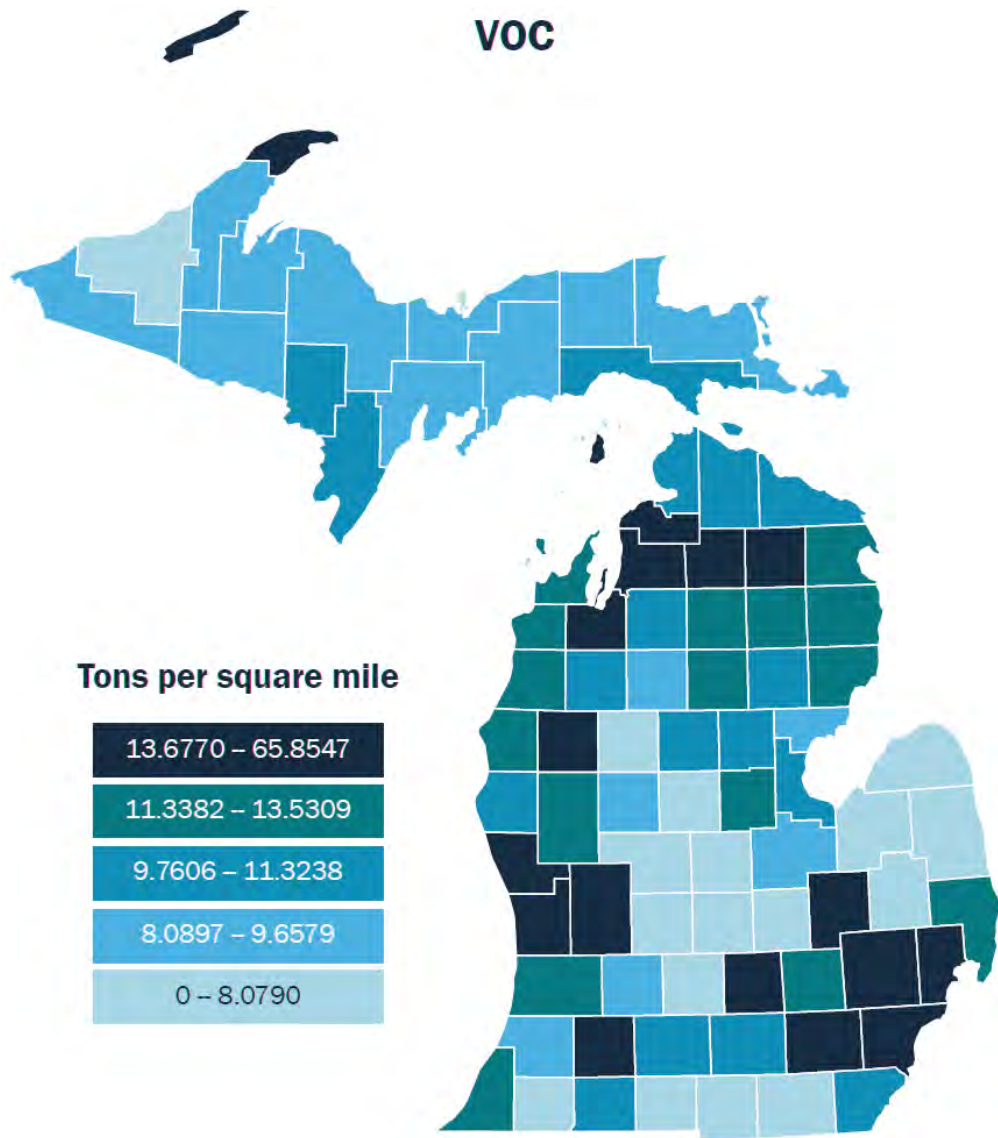


Figure 6.4 shows all O₃ air quality monitors active in Michigan at the beginning of the 2020 ozone season.

- Background site monitors: Houghton Lake, Scottville, Seney.
- Transport site monitors: Frankfort, Coloma, Harbor Beach, Holland, Muskegon, Tecumseh.
- Tribal site: Manistee
- Population-oriented monitors: All other sites.

Figure 6.4: Ozone Monitors in 2020

FIGURE 6.4: OZONE MONITORS IN 2020

● EGLE Ozone Monitor ■ Tribal Ozone Monitor ○ □ Does Not Monitor Ozone

- 1 Bay City
- 2 Belding - Reed Street
- 3 Belding - Merrick Street
- 4 Cassopolis
- 5 Coloma
- 6 Dearborn
- 7 Detroit - E 7 Mile
- 8 Eliza Howell - NR
- 9 Evans
- 10 Flint
- 11 Frankfort
- 12 DP4th
- 13 Military Park
- 14 Trinity
- 15 Grand Rapids
- 16 Harbor Beach
- 17 Holland
- 18 Houghton Lake
- 19 Jenison
- 20 Detroit - Joy Road
- 21 Kalamazoo
- 22 Lansing
- 23 Manistee
- 24 Muskegon
- 25 New Haven
- 26 NMH 48217
- 27 Oak Park
- 28 Otisville
- 29 Rochester
- 30 Port Huron
- 31 Port Huron - Rural St
- 32 River Rouge
- 33 Pontiac
- 34 Rose Lake
- 35 Scottsville
- 36 Seney
- 37 Detroit - SW
- 38 Freedom Hill
- 39 Tecumseh
- 40 Warren
- 42 Ypsilanti
- 43 Allen Park
- 44 West Olive
- 45 Sterling State Park
- 46 Detroit - W Jefferson

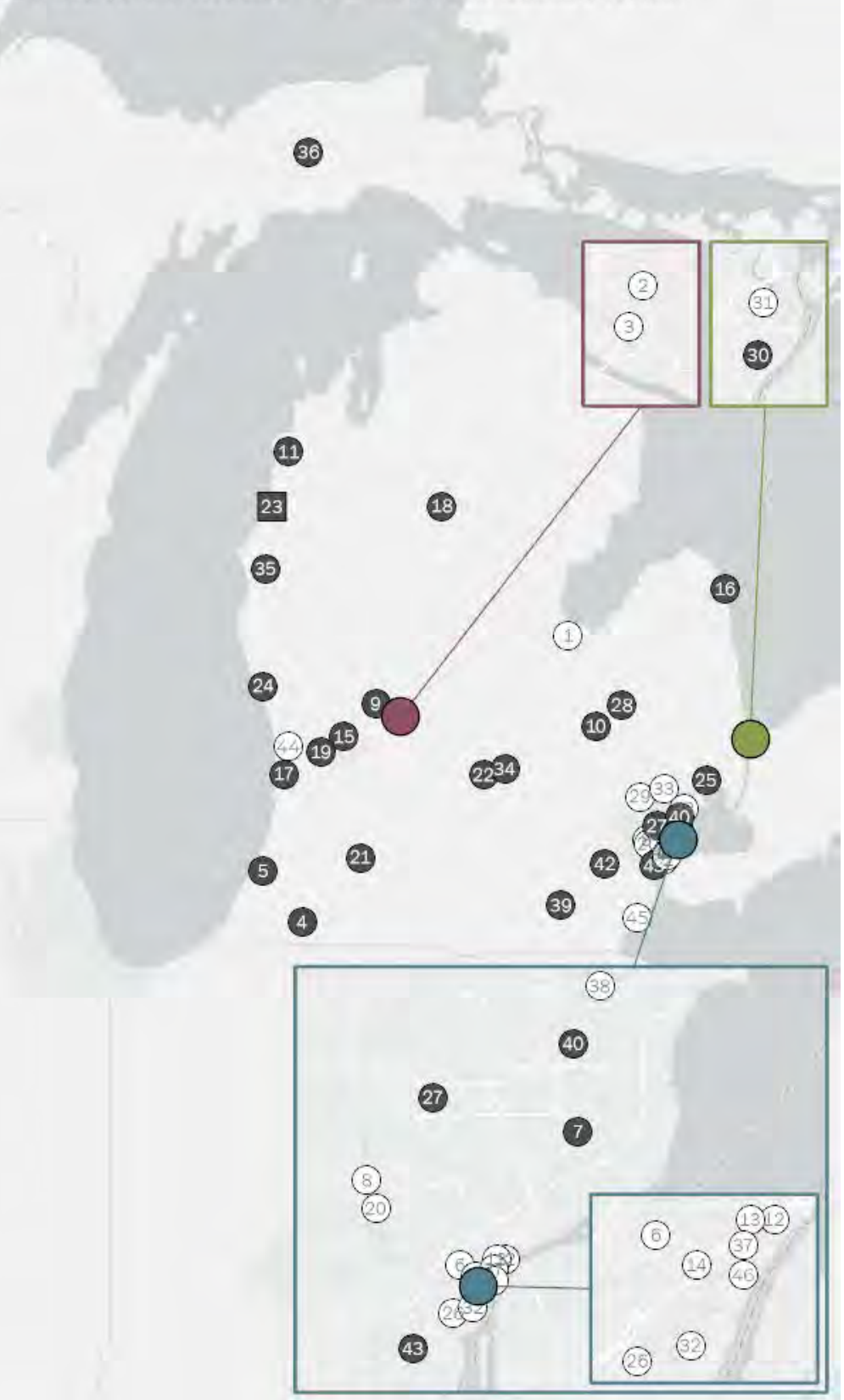


Table 6.1 shows the three-year averages of ozone. The USEPA uses these values (called design values) to determine attainment/nonattainment areas. The USEPA made their final designations for the 2015 standard on April 30, 2018 (effective August 3, 2018) based on 2014-2016 data. Livingston, Macomb, Monroe, Oakland, St. Clair, Washtenaw, and Wayne Counties were designated nonattainment in Southeast Michigan; and all of Berrien County, and portions of Allegan and Muskegon Counties were designated nonattainment in Western Michigan. In 2019 Berrien County was below the standard and a redesignation request was submitted to the USEPA in January 2020. Berrien County experienced elevated ozone in 2020. The USEPA has not yet acted on the submitted redesignation request.

The O₃ monitoring season in Michigan is from March 1 through October 31. During this time O₃ monitoring data is available for the public via the AQD's website (discussed in **Chapter 1**). However, year-round O₃ monitoring is conducted at the following four sites: Allen Park, Grand Rapids, Houghton Lake, and Lansing. This data helps in attainment designations, urban air quality and population exposure assessments.

Table 6.1: 3-Year Average of the 4th Highest 8-hour Ozone Values from 2016-2018, 2017-2019, and 2018-2020 (concentrations in ppm)

Areas	County	Monitor Sites	2016-2018	2017-2019	2018-2020
Detroit-Ann Arbor	Lenawee	Tecumseh	0.068	0.065	0.065
Detroit-Ann Arbor	Macomb	New Haven	0.072	0.068	0.071
Detroit-Ann Arbor	Macomb	Warren	0.069	0.066	0.068
Detroit-Ann Arbor	Oakland	Oak Park	0.073	0.070	0.072
Detroit-Ann Arbor	St. Clair	Port Huron	0.072	0.071	0.071
Detroit-Ann Arbor	Washtenaw	Ypsilanti	0.069	0.066	0.067
Detroit-Ann Arbor	Wayne	Allen Park	0.068	0.066	0.067
Detroit-Ann Arbor	Wayne	Detroit-E 7 Mile	0.074	0.072	0.071
Flint	Genesee	Flint	0.068	0.064	0.065
Flint	Genesee	Otisville	0.068	0.063	0.065
Grand Rapids	Ottawa	Jenison	0.070	0.067	0.071
Grand Rapids	Kent	Grand Rapids	0.070	0.066	0.071
Grand Rapids	Kent	Evans	0.068	0.064	0.065
Muskegon Co	Muskegon	Muskegon	0.076	0.074	0.076
Allegan Co	Allegan	Holland	0.073	0.072	0.073
Huron	Huron	Harbor Beach	0.068	0.064	0.068
Kalamazoo-Battle Creek	Kalamazoo	Kalamazoo	0.071	0.066	0.068
Lansing-East Lansing	Ingham	Lansing	0.068*	0.063	0.062
Lansing-East Lansing	Clinton	Rose Lake	0.069*	0.062	0.063
Benton Harbor	Berrien	Coloma	0.073	0.069	0.072
Benzie Co	Benzie	Frankfort	0.068	0.063	0.064
Cass Co	Cass	Cassopolis	0.074	0.070	0.071
Mason Co	Mason	Scottville	0.068	0.063	0.064
Missaukee Co	Missaukee	Houghton Lake	0.067	0.062	0.064
Manistee Co	Manistee	Manistee	0.066	0.064	0.059
Schoolcraft Co	Schoolcraft	Seney	0.064	0.059	0.063

Numbers in bold indicate 3-year averages over the 2015 ozone standard of 0.070 ppm.

*The three-year average is using data averaged from sites that were moved.

Tables 6.2 and 6.3 highlight the number of days when two or more O₃ monitors exceeded 0.070 ppm. It also specifies in which month they occurred and the temperature range.

Table 6.2: 2020 West Michigan Ozone Season

Daily High Temperature Range	Mar Days	Mar O ₃ Days	Apr Days	Apr O ₃ Days	May Days	May O ₃ Days	Jun Days	Jun O ₃ Days	Jul Days	Jul O ₃ Days	Aug Days	Aug O ₃ Days	Sep Days	Sep O ₃ Days	Oct Days	Oct O ₃ Days
≥ 95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
90 ≤ 94	0	0	0	0	1	0	3	2	10	1	3	1	0	0	0	0
85 ≤ 89	0	0	0	0	2	0	10	4	5	1	11	0	1	0	0	0
80 ≤ 84	0	0	0	0	1	0	7	0	16	0	8	0	3	0	0	0
75 ≤ 79	0	0	1	0	2	0	5	0	0	0	8	0	9	0	1	0
70 ≤ 74	0	0	1	0	6	0	4	0	0	0	1	0	5	0	2	0
65 ≤ 69	0	0	2	0	5	0	1	0	0	0	0	0	4	0	8	0
60 ≤ 64	3	0	6	0	6	0	0	0	0	0	0	0	8	0	1	0
55 ≤ 59	3	0	5	0	4	0	0	0	0	0	0	0	0	0	5	0
50 ≤ 54	5	0	5	0	2	0	0	0	0	0	0	0	0	0	8	0
49 ≤	20	0	10	0	2	0	0	0	0	0	0	0	0	0	6	0
Totals	31	0	30	0	31	0	30	6	31	2	31	1	30	0	31	0

Days: Number of days during month when the daily high temperature falls within the specified temperature range.

O₃ Days: Number of days, during specified temperature range, when two or more area monitors exceeded 70 ppb.

West Michigan had six O₃ exceedance days in June; two in July and one in August when ozone exceeded 0.070 ppm at two or more ozone monitors. The temperatures on those days ranged between 85°F and 94°F.

Table 6.3: 2020 Southeast Michigan Ozone Season

Daily High Temperature Range	Mar Days	Mar O ₃ Days	Apr Days	Apr O ₃ Days	May Days	May O ₃ Days	Jun Days	Jun O ₃ Days	Jul Days	Jul O ₃ Days	Aug Days	Aug O ₃ Days	Sep Days	Sep O ₃ Days	Oct Days	Oct O ₃ Days
≥ 95	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
90 ≤ 94	0	0	0	0	0	0	3	2	9	2	4	0	0	0	0	0
85 ≤ 89	0	0	0	0	3	0	9	2	13	0	10	0	1	0	0	0
80 ≤ 84	0	0	0	0	2	0	10	1	7	0	8	0	6	0	0	0
75 ≤ 79	0	0	0	0	1	0	4	0	1	0	9	0	7	0	3	0
70 ≤ 74	0	0	2	0	5	0	3	0	0	0	0	0	5	0	4	0
65 ≤ 69	1	0	3	0	8	0	1	0	0	0	0	0	7	0	4	0
60 ≤ 64	4	0	6	0	6	0	0	0	0	0	0	0	4	0	4	0
55 ≤ 59	1	0	8	0	2	0	0	0	0	0	0	0	0	0	7	0
50 ≤ 54	7	0	3	0	2	0	0	0	0	0	0	0	0	0	4	0
49 ≤	18	0	8	0	2	0	0	0	0	0	0	0	0	0	5	0
Totals	31	0	30	0	31	0	30	5	31	3	31	0	30	0	31	0

Days: Number of days during month when the daily high temperature falls within the specified temperature range.

O₃ Days: Number of days, during specified temperature range, when two or more area monitors exceeded 70 ppb.

Southeast Michigan had five O₃ exceedance days in June, and three in July when ozone exceeded 0.070 ppm at two or more ozone monitors. The temperature for those days ranged between 80°F and 95°F.

Table 6.4 gives a breakdown of the O₃ days and the specific monitors that went over the standard in western, central/upper, and eastern Michigan in 2020.

**Table 6.4: 8-Hour Exceedance Days (>0.070 ppm) and Locations
Monitors with Exceedances of the Ozone Standard**

Date	Western Michigan	Central/Upper Mich.	Eastern Michigan	Total
5/26/2020			Harbor Beach	1
6/2/2020	Coloma, Evans, Grand Rapids, Holland, Jenison, Kalamazoo, Muskegon			7
6/4/2020			New Haven	1
6/5/2020	Cassopolis, Coloma		New Haven	3
6/9/2020		Houghton Lake	Flint, New Haven, Oak Park, Tecumseh, Ypsilanti	6
6/17/2020	Coloma, Cassopolis, Grand Rapids, Jenison, Kalamazoo	Seney	New Haven, Ypsilanti	8
6/18/2020	Frankfort, Cassopolis, Coloma, Grand Rapids, Holland, Jenison, Kalamazoo, Muskegon, Scottville	Seney	Harbor Beach, New Haven	12
6/19/2020	Frankfort, Cassopolis, Coloma, Evans, Grand Rapids, Holland, Jenison, Kalamazoo, Muskegon, Scottville	Seney	Harbor Beach, Oak Park	13
6/20/2020	Coloma, Grand Rapids, Holland, Jenison, Muskegon		Detroit-E 7 Mile, Harbor Beach, New Haven, Oak Park, Port Huron, Warren, Ypsilanti	12
7/2/2020			Detroit-E 7 Mile	1
7/6/2020			Detroit-E 7 Mile, Harbor Beach, New Haven, Oak Park, Warren	5
7/7/2020	Cassopolis, Kalamazoo		Allen Park, Detroit-E 7 Mile, New Haven, Oak Park, Tecumseh, Ypsilanti	8
7/9/2020			Allen Park, Harbor Beach, New Haven, Oak Park, Ypsilanti	5
7/15/2020			Harbor Beach	1
7/17/2020			New Haven	1
7/25/2020	Coloma, Holland			2
8/21/2020			New Haven	1
8/22/2020			New Haven	1
8/24/2020	Muskegon			1
8/26/2020	Grand Rapids, Holland, Jenison, Muskegon			4
TOTAL				93

On July 19, 2020, there were 13 monitors and on June 18 and June 20, 2020, there were 12 monitor readings that exceeded the level of the standard. The site with the most exceedances in the western region of Michigan was Coloma with seven. The central/upper Michigan sites had Seney with 3 exceedances. New Haven had 12 exceedances each in eastern Michigan.

Figure 6.5 shows the 4th highest 8-hour O_3 values for Southeast Michigan monitoring sites from 2015-2020. Detroit-E 7 Mile, New Haven, Oak Park, and Port Huron site violated the 3-year standard.

Figure 6.6 shows the 4th highest 8-hour O_3 values for Grand Rapids-Muskegon-Holland CSA. Muskegon, Holland, Grand Rapids, and Jenison violated the 3-year standard.

Figure 6.7 shows 4th highest 8-hour O_3 values for mid-Michigan. Cassopolis and Coloma violated the 3-year standard.

Figure 6.8 shows 4th highest 8-hour O_3 values for Northern Lower and Upper Peninsulas. No sites violated the 3-year standard.

Figure 6.5: O_3 Levels in Detroit-Warren-Flint CSA from 2015-2020 - (4th Highest 8-Hour O_3 Values).

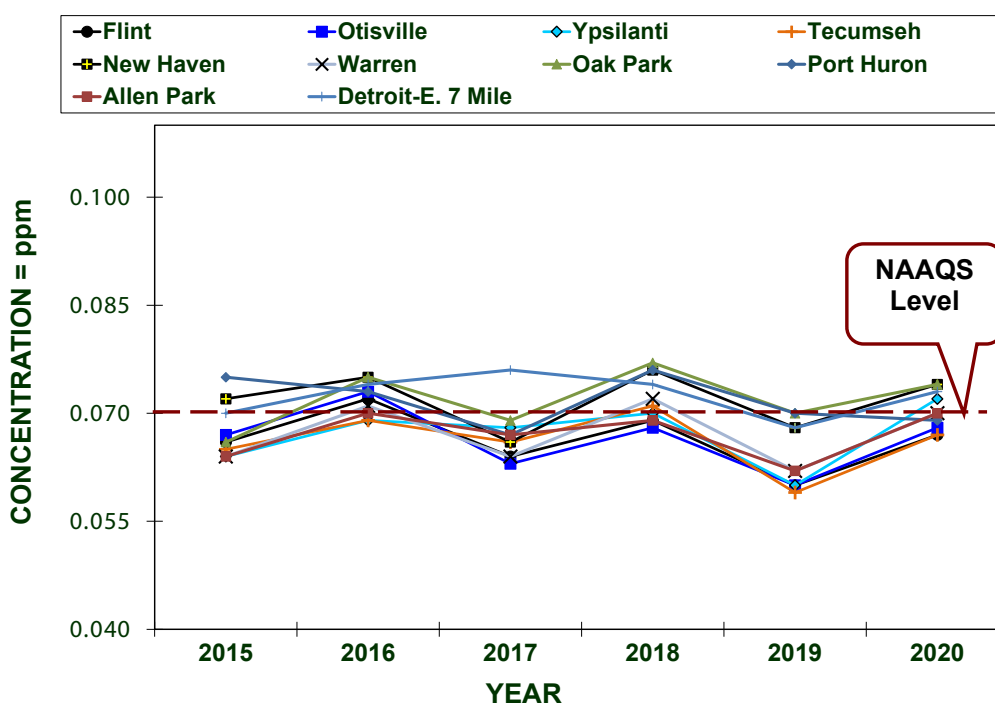


Figure 6.6: O₃ Levels in the Grand Rapids-Muskegon-Holland CSA from 2015-2020 (4th Highest 8-Hour O₃ Values)

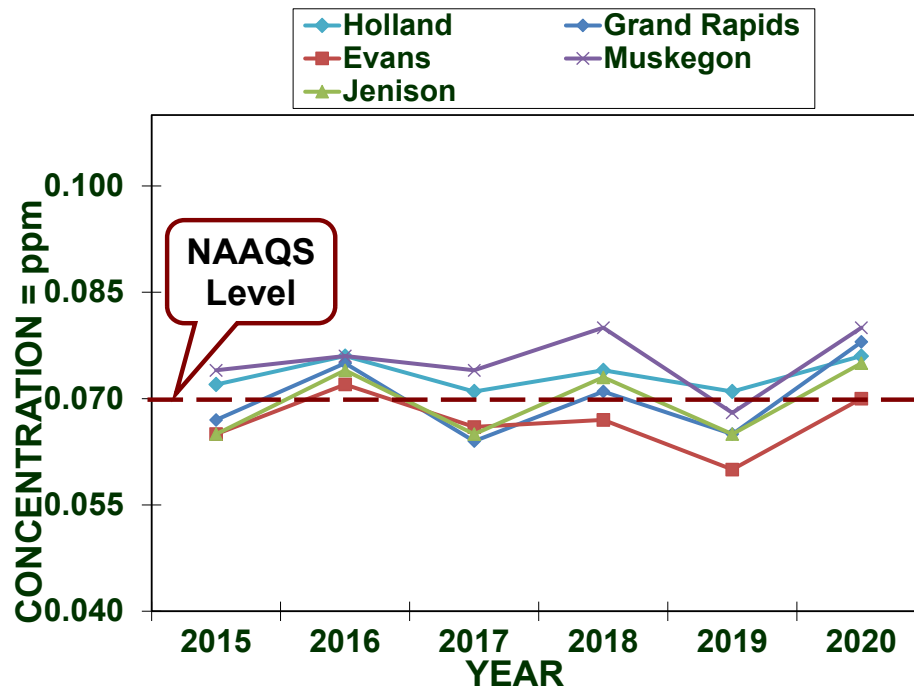


Figure 6.7: O₃ Levels in the Kalamazoo-Portage MSA, Lansing-E. Lansing-Owosso CSA, Niles-Benton Harbor MSA, & South Bend-Mishawaka (IN-MI) MSAs from 2015-2020 (4th Highest 8-Hour O₃ Values)

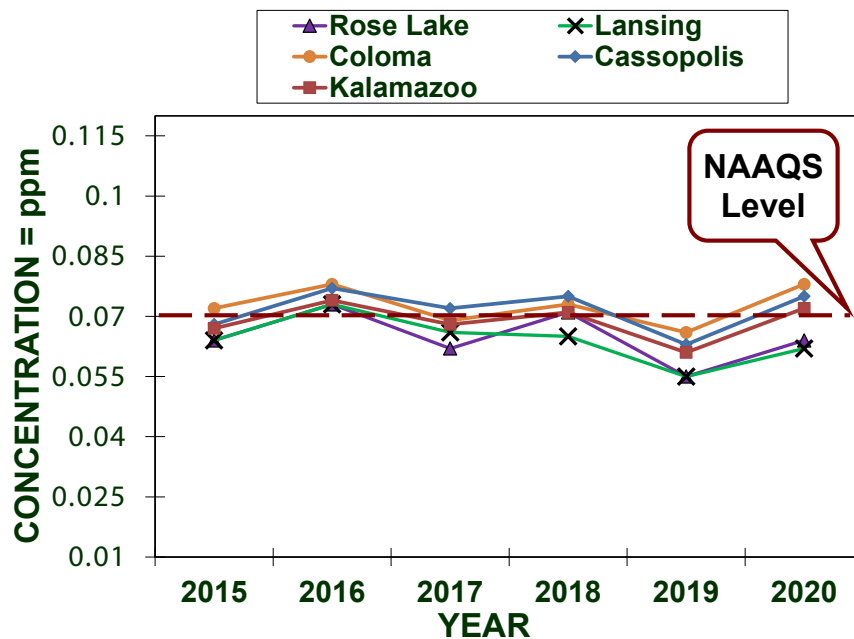


Figure 6.8: O₃ Levels in MI's Northern Lower and Upper Peninsula Areas from 2015-2020 (4th Highest 8-Hour O₃ Values)

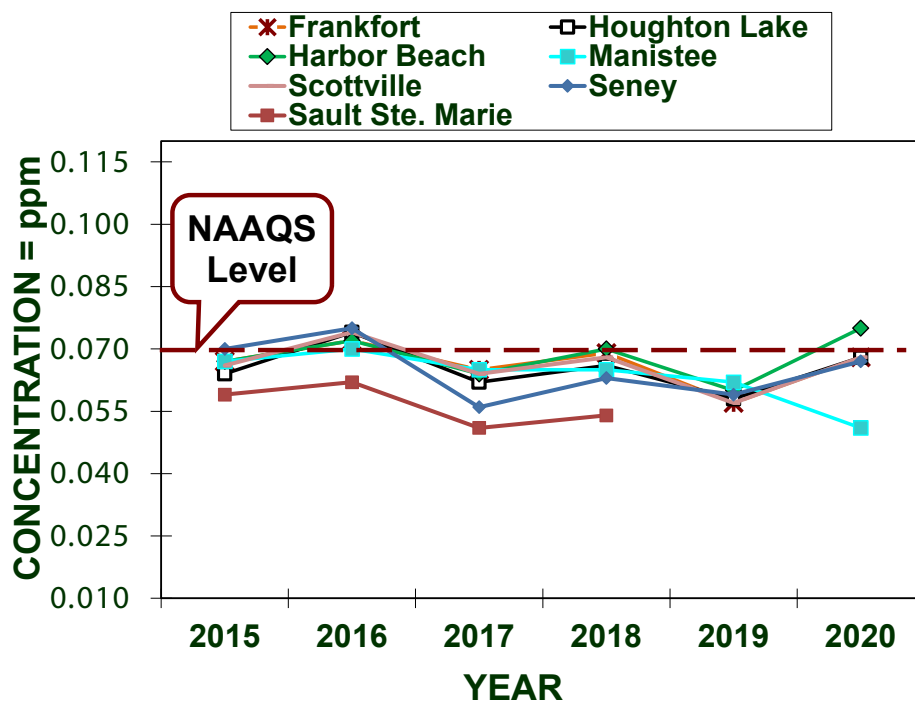
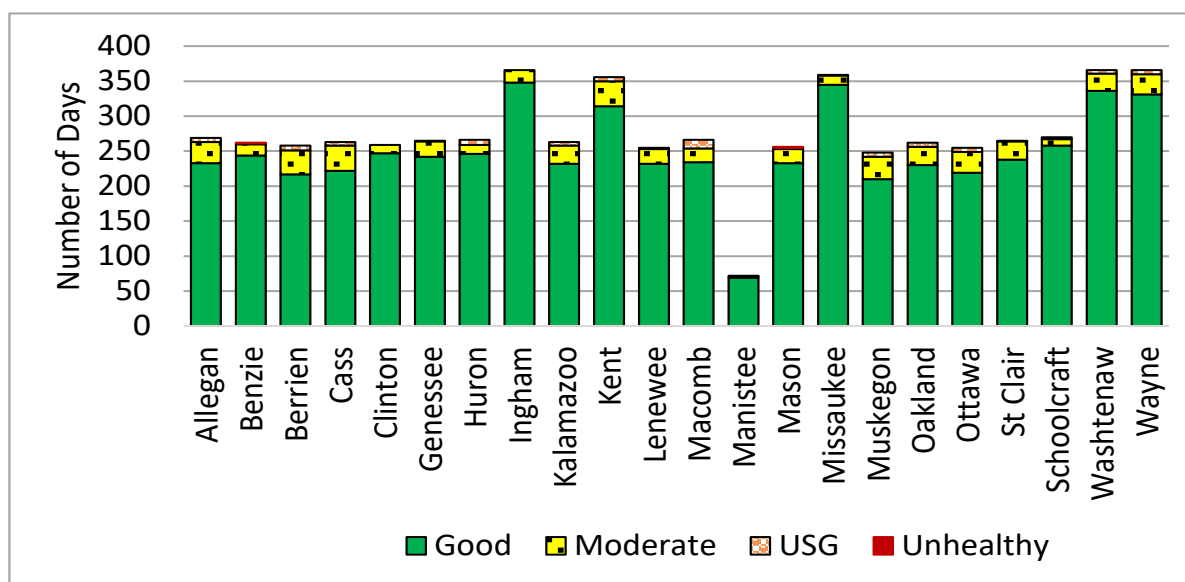


Figure 6.9 shows the AQI values per day in counties where ozone is monitored. Most days were in the good to moderate AQI range. Most counties had a few days in the USG range, Macomb County having the most USG days with 12 days. Two counties had one day each in the unhealthy AQI range: Benzie and Mason Counties.

Figure 6.9: 2020 AQI Days for Ozone in Michigan Counties



CHAPTER 7: PARTICULATE MATTER (PM₁₀, PM_{10-2.5}, PM_{2.5}, PM_{2.5} CHEMICAL SPECIATION AND TSP)

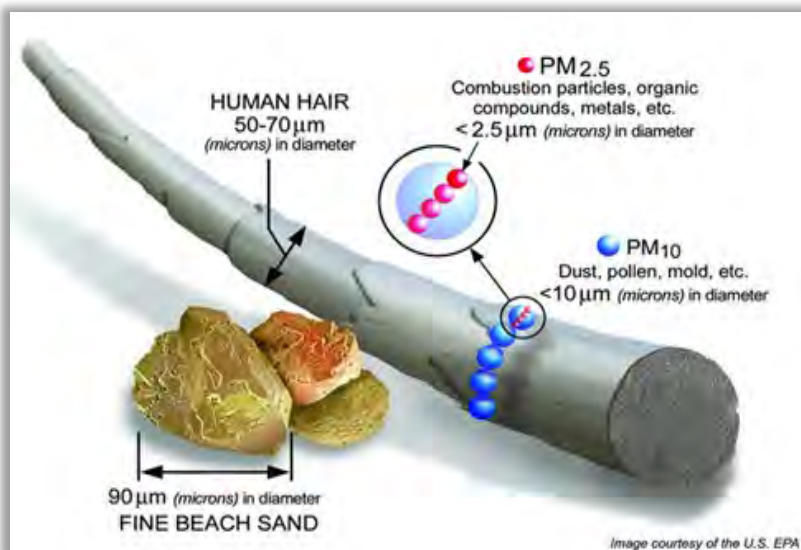
Particulate matter (PM) is a general term used for a mixture of solid particles and liquid droplets (aerosols) found in the air. These are further categorized according to size; larger particles with diameters of less than 50 micrometers (µm) are classified as total suspended particulates (TSP). PM₁₀ consists of “coarse particles” less than 10 µm in diameter (about one-seventh the diameter of a human hair) and PM_{2.5} are much smaller “fine particles” equal to or less than 2.5 µm in diameter. PM₁₀ has a 24-hour average standard of 150 µg/m³ not to be exceeded more than once per year over 3 years. PM_{2.5} has an annual average standard of 12 µg/m³, and a 98th percentile 24-hour concentration of 35 µg/m³ averaged over 3 years. The sources and effects of PM are as follows:

Sources: PM can be emitted directly (primary) or may form in the atmosphere (secondary). Most man-made particulate emissions are classified as TSP. PM₁₀ consists of primary particles that can

originate from power plants, various manufacturing processes, wood stoves and fireplaces, agriculture and forestry practices, fugitive dust sources (road dust and windblown soil), and forest fires. PM_{2.5} can come directly from primary particle emissions or through secondary reactions that include VOCs, SO₂, and NO_x emissions originating from power plants, motor vehicles (especially diesel trucks and buses), industrial facilities, and other types of combustion sources.

Effects: Exposure to PM can aggravate existing cardiovascular ailments and even cause death in susceptible populations. PM may affect breathing and the cellular defenses of the lungs and has been linked with heart and lung disease. Smaller particles (PM₁₀ or smaller) pose the greatest problems, because they can penetrate deep in the lungs and possibly into the bloodstream. PM is the major cause of reduced visibility in many parts of the United States. PM_{2.5} is considered a primary visibility-reducing component of urban and regional haze. Airborne particles impact vegetation ecosystems and damage paints, building materials and surfaces. Deposition of acid aerosols and salts increases corrosion of metals and impacts plant tissue.

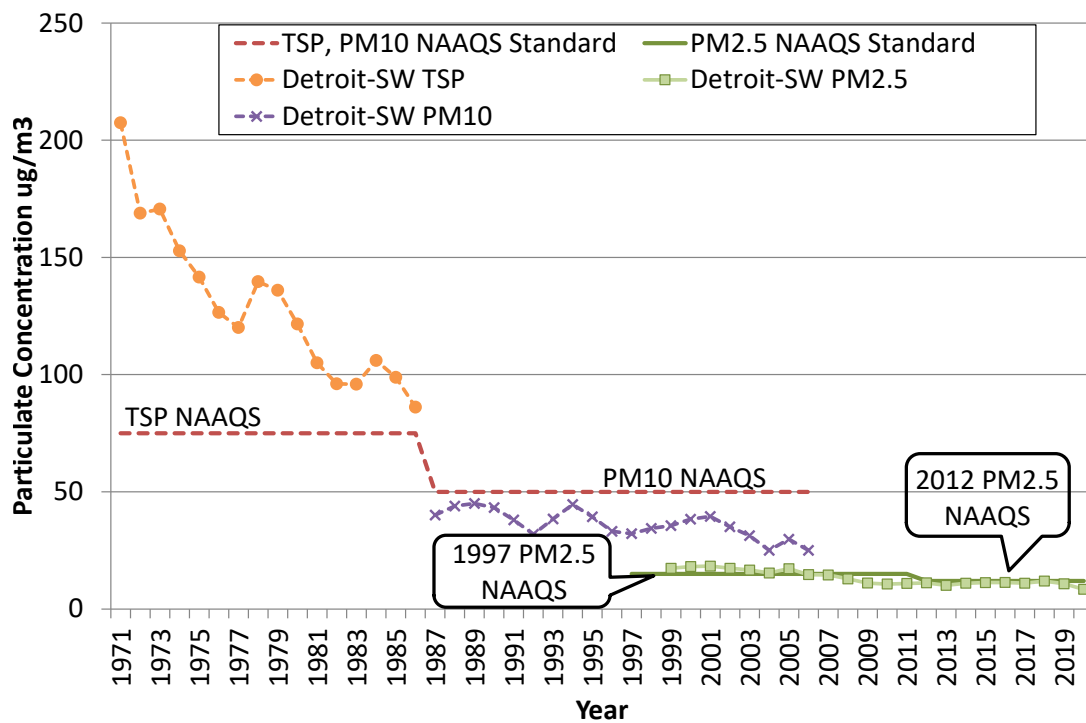
Population most at risk: People with heart or lung disease, the elderly, and children are at highest risk from exposure to PM.



Historical Trends: Southeast Michigan has been monitoring for particulate for over 40 years. **Figure 7.1** shows the trends for particulate matter. In 1971, the USEPA promulgated an annual and 24-hour particulate standard based on total suspended particulates (TSP). In 1987, the USEPA changed the standard to PM_{10} . Health studies indicated that particles smaller than 10 microns affect respiration. In 1997, the USEPA added additional NAAQS for a smaller particle fraction size, $PM_{2.5}$, which can get deeper into the lungs and possibly into the blood stream. In 2006, the USEPA revoked the PM_{10} annual standard but kept the PM_{10} 24-hour standard. The $PM_{2.5}$ 24-hour standard was also reduced from $65 \mu\text{g}/\text{m}^3$ to $35 \mu\text{g}/\text{m}^3$. In 2012, the USEPA reduced the annual standard from $15 \mu\text{g}/\text{m}^3$ to $12 \mu\text{g}/\text{m}^3$.

Particulate trends show that particulate concentrations have decreased, and the state is in compliance for all particulate NAAQS; however, Michigan has had past nonattainment issues in Southeast Michigan for TSP, PM_{10} and $PM_{2.5}$.

Figure 7.1: Historical Annual Particulate Matter at Detroit-SW



PM₁₀

Figures 7.2 and 7.3 show PM₁₀ emission sources and PM₁₀ emissions by county (courtesy of the USEPA's State and County Emission Summaries).

Figure 7.2: PM₁₀ Emissions by Source Sector

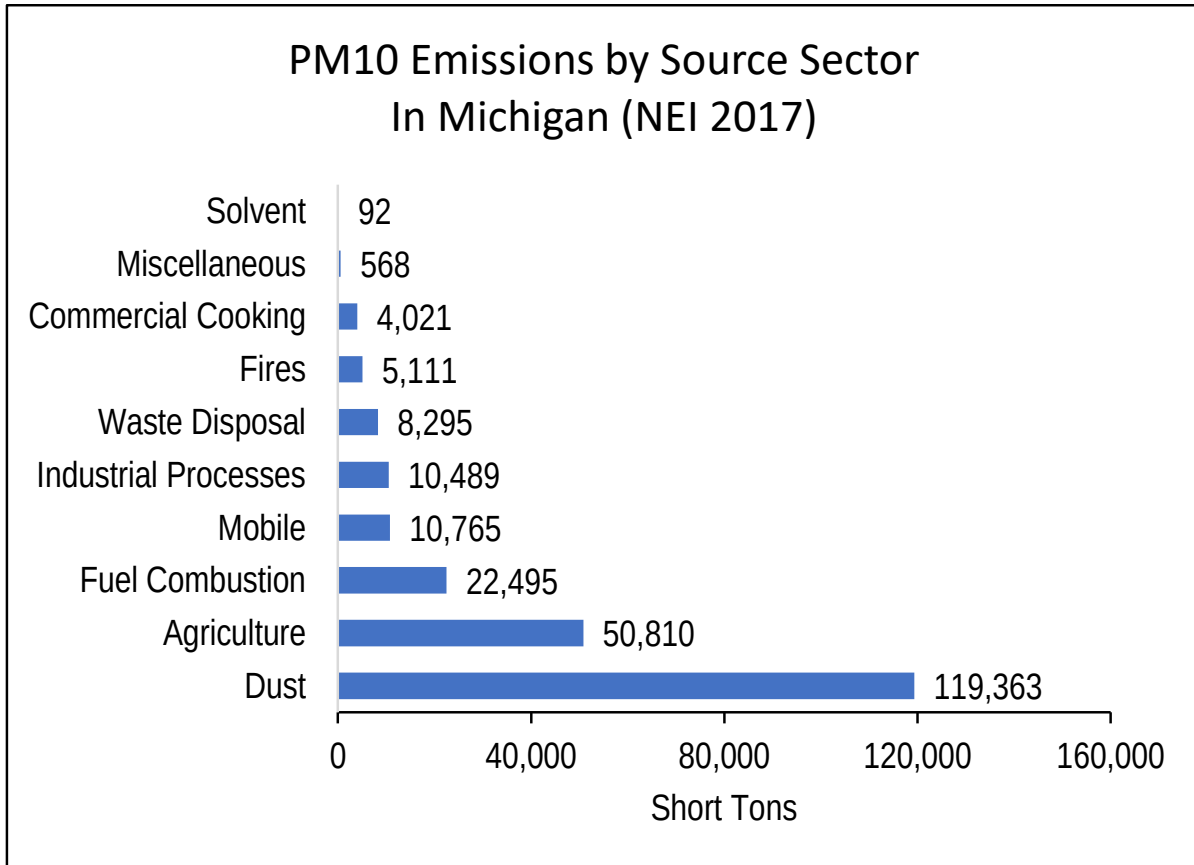
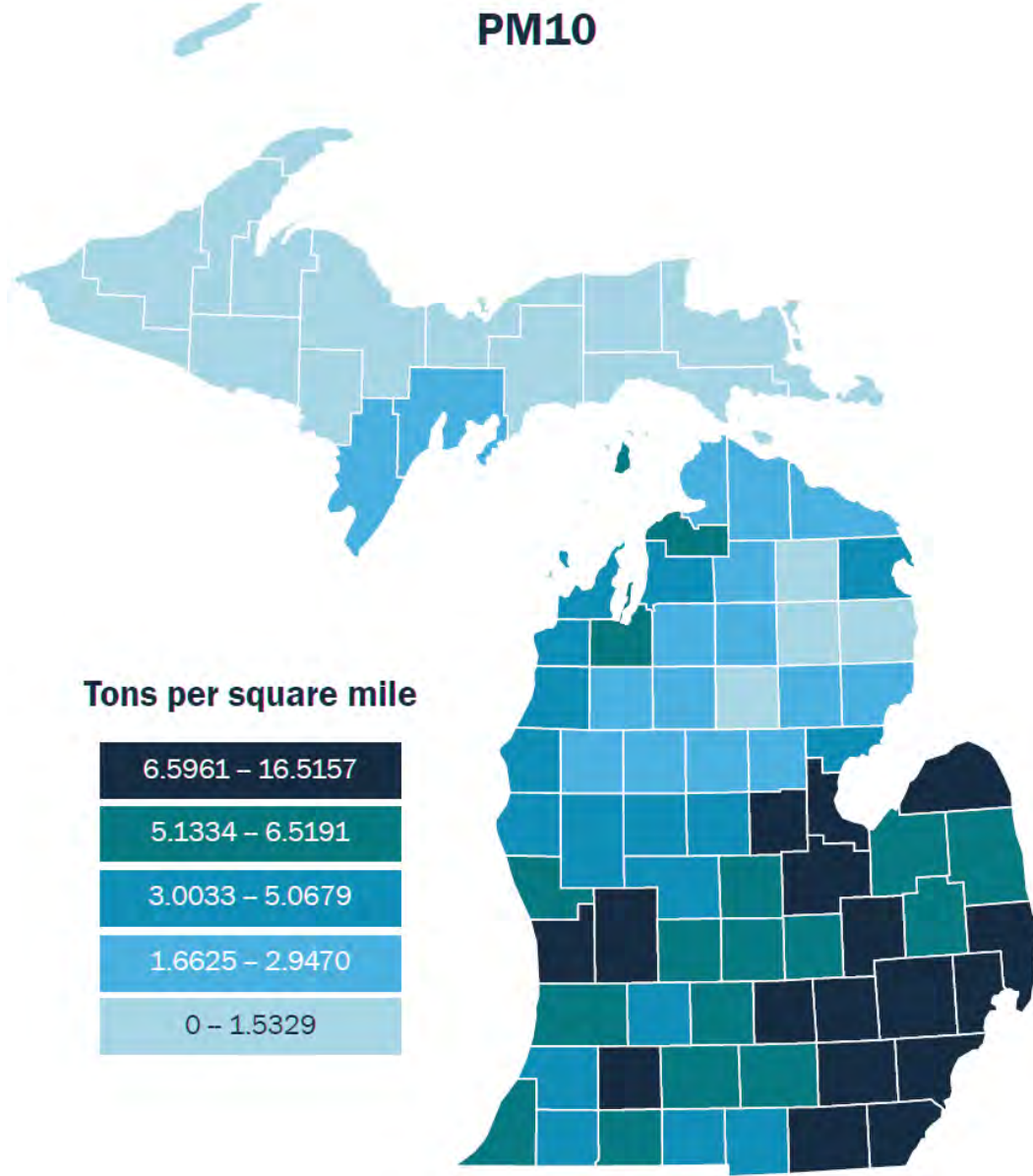


Figure 7.3: PM₁₀ Emissions in 2017

Since October 1996, all areas in Michigan have been in attainment with the PM₁₀ NAAQS. Due to the recent focus upon PM_{2.5} and because of the relatively low concentrations of PM₁₀ measured in recent years, Michigan's PM₁₀ network has been reduced to a minimum level. Table 1.2 identifies the locations of PM₁₀ monitoring stations that were operating in Michigan during 2020. These monitors are located mostly in the state's largest populated urban areas: three in the Detroit area and two in Grand Rapids. In late fall of 2020, Grand Rapids, Jenison, and Allen Park PM₁₀ continuous monitors (T640X), which also collect PM_{2.5} data, were installed. However, filter-based instruments were shut down on January 1, 2021, so the continuous instruments will not be reported in the 2020 report.

Figure 7.4 shows the location of each PM₁₀ monitor. All PM₁₀ monitors are population-oriented monitors. A second PM₁₀ monitor was added to the Grand Rapids area in Jenison (**Figure 7.5**) based on the USEPA's population requirements.

Figure 7.4: PM₁₀ Monitors in 2020

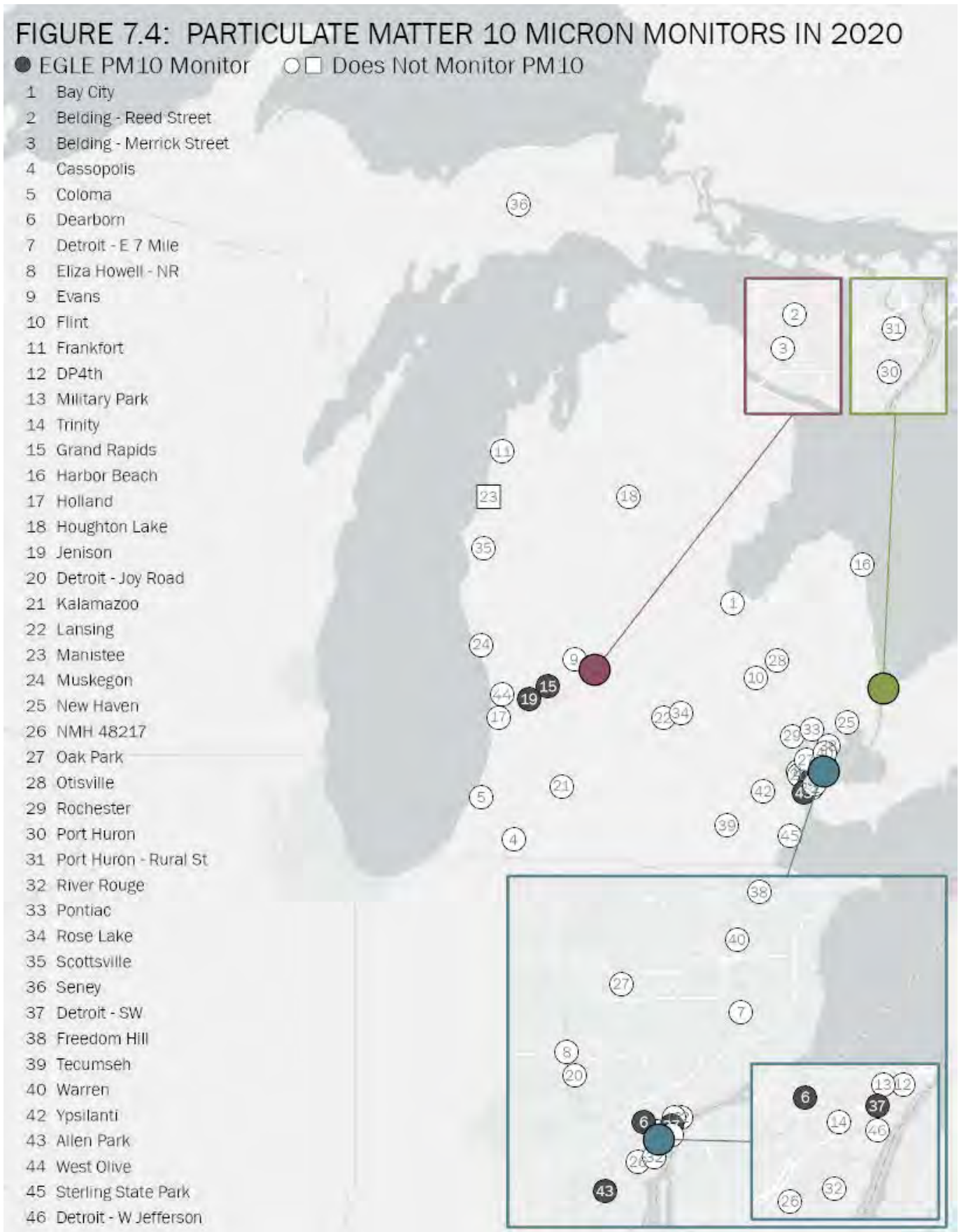


Figure 7.5 shows the PM_{10} levels in Michigan compared to the 24-hour average NAAQS of $150 \mu\text{g}/\text{m}^3$. This standard must not be exceeded on average more than once per year over a 3-year period. The design value is the 4th highest value over a 3-year period. The PM_{10} levels at all sites in Michigan are well below the national standard.

Figure 7.5: 24-Hour PM_{10} Design Value

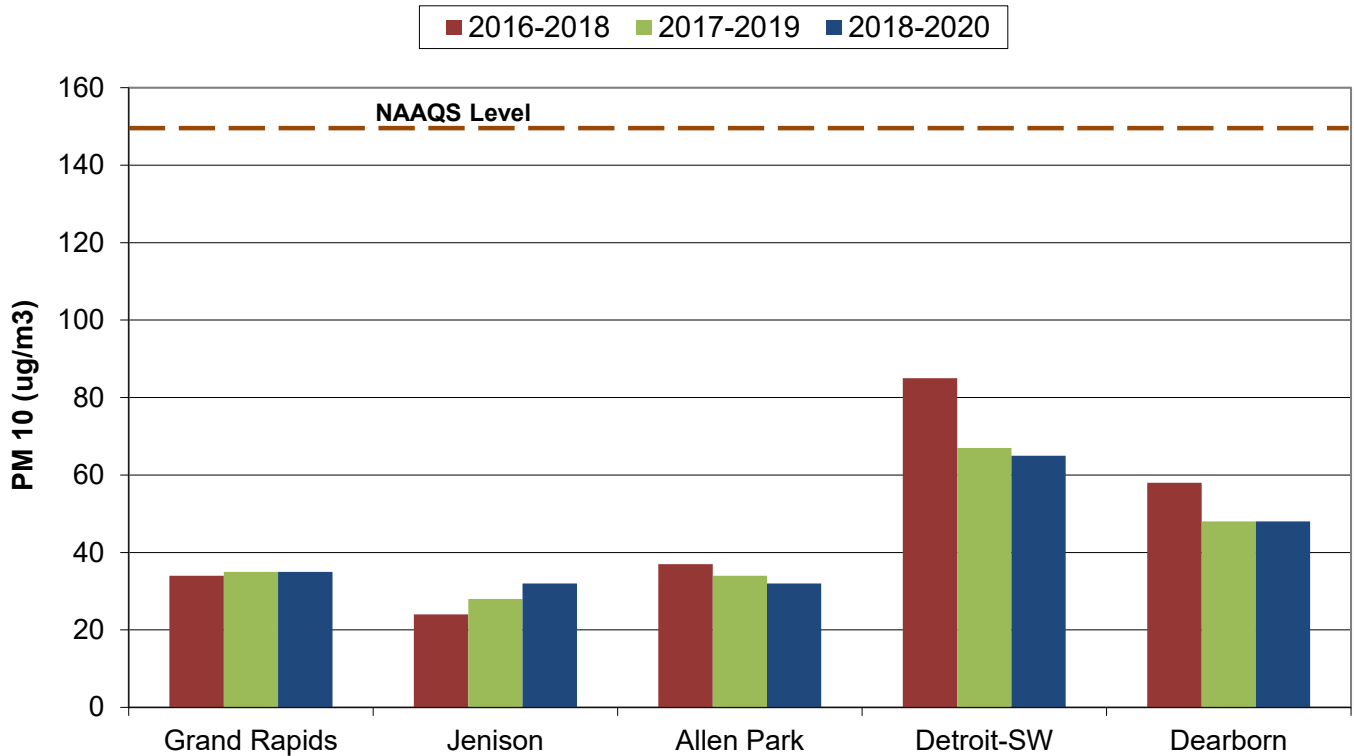
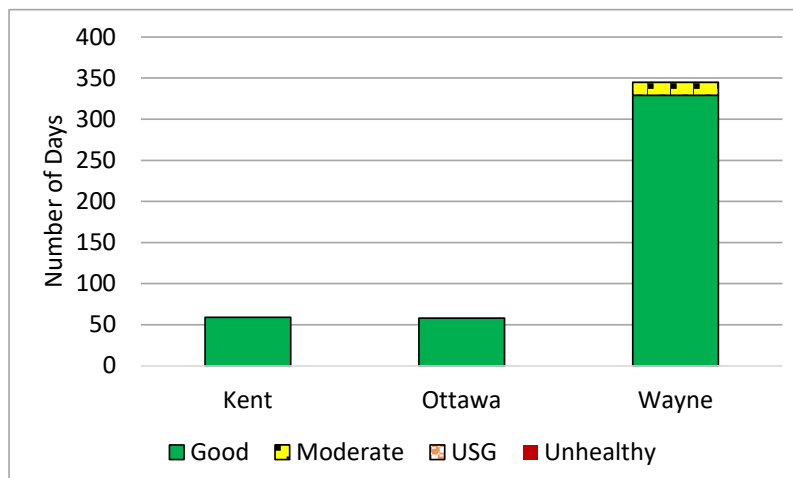


Figure 7.6 shows the AQI values per day in counties where PM_{10} is monitored. All days were in the good AQI range except for 16 days in the moderate AQI range in Wayne County.

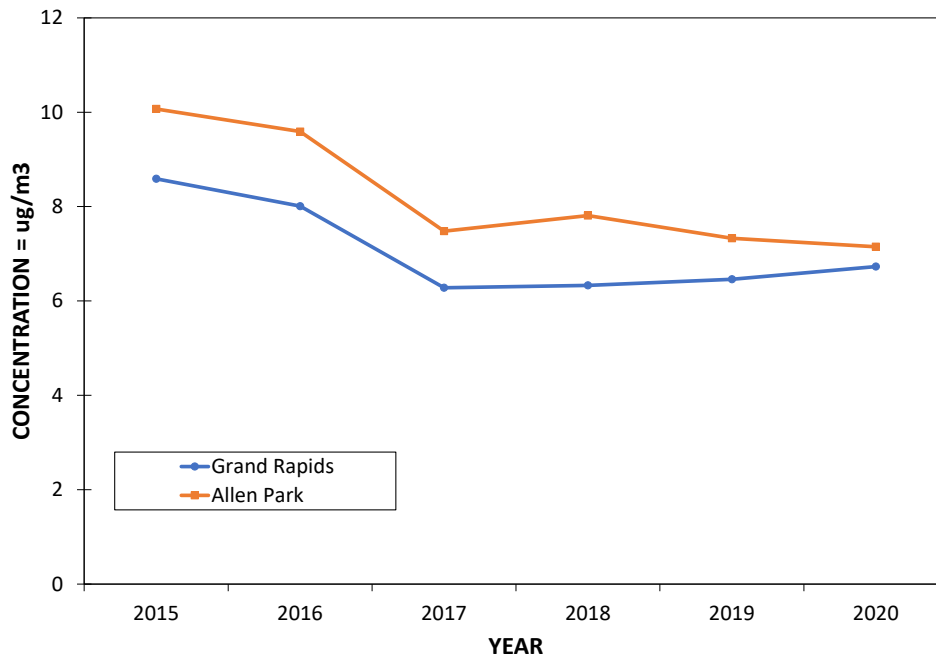
Figure 7.6: 2020 AQI Days for PM_{10} in Michigan Counties



PM_{10-2.5}

The 2006 amended air monitoring regulations specified that measurements of PM coarse (PM_{10-2.5}) needed to be added to the NCore sites.⁷ EGLE began PM coarse monitoring at Allen Park and Grand Rapids in 2010. **Figure 7.7** shows the PM_{10-2.5} levels in Michigan.

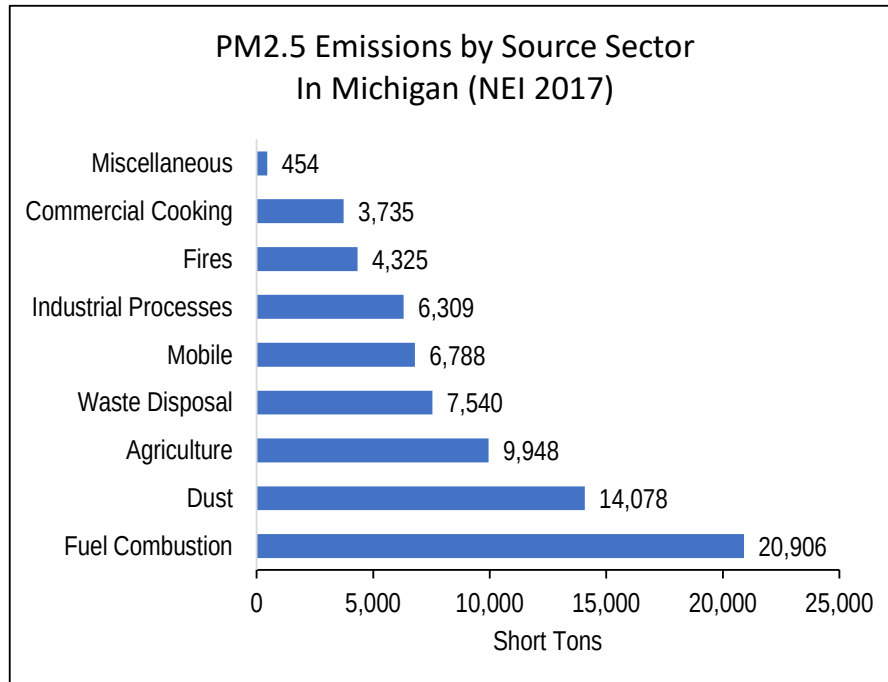
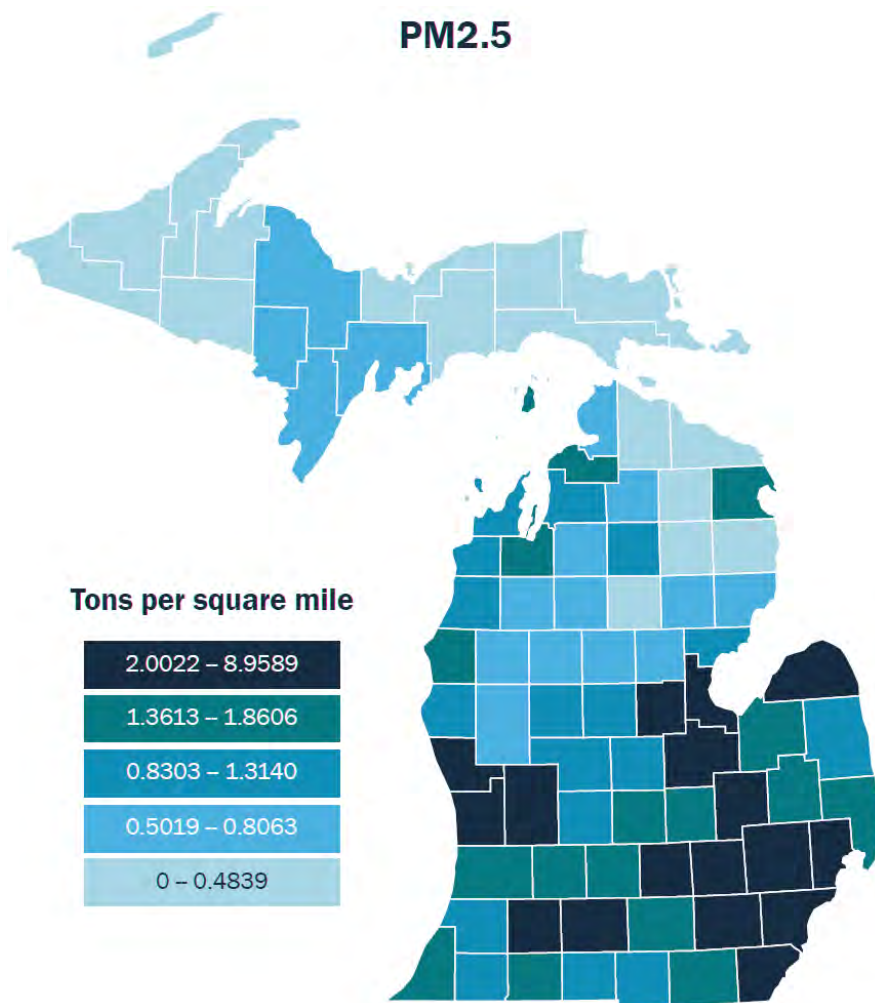
Figure 7.7: PM Coarse Levels in Michigan from 2015-2020 (Annual Arithmetic Mean)

**PM_{2.5}**

In December 2012, the USEPA revised the annual primary standard to 12 µg/m³ while the annual secondary standard remained at 15 µg/m³. The primary and secondary 24-hour standard remained at 35 µg/m³. In December 2014, the USEPA determined that no area in Michigan violated the 2012 standard and the state was classified as unclassifiable/attainment.

Figures 7.8 and 7.9 show PM_{2.5} emission sources and PM_{2.5} emissions by county (from the USEPA's State and County Emission Summaries).

⁷ Current information can be found at www3.epa.gov/ttn/amtic/ncoreguidance.html.

Figure 7.8: PM_{2.5} Emissions by Source Sector**Figure 7.9: PM_{2.5} Emissions in 2017**

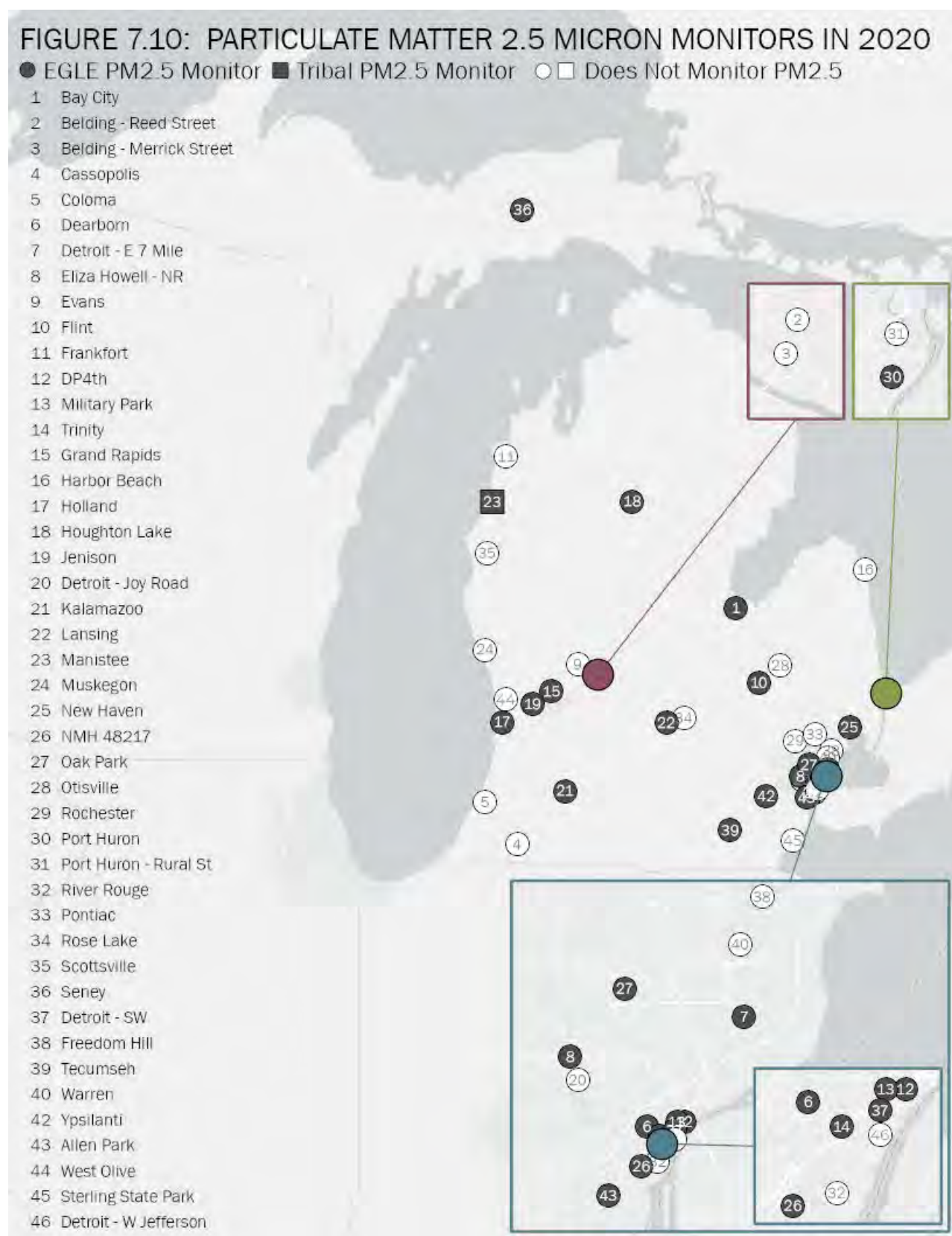
Fine particulate matter ($PM_{2.5}$) is measured using three techniques: a filter-based FRM, Continuous Methods, and Chemical Speciation Methods. These methods are described in more detail in Appendix A.

Figure 7.10 shows the location of each $PM_{2.5}$ monitor.

$PM_{2.5}$ FRM Monitoring Network: $PM_{2.5}$ FRM filter-based monitors are deployed to characterize background or regional $PM_{2.5}$ transport collectively from upwind sources as well as population-oriented sites. Several changes occurred in the FRM network in 2020.

- Loss of site access shut down: Livonia Near-road will be relocated, but a suitable replacement site has not been found yet.
- Collocation sites: Five $PM_{2.5}$ FRM monitoring sites are collocated with PM_{10} monitors to allow for $PM_{2.5}$ and PM_{10} comparisons.⁸ Collocated PM_{10} and $PM_{2.5}$ sites include Dearborn and Detroit-SW. Allen Park, Grand Rapids, and Jenison also have collocated PM_{10} and $PM_{2.5}$ but monitors were switched from FRMs and TEOMs to continuous FEM T640X beginning January 1, 2021, which measure PM_{10} , $PM_{2.5}$ and PM coarse. The T640X particulate instruments determine the concentration of particulates in the air using a light scattering technique. The T640x is FEM for both $PM_{2.5}$ and PM_{10} and then it subtracts the two to get PM coarse.
- Switched FRM to BAMs: Holland, Bay City, and Ypsilanti (collocated with secondary FRM).
- Switched FRMs to T640s: Kalamazoo, New Haven, and Port Huron were switched to T640s in the fall, but FRMs were collocated at these sites until January 1, 2021. No T640 data is reported in 2020 for these sites. The T640 particulate instruments determine the concentration of particulates in the air using a light scattering technique, but the T640 primarily is used to measure $PM_{2.5}$.

⁸ Requirements for $PM_{2.5}$ FRM sites are obtained from the Revised Requirements for Designation of Reference and Equivalent Methods for $PM_{2.5}$ and Ambient Air Quality Surveillance for PM [62 FR 38763]; Guidance for Using Continuous Monitors in $PM_{2.5}$ Monitoring Networks [EPA-454/R-98-012, May 1998]; and Appendix N to Part 50 - Interpretation of the National Ambient Air Quality Standards for PM [40 CFR Part 50, July 1, 1998].

Figure 7.10: PM_{2.5} Monitors in 2020

Continuous PM_{2.5} Network: Short-term measurements of PM_{2.5} or PM₁₀ are updated on an hourly basis using TEOM, BAM or T640 instruments. At least one continuous monitor is required at the NCore PM_{2.5} monitoring site in a metropolitan area with a population greater than one million. Both Detroit (Allen Park) and Grand Rapids meet this requirement.⁹ Under the revised 2006 air monitoring regulations, 50 percent of the FRM monitoring sites are now required to have a continuous PM_{2.5} monitor. For Michigan, there are 13 FRM monitoring sites, 7 of which also had TEOMs or BAMs.

- T640 replaced TEOMS: Lansing switched to a T640 monitor in September 2020 and is running a collocated filter-based FRM. The T640 data will not be reported until 2021.
- GHIB project: DP4th, Trinity, Military Park and Detroit-SW were switched from BAMs to T640s in fall 2020. These T640 data are reported in the 2020 report.

Speciation Monitors: Speciation monitors consist of filter-based, 24-hour monitors and continuous speciation monitors, aethalometers. Continuous monitors are used to determine diurnal changes in PM_{2.5} composition.

- 24-hour speciation monitors: Allen Park and Grand Rapids (NCore sites), Dearborn (NATTS site), and Detroit-SW. The Tecumseh speciation monitor was shut down in 2019. These monitors are placed in population-oriented stations in both urban and rural locations. PM_{2.5} chemical speciation samples are collected over a 24-hour period and analyzed to determine various components of PM_{2.5}. The primary objectives of the chemical speciation monitoring sites are to provide data that will be used to determine sources of poor air quality and to support the development of attainment strategies. Historical speciation data for Michigan indicates that PM_{2.5} is made up of 30 percent nitrate compounds, 30 percent sulfate compounds, 30 percent organic carbon,¹⁰ and 10 percent unidentified or trace elements.
- Aethalometers: Allen Park, Dearborn, and the GHIB project (DP4th, Trinity, Military Park, and Detroit-SW started in 2018). These continuous monitors measure black carbon, a combustion by-product typical of transportation sources.

Table 1.2 in [Chapter 1](#) shows all of Michigan's PM_{2.5} FRM monitoring stations operating in 2020 and denotes which sites have TEOM, FEM, Speciation, or Aethalometer monitors in operation.

⁹ Under the Guidance for Using Continuous Monitors in PM_{2.5} Monitoring Networks [EPA-454/R-98-012, May 1998].

¹⁰ To better understand the chemical composition of the organic carbon fraction, several studies have been conducted in Southeast Michigan to further investigate organic carbon. Information can be found in the Michigan 2012 Ambient Air Monitoring Network Review, available at http://www.michigan.gov/documents/deq/deq-aqd-aqe-2012-Air-Mon-Network-Review_357137_7.pdf

Table 7.1 provides the design value, the 3-year average of the annual mean PM_{2.5} concentrations for 2018-2020. Michigan's levels are below the 12 µg/m³ primary standard.¹¹

Table 7.1: 3-Year Average of the Annual Mean PM_{2.5} Concentrations for 2018-2020

Areas	County	Monitoring Sites	2018	2019	2020	2018-2020 Mean
Detroit-Ann Arbor	Lenawee	Tecumseh	8.4	8.5	8.2	8.3
Detroit-Ann Arbor	Macomb	New Haven	7.8	7.3	6.0	7.0
Detroit-Ann Arbor	Oakland	Oak Park	8.3	7.7	7.4	7.8
Detroit-Ann Arbor	St. Clair	Port Huron	8.1	7.6	6.7	7.5
Detroit-Ann Arbor	Washtenaw	Ypsilanti	8.3	8.4	8.2	8.3
Detroit-Ann Arbor	Wayne	Allen Park	9.1	8.7	7.5	8.4
Detroit-Ann Arbor	Wayne	Detroit-Linwood	8.86	--	--	8.9
Detroit-Ann Arbor	Wayne	Detroit-E 7 Mile	8.4	7.6	7.5	7.8
Detroit-Ann Arbor	Wayne	Detroit-SW	11.5	12.1	9.1	10.9
Detroit-Ann Arbor	Wayne	Detroit-W. Lafayette	8.9*	--	--	8.9
Detroit-Ann Arbor	Wayne	Wyandotte	8.0	--	--	8.0
Detroit-Ann Arbor	Wayne	Dearborn	10.6	9.9	9.4	10.0
Detroit-Ann Arbor	Wayne	Livonia	7.4*	--	--	7.4
Detroit-Ann Arbor	Wayne	Livonia-Roadway	9.0	8.4*	--	8.7
Detroit-Ann Arbor	Wayne	Eliza Howell-NR	--	--	10.6	10.6
Flint	Genesee	Flint	7.4	7.2	6.0	6.9
Grand Rapids	Ottawa	Jenison	8.3*	8.3	7.4	8.0
Grand Rapids	Kent	Grand Rapids	8.2	8.00	7.7	8.0
Allegan Co	Allegan	Holland	7.6	7.2	6.0	6.9
Kalamazoo-Battle Creek	Kalamazoo	Kalamazoo	8.4	7.2	7.6	7.8
Lansing-East Lansing	Ingham	Lansing	7.7**	7.3	7.1	7.4
Bay Co	Bay	Bay City	7.1	6.8	4.7	6.2
Missaukee Co	Missaukee	Houghton Lake	5.4	5.8	8.0	6.4
Manistee Co	Manistee	Manistee	6.1	4.9*	5.1*	5.4
Schoolcraft Co	Schoolcraft	Seney	4.1*	4.2	4.6*	4.3

*Indicates site does not have a complete year of data.

**Indicates site was moved during the year and concentrations were averaged together for both locations.

¹¹ For comparison to the standard, the average annual means is rounded to the nearest 0.1 µg/m³.

Table 7.2 provides the 24-hour 98th percentile $PM_{2.5}$ concentrations for 2018-2020 showing Michigan's levels are below the $35 \mu\text{g}/\text{m}^3$ standard (3-year average).¹²

Table 7.2: 24-Hour 98th Percentile $PM_{2.5}$ Concentrations for 2018-2020

Areas	County	Monitoring Sites	2018	2019	2020	2018-2020 Mean
Detroit-Ann Arbor	Lenawee	Tecumseh	24.2	22.1	18.7	22
Detroit-Ann Arbor	Macomb	New Haven	18.9	18.7	15.5	18
Detroit-Ann Arbor	Oakland	Oak Park	20.1	18.2	23.3	21
Detroit-Ann Arbor	St. Clair	Port Huron	19.6	20.3	16.6	19
Detroit-Ann Arbor	Washtenaw	Ypsilanti	21.3	22.0	19.8	21
Detroit-Ann Arbor	Wayne	Allen Park	22.8	22.0	26.3	24
Detroit-Ann Arbor	Wayne	Detroit-Linwood	18.6	--	--	19
Detroit-Ann Arbor	Wayne	Detroit-E 7 Mile	21.5	19.6	17.7	20
Detroit-Ann Arbor	Wayne	Detroit-SW	28.1	30.6	24.1	28
Detroit-Ann Arbor	Wayne	Detroit-W. Lafayette	8.9*	--	--	8.9
Detroit-Ann Arbor	Wayne	Wyandotte	20.4	--	--	20
Detroit-Ann Arbor	Wayne	Dearborn	26.1	24.0	21.0	24
Detroit-Ann Arbor	Wayne	Livonia	18.1*	--	--	18
Detroit-Ann Arbor	Wayne	Livonia-Roadway	22.8*	29.0	--	26
Detroit-Ann Arbor	Wayne	Eliza Howell-NR	--	--	23.2	23
Flint	Genesee	Flint	22.2	18.9	14.5	19
Grand Rapids	Ottawa	Jenison	22.3*	24.4	17.9	22
Grand Rapids	Kent	Grand Rapids	18.9	23.2	17.6	20
Allegan Co	Allegan	Holland	21.2	18.2	13.1	18
Kalamazoo-Battle Creek	Kalamazoo	Kalamazoo	19.0	16.9	18.0	18
Lansing-East Lansing	Ingham	Lansing	23.5**	22.3*	21.6	22
Bay Co	Bay	Bay City	17.8	17.5	14.0	16
Missaukee Co	Missaukee	Houghton Lake	16.2	15.1	15.2	16
Manistee Co	Manistee	Manistee	16.9	14.9*	13.3*	15
Schoolcraft Co	Schoolcraft	Seney	19.0*	14.1	10.6*	15

*Indicates site does not have a complete year of data.

**Indicates site was moved during the year and concentrations were averaged together for both locations.

¹² The 98th percentile value was obtained from the USEPA AQS. For comparing calculated values to the standard, the 3-year, 24-hour average is rounded to the nearest $1 \mu\text{g}/\text{m}^3$.

Figures 7.11 through 7.14 illustrate the current annual mean $PM_{2.5}$ trend for each monitoring site in Michigan. For clarity, the monitoring sites within the Detroit-Warren-Flint CSA have been broken down into two graphs.

Figure 7.11 shows the 2020 levels in Wayne County remained below the $PM_{2.5}$ NAAQS standard. Historically, Dearborn has had the highest concentrations in the state, but Detroit-SW now has the highest concentrations. All sites are below the annual $PM_{2.5}$ NAAQS standard. The Gordie Howe International Bridge sites are included in these graphs.

Figure 7.12 contains the remainder of those sites in the Detroit-Warren-Flint CSA that are outside of Wayne County. These sites also show readings in 2020 are below the $PM_{2.5}$ NAAQS.

Figure 7.13 combines the $PM_{2.5}$ monitoring sites located in West Michigan-Grand Rapids-Muskegon-Holland CSA, Kalamazoo, and Benton Harbor MSAs. All sites are below the annual $PM_{2.5}$ NAAQS.

Figure 7.14 displays the remaining monitoring sites in the Northern Lower and Upper Peninsulas. All sites are below the annual $PM_{2.5}$ NAAQS standard.

Figure 7.11: Detroit-Warren-Flint CSA (Wayne County Only)
Annual Arithmetic Means for $PM_{2.5}$ from 2015-2020

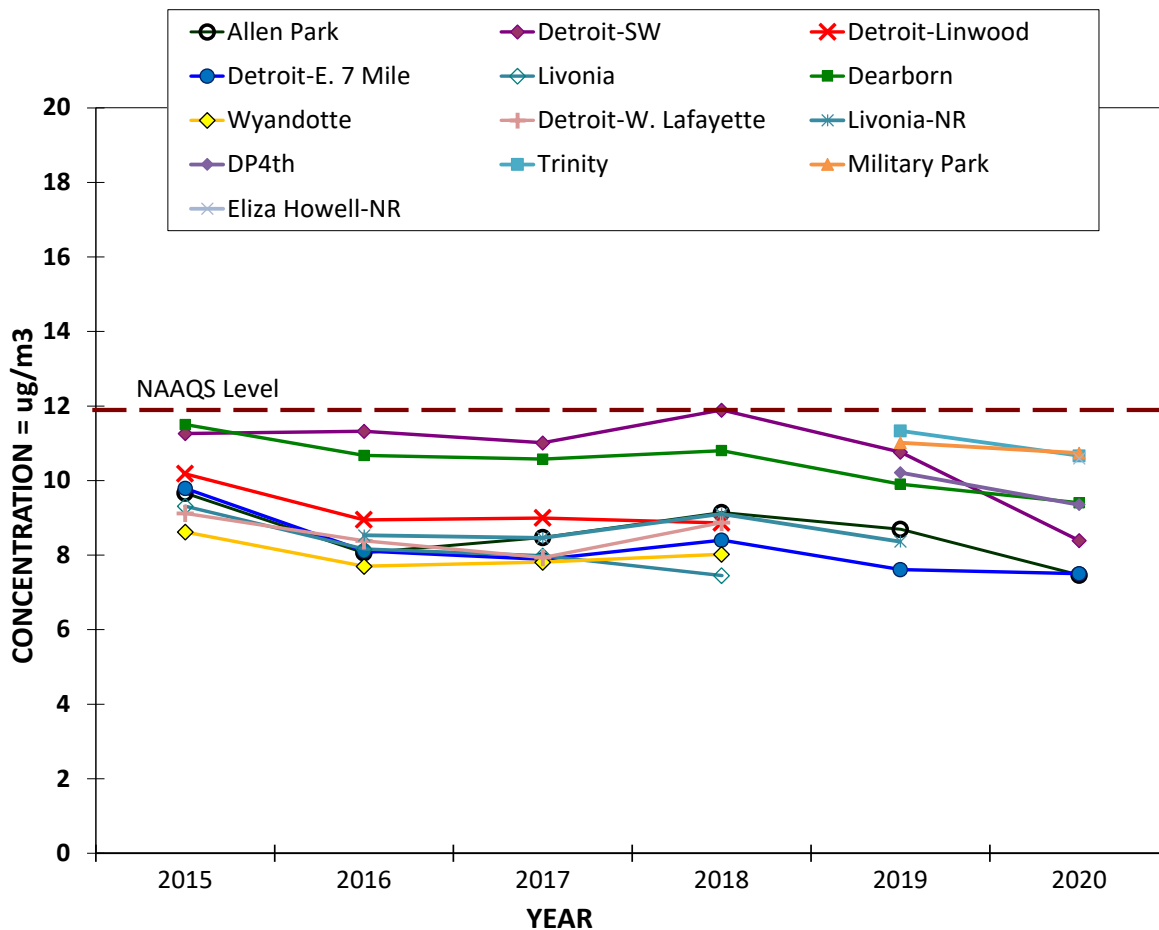


Figure 7.12: Detroit-Warren-Flint CSA (without Wayne County)
Annual Arithmetic Means for PM_{2.5} from 2015-2020

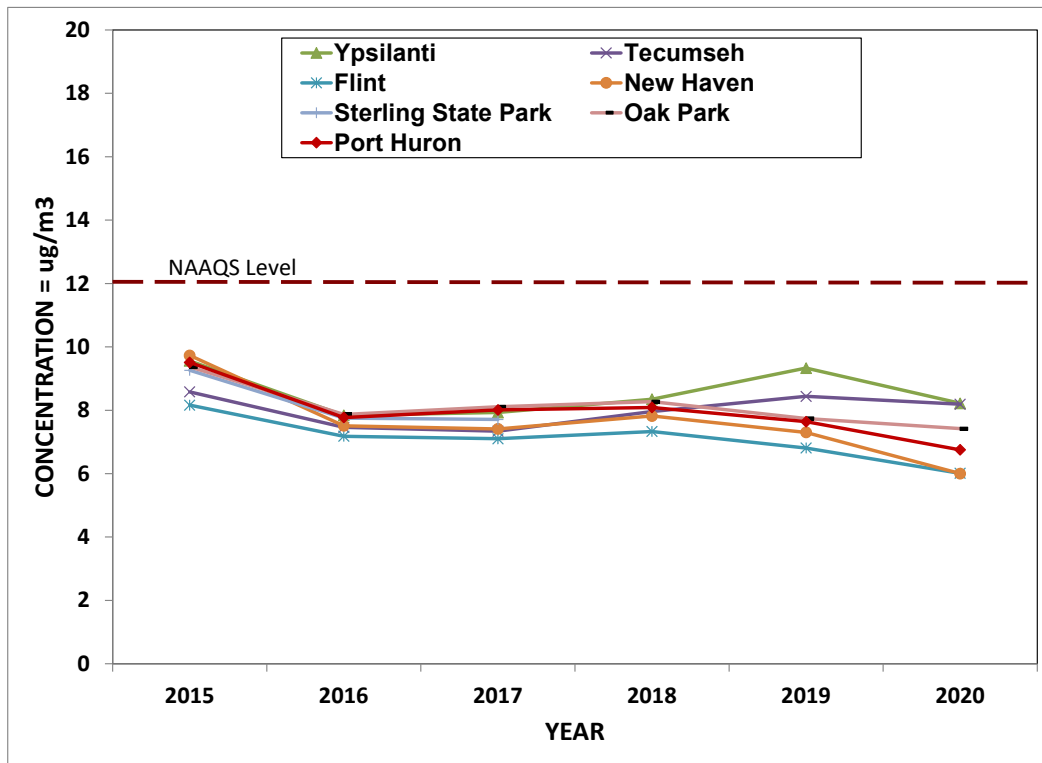


Figure 7.13: West MI - Grand Rapids-Muskegon-Holland CSA, Kalamazoo, and Benton Harbor MSAs
Annual Arithmetic Means for PM_{2.5} from 2015-2020

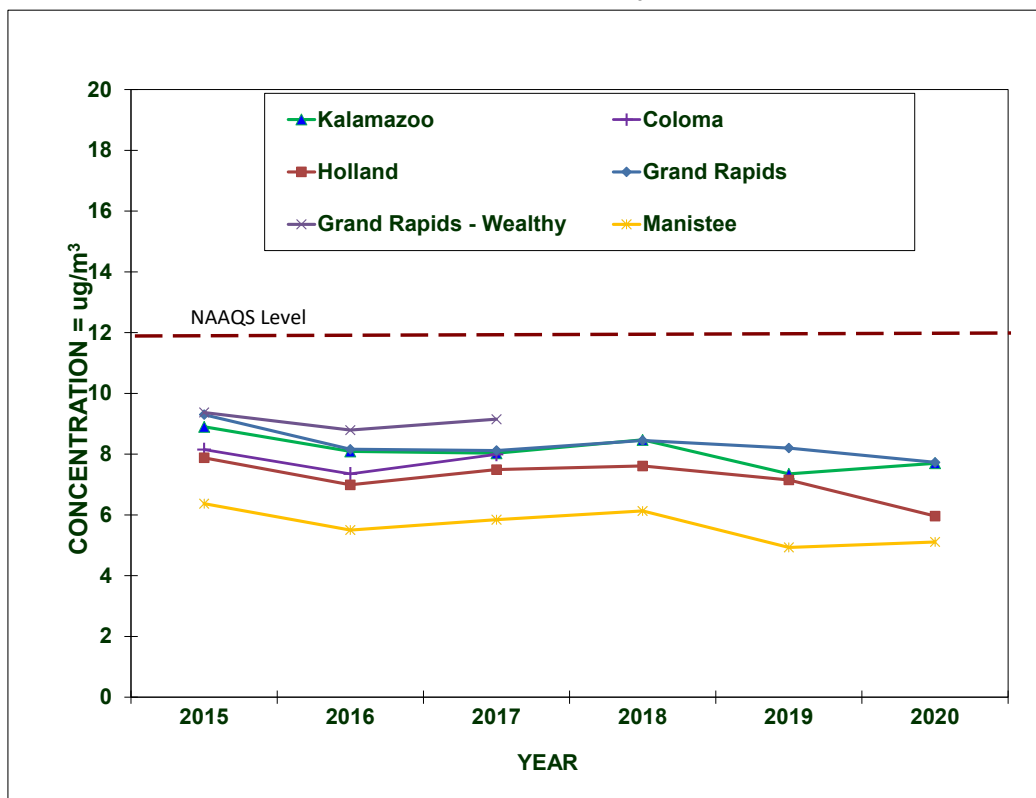


Figure 7.14: Lansing-E. Lansing CSA, Saginaw-Bay City CSA, Cadillac MSA and Upper Peninsula Annual Arithmetic Means for PM_{2.5} from 2015-2020

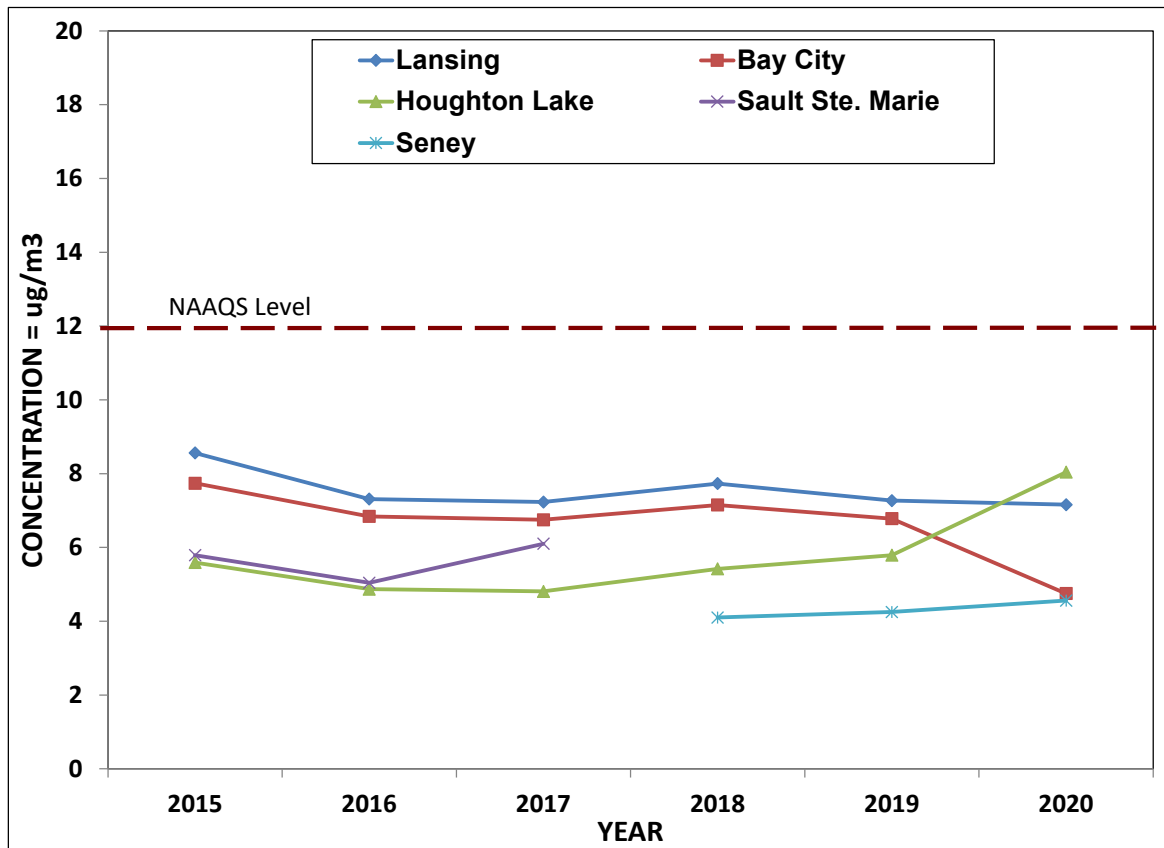
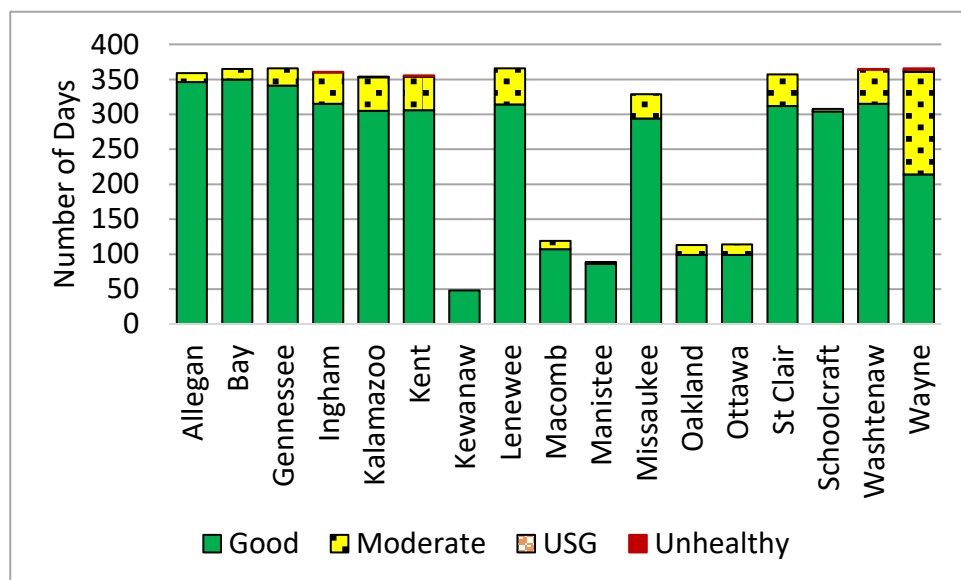


Figure 7.15 shows the AQI values per day in counties where PM_{2.5} is monitored. Most days were in the good to moderate AQI range. Three counties had five days in the USG AQI range, Kalamazoo, and Kent County each had one day, and Wayne County had three days in the USG AQI range. Four counties had AQI values in the Unhealthy range; Ingham, Kent, and Washtenaw Counties had one day, and Wayne County had two days. All these days occurred on July 4th or 5th most likely due to fireworks.

Figure 7.15: 2020 AQI Days for PM_{2.5} in Michigan



CHAPTER 8: TOXIC AIR POLLUTANTS

In addition to the six criteria pollutants discussed in previous chapters, the AQD monitors for a wide variety of substances classified as toxic air pollutants, and/or Hazardous Air Pollutants (HAPs). Under the Clean Air Act, the USEPA specifically addresses a group of 187 HAPs. Under Michigan's air regulations, Toxic Air Contaminants (TACs) are defined as all non-criteria pollutants that may be *"...harmful to public health or the environment when present in the outdoor atmosphere in sufficient quantities and duration."* The definition of TACs lists 42 substances that are not TACs, indicating that all others are TACs. The sources and effects of toxics are as follows:

Sources: Air toxics come from a variety of mobile, stationary, and indoor man-made sources as well as outdoor natural sources. Mobile sources include motor vehicles, stationary sources include industrial factories and power plants, indoor sources include household cleaners, and natural sources include forest fires and eruptions from volcanoes.

Effects: Once air toxics enter the body, there is a wide range of potential health effects. They include: the aggravation of asthma; irritation to the eyes, nose, and throat; carcinogenicity; developmental toxicity (birth defects); nervous system effects; and various other effects on internal organs. Some effects appear after a shorter period of exposure, while others may appear after long-term exposure or after a long period of time has passed since the exposure ended. Most toxic effects are not unique to one substance, and some effects may be of concern only after the substance has deposited to the ground or to a water body (e.g., mercury, dioxin), followed by exposure through an oral pathway such as the eating of fish or produce. This further complicates the assessment of air toxics concerns due to the broad range of susceptibility that various people may have.

Population most at risk: People with asthma, children, and the elderly are generally at the highest risk for health effects from exposure to air toxics.

Air Toxics can be categorized as:

- **Metals:** Examples include aluminum, arsenic, beryllium, barium, cadmium, chromium, cobalt, copper, iron, mercury, manganese, molybdenum, nickel, lead, vanadium, and zinc.
- **Organic Substances:** Further divided into sub-categories that include –
 - VOCs, include benzene (found in gasoline), perchloroethylene (emitted from some dry-cleaning facilities), and methylene chloride (a solvent and paint stripper used by industry);
 - carbonyl compounds (formaldehyde, acetone, and acetaldehyde);
 - semi-volatile compounds (SVOCs);
 - polycyclic aromatic hydrocarbons (PAHs)/polynuclear aromatic hydrocarbons (PNAs);
 - pesticides and;
 - polychlorinated biphenyls (PCBs).
- **Other substances:** Asbestos, dioxin, and radionuclides such as radon.

Because air toxics are such a large and diverse group of substances, regulatory agencies sometimes further refine these classifications to address specific concerns.

For example:

- Some initiatives have targeted those substances that are persistent, bioaccumulative and toxic (PBT), such as mercury, which accumulates in body tissues.
- The USEPA has developed an Integrated Urban Air Toxics Strategy with a focus on 30 substances (the Urban HAPs List).¹³

The evaluation of air toxics levels is difficult due to several factors.

- There are no health-protective NAAQS. Instead, air quality assessments utilize various short- and long-term screening levels and health-based levels estimated to be safe considering the critical effects of concern for specific substances.
- There is incomplete toxicity information for many substances. For some air toxics, the analytical detection limits are too high to consistently measure the amount present, and in some cases, the risk assessment-based levels are below the detection limits.
- Data gaps are present regarding the potential for interactive toxic effects for co-exposure to multiple substances present in emissions and in ambient air. Air toxics also pose a challenge due to monitoring and analytical methods that are either unavailable for some compounds or cost-prohibitive for others (e.g., dioxins).

These factors make it difficult to accurately assess the potential health concerns of all air toxics.

Nevertheless, it is feasible and important to characterize the potential health hazards and risks associated with many air toxics.

Table 8.1 shows the monitoring stations and what air toxic was monitored at each station in 2020. This table can also be found in **Appendix B** with the Air Toxics Monitoring Summary.

¹³ USEPA's Air Toxics website: Urban Strategy is located at www.epa.gov/urban-air-toxics.

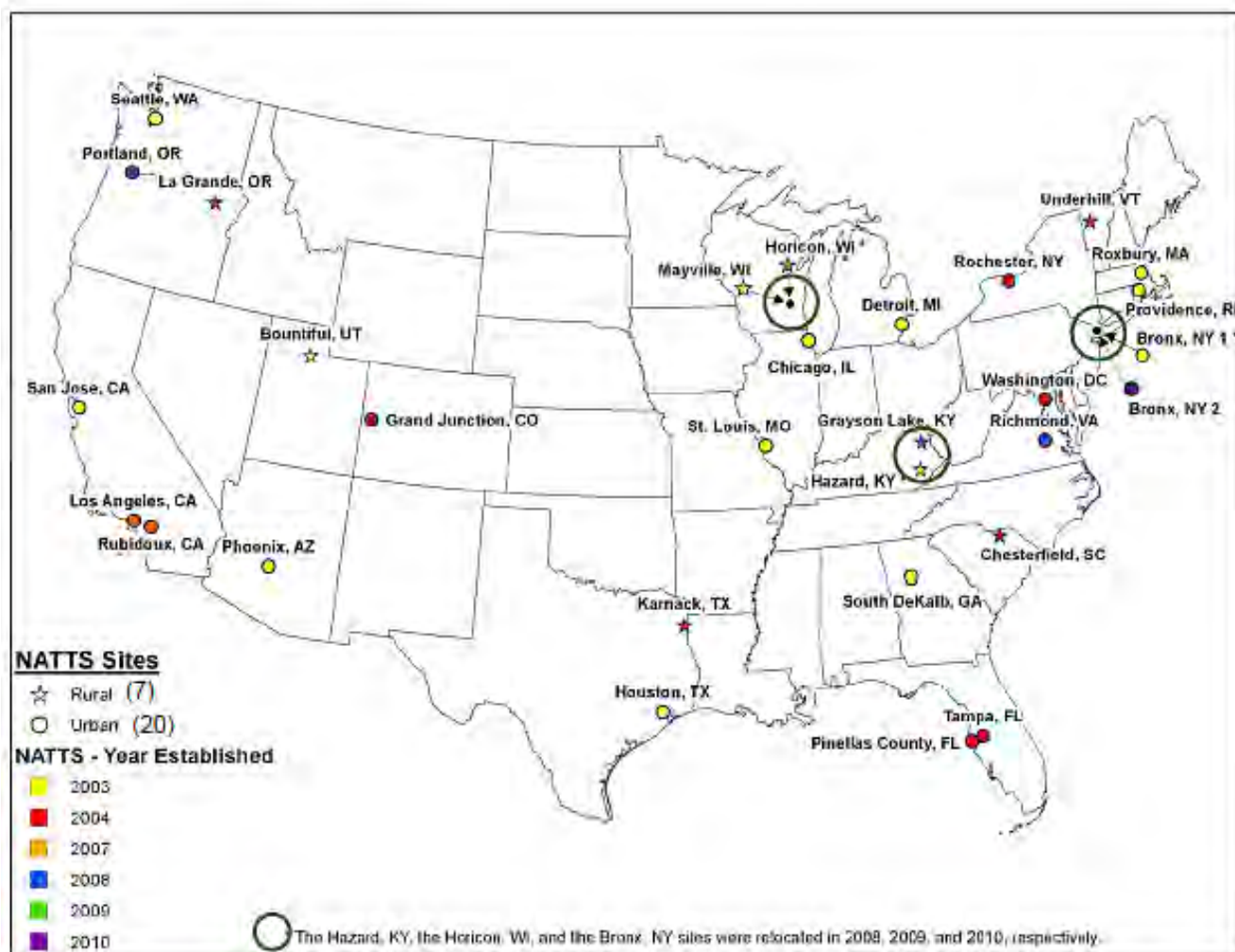
Table 8.1: 2019 Toxics Sampling Sites

Site Name	VOC	Carbonyl	PAHs	Metals TSP	Metals PM ₁₀	Speciated PM _{2.5}
Allen Park				x		x
Dearborn	x	x	x	x	x	x
Detroit-SW	x	x		x		x
Detroit-W. Jefferson				x		
Grand Rapids				x		x
Belding-Merrick St.				x		
NMH 48217				x		
Port Huron-Rural St.				x		
River Rouge		x		x		
DP4th				x		
Military Park				x		
Trinity				x		

National Monitoring Efforts and Data Analysis

The USEPA administers national programs that identify air toxics levels, detect trends, and prioritize air toxics research. EGLE participates in these programs. In addition, the AQD operates a site in Dearborn that is part of the USEPA's NATTS. The purpose of the NATTS network is to detect trends in high-risk air toxics such as benzene, formaldehyde, chromium, and 1,3-butadiene and to measure the progress of air toxics regulatory programs at the national level. Currently, the NATTS network contains 27 stations; 20 urban and 7 rural (see **Figure 8.1**). The USEPA requires that the NATTS sites measure VOCs, carbonyls, PAHs, and trace metals on a once-every-six-day sampling schedule. The Dearborn NATTS site measures trace metals as TSP, PM₁₀, and PM_{2.5}.

Figure 8.1: National Air Toxics Trends Sites



CHAPTER 9: METEOROLOGICAL INFORMATION

Figures 9.1 through 9.3 show average daily temperatures, and **Figures 9.4 through 9.6** show total monthly precipitation amounts compared to their climatic norms for sites in the Northern Lower, Southern Lower, and Upper Peninsulas. These figures were constructed by averaging data from several National Weather Service stations and therefore are not meant to be representative of any one single location in Michigan. Instead, they are intended to depict the regional trends that occurred during the year 2020.

**Figure 9.1: Southern Lower Peninsula
Observed Average Monthly Temperatures vs.
Normal Average Monthly Temperatures**

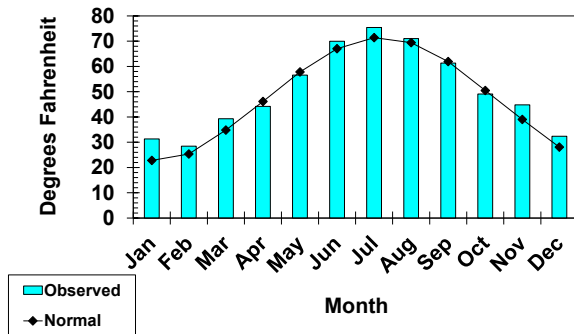


**Figure 9.2: Northern Lower Peninsula
Observed Average Monthly Temperatures vs.
Normal Average Monthly Temperatures**

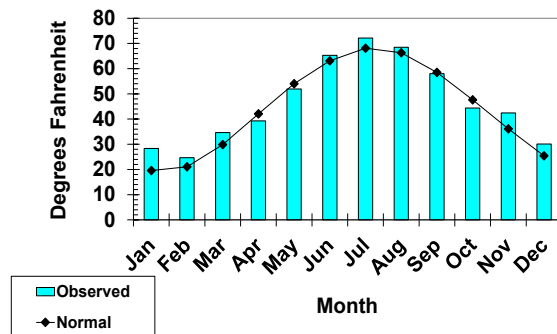


**Figure 9.3: Upper Peninsula
Observed Average Monthly Temperatures vs.
Normal Average Monthly Temperatures**

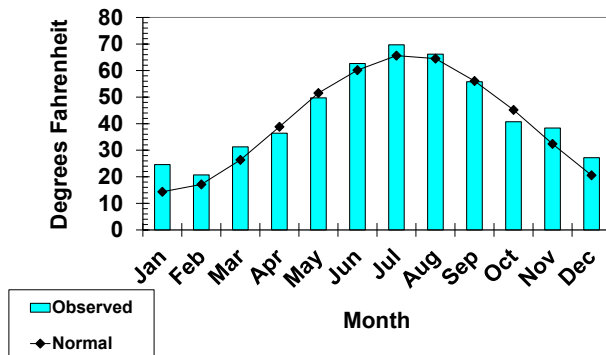


**Figure 9.4: Southern Lower Peninsula
Observed Monthly Precipitation vs.
Normal Monthly Precipitation**

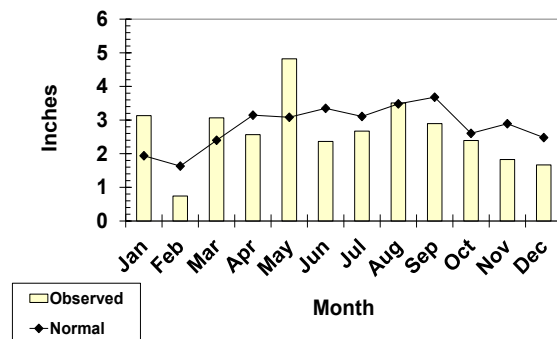


**Figure 9.5: Northern Lower Peninsula
Observed Monthly Precipitation vs.
Normal Monthly Precipitation**

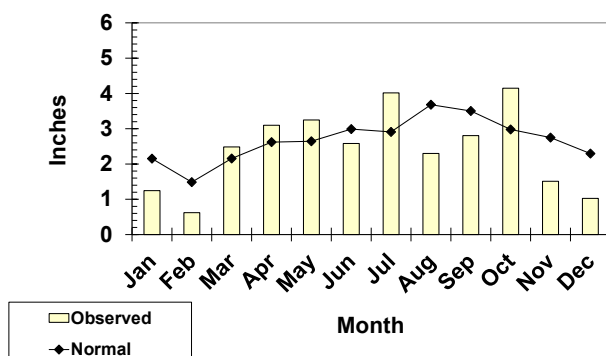
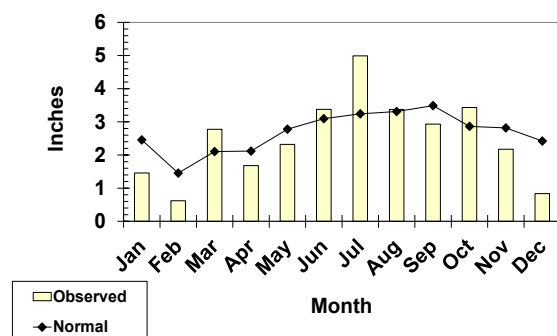


**Figure 9.6: Upper Peninsula
Observed Monthly Precipitation vs.
Normal Monthly Precipitation**



CHAPTER 10: SPECIAL PROJECTS

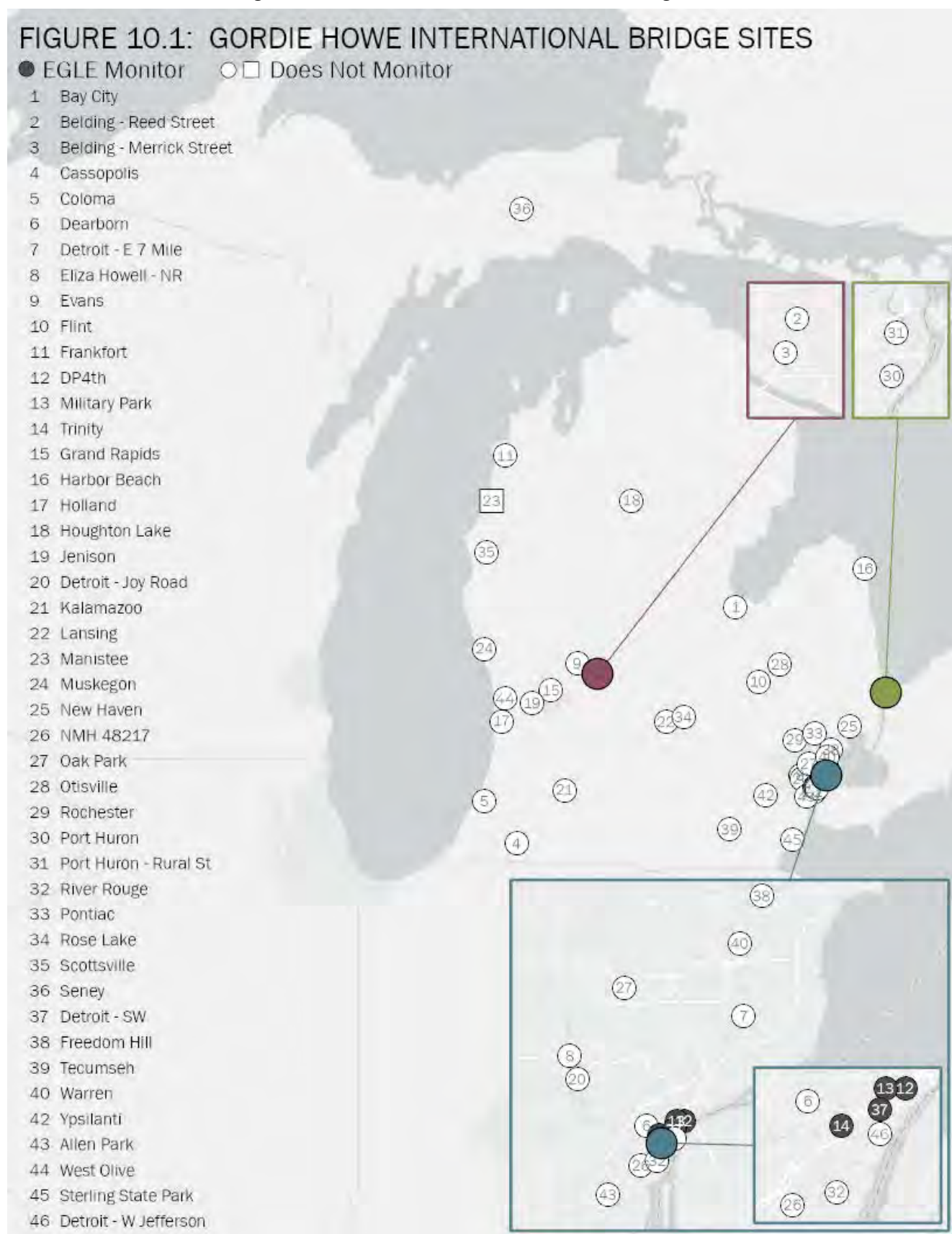
EGLÉ continues the sampling for the Gordie Howe International Bridge (GHIB). This project is a joint Canadian-American venture. The GHIB will be built linking Windsor, Ontario and Detroit, Michigan. Construction is slated to occur between 2018-2024. For additional information, go to:

GordieHoweInternationalBridge.com.

EGLÉ is conducting ambient air quality monitoring in the Delray community to ascertain air pollution levels in the community. The three new sites will monitor air pollutants before, during, and after construction of the bridge. In addition, NO_x, continuous PM_{2.5}, and black carbon were added to the Detroit-SW (261630015) monitoring site for this project.

- **Trinity (261630098):** Meteorological parameters, NO_x, SO₂, CO, continuous PM_{2.5}, black carbon, and five trace metals (Pb, Mn, As, Cd, and Ni).
- **DP4TH (261630099):** NO_x, SO₂, CO, continuous PM_{2.5}, black carbon, and five trace metals (Pb, Mn, As, Cd, and Ni).
- **Military Park (261630100):** NO_x, SO₂, continuous PM_{2.5}, black carbon, and five trace metals (Pb, Mn, As, Cd, and Ni).
- **Detroit-SW (261630015):** Meteorological parameters, NO_x, SO₂, continuous PM_{2.5}, PM_{2.5} Speciated, PM₁₀, black carbon, VOCs, carbonyls, and five trace metals (Pb, Mn, As, Cd, and Ni).

The data from these sites is reported along with the other sites in the previous chapters and in the following appendices.

Figure 10.1: Gordie Howe International Bridge Sites

APPENDIX A: CRITERIA POLLUTANT SUMMARY FOR 2020

Appendix A utilizes the USEPA's 2020 Air Quality System (AQS) Quick Look Report Data to present a summary of ambient air quality data collected for the criteria pollutants at monitoring locations throughout Michigan. Concentrations of non-gaseous pollutants are generally given in $\mu\text{g}/\text{m}^3$ and in ppm for gaseous pollutants. The following define some of the terms listed in the **Appendix A** reports.

Site I.D.: The AQS site ID is the USEPA's code number for these sites.

POC: The Parameter Occurrence Code or POC is used to assist in distinguishing different uses of monitors, i.e., under Pb, NO₂, and SO₂, POC #1-5 are used to help differentiate between individual monitors. For PM, the POC numbers are used more for the type of monitoring, such as:

- 1 – FRM or FEM;
- 2 - Typically collocated FRM;
- 3 - TEOM hourly PM₁₀ and PM_{2.5} measurements; and
- 5 - PM_{2.5} speciation monitors (shown at right is a Met One SASS – speciation air sampling system).

OBS: For Pb, TSP, PM_{2.5}, and PM₁₀, the # OBS (number of observations) refers to the number of valid 24-hour values gathered.

For continuous monitors (CO, NO₂, O₃, PM_{2.5} TEOM, BAM and SO₂), # OBS refers to the total valid hourly averages obtained from the analyzer.

Values: The value is listed for each criteria pollutant per its NAAQS (primary and secondary). The number of exceedances per site for the primary and secondary standards utilize running averages for continuous monitors (except for O₃) and does not include averages considered invalid due to limited sampling times. For example, a particulate-mean based only on six months could not be considered as violating the annual standard. As noted, each site is allowed one short-term standard exceedance before a violation is determined.



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Criteria Pollutant Summary For 2020

CO measured in ppm

Site ID	POC	City	County	Year	# OBS	1-hr Highest Value	1-hr 2 nd Highest Value	1-hr OBS > 35	8-hr Highest Value	8-hr 2 nd Highest Value	8-hr OBS > 9
260810020	1	Grand Rapids	Kent	2020	7136	1.5	1.4	0	1.1	1.1	0
261630001	1	Allen Park	Wayne	2020	8259	1.7	1.6	0	1.2	1.2	0
261630093	1	Eliza Howell-NR	Wayne	2020	8191	2.4	2.4	0	2.1	1.8	0
261630098	1	DP4th	Wayne	2020	8349	1.4	1.4	0	1.1	1.1	0
261630099	1	Trinity	Wayne	2020	8367	2.3	2.1	0	1.4	1.3	0

*Indicates site does not have a complete year of data.

Pb (24-hour) measured in µg/m³

Site ID	POC	City	County	Year	# OBS	Highest rolling 3-month Arith Mean	Highest Value (24-hr)	2 nd Highest Value (24-hr)
260670003	1	Belding-Merrick St.	Ionia	2020	60	0.01	.028	.009
261470031	1	Port Huron-Rural St.	St. Clair	2020	61	0.03	0.121	0.119
261630005	1	River Rouge	Wayne	2020	61	0.01	0.014	0.013
261630015	1	Detroit-SW	Wayne	2020	61	0.01	0.021	0.020
261630027	1	Detroit-W. Jefferson	Wayne	2020	61	0.02	0.086	0.031
261630033	1	Dearborn	Wayne	2020	60	0.01	0.093	0.051
261630097	1	NMH 48217	Wayne	2020	61	0.01	0.020	0.017
261630098	1	DP4th	Wayne	2020	61	0.02	0.103	0.052
261630099	1	Trinity	Wayne	2020	62	0.04	0.056	0.030
261630100	1	Military Park	Wayne	2020	61	0.02	0.096	0.079

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NO₂ measured in ppb

Site ID	POC	City	County	Year	# OBS	1-Hr Highest Value	1-Hr 2 nd Highest Value	98 th Percentile 1-hr	Annual Arith Mean
260650018	1	Lansing	Ingham	2020	8178	39.5	35.1	33.0	5.73
261130001	1	Houghton Lake	Missaukee	2020	8327	13.7	11.1	3.4	1.02
261390005	1	Jenison	Ottawa	2020	8318	29.7	29.7	28.2	4.71
261630015	1	Detroit-SW	Wayne	2020	8094	47.1	45.6	38.2	11.23
261630093	1	Eliza Howell-NR	Wayne	2020	8101	42.9	41.8	39.1	13.05
261630098	1	DP4th	Wayne	2020	8278	80.0	47.1	43.6	12.25
261630099	1	Trinity	Wayne	2020	7908	59.6	49.3	39.9	11.94
161630100	1	Military Park	Wayne	2020	7847	75.4	70.4	43.3	11.14

*Indicates site does not have a complete year of data.

NO_y measured in ppb

Site ID	POC	City	County	Year	# OBS	1-Hr Highest Value	1-Hr 2 nd Highest Value	Annual Arith Mean
260810020	1	Grand Rapids	Kent	2020	6392	181.5	154.6	10.29
261630001	1	Allen Park	Wayne	2020	8270	206.4	202.1	12.55
261630019	1	Detroit-E 7 Mile	Wayne	2020	7538	132.1	128.0	9.50

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O₃ (1-hour) measured in ppm

Site ID	POC	City	County	Year	Num Meas	Num Req	Highest Value	2 nd Highest Value	3 rd Highest Value	4 th Highest Value	Day Max >= 0.125 Measured	Values >= 0.125 Estimated	Missed Days < 0.125 Standard
260050003	1	Holland	Allegan	2020	245	245	0.092	0.090	0.083	0.081	0	0	0
260190003	1	Frankfort	Benzie	2020	244	245	0.097	0.080	0.076	0.074	0	0	1
260210014	1	Coloma	Berrien	2020	245	245	0.097	0.087	0.086	0.081	0	0	0
260270003	2	Cassopolis	Cass	2020	236	245	0.080	0.080	0.079	0.079	0	0	2
260370002	2	Rose Lake	Clinton	2020	239	245	0.076	0.073	0.071	0.068	0	0	0
260490021	1	Flint	Genesee	2020	245	245	0.101	0.083	0.075	0.075	0	0	0
260492001	1	Otisville	Genesee	2020	243	245	0.076	0.075	0.074	0.074	0	0	0
260630007	1	Harbor Beach	Huron	2020	245	245	0.107	0.102	0.090	0.083	0	0	0
260650018	1	Lansing	Ingham	2020	239	245	0.071	0.069	0.068	0.068	0	0	0
260770008	1	Kalamazoo	Kalamazoo	2020	245	245	0.078	0.078	0.078	0.076	0	0	0
260810020	1	Grand Rapids	Kent	2020	353	366	0.095	0.083	0.083	0.082	0	0	5
260810022	1	Evans	Kent	2020	245	245	0.084	0.081	0.077	0.076	0	0	0
260910007	1	Tecumseh	Lenawee	2020	245	245	0.082	0.073	0.072	0.072	0	0	0
260990009	1	New Haven	Macomb	2020	245	245	0.089	0.088	0.088	0.086	0	0	0
260991003	1	Warren	Macomb	2020	245	245	0.083	0.083	0.081	0.079	0	0	0
261010922	1	Manistee	Manistee	2020	69	245	0.073	0.069	0.061	0.058	0	0	0
261050007	1	Scottville	Mason	2020	238	245	0.092	0.077	0.076	0.075	0	0	0
261130001	1	Houghton Lake	Missaukee	2020	232	245	0.079	0.074	0.072	0.071	0	0	2

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Site ID	POC	City	County	Year	Num Meas	Num Req	Highest Value	2 nd Highest Value	3 rd Highest Value	4 th Highest Value	Day Max ≥ 0.125 Measured	Values ≥ 0.125 Estimated	Missed Days < 0.125 Standard
261210039	1	Muskegon	Muskegon	2020	243	245	0.098	0.097	0.090	0.085	0	0	2
261250001	2	Oak Park	Oakland	2020	244	245	0.086	0.083	0.081	0.081	0	0	1
261390005	1	Jenison	Ottawa	2020	245	245	0.090	0.090	0.083	0.083	0	0	0
261470005	1	Port Huron	St. Clair	2020	245	245	0.085	0.083	0.081	0.077	0	0	0
261530001	1	Seney	Schoolcraft	2020	244	245	0.082	0.080	0.077	0.072	0	0	1
261610008	1	Ypsilanti	Washtenaw	2020	243	245	0.086	0.082	0.081	0.078	0	0	2
261630001	2	Allen Park	Wayne	2020	342	366	0.106	0.084	0.081	0.080	0	0	2
261630019	2	Detroit-E 7 Mile	Wayne	2020	239	245	0.086	0.083	0.081	0.080	0	0	4

* Indicates site was moved from Lansing (260650012) to Lansing on Filley St (260650018).

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O₃ (8-hour) measured in ppm

Site ID	POC	City	County	Year	% OBS	Valid Days Measured	Highest Value	2 nd Highest Value	3 rd Highest Value	4 th Highest Value	Day Max > 0.070
260050003	1	Holland	Allegan	2020	100	245	0.081	0.079	0.078	0.076	6
260190003	1	Frankfort	Benzie	2020	100	245	0.091	0.078	0.069	0.068	2
260210014	1	Coloma	Berrien	2020	100	245	0.085	0.082	0.079	0.078	7
260270003	2	Cassopolis	Cass	2020	95	233	0.077	0.075	0.075	0.075	5
260370002	1	Rose Lake	Clinton	2020	97	238	0.068	0.067	0.065	0.064	0
260490021	1	Flint	Genesee	2020	100	245	0.078	0.069	0.068	0.067	1
260492001	1	Otisville	Genesee	2020	100	244	0.070	0.069	0.068	0.068	0
260630007	1	Harbor Beach	Huron	2020	100	245	0.085	0.083	0.078	0.075	7
260650018	1	Lansing	Ingham	2020	97	238	0.064	0.063	0.062	0.062	0
260770008	1	Kalamazoo	Kalamazoo	2020	100	244	0.075	0.074	0.073	0.072	5
260810020	1	Grand Rapids	Kent	2020	96	353	0.083	0.080	0.079	0.078	6
260810022	1	Evans	Kent	2020	100	244	0.076	0.071	0.070	0.070	2
260910007	1	Tecumseh	Lenawee	2020	100	245	0.077	0.071	0.068	0.067	2
260990009	1	New Haven	Macomb	2020	100	245	0.078	0.076	0.075	0.074	12
260991003	1	Warren	Macomb	2020	100	245	0.077	0.071	0.070	0.070	2
261010922	1	Manistee	Manistee	2020	69	245	0.064	0.061	0.059	0.051	0
261050007	1	Scottville	Mason	2020	96	236	0.089	0.074	0.068	0.068	2
261130001	1	Houghton Lake	Missaukee	2020	93	229	0.072	0.069	0.069	0.068	1
261210039	1	Muskegon	Muskegon	2020	98	241	0.083	0.083	0.083	0.080	6
261250001	2	Oak Park	Oakland	2020	98	241	0.078	0.077	0.076	0.074	6
261390005	1	Jenison	Ottawa	2020	100	244	0.085	0.081	0.077	0.075	6
261470005	1	Port Huron	St. Clair	2020	100	245	0.072	0.070	0.070	0.069	1
261530001	1	Seney	Schoolcraft	2020	99	243	0.080	0.076	0.073	0.067	3
261610008	1	Ypsilanti	Washtenaw	2020	99	243	0.074	0.073	0.072	0.072	5
261630001	2	Allen Park	Wayne	2020	93	339	0.073	0.071	0.070	0.070	2
261630019	2	Detroit-E 7 Mile	Wayne	2020	97	238	0.076	0.075	0.074	0.073	4

PM_{2.5} (24-hour) FRM measured in µg/m³ at local conditions

Site ID	POC	Monitor	City	County	Year	# OBS	Highest Value	2 nd Highest Value	3 rd Highest Value	4 th Highest Value	98%	Wtd. Arith. Mean
260490021	1	FRM	Flint	Genesee	2020	61	22.0	15.6	15.2	13.7	15.6	6.56
260650018	1	FRM	Lansing	Ingham	2020	60	31.8	21.6	16.9	16.5	21.6	7.06
260770008	1	FRM	Kalamazoo	Kalamazoo	2020	111	38.3	27.4	18.0	17.7	18.0	7.70
260770008	2	FRM	Kalamazoo	Kalamazoo	2020	61	26.0	17.4	15.3	14.3	17.4	7.11
260810020	1	FRM	Grand Rapids	Kent	2020	116	47.9	19.3	17.6	16.4	17.6	7.73
260990009	1	FRM	New Haven	Macomb	2020	119	16.7	16.5	15.5	15.1	15.5	6.00
261010922	1	FRM	Manistee	Manistee	2020	88	14.2	13.3	12.7	11.7	13.3	5.11*
261250001	1	FRM	Oak Park	Oakland	2020	112	29.0	25.3	23.3	17.7	23.3	7.42
261390005	1	FRM	Jenison	Ottawa	2020	114	33.2	17.9	17.9	16.8	17.9	7.39
261470005	1	FRM	Port Huron	St. Clair	2020	119	24.5	17.9	16.6	16.2	16.6	6.75
261610008	1	FRM	Ypsilanti	Washtenaw	2020	60	32.8	16.9	15.0	14.4	16.9	7.17
261630001	1	FRM	Allen Park	Wayne	2020	117	41.9	29.4	26.3	18.2	26.3	7.46
261630015	1	FRM	Detroit-SW	Wayne	2020	122	30.3	26.8	19.5	17.6	19.5	8.39
261630019	1	FRM	Detroit-E 7 Mile	Wayne	2020	116	28.4	17.9	17.7	17.0	17.7	7.50
261630033	1	FRM	Dearborn	Wayne	2020	120	37.6	30.4	21.0	21.0	21.0	9.40
261630033	2	FRM	Dearborn	Wayne	2020	57	30.8	21.4	20.9	19.8	21.4	9.08

*Indicates the site does not have a complete year of data.

PM_{2.5} (24-hour) FEM measured in µg/m³ at local conditions

Site ID	POC	Monitor	City	County	Year	# OBS	Highest Value	2 nd Highest Value	3 rd Highest Value	4 th Highest Value	98%	Wtd. Arith. Mean
260050003	3	BAM	Holland	Allegan	2020	359	30.4	21.7	15.8	14.7	13.1	5.96
260170014	3	BAM	Bay City	Bay	2020	365	23.1	15.6	14.7	14.3	14.0	4.75
260490021	3	BAM	Flint	Genesee	2020	366	33.3	21.4	19.1	17.4	14.5	6.01
260910007	3	BAM	Tecumseh	Lenawee	2020	366	30.4	30.4	29.0	28.9	18.7	8.19
261130001	3	BAM	Houghton Lake	Missaukee	2020	329	19.3	19.3	16.4	16.2	15.2	8.04*
261530001	3	BAM	Seney	Schoolcraft	2020	282	17.3	15.4	14.5	13.1	10.6	4.56*
261610008	3	BAM	Ypsilanti	Washtenaw	2020	365	67.8	34.2	31.8	27.9	19.8	8.22
261630015	3	BAM/ T640	Detroit-SW**	Wayne	2020	289	38.5	35.6	34.1	30.2	25.9	9.57*
261630093	3	BAM	Eliza Howell-NR	Wayne	2020	356	108.9	45.8	40.7	34.2	23.2	10.59

* Indicates the site does not have a complete year of data.

**TIECO BAMs were switched out to T640s in the fall of 2020.

PM_{2.5} Continuous, Non-Regulatory (1-hour) measured in µg/m³

Site ID	POC	Monitor	City	County	Year	# OBS	Highest Value	2 nd Highest Value	3 rd Highest Value	4 th Highest Value	Wtd. Arith. Mean
260650012	3	TEOM	Lansing	Ingham	2020	6106	455.1	384.5	306.5	224.7	7.44
260770008	3	TEOM	Kalamazoo	Kalamazoo	2020	6907	169.0	162.9	144.5	126.9	7.38
260810020	3	TEOM	Grand Rapids	Kent	2020	6513	715.8	249.1	241.9	228.2	7.73
261470005	3	TEOM	Port Huron	St. Clair	2020	7373	122.7	56.6	45.6	44.3	7.22
261630001	3	TEOM	Allen Park	Wayne	2020	6400	216.0	208.0	174.0	144.0	8.34
261630015	3	BAM/T640	Detroit-SW**	Wayne	2020	8345	270.6	227.9	188.8	183.8	12.60
261630033	3	TEOM	Dearborn	Wayne	2020	8284	342.0	217.1	165.7	100.9	9.19
261630097	3	TEOM	NMH 48217	Wayne	2020	8495	450.7	343.8	319.9	88.9	8.33
261630098	3	BAM/T640	DP4th**	Wayne	2020	8735	95.0	93.4	85.4	80.0	9.59
261630099	3	BAM/T640	Trinity**	Wayne	2020	8308	270.6	162.3	120.9	101.3	10.75
261630100	3	BAM/T640	Military Park**	Wayne	2020	7552	220.6	214.5	159.0	120.5	10.76

* Indicates the site does not have a complete year of data.

**TIECO BAMs were switched out to T640s in the fall of 2020.

PM₁₀ (24-hour) measured in µg /m³

Site ID	POC	Monitor	City	County	Year	# OBS	# Req.	Valid Days	% OBS	Highest Value	2 nd Highest Value	3 rd Highest Value	4 th Highest Value	Wtd Arith Mean
260810020	1	GRAV	Grand Rapids	Kent	2020	59	61	58	95	28	27	26	24	8.6
261390005	1	GRAV	Jenison	Ottawa	2020	58	61	57	93	22	21	21	21	7.2
261630001	1	GRAV	Allen Park	Wayne	2020	62	61	59	97	34	27	26	23	9.6
261630015	1	GRAV	Detroit-SW	Wayne	2020	58	61	57	93	59	48	47	46	16.3
261630033	1	GRAV	Dearborn	Wayne	2020	60	61	59	97	53	49	48	47	22.9
261630033	9	GRAV	Dearborn	Wayne	2020	29	31	29	94	59	50	47	44	24.2

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PM₁₀ TEOM (1-hour) measured in µg/m³

Site ID	POC	Monitor	City	County	Year	# OBS	Highest Value	2 nd Highest Value	3 rd Highest Value	4 th Highest Value	Wtd. Arith. Mean
261630033	3	TEOM	Dearborn	Wayne	2020	8086	57	50	49	44	16.9

PM_{10-2.5} (24-hour) measured in µg/m³

Site ID	Monitor	City	County	Year	# OBS	Highest Value	2 nd Highest Value	3 rd Highest Value	4 th Highest Value	Wtd. Arith. Mean
260810020	GRAV	Grand Rapids	Kent	2020	107	25.5	22.5	17.5	17.2	6.73
261630001	GRAV	Allen Park	Wayne	2020	102	21.3	20.9	19.9	19.2	7.15

SO₂ measured in ppb

Site ID	POC	City	County	Year	# OBS	1-hr Highest Value	1-hr 2 nd Highest Value	99 th %ile: 1-hr	24-hr Highest Value	24-hr 2 nd Highest Value	OBS >0.5	Arith Mean
260650018	1	Lansing	Ingham	2020	8379	5.5	4.6	4.2	2.1	1.9	0	1.32
260810020	2	Grand Rapids	Kent	2020	8409	11.0	3.0	2.7	1.4	1.2	0	0.49
261150006	1	Sterling State Park	Monroe	2020	8302	8.7	7.0	6.9	2.4	2.3	0	0.59
261390011	1	West Olive	Ottawa	2020	8278	18.6	16.7	15.2	10.5	5.8	0	0.69
261470005	1	Port Huron	St. Clair	2020	8382	106.3	104.3	76.4	26.4	17.1	0	1.88
261630001	1	Allen Park	Wayne	2020	8337	18.2	17.2	14.7	3.1	2.8	0	0.49
261630015	1	Detroit-SW	Wayne	2020	8380	54.37	45.3	43.3	27.0	14.6	0	2.34
261630097	1	NMH 48217	Wayne	2020	8251	24.8	21.7	17.0	3.7	3.7	0	0.60
261630098	1	DP4th	Wayne	2020	8353	31.1	28.3	17.0	4.3	4.1	0	1.14
261630099	1	Trinity	Wayne	2020	8258	21.4	18.8	16.1	9.0	6.2	0	0.71
261630100	1	Military Park	Wayne	2020	8199	40.8	36.0	32.5	13.0	12.4	0	1.61

APPENDIX B: 2020 AIR TOXICS MONITORING SUMMARY FOR METALS, VOCS, CARBONYL COMPOUNDS, PAHS, HEXAVALENT CHROMIUM & SPECIATED PM_{2.5}

Appendix B provides summary statistics of ambient air concentrations of various substances monitored in Michigan during 2020. At each monitoring site, air samples were taken over a 24-hour period (midnight to midnight). These air samples represent the average air concentration during that 24-hour period. The frequency of air samples collected is typically done once every 6 or 12 days. Sometimes the sampled air concentration is lower than the laboratory's analytical method detection level (MDL). When the concentration is lower than the MDL, two options are used to estimate the air concentration. The calculation of the minimum average ("Average (ND=0)") uses 0.0 µg/m³ for a value less than the MDL. In the calculation of the maximum average ("Average (ND=MDL/2)") the MDL divided by 2 (i.e., ½ the MDL) is substituted for air concentrations less than the MDL.

Table B shows the monitoring stations and what types of air toxics were monitored at each station in 2020. The following terms and acronyms are used in **Appendix B-1** and **B-2** data tables:

- Num Obs: Number of Observations (number of daily air samples taken during the year)
- Obs>MDL: Number of daily samples above the MDL
- Average (ND=0): average air concentration in 2020, assuming daily samples below MDL were equal to 0.0 µg/m³.
- Average (ND=MDL/2): average air concentration in 2020, assuming daily samples below MDL were equal to one half the MDL.
- MDL: Analytical MDL in units of µg/m³
- Max1: Highest daily air concentration during 2020
- Max2: Second highest daily air concentration during 2020
- Max3: Third highest daily air concentration during 2020
- µg/m³: Micrograms per cubic meter (1,000,000 µg = 1 g)

Table B: 2019 Toxics Sampling Sites

SITE NAME	VOC	Carbonyl	PAHs	Metals TSP	Metals PM ₁₀	Speciated PM _{2.5}
Allen Park				x	x	x
Dearborn	x	x	x	x	x	x
Detroit-SW	x	x		x		x
Detroit-W. Jefferson				x		
Grand Rapids				x		x
Belding-Merrick St.				x		
NMH 48217				x		
Port Huron-Rural St.				x		
River Rouge		x		x		
DP4th				x		
Military Park				x		
Trinity				x		

VOC = volatile organic compound; PAHs = polycyclic aromatic hydrocarbon; TSP = total suspended particulate

PM₁₀ = particulate matter with aerodynamic diameter less than 10 µm; Mn = manganese.

APPENDIX B-1 DATA TABLES

Dearborn (261630033) Concentrations in micrograms per cubic meter (µg/m3)

Chemical Name	Num Obs	Obs > MDL	Average (ND=0)	Average (ND=MDL/2)	MDL	Max 1	Max 2	Max 3
1,1,2,2-Tetrachloroethane	58	1	0.00102	0.059	0.118	0.059	0	0
1,1,2-Trichloro-1,2,2-Trifluoroethane	58	58	0.529	0.529	0.0649	0.716	0.614	0.598
1,1,2-Trichloroethane	58	1	9.41E-05	0.0257	0.0523	0.0055	0	0
1,1-Dichloroethane	58	0	0	0.0215	0.0429	0	0	0
1,1-Dichloroethylene	58	0	0	0.0305	0.061	0	0	0
1,2,4-Trichlorobenzene	58	6	0.00371	0.178	0.387	0.0668	0.0468	0.043
1,2,4-Trimethylbenzene	58	58	0.389	0.389	0.0519	2.37	2.34	1.72
1,2-Dichlorobenzene	58	5	0.000611	0.0389	0.084	0.0132	0.0084	0.0078
1,2-Dichloropropane	58	6	0.00163	0.0295	0.0616	0.0185	0.0176	0.0166
1,3,5-Trimethylbenzene	58	58	0.109	0.109	0.0255	0.654	0.551	0.472
1,3-Butadiene	58	58	0.0422	0.0422	0.026	0.158	0.122	0.11
1,3-Dichlorobenzene	58	2	0.000228	0.032	0.0653	0.0078	0.0054	0
1,4-Dichlorobenzene	58	45	0.025	0.0364	0.0782	0.142	0.114	0.092
Acenaphthene (Tsp) Stp	62	53	0.00568	0.0057	0.00017	0.0343	0.0233	0.0201
Acenaphthylene (Tsp) Stp	62	60	0.000728	0.000728	1.12E-05	0.0139	0.0117	0.006
Acetaldehyde	70	70	2.02	2.02	0.0374	5.13	4.75	4.66
Acetone	70	70	3.4	3.4	0.403	16.5	13	12.4
Acetonitrile	58	58	0.497	0.497	0.0745	2.64	1.31	1.27
Acetylene	58	58	0.342	0.342	0.248	1.18	1.1	0.975
Acrolein - Verified	56	0	0			0	0	0
Acrylonitrile	57	5	0.0103	0.0228	0.0279	0.247	0.103	0.102
Anthracene (Tsp) Stp	62	62	0.000429	0.000429	2.85E-05	0.0037	0.003	0.0014
Arsenic (Tsp) Stp	92	91	0.00186	0.00186	4.76E-05	0.0085	0.0061	0.0055
Arsenic Pm10 Lc	93	93	0.00164	0.00164		0.006	0.0052	0.0034

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Chemical Name	Num Obs	Obs > MDL	Average (ND=0)	Average (ND=MDL/2)	MDL	Max 1	Max 2	Max 3
Arsenic Pm10 Stp	93	93	0.00166	0.00166	7.41E-05	0.006	0.0053	0.0034
Barium (Tsp) Stp	92	91	0.0241	0.0241	0.00759	0.0892	0.0735	0.0721
Barium Pm10 Lc	93	93	0.0144	0.0144		0.0688	0.0661	0.0332
Barium Pm10 Stp	93	93	0.0146	0.0146	0.00066	0.0679	0.0652	0.0327
Benzaldehyde	70	70	0.407	0.407	0.043	4.6	4.02	3.35
Benzene	58	58	0.678	0.678	0.0324	6.71	1.28	1.13
Benzo[A]Anthracene (Tsp) Stp	62	62	0.000208	0.000208	1.18E-05	0.00232	0.00193	0.0016
Benzo[A]Pyrene (Tsp) Stp	62	62	0.000174	0.000174	1.43E-05	0.0017	0.0014	0.001
Benzo[B]Fluoranthene (Tsp) Stp	60	60	0.000549	0.000549	7.12E-06	0.00564	0.00375	0.0032
Benzo[E]Pyrene (Tsp) Stp	62	62	0.000288	0.000288	5.94E-06	0.00348	0.00162	0.0014
Benzo[G,H,I]Perylene (Tsp) Stp	62	61	0.000224	0.000224	5.71E-06	0.0012	0.00096	0.0009
Benzo[K]Fluoranthene (Tsp) Stp	61	59	0.000146	0.000146	1.26E-05	0.00131	0.00068	0.0006
Beryllium (Tsp) Stp	92	91	8.70E-05	8.70E-05	3.16E-05	0.00038	0.00025	0.0002
Beryllium Pm10 Lc	93	91	2.87E-05	2.93E-05		0.00011	0.00011	0.0001
Beryllium Pm10 Stp	93	93	2.92E-05	2.92E-05	9.69E-06	0.00011	0.00011	0.0001
Bromochloromethane	58	1	0.000228	0.0315	0.0636	0.0132	0	0
Bromodichloromethane	55	0	0	0.0386	0.0771	0	0	0
Bromoform	58	45	0.0116	0.0331	0.196	0.0279	0.0248	0.0217
Bromomethane	58	58	0.0392	0.0392	0.0677	0.205	0.144	0.118
Butyraldehyde	69	69	0.466	0.466	0.0522	1.83	1.81	1.7
Cadmium (Tsp) Stp	92	91	0.000264	0.000264	2.11E-05	0.00183	0.00095	0.0009
Cadmium Pm10 Lc	93	93	0.000194	0.000194		0.00096	0.00094	0.0008
Cadmium Pm10 Stp	93	93	0.000197	0.000197	2.08E-05	0.00098	0.00098	0.0009
Carbon Disulfide	58	58	0.0598	0.0598	0.118	0.299	0.274	0.164
Carbon Tetrachloride	58	58	0.577	0.577	0.103	0.749	0.73	0.723

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Chemical Name	Num Obs	Obs > MDL	Average (ND=0)	Average (ND=MDL/2)	MDL	Max 1	Max 2	Max 3
Chlorobenzene	58	52	0.0256	0.0282	0.05	0.423	0.0414	0.0373
Chloroethane	58	46	0.0237	0.0282	0.0438	0.29	0.0995	0.0712
Chloroform	58	58	0.627	0.627	0.0643	1.47	1.39	0.84
Chloromethane	58	58	0.98	0.98	0.0628	1.36	1.32	1.26
Chloroprene	58	0	0	0.0241	0.0483	0	0	0
Chromium (Tsp) Stp	92	91	0.00596	0.00596	0.00167	0.0215	0.0211	0.0203
Chromium Pm10 Lc	93	93	0.00335	0.00335		0.023	0.0216	0.007
Chromium Pm10 Stp	93	93	0.00341	0.00341	0.00225	0.0238	0.0223	0.0073
Chrysene (Tsp) Stp	23	23	0.000759	0.000759	7.69E-06	0.00448	0.00312	0.0027
Cis-1,2-Dichloroethene	58	0	0	0.0275	0.0551	0	0	0
Cis-1,3-Dichloropropene	58	0	0	0.0223	0.0446	0	0	0
Cobalt (Tsp) Stp	92	91	0.00026	0.00026	3.16E-05	0.00056	0.00053	0.0005
Cobalt Pm10 Lc	93	93	0.000158	0.000158		0.00049	0.00046	0.0004
Cobalt Pm10 Stp	93	93	0.00016	0.00016	3.15E-05	0.00051	0.00048	0.0004
Copper (Tsp) Stp	92	91	0.0198	0.0198	0.00168	0.0745	0.0719	0.0695
Copper Pm10 Lc	93	93	0.0205	0.0205		0.148	0.0947	0.0749
Copper Pm10 Stp	93	93	0.0209	0.0209	0.000799	0.151	0.0976	0.0771
Coronene (Tsp) Stp	62	62	0.000104	0.000104	3.68E-06	0.000462	0.000434	0.00043
Crotonaldehyde	42	42	0.278	0.278	0.00851	1.13	0.927	0.911
Dibenzo[A,H]Anthracene (Tsp) Stp	62	38	4.13E-05	4.40E-05	1.38E-05	0.000441	0.000365	0.00027
Dibromochloromethane	58	11	0.00109	0.0579	0.14	0.0111	0.00937	0.00767
Dichlorodifluoromethane	58	58	2.12	2.12	0.0827	2.55	2.54	2.51
Dichloromethane	58	58	2.71	2.71	0.0787	11	8.89	8.27
Ethyl Acrylate	58	0	0	0.0258	0.0516	0	0	0
Ethylbenzene	58	58	0.205	0.205	0.0468	1.11	0.521	0.512
Ethylene Dibromide	58	0	0	0.0517	0.103	0	0	0
Ethylene Dichloride	58	57	0.0725	0.0729	0.0418	0.118	0.117	0.106

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Chemical Name	Num Obs	Obs > MDL	Average (ND=0)	Average (ND=MDL/2)	MDL	Max 1	Max 2	Max 3
Ethylene Oxide	57	50	0.223	0.232	0.147	1.05	0.726	0.602
Fluoranthene (Tsp) Stp	62	62	0.00368	0.00368	4.20E-05	0.0183	0.0145	0.0136
Fluorene (Tsp) Stp	62	62	0.00537	0.00537	8.45E-05	0.0274	0.0212	0.0198
Formaldehyde	70	70	3.26	3.26	0.0524	9.15	8.85	8.82
Freon 114	58	58	0.103	0.103	0.101	0.132	0.122	0.121
Hexachlorobutadiene	58	4	0.000736	0.0767	0.167	0.0256	0.00746	0.00533
Hexanaldehyde	67	67	0.2	0.2	0.0109	1.69	1.59	1.28
Indeno[1,2,3-Cd]Pyrene (Tsp) Stp	62	62	0.000231	0.000231	1.15E-05	0.00132	0.00122	0.00104
Iron (Tsp) Stp	92	91	1.27	1.27	0.027	5.7	4.88	3
Iron Pm10 Lc	93	93	0.696	0.696		2.22	1.94	1.8
Iron Pm10 Stp	93	93	0.706	0.706	0.0109	2.32	1.91	1.81
Lead (Tsp) Lc Frm/Fem	92	92	0.0128	0.0128		0.0978	0.0939	0.0516
Lead Pm10 Lc	93	93	0.0108	0.0108		0.11	0.102	0.0539
M/P Xylene	58	58	0.618	0.618	0.0559	3.6	1.78	1.68
Manganese (Tsp) Stp	92	91	0.0774	0.0774	0.000926	0.407	0.324	0.24
Manganese Pm10 Lc	93	93	0.0346	0.0346		0.149	0.126	0.118
Manganese Pm10 Stp	93	93	0.0351	0.0351	0.00037	0.156	0.127	0.119
Methyl Chloroform	58	47	0.0134	0.0208	0.0782	0.0338	0.0284	0.024
Methyl Ethyl Ketone	61	61	0.372	0.372	0.0853	0.746	0.687	0.675
Methyl Isobutyl Ketone	53	52	0.207	0.207	0.0614	0.635	0.586	0.5
Methyl Methacrylate	58	10	0.00439	0.0964	0.228	0.0446	0.0377	0.0373
Methyl Tert-Butyl Ether	58	6	0.00117	0.0217	0.0457	0.0209	0.0126	0.0101
Molybdenum (Tsp) Stp	92	91	0.00413	0.00413	0.000164	0.136	0.128	0.00889
Molybdenum Pm10 Lc	93	93	0.00379	0.00379		0.131	0.122	0.00817
Molybdenum Pm10 Stp	93	93	0.0039	0.0039	0.000293	0.135	0.126	0.0085
Ethylene Oxide	57	50	0.223	0.232	0.147	1.05	0.726	0.602
Naphthalene (Tsp) Stp	62	62	0.0577	0.0577	0.00176	0.152	0.143	0.137

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Chemical Name	Num Obs	Obs > MDL	Average (ND=0)	Average (ND=MDL/2)	MDL	Max 1	Max 2	Max 3
Nickel (Tsp) Stp	92	91	0.00272	0.00272	0.000894	0.0268	0.0259	0.00688
Nickel Pm10 Lc	93	93	0.00215	0.00215		0.0298	0.0278	0.00718
Nickel Pm10 Stp	93	93	0.00219	0.00219	0.00144	0.0308	0.0288	0.00713
N-Octane	58	58	0.105	0.105	0.104	0.432	0.265	0.258
O-Xylene	58	58	0.234	0.234	0.069	0.947	0.76	0.677
Perylene (Tsp) Stp	62	38	2.31E-05	2.61E-05	1.56E-05	0.000216	0.000191	0.00015
Phenanthrene (Tsp) Stp	62	62	0.0109	0.0109	0.000176	0.0526	0.0431	0.0391
Propionaldehyde	70	70	0.419	0.419	0.101	1.41	1.35	1.04
Propylene	58	58	0.415	0.415	0.221	1.76	1.6	1.06
Pyrene (Tsp) Stp	62	62	0.00191	0.00191	3.86E-05	0.00861	0.00749	0.00613
Styrene	58	57	0.372	0.373	0.0756	1.98	1.18	1.02
Tert-Amyl Methyl Ether	58	0	0	0.0227	0.0453	0	0	0
Tert-Butyl Ethyl Ether	58	0	0	0.0179	0.0358	0	0	0
Tetrachloroethylene	58	58	0.664	0.664	0.0864	8.55	6.92	2.64
Toluene	58	58	1.01	1.01	0.0698	4.22	3.16	2.8
Trans-1,2-Dichloroethylene	58	15	0.0025	0.0208	0.0493	0.0174	0.0155	0.0139
Trans-1,3-Dichloropropene	58	1	0.000517	0.0333	0.0667	0.03	0	0
Trichloroethylene	58	51	0.0383	0.0414	0.0514	0.155	0.0811	0.0758
Trichlorofluoromethane	58	58	1.19	1.19	0.0728	1.48	1.47	1.47
Valeraldehyde	70	70	0.149	0.149	0.0041	0.768	0.756	0.653
Vanadium (Tsp) Stp	92	91	0.00322	0.00322	6.30E-05	0.0228	0.0226	0.0105
Vanadium Pm10 Lc	93	93	0.00184	0.00184		0.0192	0.0184	0.00349
Vanadium Pm10 Stp	93	93	0.00187	0.00187	4.58E-05	0.0198	0.019	0.00365
Vinyl Chloride	58	5	0.00078	0.0181	0.0371	0.0245	0.0128	0.00332
Zinc (Tsp) Stp	92	91	0.114	0.114	0.00535	1.07	1.04	0.452
Zinc Pm10 Lc	93	93	0.0856	0.0856		1.02	0.883	0.485
Zinc Pm10 Stp	93	93	0.0877	0.0877	0.00226	1.07	0.923	0.488

Detroit-SW (W. Fort St., N. Delray-SWHS) (261630015) Concentrations in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)

Chemical Name	Num Obs	Obs > MDL	Average (ND=0)	Average (ND=MDL/2)	MDL	Max 1	Max 2	Max 3
1,1,2,2-Tetrachloroethane	28	0	0	0.162	0.323	0	0	0
1,1,2-Trichloroethane	28	0	0	0.0491	0.0981	0	0	0
1,1-Dichloroethane	28	0	0	0.0852	0.17	0	0	0
1,1-Dichloroethylene	28	0	0	0.0784	0.157	0	0	0
1,2,4-Trichlorobenzene	28	0	0	0.698	1.4	0	0	0
1,2,4-Trimethylbenzene	28	1	0.0218	0.171	0.309	0.61	0	0
1,2-Dichlorobenzene	28	0	0	0.185	0.37	0	0	0
1,2-Dichloropropane	28	0	0	0.55	1.1	0	0	0
1,3,5-Trimethylbenzene	28	0	0	0.12	0.24	0	0	0
1,3-Butadiene	28	0	0	0.06	0.12	0	0	0
1,3-Dichlorobenzene	28	0	0	0.143	0.286	0	0	0
1,4-Dichlorobenzene	28	0	0	0.194	0.388	0	0	0
2,2,4-Trimethylpentane	28	1	0.0186	0.0905	0.149	0.52	0	0
Acetaldehyde	30	30	2.72	2.72		4.27	4.26	4.18
Acetone	30	30	2.44	2.44		4.48	3.55	3.51
Acetonitrile	28	21	0.702	0.765	0.503	1.5	1.4	1.2
Acrolein - Unverified	30	28	0.0714	0.0765		0.134	0.114	0.108
Acrylonitrile	28	0	0	0.399	0.798	0	0	0
Arsenic (Tsp) Stp	61	61	0.00172	0.00172	4.54E-05	0.00582	0.00426	0.00322
Benzaldehyde	30	30	0.203	0.203		0.386	0.373	0.359
Benzene	28	25	0.596	0.601	0.0957	1.6	0.94	0.94
Bromodichloromethane	28	0	0	0.075	0.15	0	0	0
Bromoform	28	0	0	0.175	0.35	0	0	0

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Chemical Name	Num Obs	Obs > MDL	Average (ND=0)	Average (ND=MDL/2)	MDL	Max 1	Max 2	Max 3
Bromomethane	28	0	0	0.11	0.22	0	0	0
Cadmium (Tsp) Stp	61	61	0.000151	0.000151	2.02E-05	0.00035	0.00034	0.00031
Carbon Tetrachloride	28	0	0	0.115	0.23	0	0	0
Chlorobenzene	28	0	0	0.105	0.209	0	0	0
Chloroethane	28	0	0	0.06	0.12	0	0	0
Chloroform	28	1	0.0204	0.0789	0.121	0.57	0	0
Chloromethane	28	28	1.29	1.29	0.159	1.6	1.5	1.5
Cis-1,2-Dichloroethene	28	0	0	0.0641	0.128	0	0	0
Cis-1,3-Dichloropropene	28	0	0	0.0679	0.136	0	0	0
Crotonaldehyde	30	0	0			0	0	0
Dibromochloromethane	28	0	0	0.148	0.296	0	0	0
Dibromochloromethane	28	0	0	0.148	0.296	0	0	0
Dichlorodifluoromethane	28	27	2.18	2.19	0.25	2.5	2.5	2.5
Dichloromethane	28	11	0.159	0.266	0.349	0.55	0.47	0.43
Ethylbenzene	28	0	0	0.147	0.293	0	0	0
Ethylene Dibromide	28	0	0	0.15	0.3	0	0	0
Ethylene Dichloride	28	0	0	0.0984	0.197	0	0	0
Formaldehyde	30	30	2.27	2.27		5.66	4.43	4.11
Hexanaldehyde	30	30	0.165	0.165		0.352	0.339	0.335
Lead (Tsp) Lc Frm/Fem	61	61	0.00784	0.00784		0.0216	0.0206	0.0205
M/P Xylene	28	6	0.201	0.492	0.739	1.3	1	0.93
Manganese (Tsp) Stp	61	61	0.0501	0.0501	0.000883	0.246	0.177	0.155
Methacrolein	30	30	0.124	0.124		0.442	0.231	0.203
Methyl Chloroform	28	0	0	0.105	0.211	0	0	0
Methyl Ethyl Ketone	28	7	0.386	0.798	1.1	2.5	1.9	1.6

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Chemical Name	Num Obs	Obs > MDL	Average (ND=0)	Average (ND=MDL/2)	MDL	Max 1	Max 2	Max 3
Methyl Isobutyl Ketone	28	0	0	0.434	0.868	0	0	0
Methyl Tert-Butyl Ether	28	0	0	0.095	0.19	0	0	0
N-Hexane	28	17	0.758	0.775	0.0872	4.5	2.5	2.5
Nickel (Tsp) Stp	61	61	0.00204	0.00204	0.000852	0.00495	0.00479	0.00468
O-Xylene	28	1	0.0179	0.178	0.332	0.5	0	0
Pm10 Total 0-10um Stp	58	40	16.9	24.5		59	48	47
Propionaldehyde	30	30	0.353	0.353		0.61	0.606	0.576
Styrene	28	3	0.0939	0.439	0.773	0.89	0.88	0.86
Tetrachloroethylene	28	0	0	0.117	0.235	0	0	0
Tolualdehydes	30	18	0.048	0.0801		0.115	0.107	0.105
Toluene	28	25	0.764	0.787	0.445	2.4	1.6	1.4
Trans-1,2-Dichloroethylene	28	0	0	0.075	0.15	0	0	0
Trans-1,3-Dichloropropene	28	0	0	0.0452	0.0905	0	0	0
Trichloroethylene	28	0	0	0.0848	0.17	0	0	0
Trichlorofluoromethane	28	28	1.29	1.29	0.232	1.4	1.4	1.4
Valeraldehyde	30	30	0.223	0.223		0.42	0.39	0.359
Vinyl Chloride	28	0	0	0.065	0.13	0	0	0

Detroit-W. Jefferson, South Delray (261630027) Concentrations in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)

Chemical Name	Num Obs	Obs > MDL	Average (ND=0)	Average (ND=MDL/2)	MDL	Max 1	Max 2	Max 3
Arsenic (Tsp) Stp	61	61	0.00196	0.00196	4.64E-05	0.00885	0.00454	0.00451
Cadmium (Tsp) Stp	61	61	0.000242	0.000242	2.00E-05	0.00141	0.00073	0.00063
Lead (Tsp) Lc Frm/Fem	61	61	0.0106	0.0106		0.0867	0.0318	0.0225
Manganese (Tsp) Stp	61	61	0.162	0.162	0.000893	0.896	0.584	0.527
Nickel (Tsp) Stp	61	61	0.00236	0.00236	0.000862	0.00848	0.00834	0.00797

Port Huron-Rural St. (261470031), Speciated PM_{2.5} ($\mu\text{g}/\text{m}^3$)

Chemical Name	Num Obs	Obs > MDL	Average (ND=0)	Average (ND=MDL/2)	MDL	Max 1	Max 2	Max 3
Arsenic (Tsp) Stp	92	92	0.0014	0.0014	4.53E-05	0.00796	0.00607	0.00554
Cadmium (Tsp) Stp	92	92	0.000229	0.000229	2.00E-05	0.00141	0.00114	0.00113
Lead (Tsp) Lc Frm/Fem	92	92	0.0203	0.0203		0.146	0.122	0.120
Manganese (Tsp) Stp	92	92	0.00952	0.00952	0.000882	0.0313	0.0285	0.0276
Nickel (Tsp) Stp	92	92	0.000776	0.000776	0.00085	0.00224	0.00188	0.00187

River Rouge (261630005) Concentrations in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)

Chemical Name	Num Obs	Obs > MDL	Average (ND=0)	Average (ND=MDL/2)	MDL	Max 1	Max 2	Max 3
Acetaldehyde	31	31	2.58	2.58		6.58	4.61	3.71
Acetone	31	31	2.67	2.67		6.3	4.5	4.34
Acrolein - Unverified	31	30	0.0934	0.0965		0.252	0.196	0.179
Arsenic (Tsp) Stp	61	61	0.00163	0.00163	4.54E-05	0.00851	0.00517	0.00479
Benzaldehyde	31	30	0.175	0.181		0.661	0.318	0.308
Cadmium (Tsp) Stp	61	61	0.000191	0.000191	2.00E-05	0.00049	0.00042	0.00039
Crotonaldehyde	31	0	0			0	0	0
Formaldehyde	31	31	3.37	3.37		7.6	6.65	6.33
Hexanaldehyde	31	31	0.17	0.17		0.515	0.507	0.35

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Chemical Name	Num Obs	Obs > MDL	Average (ND=0)	Average (ND=MDL/2)	MDL	Max 1	Max 2	Max 3
Lead (Tsp) Lc Frm/Fem	61	61	0.00592	0.00592		0.014995	0.013	0.0129
Manganese (Tsp) Stp	61	61	0.0318	0.0318	0.000877	0.0873	0.0871	0.0719
Methacrolein	31	31	0.154	0.154		0.444	0.437	0.337
Nickel (Tsp) Stp	61	61	0.00117	0.00117	0.000846	0.00484	0.00312	0.00237
Propionaldehyde	31	31	0.354	0.354		0.734	0.664	0.62
Tolualdehydes	31	20	0.0766	0.119		0.279	0.258	0.209
Valeraldehyde	31	30	0.174	0.18		0.419	0.364	0.355

Belding-Merrick St. (260670003) Concentrations in micrograms per cubic meter (µg/m³)

Chemical Name	Num Obs	Obs > MDL	Average (ND=0)	Average (ND=MDL/2)	MDL	Max 1	Max 2	Max 3
Arsenic (Tsp) Stp	60	60	0.00159	0.00159	4.62E-05	0.0242	0.00412	0.00396
Cadmium (Tsp) Stp	60	60	9.05E-05	9.05E-05	2.00E-05	0.00071	0.00038	0.00016
Lead (Tsp) Lc Frm/Fem	60	60	0.00396	0.00396		0.0284	0.00929	0.00882
Manganese (Tsp) Stp	60	60	0.0084	0.0084	0.000886	0.0242	0.0227	0.02
Nickel (Tsp) Stp	60	60	0.000605	0.000605	0.000854	0.00152	0.00116	0.00113

NMH 48217 (261630097) Concentrations in micrograms per cubic meter (µg/m³)

Chemical Name	Num Obs	Obs > MDL	Average (ND=0)	Average (ND=MDL/2)	MDL	Max 1	Max 2	Max 3
Arsenic (Tsp) Stp	61	61	0.00151	0.00151	4.46E-05	0.00867	0.00537	0.00529
Cadmium (Tsp) Stp	61	61	0.000133	0.000133	2.00E-05	0.00041	0.00031	0.00031
Lead (Tsp) Lc Frm/Fem	61	61	0.00509	0.00509		0.0207	0.0179	0.0135
Manganese (Tsp) Stp	61	61	0.0196	0.0196	0.000866	0.0611	0.0445	0.0415
Nickel (Tsp) Stp	61	61	0.00103	0.00103	0.000836	0.00271	0.00237	0.00205

DP4th (261630098) Concentrations in micrograms per cubic meter (µg/m³)

Chemical Name	Num Obs	Obs > MDL	Average (ND=0)	Average (ND=MDL/2)	MDL	Max 1	Max 2	Max 3
Arsenic (Tsp) Stp	61	61	0.00141	0.00141	4.51E-05	0.00531	0.00304	0.00278

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Cadmium (Tsp) Stp	61	61	0.000145	0.000145	2.00E-05	0.00037	0.00034	0.00032
Lead (Tsp) Lc Frm/Fem	61	61	0.00978	0.00978		0.104	0.0525	0.029
Manganese (Tsp) Stp	61	61	0.0435	0.0435	0.000881	0.162	0.102	0.101
Nickel (Tsp) Stp	61	61	0.00193	0.00193	0.000849	0.00527	0.00433	0.00398

Military Park (261630100) Concentrations in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)

Chemical Name	Num Obs	Obs > MDL	Average (ND=0)	Average (ND=MDL/2)	MDL	Max 1	Max 2	Max 3
Arsenic (Tsp) Stp	61	61	0.0019	0.0019	0.0000452	0.00828	0.00764	0.00587
Cadmium (Tsp) Stp	61	61	0.00021	0.00021	0.00002	0.00073	0.00055	0.00046
Lead (Tsp) Lc Frm/Fem	61	61	0.0156	0.0156		0.0962	0.0796	0.0687
Manganese (Tsp) Stp	61	61	0.0442	0.0442	0.000875	0.153	0.126	0.108
Nickel (Tsp) Stp	61	61	0.0016	0.0016	0.000843	0.00584	0.00344	0.00313

Trinity (261630099) Concentrations in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)

Chemical Name	Num Obs	Obs > MDL	Average (ND=0)	Average (ND=MDL/2)	MDL	Max 1	Max 2	Max 3
Arsenic (Tsp) Stp	61	61	0.00194	0.00194	4.43E-05	0.00768	0.00575	0.00486
Cadmium (Tsp) Stp	61	61	0.000222	0.000222	2.00E-05	0.00104	0.00053	0.00047
Lead (Tsp) Lc Frm/Fem	61	61	0.0109	0.0109		0.0541	0.0301	0.0276
Manganese (Tsp) Stp	61	61	0.0655	0.0655	0.00087	0.177	0.164	0.14
Nickel (Tsp) Stp	61	61	0.00291	0.00291	0.000839	0.00985	0.00799	0.00717

APPENDIX B-2 Data Tables

Allen Park (261630001), Speciated PM_{2.5} (µg/m³)

Chemical Name	Num Obs	Obs > MDL	Average (ND=0)	Average (ND=MDL/2)	MDL	Max 1	Max 2	Max 3
Aluminum Pm2.5 Lc	118	87	0.026	0.026	0.0229	0.533	0.135	0.112
Ammonium Ion Pm2.5 Lc	119	119	0.52	0.52	0.0129	3.73	3	2.18
Antimony Pm2.5 Lc	118	68	0.00529	0.00529	0.016	0.0313	0.0248	0.0241
Arsenic Pm2.5 Lc	118	37	2.52E-05	3.07E-05	0.0001	0.00028	0.00027	0.00026
Barium Pm2.5 Lc	118	73	0.0147	0.0148	0.0283	0.47	0.0795	0.0505
Bromine Pm2.5 Lc	118	38	0.000544	0.000589	0.000136	0.00708	0.00637	0.00555
Cadmium Pm2.5 Lc	118	68	0.00401	0.00407	0.0137	0.0274	0.0235	0.0198
Calcium Pm2.5 Lc	118	118	0.0616	0.0616	0.00981	0.377	0.301	0.299
Cerium Pm2.5 Lc	118	55	0.00766	0.00766	0.0361	0.0499	0.0463	0.0462
Cesium Pm2.5 Lc	118	58	0.00703	0.00703	0.0271	0.047	0.0396	0.0388
Chlorine Pm2.5 Lc	119	118	0.108	0.108	0.0251	2.53	0.652	0.635
Chromium Pm2.5 Lc	118	100	0.0232	0.0232	0.00394	1.96	0.0584	0.0442
Cobalt Pm2.5 Lc	118	90	0.00218	0.00218	0.00228	0.0164	0.0147	0.0106
Copper Pm2.5 Lc	118	32	0.000253	0.000253	0.00157	0.0033	0.00319	0.00186
Ec Csn_Rev Unadjusted Pm2.5 Lc Tot	118	97	0.00767	0.00767	0.00421	0.283	0.0257	0.0256
Indium Pm2.5 Lc	121	121	0.416	0.416	0.00032	2.25	1.58	1.17
Iron Pm2.5 Lc	118	71	0.00504	0.00504	0.0147	0.0296	0.0268	0.0268
Lead Pm2.5 Lc	118	118	0.0704	0.0704	0.00845	0.229	0.221	0.218
Magnesium Pm2.5 Lc	118	90	0.00407	0.00407	0.00659	0.0164	0.0162	0.0146
Manganese Pm2.5 Lc	118	62	0.0225	0.0265	0.045	0.81	0.106	0.101
Nickel Pm2.5 Lc	118	91	0.00254	0.00254	0.00296	0.0136	0.00949	0.00918
Oc Csn_Rev Unadjusted Pm2.5 Lc Tot	118	92	0.000894	0.000894	0.00122	0.00539	0.0042	0.00402

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Chemical Name	Num Obs	Obs > MDL	Average (ND=0)	Average (ND= MDL/2)	MDL	Max 1	Max 2	Max 3
Phosphorus Pm2.5 Lc	121	121	1.99	1.99	0.643	10.7	5.1	4.3
Potassium Ion Pm2.5 Lc	118	101	0.000149	0.000261	0.00196	0.00439	0.00306	0.00217
Potassium Pm2.5 Lc	119	118	0.109	0.109	0.0129	8.82	0.307	0.287
Rubidium Pm2.5 Lc	118	118	0.129	0.129	0.00539	8.59	0.404	0.332
Selenium Pm2.5 Lc	118	61	0.000944	0.000956	0.00315	0.00502	0.00499	0.00491
Silicon Pm2.5 Lc	118	75	0.00126	0.00126	0.00244	0.012	0.00633	0.00502
Silver Pm2.5 Lc	118	116	0.0582	0.0582	0.0136	0.301	0.252	0.248
Sodium Ion Pm2.5 Lc	119	119	0.035	0.035	0.014	0.466	0.406	0.221
Sodium Pm2.5 Lc	118	85	0.0355	0.0355	0.0801	0.223	0.158	0.134
Strontium Pm2.5 Lc	118	79	0.00307	0.0031	0.00292	0.205	0.0111	0.00886
Sulfate Pm2.5 Lc	119	118	1.01	1.01	0.0294	8.11	4.75	2.31
Sulfur Pm2.5 Lc	118	117	0.357	0.357	0.00104	2.5	1.65	0.908
Tin Pm2.5 Lc	118	69	0.00542	0.00542	0.0155	0.023	0.0222	0.022
Titanium Pm2.5 Lc	118	106	0.00337	0.00337	0.00291	0.0453	0.00961	0.00933
Total Nitrate Pm2.5 Lc	119	118	1.53	1.53	0.0383	11.7	9.05	6.89
Vanadium Pm2.5 Lc	118	43	0.000244	0.00048	0.000708	0.00273	0.00228	0.00212
Zinc Pm2.5 Lc	118	118	0.0138	0.0138	0.00172	0.0894	0.0473	0.0391
Zirconium Pm2.5 Lc	118	65	0.00436	0.00436	0.014	0.0306	0.0259	0.0231

Dearborn (261630033), Speciated PM_{2.5} (µg/m³)

Chemical Name	Num Obs	Obs > MDL	Average (ND=0)	Average (ND=MDL/2)	MDL	Max 1	Max 2	Max 3
Aluminum Pm2.5 Lc	60	40	0.0218	0.0218	0.0228	0.122	0.0904	0.0856
Ammonium Ion Pm2.5 Lc	60	60	0.53	0.53	0.0129	3.56	2.32	2.28
Antimony Pm2.5 Lc	60	28	0.00281	0.00281	0.016	0.0256	0.0192	0.0107
Arsenic Pm2.5 Lc	60	16	7.57E-05	8.15E-05	0.0001	0.00337	0.00033	0.00028
Barium Pm2.5 Lc	60	30	0.00856	0.00856	0.0283	0.0441	0.0382	0.0356
Bromine Pm2.5 Lc	60	20	0.000705	0.000752	0.000135	0.00614	0.00587	0.00444
Cadmium Pm2.5 Lc	60	27	0.00352	0.00352	0.0138	0.0218	0.0212	0.0149
Calcium Pm2.5 Lc	60	60	0.0936	0.0936	0.00978	0.369	0.355	0.286
Cerium Pm2.5 Lc	60	37	0.0118	0.0118	0.0363	0.0475	0.044	0.0433
Cesium Pm2.5 Lc	60	33	0.00668	0.00668	0.027	0.0376	0.0331	0.0264
Chlorine Pm2.5 Lc	60	60	0.179	0.179	0.0251	2.56	0.523	0.49
Chromium Pm2.5 Lc	60	54	0.0261	0.0261	0.00393	0.204	0.163	0.131
Cobalt Pm2.5 Lc	59	48	0.00483	0.00483	0.00228	0.122	0.0268	0.0183
Copper Pm2.5 Lc	59	22	0.000411	0.000411	0.00159	0.00422	0.00255	0.00217
Ec Csn_Rev Unadjusted Pm2.5 Lc Tot	59	58	0.0135	0.0135	0.00424	0.0838	0.0492	0.0479
Indium Pm2.5 Lc	61	60	0.55	0.55	0.00032	1.72	1.5	1.37
Iron Pm2.5 Lc	60	33	0.00415	0.00415	0.0148	0.0267	0.0207	0.017
Lead Pm2.5 Lc	59	58	0.285	0.285	0.00843	3.29	1.75	0.781
Magnesium Pm2.5 Lc	60	51	0.00777	0.00777	0.0066	0.116	0.0439	0.0159
Manganese Pm2.5 Lc	60	50	0.00576	0.00576	0.00297	0.0233	0.0222	0.0181
Nickel Pm2.5 Lc	59	47	0.00238	0.00238	0.00122	0.0587	0.00641	0.0059
Oc Csn_Rev Unadjusted Pm2.5 Lc Tot	61	61	2.32	2.32	0.643	4.87	4.59	4.17
Phosphorus Pm2.5 Lc	60	54	0.00049	0.000556	0.00196	0.00649	0.00473	0.00431
Potassium Ion Pm2.5 Lc	60	58	0.0445	0.0445	0.0129	0.221	0.18	0.174
Potassium Pm2.5 Lc	60	60	0.0611	0.0611	0.00544	0.207	0.194	0.192

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Chemical Name	Num Obs	Obs > MDL	Average (ND=0)	Average (ND=MDL/2)	MDL	Max 1	Max 2	Max 3
Rubidium Pm2.5 Lc	60	25	0.00065	0.000699	0.00316	0.00385	0.00373	0.00356
Selenium Pm2.5 Lc	60	41	0.00124	0.00124	0.00243	0.0116	0.00523	0.00522
Silicon Pm2.5 Lc	60	59	0.0616	0.0616	0.0138	0.234	0.226	0.172
Silver Pm2.5 Lc	60	30	0.00463	0.00463	0.0129	0.0238	0.0214	0.0213
Sodium Ion Pm2.5 Lc	60	60	0.0492	0.0492	0.0141	0.25	0.218	0.168
Sodium Pm2.5 Lc	60	45	0.0618	0.0626	0.0805	0.488	0.223	0.173
Strontium Pm2.5 Lc	60	39	0.00105	0.00105	0.00291	0.00358	0.00358	0.00349
Sulfate Pm2.5 Lc	60	60	1.08	1.08	0.0294	2.94	2.22	2.19
Sulfur Pm2.5 Lc	60	59	0.37	0.37	0.00105	1.1	0.855	0.785
Tin Pm2.5 Lc	60	28	0.00488	0.00488	0.0155	0.0501	0.0253	0.0199
Titanium Pm2.5 Lc	60	49	0.00269	0.0027	0.00292	0.0112	0.00743	0.00734
Total Nitrate Pm2.5 Lc	60	59	1.43	1.43	0.0386	11.8	7.03	6.78
Vanadium Pm2.5 Lc	60	26	0.000628	0.000826	0.000713	0.0178	0.00211	0.00204
Zinc Pm2.5 Lc	60	59	0.0506	0.0506	0.00172	0.654	0.271	0.268
Zirconium Pm2.5 Lc	60	28	0.00352	0.00352	0.0139	0.0213	0.0181	0.0139

Detroit-SW, (W Fort St., N. Delray-SWHS) (261630015), Speciated PM_{2.5} (µg/m³)

Chemical Name	Num Obs	Obs > MDL	Average (ND=0)	Average (ND=MDL/2)	MDL	Max 1	Max 2	Max 3
Aluminum Pm2.5 Lc	59	47	0.0402	0.0402	0.023	0.254	0.24	0.141
Ammonium Ion Pm2.5 Lc	59	59	0.552	0.552	0.0129	4.2	2.32	2.31
Antimony Pm2.5 Lc	59	38	0.0068	0.0068	0.0159	0.0329	0.0325	0.0323
Arsenic Pm2.5 Lc	59	18	1.42E-05	1.76E-05	0.0001	0.00022	0.00007	0.00006
Barium Pm2.5 Lc	59	38	0.0108	0.0108	0.0284	0.0572	0.0477	0.0373
Bromine Pm2.5 Lc	59	28	0.000913	0.000957	0.000136	0.00513	0.00448	0.00418
Cadmium Pm2.5 Lc	59	32	0.00382	0.00382	0.0137	0.0215	0.0187	0.0177
Calcium Pm2.5 Lc	59	59	0.204	0.204	0.00984	1.87	1.55	1.35
Cerium Pm2.5 Lc	59	32	0.00873	0.00873	0.0362	0.0527	0.0333	0.0321
Cesium Pm2.5 Lc	59	31	0.00816	0.00816	0.0271	0.0596	0.0355	0.032
Chloride Pm2.5 Lc	59	59	0.198	0.198	0.0254	1.48	1.04	0.928
Chlorine Pm2.5 Lc	59	54	0.0285	0.0285	0.00391	0.561	0.157	0.136
Chromium Pm2.5 Lc	59	42	0.00171	0.00173	0.00229	0.0139	0.00851	0.0078
Cobalt Pm2.5 Lc	59	18	0.000167	0.000178	0.00158	0.00136	0.00116	0.00113
Copper Pm2.5 Lc	59	59	0.0123	0.0123	0.00423	0.0658	0.0288	0.0277
Ec Csn_Rev Unadjusted Pm2.5 Lc Tot	58	58	0.526	0.526	0.00032	1.19	1.12	1.11
Indium Pm2.5 Lc	59	35	0.00463	0.00463	0.0148	0.0229	0.0163	0.0162
Iron Pm2.5 Lc	59	59	0.133	0.133	0.00846	0.627	0.535	0.411
Lead Pm2.5 Lc	59	49	0.00558	0.00558	0.0066	0.0255	0.0214	0.0203
Magnesium Pm2.5 Lc	59	37	0.0266	0.0295	0.045	0.223	0.223	0.12
Manganese Pm2.5 Lc	59	49	0.00476	0.00476	0.00298	0.0249	0.0245	0.0204
Nickel Pm2.5 Lc	59	44	0.000964	0.000964	0.00122	0.00654	0.00385	0.00286
Oc Csn_Rev Unadjusted Pm2.5 Lc Tot	58	58	2.26	2.26	0.644	4.92	4.38	4.32
Phosphorus Pm2.5 Lc	59	54	0.000357	0.000409	0.00196	0.00577	0.00375	0.00206

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Chemical Name	Num Obs	Obs > MDL	Average (ND=0)	Average (ND=MDL/2)	MDL	Max 1	Max 2	Max 3
Potassium Ion Pm2.5 Lc	59	59	0.0374	0.0374	0.0129	0.214	0.168	0.135
Potassium Pm2.5 Lc	59	59	0.0658	0.0658	0.00541	0.379	0.19	0.189
Rubidium Pm2.5 Lc	59	29	0.000877	0.000877	0.00316	0.00558	0.00504	0.00461
Selenium Pm2.5 Lc	59	39	0.00114	0.00114	0.00244	0.00553	0.00482	0.00453
Silicon Pm2.5 Lc	59	59	0.129	0.129	0.0136	0.92	0.916	0.522
Silver Pm2.5 Lc	59	29	0.00362	0.00362	0.0128	0.0216	0.0159	0.0146
Sodium Ion Pm2.5 Lc	59	59	0.0279	0.0279	0.0141	0.125	0.0839	0.0709
Sodium Pm2.5 Lc	59	42	0.0426	0.0426	0.0803	0.42	0.171	0.163
Strontium Pm2.5 Lc	59	37	0.00191	0.00191	0.00292	0.0109	0.00845	0.00778
Sulfate Pm2.5 Lc	59	59	1.11	1.11	0.0294	2.91	2.43	2.29
Sulfur Pm2.5 Lc	59	59	0.401	0.401	0.00105	1.01	0.988	0.925
Tin Pm2.5 Lc	59	35	0.00486	0.00486	0.0156	0.0311	0.0199	0.0192
Titanium Pm2.5 Lc	59	47	0.00399	0.00399	0.00292	0.0258	0.0209	0.0117
Total Nitrate Pm2.5 Lc	59	59	1.37	1.37	0.0385	11.6	6.67	6.18
Vanadium Pm2.5 Lc	59	29	0.000383	0.000573	0.000718	0.00234	0.00177	0.00151
Zinc Pm2.5 Lc	59	59	0.0201	0.0201	0.00172	0.0995	0.0646	0.0638
Zirconium Pm2.5 Lc	59	30	0.00324	0.00324	0.014	0.0172	0.0142	0.0141

Grand Rapids (260810020), Speciated PM_{2.5} (µg/m³)

Chemical Name	Num Obs	Obs > MDL	Average (ND=0)	Average (ND=MDL/2)	MDL	Max 1	Max 2	Max 3
Aluminum Pm2.5 Lc	121	66	0.0146	0.0146	0.0322	0.146	0.142	0.134
Ammonium Ion Pm2.5 Lc	121	120	0.686	0.686	0.00692	4.44	4.23	3.56
Antimony Pm2.5 Lc	121	69	0.00517	0.00517	0.0388	0.0333	0.0289	0.0256
Arsenic Pm2.5 Lc	121	56	0.0000193	0.000165	0.00186	0.00011	0.00011	0.00011
Barium Pm2.5 Lc	121	71	0.0111	0.0111	0.0801	0.132	0.0759	0.0643
Bromine Pm2.5 Lc	121	27	0.000379	0.00215	0.00454	0.00651	0.00518	0.00514
Cadmium Pm2.5 Lc	121	70	0.00465	0.00465	0.0158	0.0248	0.0246	0.0242
Calcium Pm2.5 Lc	121	121	0.0298	0.0298	0.00885	0.162	0.0926	0.0876
Cerium Pm2.5 Lc	121	61	0.0119	0.0119	0.0954	0.0644	0.0593	0.0583
Cesium Pm2.5 Lc	114	65	0.00807	0.00807	0.0271	0.053	0.0373	0.0369
Chloride Pm2.5 Lc	113	113	0.116	0.116	0.0249	4.3	0.279	0.267
Chlorine Pm2.5 Lc	114	89	0.0319	0.0319	0.00389	3.04	0.242	0.0271
Chromium Pm2.5 Lc	111	81	0.00167	0.00167	0.00229	0.0172	0.0106	0.00803
Cobalt Pm2.5 Lc	111	35	0.000269	0.000269	0.00158	0.00383	0.00309	0.0024
Copper Pm2.5 Lc	111	91	0.00706	0.00706	0.0041	0.366	0.0705	0.0195
Ec Csn_Rev Unadjusted Pm2.5 Lc Tot	111	111	0.386	0.386	0.00032	1.55	1.53	1.15
Indium Pm2.5 Lc	114	64	0.00533	0.00541	0.0146	0.0237	0.0228	0.0222
Iron Pm2.5 Lc	111	111	0.0553	0.0553	0.00839	0.191	0.172	0.15
Lead Pm2.5 Lc	114	70	0.00356	0.00356	0.00659	0.0334	0.0169	0.0149
Magnesium Pm2.5 Lc	114	61	0.0275	0.0322	0.0452	1.21	0.108	0.0932
Manganese Pm2.5 Lc	114	86	0.00221	0.00221	0.00296	0.0127	0.00965	0.00842
Nickel Pm2.5 Lc	111	86	0.000768	0.000773	0.00121	0.00411	0.00348	0.00288
Oc Csn_Rev Unadjusted Pm2.5 Lc Tot	111	111	2.17	2.17	0.638	8.59	5.98	5.75
Phosphorus Pm2.5 Lc	114	101	0.000265	0.000338	0.00203	0.00679	0.00611	0.0046

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Chemical Name	Num Obs	Obs > MDL	Average (ND=0)	Average (ND=MDL/2)	MDL	Max 1	Max 2	Max 3
Potassium Ion Pm2.5 Lc	113	113	0.173	0.173	0.0129	14.4	0.776	0.284
Potassium Pm2.5 Lc	114	114	0.166	0.166	0.00544	11.9	0.747	0.357
Rubidium Pm2.5 Lc	114	65	0.00117	0.00117	0.00317	0.00874	0.00854	0.00628
Selenium Pm2.5 Lc	114	70	0.00088	0.00088	0.00247	0.00495	0.00454	0.00406
Silicon Pm2.5 Lc	114	101	0.0376	0.0376	0.0139	0.231	0.221	0.131
Silver Pm2.5 Lc	114	69	0.00419	0.00419	0.0128	0.0259	0.0225	0.0221
Sodium Ion Pm2.5 Lc	113	112	0.0193	0.0193	0.014	0.0892	0.0844	0.0754
Sodium Pm2.5 Lc	114	82	0.0362	0.0362	0.0791	0.29	0.213	0.143
Strontium Pm2.5 Lc	114	76	0.00346	0.00346	0.00292	0.244	0.00847	0.00608
Sulfate Pm2.5 Lc	113	113	0.982	0.982	0.0292	13.1	3.57	2.5
Sulfur Pm2.5 Lc	114	114	0.331	0.331	0.00102	3.63	1.23	0.95
Tin Pm2.5 Lc	114	58	0.00498	0.00498	0.0155	0.029	0.0249	0.0236
Titanium Pm2.5 Lc	114	98	0.00387	0.00387	0.00292	0.0572	0.0199	0.0172
Total Nitrate Pm2.5 Lc	113	113	1.44	1.44	0.0388	7.89	6.65	6.26
Vanadium Pm2.5 Lc	114	25	0.000113	0.000382	0.000697	0.00346	0.00144	0.00102
Zinc Pm2.5 Lc	114	114	0.0153	0.0153	0.00173	0.416	0.0414	0.0359
Zirconium Pm2.5 Lc	114	64	0.00401	0.00401	0.014	0.027	0.0227	0.0165

APPENDIX C - SUMMARY

Appendix C summarizes the development of the NAAQS and how compliance with these standards is determined. Also included is the variety of monitoring techniques, requirements used to ensure quality data is obtained, and a history of NAAQS changes that have occurred since the inception of the CAA.

National Ambient Air Quality Standards (NAAQS)

Under Section 109 of the CAA, the USEPA established a primary and secondary NAAQS for each pollutant for which air quality criteria have been issued. The primary standard is designed to protect the public health with an adequate margin of safety, including the health of the most susceptible individuals in a population, such as children, the elderly, and those with chronic respiratory ailments. Factors in selecting the margin of safety for the primary standard include the nature and severity of the health effects involved and the size of the sensitive population at risk. Secondary standards are chosen to protect public welfare (personal comfort and well-being) and the environment by limiting economic damage, impacts on visibility and climate, and harmful effects on soil, water, crops, vegetation, wildlife, and buildings.

In addition, the NAAQS have various averaging times to address health impacts. Short averaging times reflect the potential for acute (immediate) effects, whereas long-term averaging times are designed to protect against chronic (long-term) effects.

NAAQS have been established for CO, Pb, NO₂, PM, O₃, and SO₂. **Table C1.1** lists the primary and secondary NAAQS, averaging time and concentration level for each criteria pollutant in effect in 2018. The concentrations are listed as parts per million (ppm), micrograms per cubic meter (µg/m³), and/or milligrams per cubic meter (mg/m³).

Table C1.1:

Pollutant	Primary (health) Level	Primary Averaging Time	Secondary (welfare) Level	Secondary Averaging Time
Carbon Monoxide (CO) 8-hour average	9 ppm (10 mg/m ³)	8-hour average, not to be exceeded more than once per year (1971)	None*	None*
Carbon Monoxide (CO) 1-hour average	35 ppm (40 mg/m ³)	1-hour average, not to be exceeded more than once per year (1971)	None*	None*
Lead (Pb)	0.15 µg/m ³	Maximum rolling 3-month average (2008)	Same as Primary	Same as Primary
Nitrogen Dioxide (NO₂) Annual mean	0.053 ppm (100 µg/m ³)	Annual mean (1971)	Same as Primary	Same as Primary
Nitrogen Dioxide (NO₂) 1-hour average	0.100 ppm	98 th percentile of 1-hour average, averaged over 3 years (2010)	Same as Annual	Same as Annual
Particulate Matter (PM₁₀)	150 µg/m ³	24-hour average, not to be exceeded more than once per year over 3 years (1987)	Same as Primary	Same as Primary
Particulate Matter (PM_{2.5}) Annual average	12.0 µg/m ³	Annual mean averaged over 3 years (2012)	15.0 µg/m ³	Annual mean
Particulate Matter (PM_{2.5}) 24-hour average	35 µg/m ³	98 th percentile of 24-hour concentration, averaged over 3 years (2006)	Same as Primary	Same as Primary
Ozone (O₃)	0.070 ppm	Annual 4 th highest 8-hour daily max averaged over 3 years (2015)	Same as Primary	Same as Primary
Sulfur Dioxide (SO₂)	0.075 ppm	99 th percentile of 1-hour daily max averaged over 3 years (2010)	0.5 ppm	3 hours

*In 1985, the USEPA revoked the secondary standard for CO (for public welfare) due to a lack of evidence of adverse effects on public welfare at or near ambient concentrations.

To demonstrate compliance with the NAAQS, the USEPA has defined specific criteria for each pollutant, which are summarized in **Table C1.2**.

Table C1.2: Criteria for the Determination of Compliance with the NAAQS

Pollutant	Criteria for Compliance
CO	Compliance with the CO standard is met when the second highest, non-overlapping, 35 ppm, 1-hour average standard and/or the 9 ppm, 8-hour average standard is not exceeded more than once per year.
Pb	Compliance with the Pb standard is met when daily values collected for three consecutive months are averaged and do not exceed the 0.15 µg/m ³ standard.
NO ₂	Compliance is met when the annual arithmetic mean concentration does not exceed the 0.053 ppm standard and the 98 th percentile* of the daily maximum 1-hour concentration averaged over 3 years does not exceed 100 ppb.
PM ₁₀	The 24-hour PM ₁₀ primary and secondary standards are met when 150 µg/m ³ is not exceeded more than once per year on average over 3 years.
PM _{2.5}	The annual PM _{2.5} primary and secondary standards are met when the annual arithmetic mean concentration is less than or equal to 12 µg/m ³ and 15 µg/m ³ , respectively. The 24-hour PM _{2.5} primary and secondary standards are met when the 3-year average of the 98 th percentile** 24-hour concentration is less than or equal to 35 µg/m ³ .
O ₃	The 8-hour O ₃ primary and secondary standards are met when the 3-year average of the 4th highest daily maximum 8-hour average concentration is less than or equal to 0.070 ppm.
SO ₂	To determine compliance, the 99 th percentile*** 1-hour concentration averaged over a 3-year period does not exceed 0.075 ppm, and the 3-hour average concentration shall not exceed 0.5 ppm more than once per calendar year.

*98th percentile daily maximum 1-hour value is the value below which nominally 98 percent of all daily maximum 1-hour concentration values fall, using the ranking and selection method specified in section 5.2 of appendix S of CFR Part 50.

** 98th percentile is the daily value out of a year of PM_{2.5} monitoring data below which 98 percent of all daily values fall using the ranking and selection method specified in section 4.5(a) of appendix N of CFR Part 50.

*** 99th percentile daily maximum 1-hour value is the value below which nominally 99 percent of all daily maximum 1-hour concentration values fall, using the ranking and selection method specified in section 5 of appendix T of CFR Part 50.

As part of the USEPA's grant to EGLE, the AQD provides an annual Network Review document¹⁴ of all monitoring data collected from the previous year and recommendations on any network changes. These recommendations are based on each monitor's exceedance history, changes in population distribution, and modifications to federal monitoring requirements under the CAA. Under the amended air monitoring regulations that began in 2007, states are required to solicit public comment (in May of each year) on their future air monitoring network design prior to submitting the annual review to the USEPA in July.

¹⁴ [Most recent Network Reviews](#)

Types of Monitors

Federal Reference Method (FRM): method of sampling and analyzing the ambient air for an air pollutant that USEPA uses as the “gold standard” for measuring that pollutant. FRM monitors are used to designate attainment/nonattainment areas. The gaseous pollutants CO, NO₂, O₃, and SO₂ are measured with continuous FRM monitors that provide real-time hourly data. The FRM for PM and Pb requires a filter that measure concentrations over a 24-hour period. These filters must be further analyzed in a laboratory; therefore, the samples results are delayed.

Rural background monitors: measure background air quality in non-urban areas

Aethalometers: measure carbon black, a combustion by-product typical of transportation sources, by concentrating particulate on a filter tape and measuring changes in optical transmissivity and absorption.

EC/OC instruments measure elemental carbon using pyrolysis coupled with a nondispersive infrared detector to separate the elemental and organic carbon fractions.

Federal Equivalent Method (FEM): method for measuring the concentration of an air pollutant in the ambient air that has been designated as equivalent to the FRM.

Continuous Monitors: measure data in real-time, meaning concentrations of the air pollutant are usually available within an hour on the Mlair website.

TEOM: tapered element oscillating monitors (TEOMs) are continuous PM monitor that is used only for real-time data indications since they are not FEMs and cannot be used for attainment/nonattainment designations.

BAM: Beta attenuation monitors (BAMs) are real-time, continuous PM_{2.5} monitor that is FEM, thus can be used for attainment/nonattainment designation.

T640: A continuous PM_{2.5} monitor that uses a light scattering technique to measure particulates. This FEM method can be used for attainment/nonattainment designation.

T640X: A continuous monitor that measures PM_{2.5}, PM₁₀ and PM coarse that uses a light scattering technique to measure particulates. This FEM method can be used for attainment/nonattainment designation.

PM_{2.5} FRM Monitoring: The concentrations of PM_{2.5} measured over a 24-hour time period are determined using the filter-based gravimetric FRM. Data generated by the FRM monitors are used for comparisons to the NAAQS in Michigan. The sites are located in urban, commercial, and residential areas where people are exposed to PM_{2.5}.

Chemical Speciation Monitoring: Speciated monitoring provides a better understanding of the chemical composition of PM_{2.5} material and better characterizes background levels. Single event Met-One Speciation Air Sampling System (SASS) monitors are used throughout Michigan’s speciation network.

National Air Toxics Trend Station (NATTS): Network developed to fulfill the need for long-term hazardous air pollutants (HAPs) monitoring data of consistent quality. Among the principal objectives are assessing trends and emission reduction program effectiveness, assessing and verifying air quality models.

NCore Network: Began January 1, 2011, as part of the USEPA’s 2006 amended air monitoring requirements. National Core (NCore) sites provide a full suite of measurements at one location. NCore

stations collect the following measurements: ozone, SO₂ (trace), CO (trace), NO_y (reactive oxides of nitrogen), PM_{2.5} FRM, continuous PM_{2.5}, speciated PM_{2.5}, wind speed, wind direction, relative humidity, and ambient temperature. In addition, filter-based measurements are required for PM coarse (PM_{10-2.5}) on a once every three-day sampling frequency. This information will support scientific studies ranging across technological, health, and atmospheric process disciplines. Michigan has two NCore sites; Allen Park and Grand Rapids.

Near-road Monitoring Network: Focuses on vehicle emissions and how they disperse near-roadways, was approved by USEPA in 2011. This network, now referred to as the near-roadway network, is focused on high traffic urban roads in Core-Based Statistical Areas (CBSAs) with more than one million people.

Population-Oriented Monitors: Monitors that are located in an area where many people live, also considered ambient air.

Transport monitors: Measure air pollutants that have travelled a distance from the emission sources and are formed in the atmosphere when certain pollutants are present, like ozone.

Source-Oriented/Point-Source Monitors: Monitors that are located near a specific emissions source (e.g., factory) of a pollutant.

Primary Monitor: Data from these monitors are used to compare to the NAAQS and must meet quality assurance criteria.

Secondary/Precision/Collocated Monitor: Two or more air samplers, analyzers, or other instruments that are operated simultaneously while located side by side. These are used for quality assurance purposes.

Urban Scale Monitors: Measures air pollution concentrations in more populated urban areas.

Quality Assurance

The AQD's Air Monitoring Unit (AMU) ensures that all data collected and reported is of high quality and meets federal requirements. The AMU has a quality system in place that includes a Quality Assurance Project Plan (QAPP), standard operating procedures (SOPs), standardized forms and documentation policies, and a robust audit and assessment program.

The monitoring network adheres to the requirements in Title 40 of the Code of Federal Regulations (CFR), Parts 50, 53, and 58. This ensures that the monitors are correctly sited, operated in accordance with the Federal Reference Methods, and adhere to the quality assurance requirements.

Quality assurance checks are conducted by site operators at the frequencies required in the regulations and unit procedures. Independent audits are conducted by the AMU's Quality Assurance (QA) Team, which has a separate reporting line of supervision. The quality assurance checks and audits are reported to the USEPA each quarter.

External audits are conducted annually by the USEPA. The USEPA conducts Performance Evaluation Program (PEP) audits for PM_{2.5} samplers and the National Performance Audit Program (NPAP) checks for the gaseous monitors. The USEPA also conducts program-wide Technical Systems Audits (TSAs) every three years to evaluate overall program operations and assess adequacy of documentation and records retention. External audits are also conducted on the laboratory operations for certain analytical techniques using performance evaluation samples.

Historical NAAQS Changes

CO

- 1971 1-hour: Second highest average does not exceed 35 in a year
- 8-hour: Second highest average does not exceed 9 ppm in a year.

Lead

- 1978 Calendar quarter values averaged does not exceed 1.5 $\mu\text{g}/\text{m}^3$
- 2008 3-month values averaged does not exceed 0.15 $\mu\text{g}/\text{m}^3$

NO₂

- 1971 Annual average of 53 ppb or less
- 2010 98th percentile of the 1-hour concentration averaged over 3 yrs. is 100 ppb or less

Ozone

- 1971 Total photochemical oxidants: 1-hour max of 0.08 ppm not exceeded once per yr
- 1979 1-hour: 1-hour maximum concentration is 0.12 ppm one or less hour per yr
- 1997 8-hour: 4th highest daily maximum 8-hour concentration averaged over 3 yrs. is 0.08 ppm or less
- 2008 8-hour: 4th highest daily maximum 8-hour concentration averaged over 3 yrs. is 0.075 ppm or less
- 2015 8-hour: 4th highest daily maximum 8-hour concentration averaged over 3 yrs. is 0.070 ppm or less

PM

- 1971 TSP: 24-hour average not to exceed 260 $\mu\text{g}/\text{m}^3$ more than once per yr
- Annual geometric mean of 75 $\mu\text{g}/\text{m}^3$
- 1987 PM₁₀: Indicator for PM changed from TSP to PM10
- 24-hour average not to exceed 150 $\mu\text{g}/\text{m}^3$ more than once per yr over a 3-yr period
- Annual mean of 50 $\mu\text{g}/\text{m}^3$ or less average over 3 yrs.
- 1997 PM_{2.5}: Annual mean of 15.0 $\mu\text{g}/\text{m}^3$ or less average over 3 yrs.
- 98th percentile of 24-hour average of 65 $\mu\text{g}/\text{m}^3$ or less averaged over 3 yrs.
- 2006 PM₁₀: Annual average revoked
- 24-hour average retained
- PM_{2.5}: Annual mean retained
- 98th percentile of 24-hour average of 35 $\mu\text{g}/\text{m}^3$ or less averaged over 3 yrs.
- 2012 PM_{2.5}: Annual mean of 12.0 $\mu\text{g}/\text{m}^3$ or less average over 3 yrs.

SO₂

- 1971 24-Hour concentration of 0.14 ppm not exceeded more than once per year
- Annual average of 0.03 ppm or less.
- 2010 1-hour average of 99th percentile is 75 ppb or less, averaged over 3 yrs.
- Previous standards revoked

APPENDIX D: ACRONYMS AND THEIR DEFINITIONS

>	Greater than
<	Less than
≥	Greater than or equal to
≤	Less than or equal to
%.....	Percent
µg/m ³	Micrograms per cubic meter
µm.....	Micrometer
AIRS ID.....	Aerometric Information Retrieval System Identification Number
AMU	Air Monitoring Unit
AQD	Air Quality Division
AQES.....	Air Quality Evaluation Section
AQI.....	Air Quality Index
AQS.....	Air Quality System (EPA air monitoring data archive)
As	Arsenic
BAM.....	Beta Attenuation Monitor (hourly PM _{2.5} measurement monitor)
BC	Black Carbon
BTEX	Benzene, Toluene, Ethylbenzene and Xylene
CAA.....	Clean Air Act
CBSA.....	Core-Based Statistical Area
Cd	Cadmium
CFR	Code of Federal Regulations
CO	Carbon monoxide
CSA	Consolidated Statistical Area
DW.....	Downwind
EC/OC.....	Elemental carbon/Organic carbon
EGLE.....	Michigan Department of Environment, Great Lakes and Energy
FDMS.....	Filter Dynamic Measurement System
FEM.....	Federal Equivalent Method
FIA.....	Family Independence Agency
FR	Federal Register
FRM	Federal Reference Method
GHIB.....	Gordie Howe International Bridge
HAP	Hazardous Air Pollutant
hr	Hour
Lc.....	Local Conditions

MASN	Michigan Air Sampling Network
MDL	Method Detection Limit
mg/m ³	Milligrams per meter cubed
MI	Michigan
MiSA.....	Micropolitan Statistical Area
Mn.....	Manganese
MSA.....	Metropolitan Statistical Area
NAAQS.....	National Ambient Air Quality Standard
NAMS	National Air Monitoring Station
NATTS.....	National Air Toxics Trend Sites
NCore	National Core Monitoring Sites
ND.....	Non-detect
NEI	National Emission Inventory
Ni	Nickel
NMH 48217 ...	New Mount Hermon 48217 ZIP code monitoring site
NO	Nitric Oxide
NO ₂	Nitrogen Dioxide
NO _x	Oxides of Nitrogen
NO _y	Oxides of Nitrogen + nitric acid + organic and inorganic nitrates
NPAP.....	National Performance Audit Program
NR	Near Road
O ₃	Ozone
Obs/OBS.....	Observations
PAMS	Photochemical Assessment Monitoring Station
PAH	Polynuclear Aromatic Hydrocarbon
Pb.....	Lead
PBT.....	Persistent, Bioaccumulative and Toxic
PCB.....	Polychlorinated Biphenyls
PEP	Performance Evaluation Program
PM.....	Particulate Matter
PM _{2.5}	Particulate Matter with an aerodynamic diameter less than or equal to 2.5 microns
PM ₁₀	Particulate Matter with a diameter of 10 microns or less
PM _{10-2.5}	Coarse PM equal to the concentration difference between PM ₁₀ and PM _{2.5}
PNA	Polynuclear Aromatic Hydrocarbons
POC.....	Parameter Occurrence Code
ppb.....	Parts Per Billion
ppm	Parts Per Million = mg/kg, mg/L, µg/g (1 ppm = 1,000 ppb)
QA	Quality Assurance
QAPP	Quality Assurance Project Plan

SASS..... Speciation Air Sampling System (PM_{2.5} Speciation Sampler)
SO₂ Sulfur Dioxide
SOP Standard Operating Procedures
STN Speciation Trend Network (PM_{2.5})
Stp Standard Temperature and Pressure
SVOC..... Semi-Volatile Compound
SW Southwest
SWHS Southwestern High School
TAC..... Toxic Air Contaminant
TEOM..... Tapered element oscillating microbalance (hourly PM_{2.5} measurement monitor)
tpy Ton per year
TRI Toxic Release Inventory
TSA Technical Systems Audit
TSP..... Total Suspended Particulate
US United States
USEPA..... United States Environmental Protection Agency
UV Ultra-violet
VOC Volatile Organic Compounds

ACKNOWLEDGMENTS

This publication was prepared utilizing information provided by the Air Quality Evaluation Section (AQES) and other staff of the Michigan Department of Environment, Great Lakes, and Energy; Air Quality Division. Copies can be obtained online at: Michigan.gov/Air, under “Monitoring,” then “Annual Air Quality Reports,” or call 517-284-6747 to request a hard copy.

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Other units within the AQES: Strategy Development Unit, BioWatch Unit, Toxics Unit, and the Emissions Reporting & Assessment Unit.

Other units in EGLE: The Environmental Support Division

The Air Quality Division also wishes to acknowledge the many significant contributions of Mitch Toonstra of the **City of Grand Rapids, Air Pollution Control Division**, which operates and maintains air monitoring equipment in West Michigan.

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MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

Michigan.gov/air

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Cadillac District – Cadillac Office

(Northwest Lower Peninsula)
120 W Chapin Street
Cadillac, MI 49601-2158
231-775-3960 Fax: 231-775-4050

Counties: Benzie, Grand Traverse, Kalkaska, Lake, Leelanau, Manistee, Mason, Missaukee, Osceola, and Wexford

Cadillac District - Gaylord Office

(Northeast Lower Peninsula)
2100 West M-32
Gaylord, MI 49735-9282
989-731-4920 Fax: 989-731-6181

Counties: Alcona, Alpena, Antrim, Charlevoix, Cheboygan, Crawford, Emmet, Montmorency, Oscoda, Otsego, Presque Isle, and Roscommon

Detroit District

(Wayne County)
Cadillac Place, Suite 2-300
3058 West Grand Blvd.
Detroit, MI 48202-6058
313-456-4700 Fax: 313-456-4692

Counties: Wayne

Grand Rapids District

(Central West Michigan)
350 Ottawa Avenue,
NW Unit 10
Grand Rapids, MI 49503
616-356-0500 Fax: 616-356-0201

Counties: Barry, Ionia, Kent, Mecosta, Montcalm, Muskegon, Newaygo, Oceana, and Ottawa

Jackson District

(South Central Michigan)
State Office Building, 4th Floor
301 E Louis B Glick Highway
Jackson, MI 49201-1556
517-780-7690 Fax: 517-780-7855

Counties: Hillsdale, Jackson, Lenawee, Monroe, and Washtenaw

Kalamazoo District

(Southwest Michigan)
7953 Adobe Road
Kalamazoo, MI 49009-5026
269-567-3500 Fax: 269-567-3555

Counties: Allegan, Berrien, Branch, Calhoun, Cass, Kalamazoo, St. Joseph, and Van Buren

Lansing District

(Central Michigan)
P.O. Box 30242
Constitution Hall, 525 W. Allegan St., 1 South
Lansing, MI 48909-7760
517-284-6651 Fax: 517-241-3571

Counties: Clinton, Eaton, Genesee, Gratiot, Ingham, Lapeer, Livingston, and Shiawassee

Bay City District

(Central East Michigan)
401 Ketchum Street, Suite B
Bay City, MI 48708
989-894-6200 Fax: 989-891-9237

Counties: Arenac, Bay, Clare, Gladwin, Huron, Iosco, Isabella, Midland, Ogemaw, Saginaw, Sanilac, and Tuscola

Warren District

(Southeast Michigan)
27700 Donald Court
Warren, MI 48092-2793
586-753-3700 Fax: 586-753-3731

Counties: Macomb, Oakland, and St. Clair

Marquette District

(Entire Upper Peninsula)
1504 West Washington Street
Marquette, MI 49855
906-228-4853 Fax: 906-228-4940

Counties: All counties in the Upper Peninsula

4.9 Proposed Security System



Preliminary Scope for Community Impact Study **FHS Birmingham Multifamily Development, Birmingham, MI** *Security Systems*

Soave Enterprises
3400 E Lafayette Street
Detroit, MI 48207

November 29, 2021

Soave Enterprises (Customer) has requested Spartan Net Co., dba STELLAR Broadband (Contractor), to develop a preliminary scope of work for security systems for a new multifamily development in Birmingham, Michigan. STELLAR has studied the architectural prints provided by Soave and researched the information to be contained within a community impact study required by the City of Birmingham. Marked-up floor plans are included as Attachment A.

SCOPE OF WORK: The security systems within this scope of work include video surveillance systems, building entry and access systems, and life safety telecommunications. To gain a holistic view of the overall project, STELLAR considered various technologies, such as internet and wireless communications, which will be integral to implementing and supporting a cost effective and successful technology plan for the development.

Building entry and access control

Furnish and install new equipment to provide controlled entry and access through desired building exterior, interior office and units, and floor access by stairwell and elevator.

Building entry

Each of the eighteen (18) door entries on the ground level 1st floor are equipped with secure keyless entry systems with electric strikes and door position sensors. Six (6) of the eighteen (18) entries allow direct access to the four (4) stairwells.

One (1) building entry is equipped with an integrated intercom system to communicate with the staff offices and residents for remote control of the entry systems and locks.

Garage entry

The one (1) vehicle entry into the garage is equipped with remote sensing readers for automated secure vehicle entry.



Elevators

The elevator lobby in the garage on the 1st floor and each of the two (2) interior elevator lobbies on the first floor are equipped with a secure keyless entry systems with electric strikes and door position sensors.

Stairwells

The two (2) stairwell entries from the garage on the 1st floor are equipped with secure keyless entry systems with electric strikes and door position sensors.

Unit access

Each residential unit will be equipped with a keyless access system that is compatible and integrates with the building entry systems and intercom systems.

IP Video Surveillance System

The video surveillance system is engineered to provide optimal coverage for all exterior areas and critical areas on the interior. The network for the IP cameras will accommodate either a premise-based Network Video Recorder (NVR) or connection over the Internet to cloud-based storage. A system with cloud-based storage provides greater future proofing and simpler path to software updates and upgrades without forklifting equipment that becomes outdated or obsolete. The premise-based system requires an initial outlay of capital, while the cloud-based system as video-surveillance-as-a-service comes with recurring monthly costs. In either system, it is recommended to size the system to accommodate 30 days of archived video with the ability to copy off segments of the video for a more permanent record or evidence.

Exterior cameras:

Perimeter:

Exterior rated IP video cameras to be attached to the building and placed along the perimeter of the ground floor for optimal coverage of foot traffic and entry and exit traffic.

Outdoor amenities deck:

Exterior rated IP video cameras to be attached to the building and placed in order to cover the entire outdoor pool and amenities area.

Interior cameras:

1st Floor Garage

Exterior rated IP video cameras to be attached to the structure and placed in the garage in order to cover and capture ingress and egress vehicle traffic and license plates.

Elevators

One (1) interior rated IP video camera to be placed inside the three (3) elevators.

Network:

All wiring for connecting cameras back to the on-premise Main Distribution Frame (MDF) and data center to connect to the Internet for a cloud-based system or a computer configured as a Network Video Recorder with hard drive data storage for a premised-based system.

A hardened network firewall specific for the IP camera network or utilizing the property's enterprise network firewall.



Security Call System

The communications network is engineered to support a security call system that connects to the outside telephone network for residents, visitors, and staff to call out to 911, an elevator monitoring service, and/or security monitoring service.

Parking garage

All Floors: Call boxes as needed to be placed down each row for visibility as well as proximity for easier and quicker individual access

Elevators

Elevators to be equipped with a phone for dial tone for outside access to reach services for 911 calls and elevator service.

Poolside

Call boxes with phone and dial tone to be placed in close proximity to the pool.

Stairwells

Call boxes with phone and dial tone to be placed inside each stairwell.



STELLAR Broadband Qualifications:

www.StellarBB.com

Founded in 2001, Spartan Net Co recently rebranded in name only as dba STELLAR Broadband

20 years of serving and supporting owners, developers, property managers, and residents of student housing and multi-family communities with Internet, TV services, state-of-art technology, and technology services.

Serving 140+ communities, Powering 110,000+ devices

1st in the country to deliver 10Gbps to the apartment in Student Housing. Reference [Broadband Communities' Property of the Month](#). Reference [Nokia video](#) also spotlighting this Harbor Bay property in East Lansing, MI.

Our Products



FIBER INTERNET

Not all Internet services are created equal. Your ultra high-speed fiber Internet from STELLAR Broadband is unmatched. Bottom line: it's fast, robust and reliable.



ENGINEERED & MANAGED WIRELESS

High performing, secure Wi-Fi can be elusive. With STELLAR Broadband 's best in class services and products, you'll get the most from your Wi-Fi network. Happy Wi-Fi, happy life.



TV SERVICE

It's not easy knowing which way to go with all the changes in TV. Whether it's cable, DIRECTV, DISH or streaming over Internet, we'll be your guide as these services continue to evolve.



SECURITY

Your property is a sanctuary. It protects the asset and provides safety for your residents. With video surveillance and life-safety systems, you and your residents can sleep well knowing your systems are dependable.



DOOR ACCESS, ENTRY & KEY REPLACEMENT

"You can count your worries by the number of keys on your belt," couldn't be more true today. The right design and integration is key. STELLAR Broadband can get you locked in to the right solution.



VOICE

Phone systems aren't going away quite yet. Desk phones, elevator access, alarm systems and life-safety systems all have their own connectivity requirements. We'll engineer it and take that call.

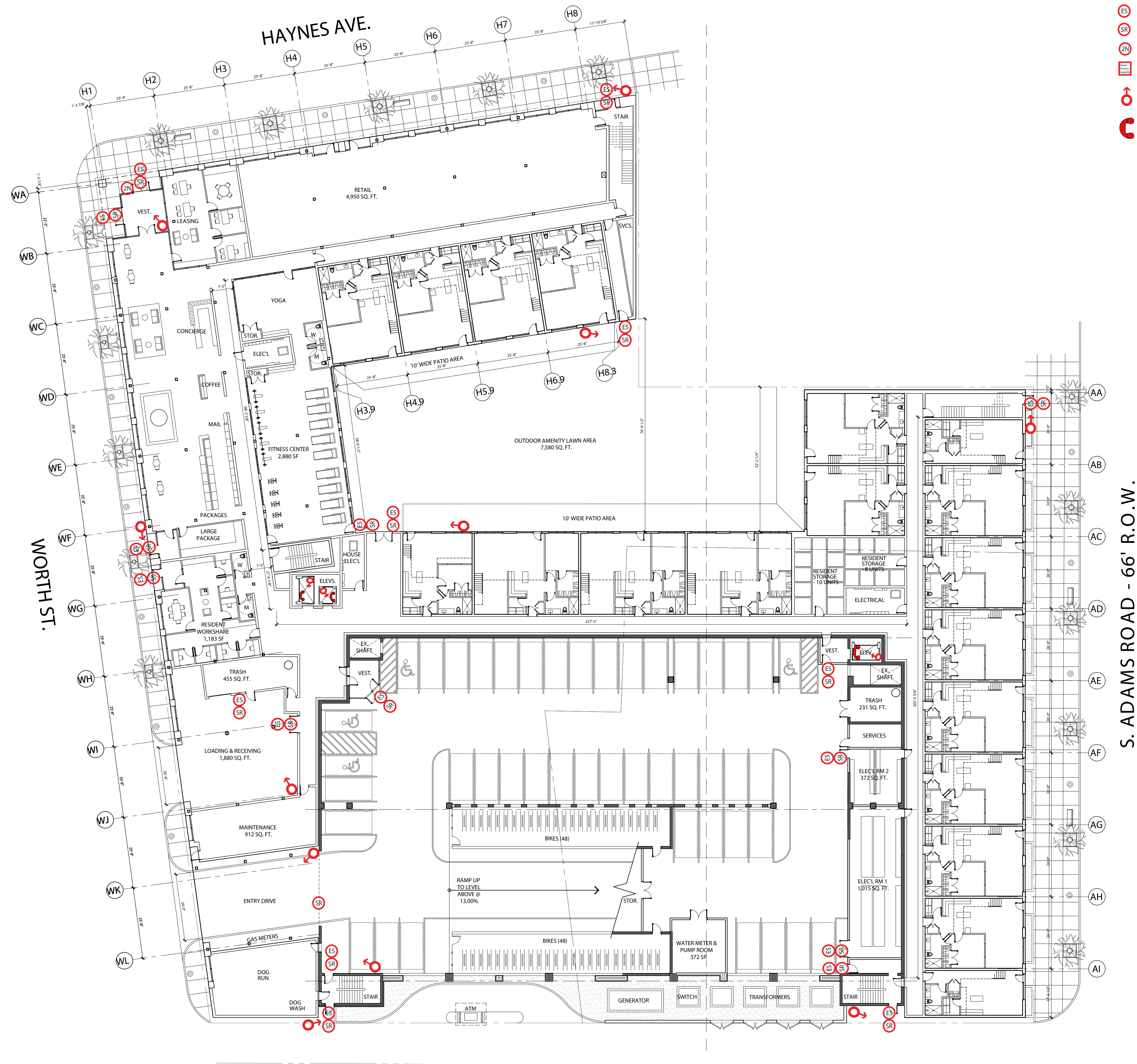


ATTACHMENT A: MARKED-UP FLOOR PLANS

To follow.



ADAMS/HAYNES DEVELOPMENT
1000 Haynes street
Michigan 48009



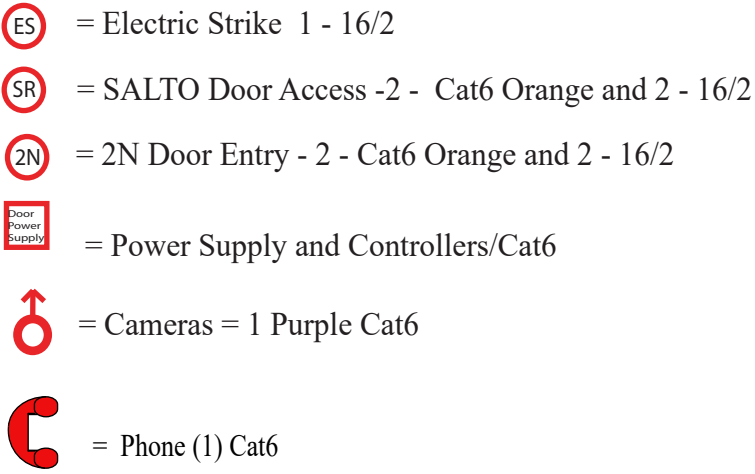
- ES = Electric Strike 1 - 16/2
- SR = SALTO Door Access - 2 - Cat6 Orange and 2 - 16/2
- 2N = 2N Door Entry - 2 - Cat6 Orange and 2 - 16/2
- Power Supply and Controllers/Cat6
- Cameras = 1 Purple Cat6
- Phone (1) Cat6

S. ADAMS ROAD - 66' R.O.W.

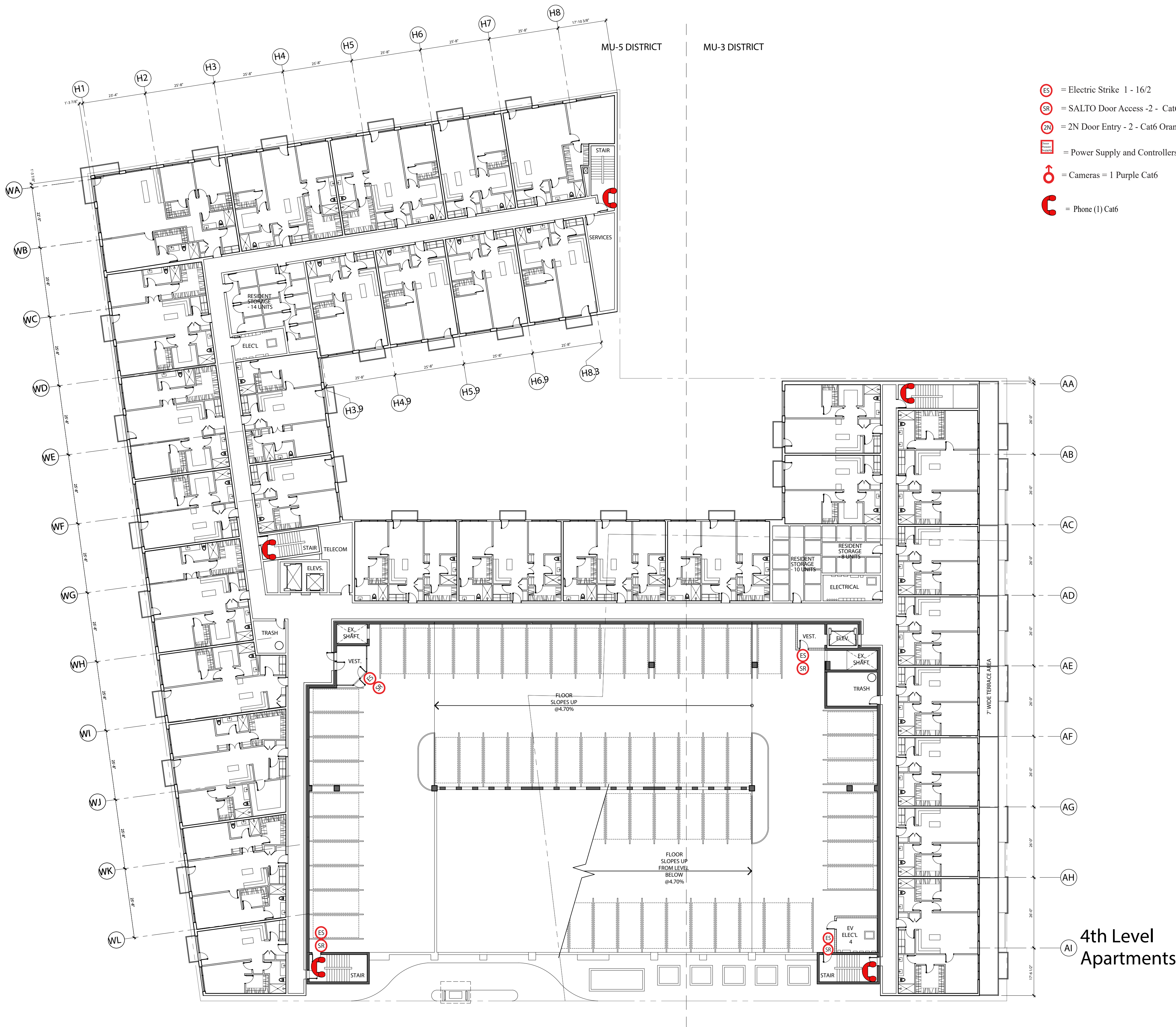
1st Level
Retail, Resident Services



ADAMS/HAYNES DEVELOPMENT
1000 Haynes street
Michigan 48009

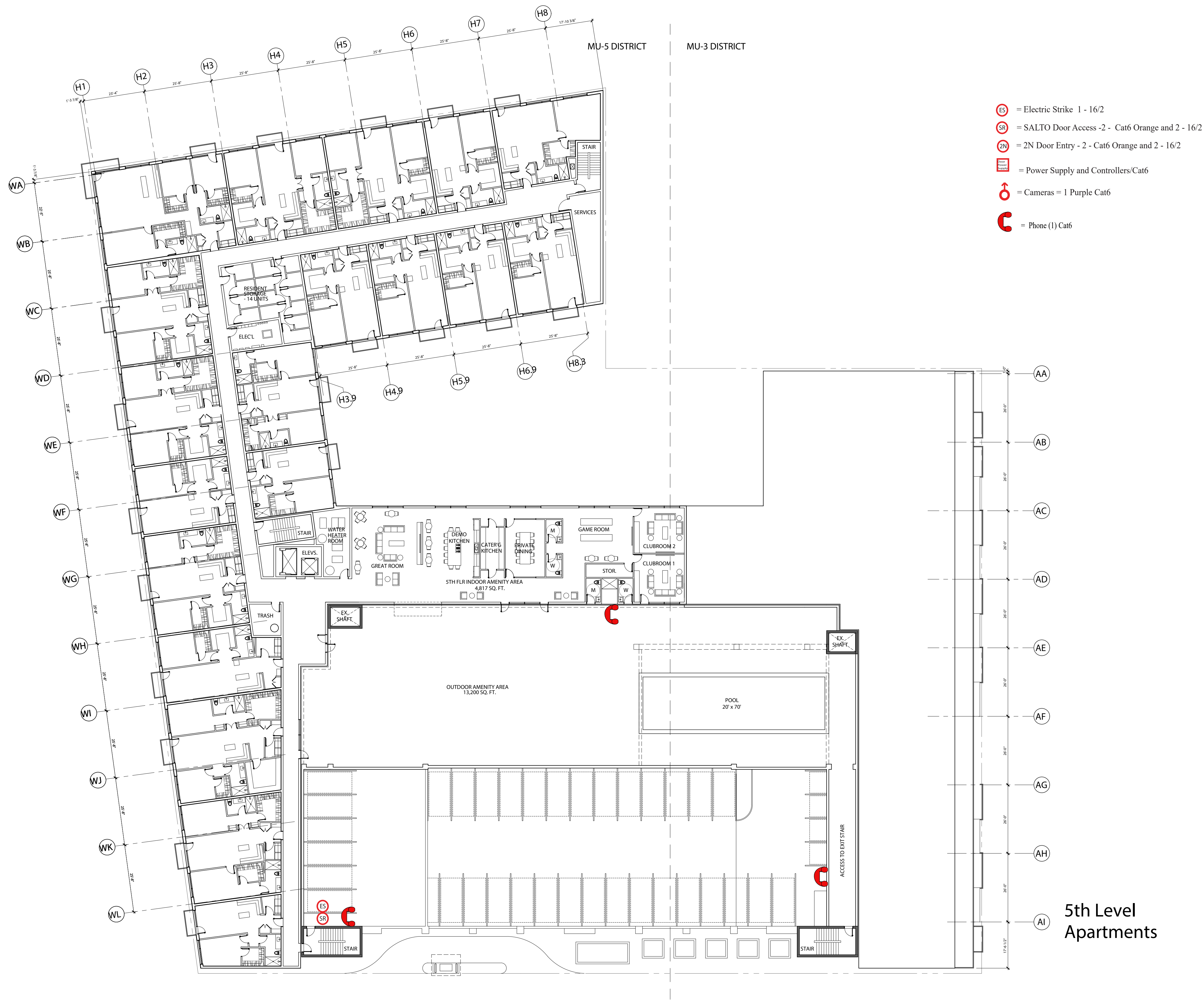


3rd Level Apartments



- ES = Electric Strike 1 - 16/2
- SR = SALTO Door Access -2 - Cat6 Orange and 2 - 16/2
- 2N = 2N Door Entry - 2 - Cat6 Orange and 2 - 16/2
- Power Supply and Controllers/Cat6
- Cameras = 1 Purple Cat6
- Phone (1) Cat6

4th Level
Apartments



4.10 LEED Project Checklist



NEUMANN/SMITH ARCHITECTURE
400 Galleria Offcentre / Suite 555
Southfield, Michigan 48034
P 248.352.8310
1500 Woodward Avenue / Suite 300
Detroit, Michigan 48226
P 313.782.4800
neumannsmith.com

FHS Birmingham Mixed Use Development

Date 2021-12-13
To Chris Longe, AIA
Subject FHS BMH Leed Score Card
Project Name FHS Birmingham Mixed Use Development
Project Number 2021089

Dear Chris,

The FHS Birmingham mixed use development will be designed and built to achieve LEED Certification. The attached LEED v4 for BD+C: New Construction and Major Renovation project check list outlines our strategies for certification.

The project will focus on key elements including Location and Transportation, Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources, Indoor Environmental Quality, Innovation and Regional Priority. Compliance with these credits will be achieved in a variety of ways including Building adopted programs, construction management, specification of materials and specific engineered systems.

The proposed scorecard shows a pathway to achieve 40 credits, certification requiring a minimum of 40 credits. As the project specifications and building systems are refined the scorecard will be updated to reflect the credits being sought after for certification.

Sincerely,

Bob McLean, Project Manager, RA, Associate

From Bob McLean

LEED v4 for BD+C: New Construction and Major Renovation



Project Checklist

Project Name: FHS-BHM apartments

Goal: Certified (40 out of 110)

Date: 11.29.2021

Minimum Program Requirements

- 1. Must be in a permanent location on Existing Land -Complies
- 2. Must use a Reasonable LEED Boundaries -Complies
- 3. Must comply with Project Size Requirements: min. 1,000 SF (Gross Floor Area) -Complies

*The below checklist demonstrates the LEED credits that are achievable to receive LEED Certified under LEED v4 for BD+C: New Construction.

1	Credit 1	Integrative Process	1

8	Location and Transportation		Possible Points:	16
	Credit 1	LEED for Neighborhood Development Location		16
1	Credit 2	Sensitive Land Protection		1
	Credit 3	High Priority Site and Equitable Development		2
4	Credit 4	Surrounding Density and Diverse Uses		5
1	Credit 5	Access to Quality Transit		5
1	Credit 6	Bicycle Facilities		1
	Credit 7	Reduced Parking Footprint		1
1	Credit 8	Green Vehicles		1

3	Sustainable Sites		Possible Points:	10
Y	Prereq 1	Construction Activity Pollution Prevention		Required
1	Credit 1	Site Assessment		1
	Credit 2	Site Development--Protect or Restore Habitat		2
	Credit 3	Open Space		1
	Credit 4	Rainwater Management		3
2	Credit 5	Heat Island Reduction		2
	Credit 6	Light Pollution Reduction		1

4	Water Efficiency		Possible Points:	11
Y	Prereq 1	Outdoor Water Use Reduction		Required
Y	Prereq 2	Indoor Water Use Reduction		Required
Y	Prereq 3	Building-Level Water Metering		Required
1	Credit 1	Outdoor Water Use Reduction		2
2	Credit 2	Indoor Water Use Reduction		6
	Credit 3	Cooling Tower Water Use		2
1	Credit 4	Water Metering		1

8	Energy and Atmosphere		Possible Points:	33
Y	Prereq 1	Fundamental Commissioning and Verification		Required
Y	Prereq 2	Minimum Energy Performance		Required
Y	Prereq 3	Building-Level Energy Metering		Required
Y	Prereq 4	Fundamental Refrigerant Management		Required
3	Credit 1	Enhanced Commissioning		6
4	Credit 2	Optimize Energy Performance		18
	Credit 3	Advanced Energy Metering		1
	Credit 4	Demand Response		2
	Credit 5	Renewable Energy Production		3
1	Credit 6	Enhanced Refrigerant Management		1
	Credit 7	Green Power and Carbon Offsets		2

2	Materials and Resources		Possible Points:	13
Y	Prereq 1	Storage and Collection of Recyclables		Required
Y	Prereq 2	Construction and Demolition Waste Management Planning		Required
	Credit 1	Building Life-Cycle Impact Reduction		5
	Credit 2	Building Product Disclosure and Optimization - Environmental Product Declarations		2
	Credit 3	Building Product Disclosure and Optimization - Sourcing of Raw Materials		2
	Credit 4	Building Product Disclosure and Optimization - Material Ingredients		2
2	Credit 5	Construction and Demolition Waste Management		2

7	Indoor Environmental Quality		Possible Points:	16
Y	Prereq 1	Minimum Indoor Air Quality Performance		Required
Y	Prereq 2	Environmental Tobacco Smoke Control		Required
	Credit 1	Enhanced Indoor Air Quality Strategies		2
3	Credit 2	Low-Emitting Materials		3
1	Credit 3	Construction Indoor Air Quality Management Plan		1
	Credit 4	Indoor Air Quality Assessment		2
1	Credit 5	Thermal Comfort		1
2	Credit 6	Interior Lighting		2
	Credit 7	Daylight		3
	Credit 8	Quality Views		1
	Credit 9	Acoustic Performance		1

6	Innovation		Possible Points:	6
1	Credit 1	Innovation: Green Education		1
1	Credit 2	Innovation: Green Cleaning Policy		1
1	Credit 3	Innovation: Pest Management		1
1	Credit 4	Innovation: Hardscape Management		1
1	Credit 5	Innovation: Purchasing - lamps -low or no mercury-containing lamps		1
1	Credit 2	LEED Accredited Professional		1

1	Regional Priority		Possible Points:	4
1	Credit 1	Regional Priority: Surrounding Density and Diverse Uses		1
	Credit 2	Regional Priority: Renewable Energy Production		1
	Credit 3	Regional Priority: Rainwater Management		1
	Credit 4	Regional Priority: Enhanced Indoor Air Quality Strategies		1

40	Total		Possible Points:	110

Certified 40 to 49 points Silver 50 to 59 points Gold 60 to 79 points Platinum 80 to 110

4.11 Site Photographs

124 Peabody
Birmingham
Michigan
48009

CHRISTOPHER J LONGE AIA
A R C H I T E C T U R E

Site Photographs



Haynes Street & South Worth



Haynes Street & Alley Way



Alley Way & South Adams Avenue



South Adams Avenue & Haynes Street

124 Peabody
Birmingham
Michigan
48009

CHRISTOPHER J LONGE AIA
A R C H I T E C T U R E

Site Photographs



124 Peabody
Birmingham
Michigan
48009

CHRISTOPHER J LONGE AIA
A R C H I T E C T U R E

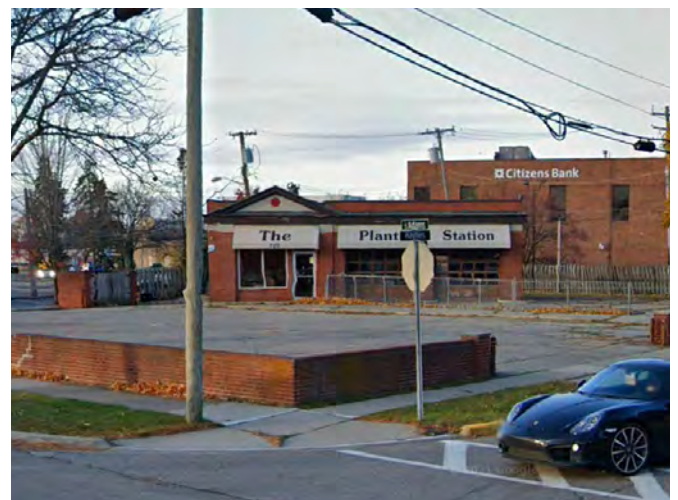
Site Photographs (Parking Lot)



124 Peabody
Birmingham
Michigan
48009

CHRISTOPHER J LONGE AIA
A R C H I T E C T U R E

Site Photographs (Building to Remain)





COMBINED SITE PLAN REVIEW & COMMUNITY IMPACT STUDY APPLICATION CHECKLIST- PLANNING DIVISION

Applicant: FHS BIRMINGHAM, LLC Case #: _____ Date: 12.13.21
3400 EAST LAFAYETTE
Address: DETROIT, MICHIGAN 48207 Project: _____

All site plans and elevation drawings prepared for approval shall be prepared in accordance with the following specifications and other applicable requirements of the City of Birmingham. If more than one page is used, each page shall be numbered sequentially. All plans must be legible and of sufficient quality to provide for quality reproduction or recording. Plans must be no larger than 24" x 36", and must be folded and stapled together. The address of the site must be clearly noted on all plans and supporting documentation.

Site Plan

A full Site Plan detailing the proposed changes for which approval is requested shall be drawn at a scale no smaller than 1" = 100' (unless the drawing will not fit on one 24" X 36" sheet) and shall include:

- ☒ 1. Name and address of applicant and proof of ownership;
- ☐ 2. Name of Development (if applicable);
- ☒ 3. Address of site and legal description of the real estate;
- ☒ 4. Name and address of the land surveyor;
- ☒ 5. Legend and notes, including a graphic scale, north point, and date;
- ☒ 6. A separate location map;
- ☒ 7. A map showing the boundary lines of adjacent land and the existing zoning of the area proposed to be developed as well as the adjacent land;
- ☒ 8. Aerial photographs of the subject site and surrounding properties;
- ☒ 9. A detailed and scaled Site Plan depicting accurately and in detail the proposed construction, alteration or repair;
- ☒ 10. A detailed Existing Conditions Plan including the subject site in its entirety, including all property lines, buildings, structures, curb cuts, sidewalks, drives, ramps and all parking on site and on the street(s) adjacent to the site, and must show the same detail for all adjacent properties within 200 ft. of the subject site's property lines;
- ☒ 11. Interior floor plans;
- ☒ 12. A chart indicating the dates of any previous approvals by the Planning Board, Board of Zoning Appeals, Design Review Board, or the Historic District Commission ("HDC");
- ☒ 13. Existing and proposed layout of streets, open space and other basic elements of the plan;
- ☒ 14. Existing and proposed utilities and easements and their purpose;

Preliminary Site Review Specifications

Adams and Haynes

770 South Adams Road + 1000 Haynes Street
Birmingham, Michigan 48009



Prepared By
Christopher J. Longe, AIA
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Section 1

Roof Top Mechanical Equipments

Installation, Operation and Maintenance Manual

Please read and save these instructions for future reference. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage!



USF-200



USF-300



USF-400



Model CSW

General Safety Information

Only qualified personnel should install this fan. Personnel should have a clear understanding of these instructions and should be aware of general safety precautions. Improper installation can result in electric shock, possible injury due to coming in contact with moving parts, as well as other potential hazards. Other considerations may be required if seismic activity is present. If more information is needed, contact a licensed professional engineer before moving forward.

- Follow all local electrical and safety codes, as well as the National Electrical Code (NEC) and the National Fire Protection Agency (NFPA), where applicable. Follow the Canadian Electric Code (CEC) in Canada.
- The rotation of the wheel is critical. It must be free to rotate without striking or rubbing any stationary objects.
- Motor must be securely and adequately grounded.
- Do not spin fan wheel faster than max cataloged fan RPM. Adjustments to fan speed significantly effects motor load. If the fan RPM is changed, the motor current should be checked to make sure it is not exceeding the motor nameplate amps.
- Do not allow the power cable to kink or come in contact with oil, grease, hot surfaces or chemicals. Replace cord immediately if damaged.
- Verify that the power source is compatible with the equipment.
- Never open access doors to a duct while the fan is running.

DANGER

Always disconnect, lock and tag power source before installing or servicing. Failure to disconnect power source can result in fire, shock or serious injury.

CAUTION

When servicing the fan, motor may be hot enough to cause pain or injury. Allow motor to cool before servicing.

CAUTION

Precaution should be taken in explosive atmospheres.

DANGER

Pour écarter les risques d'incendie, de choc électrique ou de blessure grave, veiller à toujours débrancher, verrouiller et étiqueter la source de courant avant l'installation ou l'entretien.

ATTENTION

Lors de toute intervention sur la soufflante, le moteur peut être suffisamment chaud pour provoquer une douleur voire une blessure. Laisser le moteur refroidir avant toute maintenance.

ATTENTION

Faire preuve de précaution dans les atmosphères explosives.

Receiving

Upon receiving the product, check to ensure all items are accounted for by referencing the delivery receipt or packing list. Inspect each crate or carton for shipping damage before accepting delivery. Alert the carrier of any damage detected. The customer will make a notation of damage (or shortage of items) on the delivery receipt and all copies of the bill of lading which is countersigned by the delivering carrier. If damaged, immediately contact your Greenheck Representative. Any physical damage to the unit after acceptance is not the responsibility of manufacturer.

Unpacking

Verify that all required parts and the correct quantity of each item have been received. If any items are missing, report shortages to your local representative to arrange for obtaining missing parts. Sometimes it is not possible that all items for the unit be shipped together due to availability of transportation and truck space. Confirmation of shipment(s) must be limited to only items on the bill of lading.

Handling

Fans are to be rigged and moved by the lifting brackets provided or by the skid when a forklift is used. Location of brackets varies by model and size. Handle in such a manner as to keep from scratching or chipping the coating. Damaged finish may reduce the ability of the fan to resist corrosion. Fans should never be lifted by the shaft, fan housing, motor, belt guard, windband or accessories.

Storage

- Rotate fan wheel monthly and purge bearings once every three months
- Energize fan motor once every three months
- Store belts flat to keep them from warping and stretching
- Store unit in a location which does not have vibration
- After storage period, purge grease before putting fan into service.

If storage of fan is in a humid, dusty or corrosive atmosphere, rotate the fan and purge the bearings once a month. Improper storage which results in damage to the fan will void the warranty.

Fans are protected against damage during shipment. If the unit cannot be installed and operated immediately, precautions need to be taken to prevent deterioration of the unit during storage. The user assumes responsibility of the fan and accessories while in storage. The manufacturer will not be responsible for damage during storage. These suggestions are provided solely as a convenience to the user.

INDOOR - The ideal environment for the storage of fans and accessories is indoors, above grade, in a low humidity atmosphere which is sealed to prevent the entry of blowing dust, rain or snow. Temperatures should be evenly maintained between 30° to 110°F (-1° to 43°C), wide temperature swings may cause condensation and “sweating” of metal parts. All accessories must be stored indoors in a clean, dry atmosphere.

Remove any accumulations of dirt, water, ice, or snow and wipe dry before moving to indoor storage. To avoid “sweating” of metal parts allow cold parts to reach room temperature. To dry parts and packages use a portable electric heater to remove any moisture build up. Leave coverings loose to permit air circulation and to allow for periodic inspection.

The unit should be stored at least 3½ inches (89 mm) off the floor on wooden blocks covered with moisture proof paper or polyethylene sheathing. Aisles between parts and along all walls should be provided to permit air circulation and space for inspection.

OUTDOOR - Fans designed for outdoor applications may be stored outdoors, if absolutely necessary. Roads or aisles for portable cranes and hauling equipment are needed.

The fan should be placed on a level surface to prevent water from leaking into the fan. The fan should be elevated on an adequate number of wooden blocks so it is above water and snow levels and has enough blocking to prevent it from settling into soft ground. Locate parts far enough apart to permit air circulation, sunlight and space for periodic inspection. To minimize water accumulation, place all fan parts on blocking supports so rain water will run off.

Do not cover parts with plastic film or tarps as these cause condensation of moisture from the air passing through heating and cooling cycles.

Fan wheels should be blocked to prevent spinning caused by strong winds.

Inspection and Maintenance During Storage

While in storage, inspect fans once per month. Keep a record of inspection and maintenance performed.

If moisture or dirt accumulations are found on parts, the source should be located and eliminated. At each inspection, rotate the wheel by hand ten to fifteen revolutions to distribute lubricant in motor and bearings. If paint deterioration begins, consideration should be given to touch-up or repainting. Fans with special coatings may require special techniques for touch-up or repair.

Machined parts coated with rust preventive should be restored to good condition promptly if signs of rust occur. Immediately remove the original rust preventive coating with petroleum solvent and clean with lint-free cloths. Polish any remaining rust from surface with crocus cloth or fine emery paper and oil. Do not destroy the continuity of the surfaces. Thoroughly wipe clean with Tectyl® 506 (Ashland Inc.) or the equivalent. For hard to reach internal surfaces or for occasional use, consider using Tectyl® 511M Rust Preventive, WD-40® or the equivalent.

Removing from Storage

As fans are removed from storage to be installed in their final location, they should be protected and maintained in a similar fashion until the fan equipment goes into operation.

Prior to assembly and installation of the unit and system components, inspect the fan assembly to make sure it is in working order.

1. Check all fasteners, set screws on the fan, wheel, bearings, drive, motor base and accessories for tightness.
2. Rotate the fan wheel by hand and assure no parts are rubbing. Access to the wheel is obtained through a bolted panel located on the side of the fan housing.
3. Ensure proper wheel settings for radial gap and alignment. Refer to Radial Gap, Overlap and Wheel Alignment section on page 13-14.

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General Information

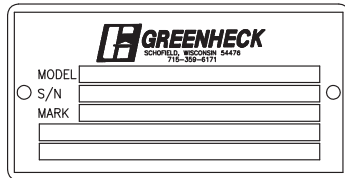
To ensure a successful installation, the instructions in this manual should be read and adhered to. Failure to comply with proper installation procedures may void the warranty.

Unit and System Identification Tags

Each fan has a permanently affixed manufacturer's engraved metal nameplate containing the model number and individual serial number.

The tag shown is an example of an identification nameplate on the fan. The information provides general details about

the fan, as well as containing specific information unique to the unit. When contacting your Greenheck representative with future needs or questions, please have the information on this label available. Tags are mounted in an area which is clearly visible, usually on the side of the fan cabinet.



Pre-Installation Information

Before installation, it is important to be certain the mounting surface will bear the operating weight of the unit. For proper unit operation, it is also important that it be operated in a completely level position.

For further details on safety practices involving industrial and commercial fans, please refer to AMCA Publication 410.

Electrical Disconnects

All fan motors should have disconnects located in close visual proximity to turn off electrical service. Service disconnects shall be locked-out when maintenance is being performed.

Moving Parts

All moving parts must have guards to protect personnel. Refer to local codes for requirements as to the number, type and design. Fully secure fan wheel before performing any maintenance. The fan wheel may start “free wheeling” even if all electrical power has been disconnected. Before the initial start-up or any restart, check the following items to make sure that they are installed and secure.

- Do not spin fan wheel faster than the maximum cataloged fan rpm.
- Adjustments to fan speed significantly affects motor load. If the fan RPM is changed, the motor current should be checked to make sure it is not exceeding the motor nameplate amps.

Guards – Motor Cover, Weatherhood, Shaft, Belt, Inlet or Outlet Guard

Do not operate fans without proper protective devices in place. Failure to do so may result in serious bodily injury and property damage. Check local codes to ensure compliance for all protective devices.

Access Doors

Before opening access doors, ensure the fan wheel has stopped moving and that the wheel has been secured from being able to rotate. Do not operate fan without access door in its fully closed position.

Air Pressure and Suction

In addition to the usual hazards associated with rotating machinery, fans also create a dangerous suction at the inlet. Special caution needs to be used when moving around a fan, whether it is in operation or not. Before start-up, make sure the inlet area is clear of personnel and loose objects.

Fans – Rigging and Lifting

IMPORTANT

Fans should never be lifted by the shaft, motor, motor cover or accessories.

1. Before lifting, be sure that all shipping materials have been removed from the unit.
2. Use standard lifting and rigging practices.
3. ALL lifting brackets on each unit must be utilized at the same time.
4. Fan to be kept level during lifting and installation.
5. Spreader bars must span the unit to prevent damage to the unit by the lifting cables.
6. Always test-lift the unit to check for proper balance and rigging before hoisting to desired location.
7. Never lift unit in windy conditions.
8. Preparation of roof opening should be completed prior to lifting unit to the roof.

Fans are to be rigged and moved by the lifting brackets provided or by the skid when a forklift is used. Location of brackets varies by model and size. Handle in such a manner as to keep from scratching or chipping the coating. Damaged finish may reduce ability of fan to resist corrosion.

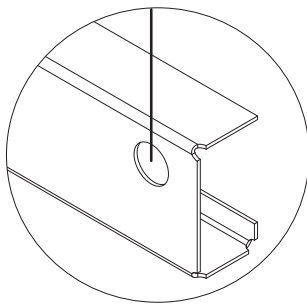
See coating repair section of this manual for details regarding touch-up of damaged surfaces.

WARNING

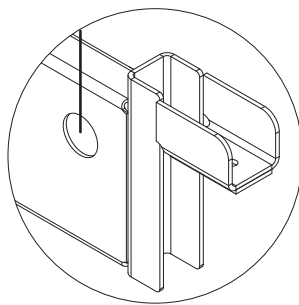
Spreader bars are recommended to prevent damage to the unit. Failure to use spreader bars may result in damage which becomes the installer's responsibility.

Optional Height Savings Bracket

For illustration purposes, some lifting location images with isolation bases are shown with optional height savings brackets. Lift unit using the corner hole located in the isolation base; with and without the height savings bracket.



Isolation Base



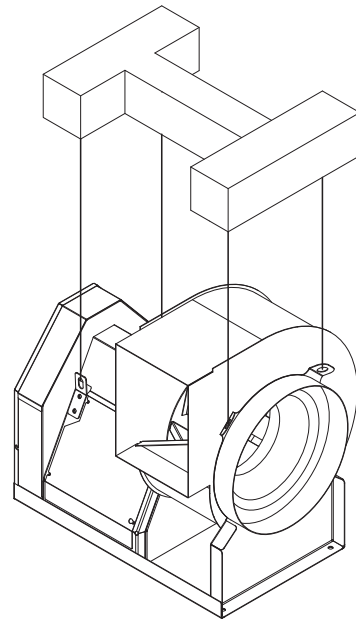
Isolation Base with
Height Savings Bracket

NOTE

- Certain images are shown with higher lifting points on the unit. These are tie-off points to balance the load while lifting.
- Motor covers on certain size units and arrangements need to be removed prior to rigging and lifting as shown in diagram.

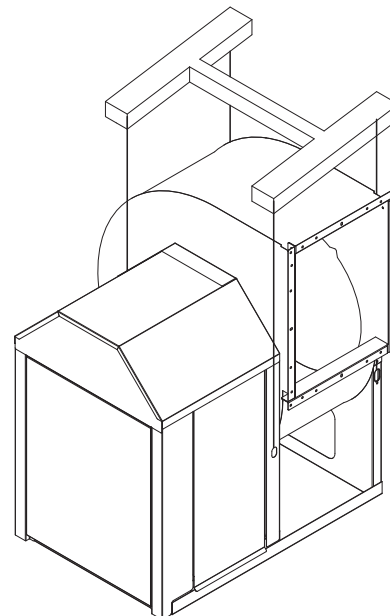
Sizes 7 thru 24

USF-200 and USF-300 Arrangement 10 Without Isolation Base



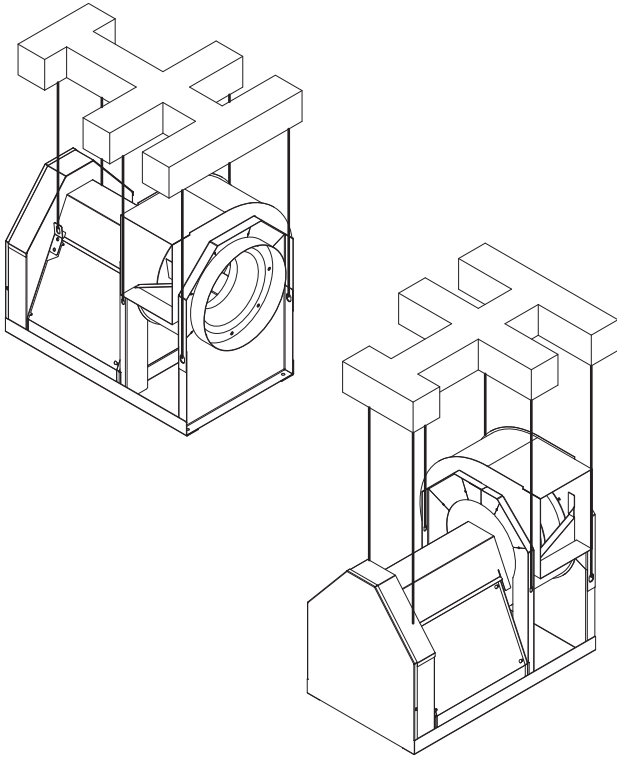
Sizes 27 thru 49

USF-300 Arrangement 10 Without Isolation Base

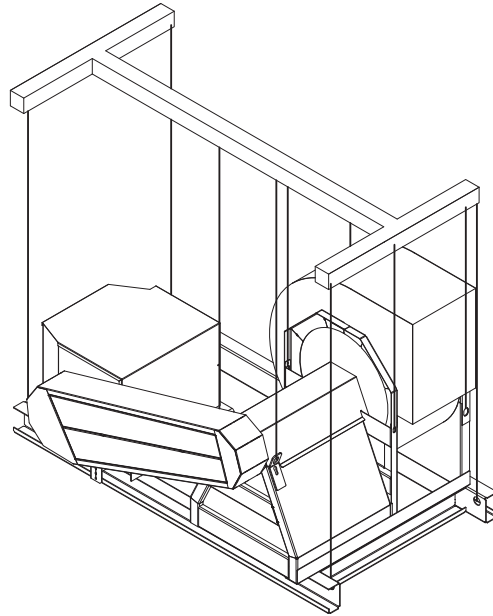


Sizes 7 thru 30

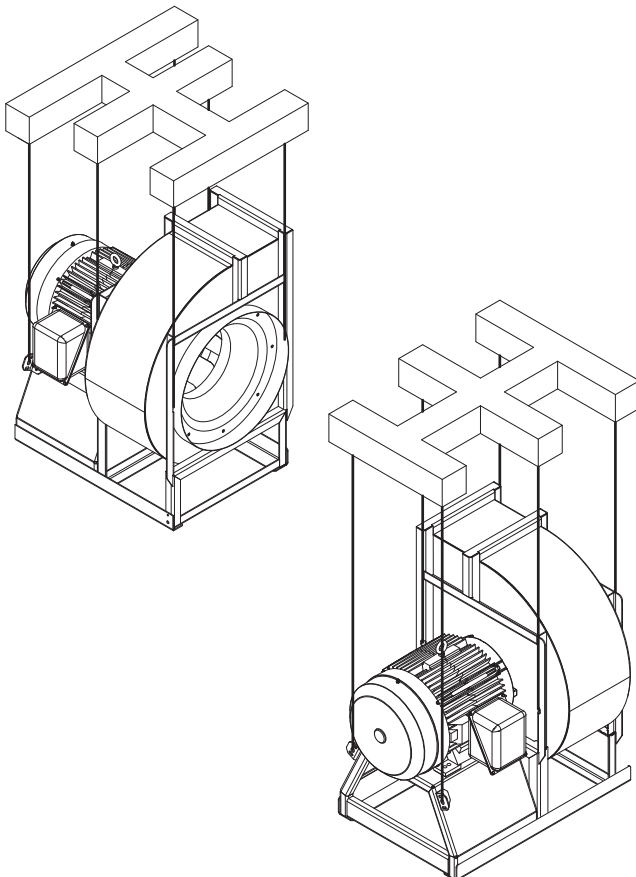
**USF-400 and CSW Class 0, I, II, Arrangement 10
Without Isolation Base**



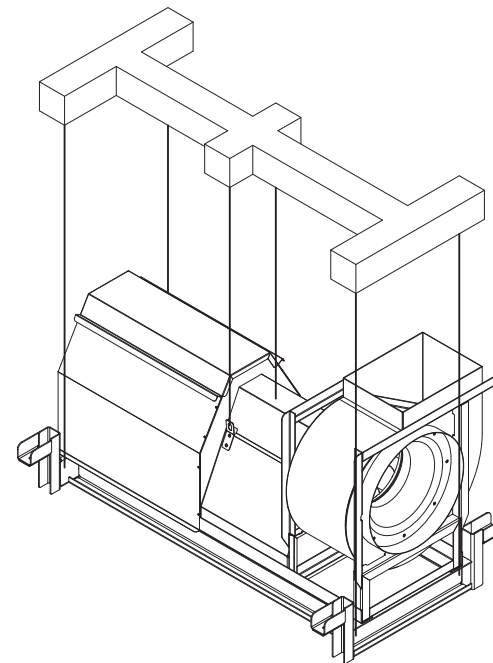
**CSW Arrangement 1
W or Z Motor Position
Isolation Base**



**CSW Arrangement 4
Without Isolation Base**

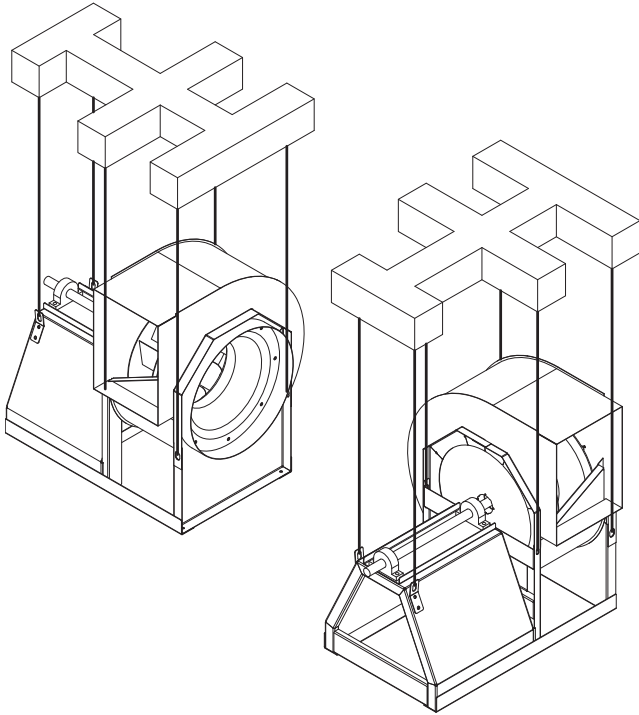


**CSW Arrangement 1
X/Y Motor Position
Isolation Base**



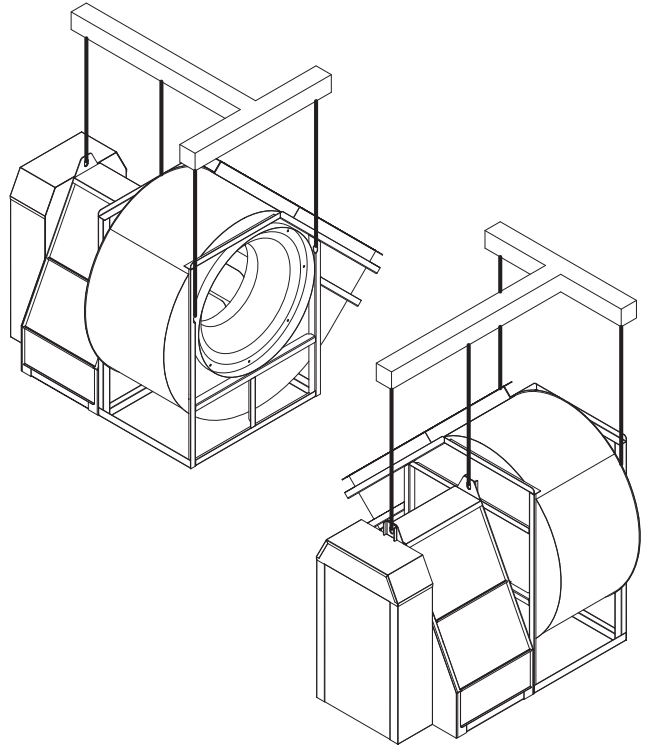
Sizes 7 thru 30

CSW Arrangement 1
No Motor
Without Isolation Base

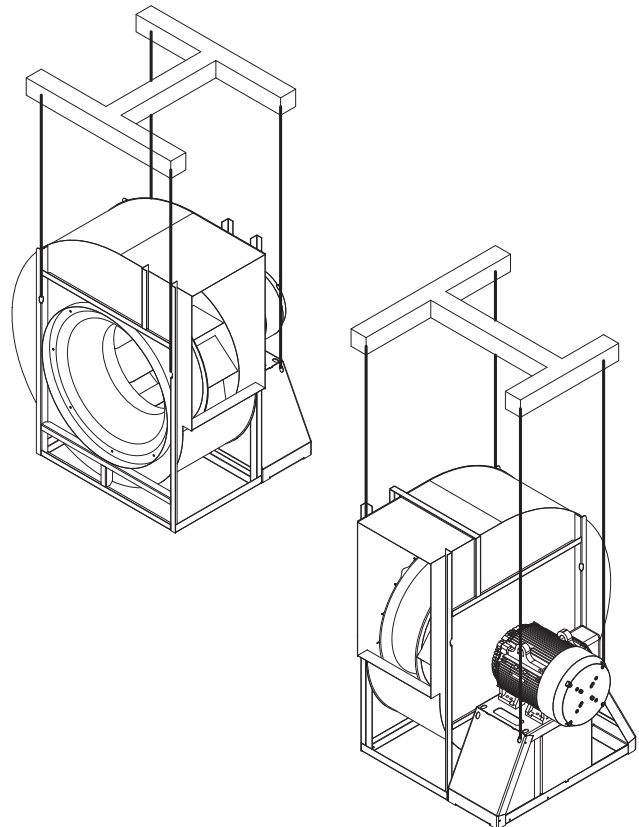


Sizes 33 thru 73

USF-400 and CSW Arrangement 10
Without Isolation Base

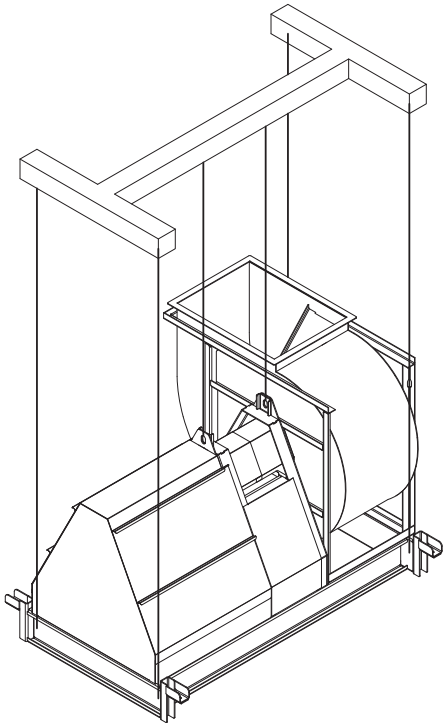


CSW Arrangement 4
Without Isolation Base

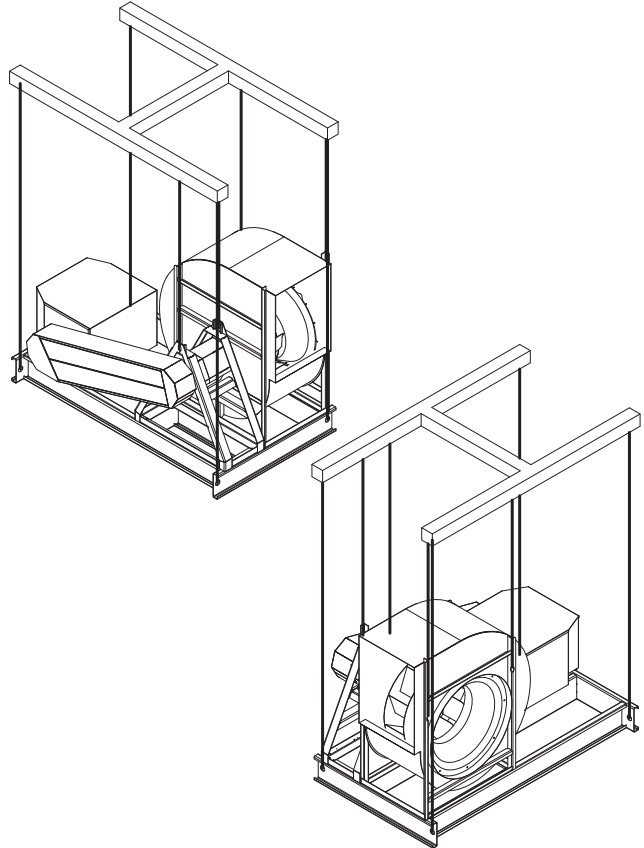


Sizes 33 thru 73

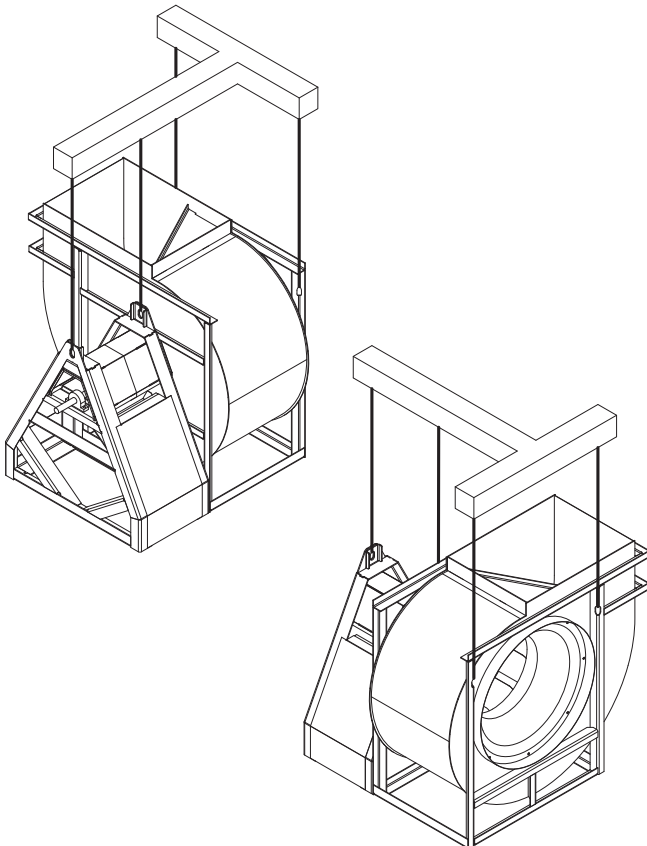
**CSW Arrangement 1
X/Y Motor Position
Isolation Base**



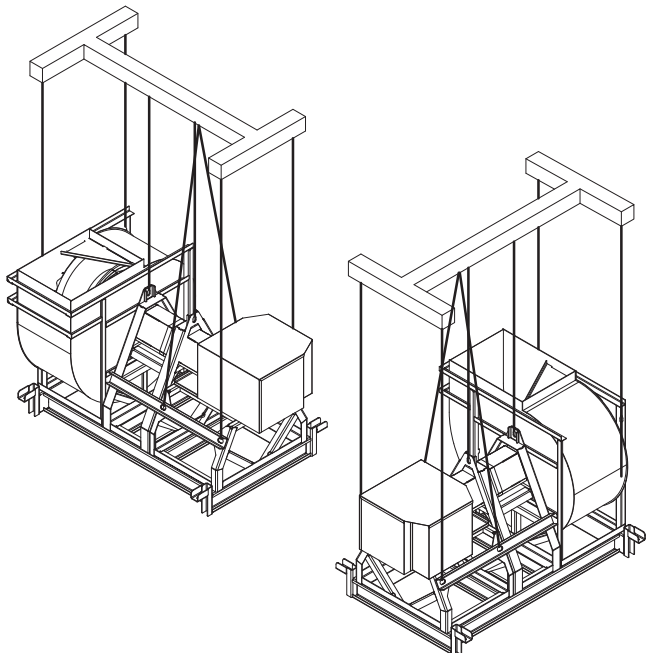
**CSW Arrangement 1
W or Z Motor Position
Isolation Base**



**CSW Arrangement 1
No Motor
Without Isolation Base**



**CSW Arrangement 8
Isolation Base**

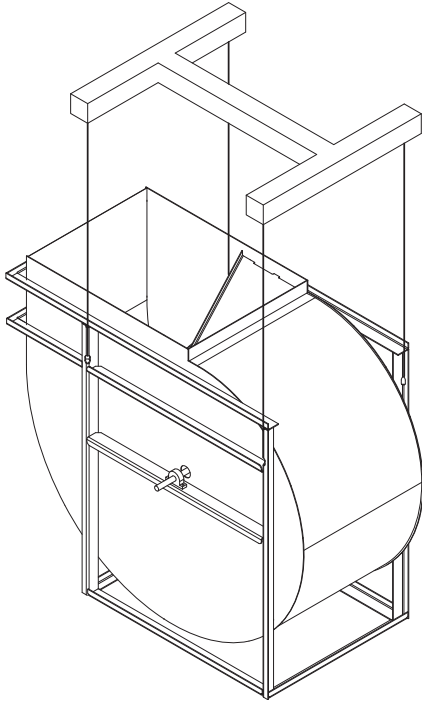


NOTE

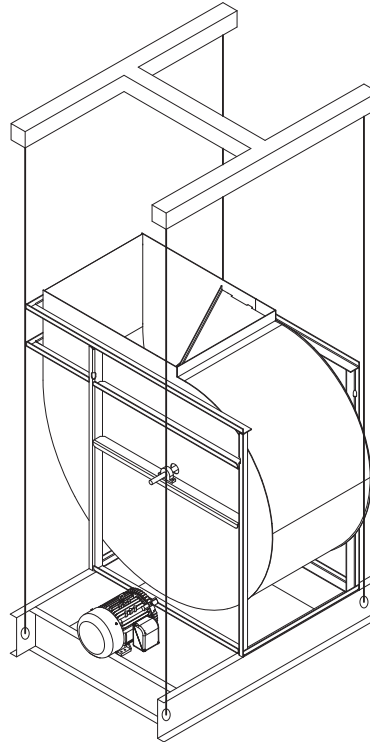
Lift unit from fan lifting points, not from isolation base.

Sizes 33 thru 73

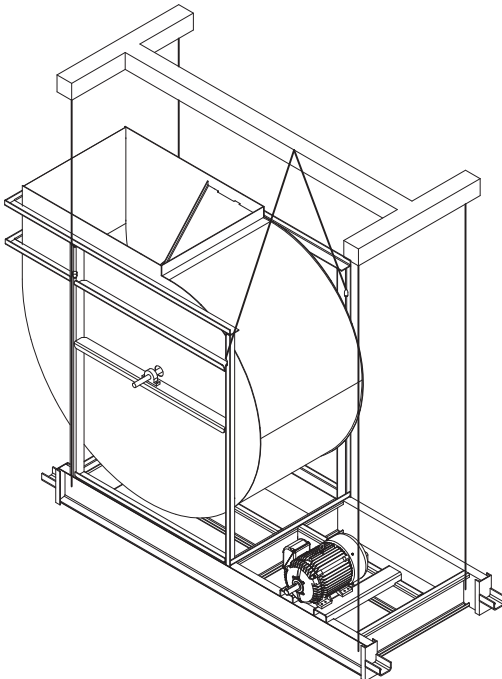
CSW Arrangement 3
No Motor, No Drives
Without Isolation Base



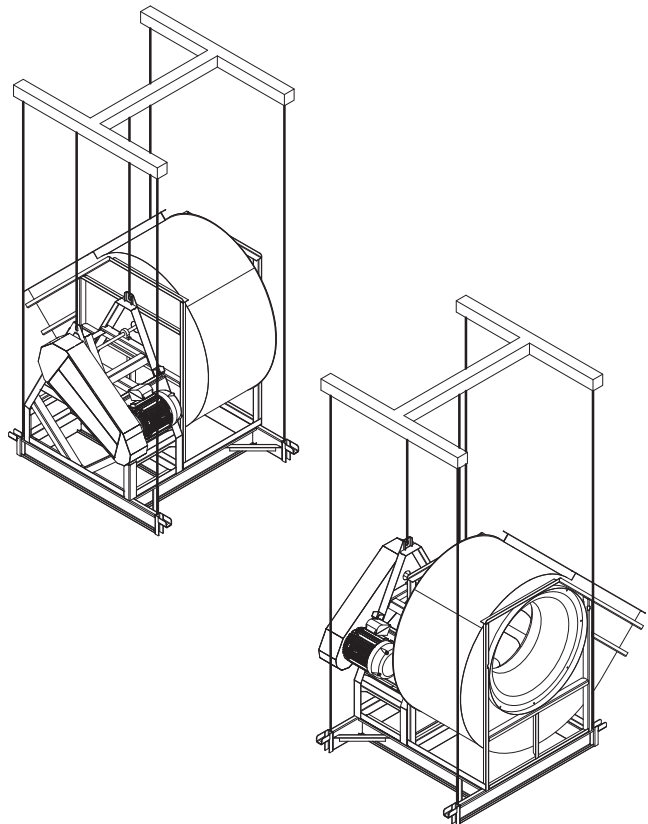
CSW Arrangement 3
X/Y Motor Position



CSW Arrangement 3
W or Z Motor Position
Isolation Base



CSW Arrangement 9
Isolation Base



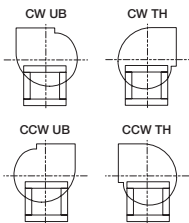
Installation

Move the fan to the desired location. Check and tighten fasteners throughout the unit and then fasten securely through mounting holes provided in the base angles. The unit must be set level (shimming may be necessary). Flexible duct connections and vibration isolators should be used where noise is a factor.

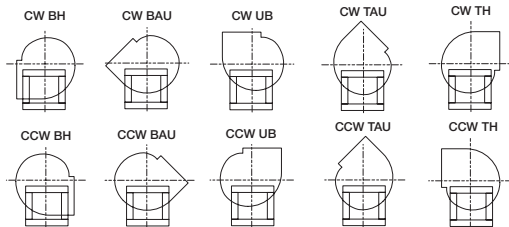
The motor voltage and ampere rating must be checked for compatibility with the electrical supply prior to final electrical connection. Supply wiring to the fan must be properly fused, and conform to local and national electrical codes.

Discharge Positions

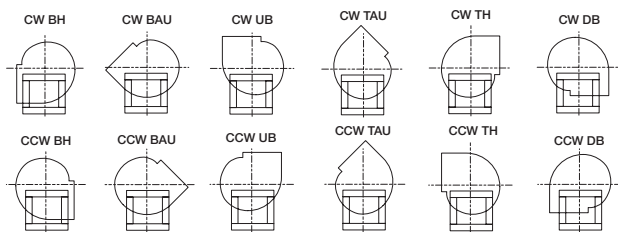
USF-200



USF-300 and USF-400



CSW



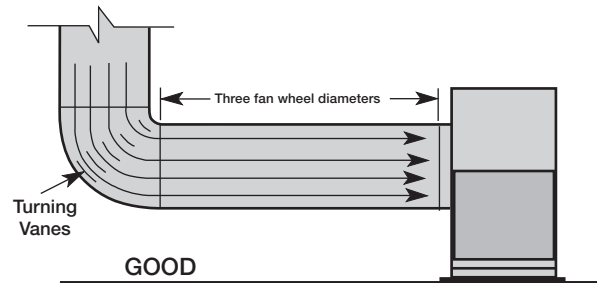
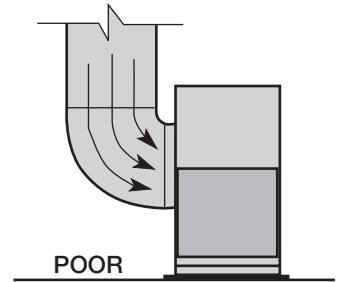
The discharge is factory set as specified by customer order, however, certain sizes can be rotated to other discharge positions in the field if necessary. If rotating the fan housing, accommodations may need to be made for the fan to drain properly. The USF-200, all sizes and USF-300, sizes 24 and less, have field rotatable housings. For the USF-400 and CSW, rotatable housings are standard sizes 30 and less, arrangements 1, 9 and 10, and Class 0, I and II. Class III and IV are not field rotatable. Removal of the housing bolts allows the discharge to be rotated to the clockwise positions above. For DB discharge position, a portion of the frame angle must be removed.

Fan rotation is always specified from the drive side of the housing.

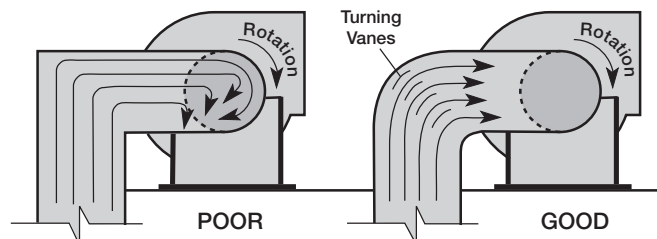
Installations with inlet or discharge configurations that deviate from this manual may result in reduced fan performance. Restricted or unstable flow at the fan inlet can cause pre-rotation of incoming air or uneven loading of the fan wheel yielding large system losses and increased sound levels. Free discharge or turbulent flow in the discharge ductwork will also result in system effect losses. Refer to the following diagrams for the most efficient installation conditions.

Ducted Inlet Installations

Inlet Duct Turns - Installation of a duct turn or elbow too close to the fan inlet reduces fan performance because air is loaded unevenly into the fan wheel. To achieve full fan performance, there should be at least three fan wheel diameters between the turn or elbow and the fan inlet.



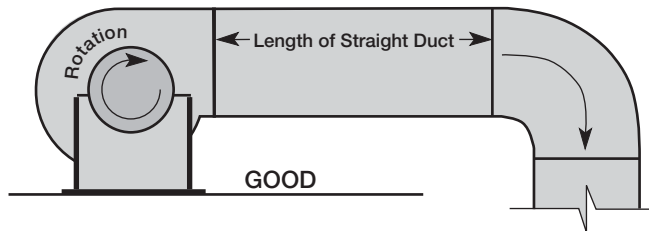
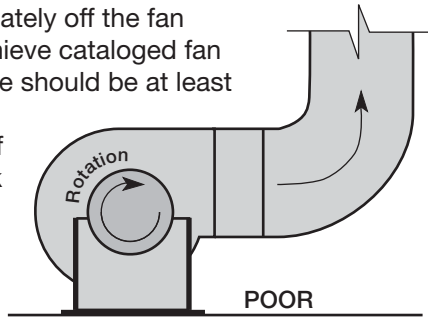
Inlet Spin - Inlet spin is a frequent cause of reduced fan performance. The change in fan performance is a function of the intensity of spin and not easily defined. The best solution is proper duct design and airflow patterns. Turning vanes reduce the effects of inlet spin.



Ducted Outlet Installations

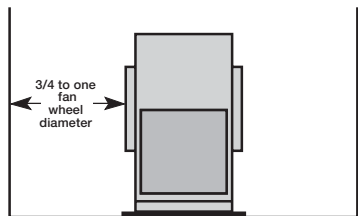
Discharge Duct Turns - Duct turns located near the fan discharge should always be in the direction of the fan rotation.

Fan performance is reduced when duct turns are made immediately off the fan discharge. To achieve cataloged fan performance there should be at least three equivalent duct diameters of straight ductwork between the fan discharge and any duct turns.



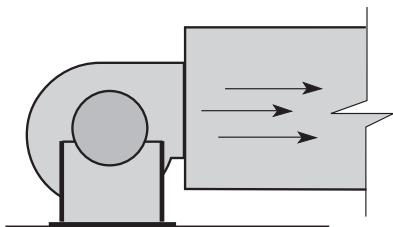
Non-Ducted Installations

Inlet Clearance - Installation of a fan with an open inlet too close to a wall or bulkhead will cause reduced fan performance. It is desirable to have a minimum of three-fourths of a wheel diameter between the fan inlet and the wall.



Single Fan Installation

Free Discharge - Free or abrupt discharge into a plenum results in a reduction in fan performance. The effect of discharge static regain is not realized.



Fan Drainage Piping and Trap Detail (by others)

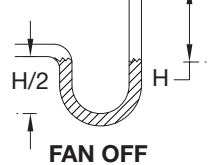
Fans may have been supplied with an optional drain. Drains are located at the underside of the scroll housing. The drain may need to be connected to a drainage system to ensure proper disposal of any water or condensate that may occur.

- Drain connections are 1.0 inch MNPT
- Installed piping to have a downward angle to allow for drainage
- Fill traps to recommended level before start-up

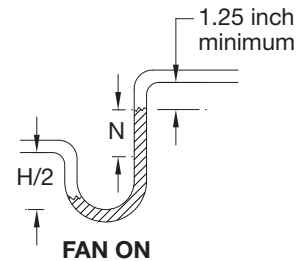
Note: A conservative method of trap design is to set N = total static pressure.

Positive Pressure Trap

Connect this end to fan drain.



FAN OFF



FAN ON

N = Negative fan pressure (inches W.C.)

H = N - 0.5 inches minimum

Check local codes for proper disposal of drain water which has been in contact with the exhaust air.

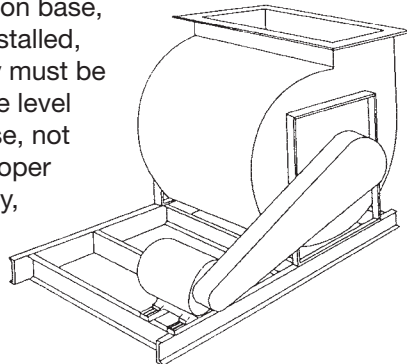
Fans used for grease exhaust need to be equipped with a separate grease collector.

Bases (Foundation and Isolation)

Critical to every fan installation is a strong, level foundation. A reinforced poured concrete pad with a steel base or inertia base provides an excellent foundation. Bases must be sturdy enough, with welded construction, to prevent flexing and vibration.

To eliminate vibration and noise from being transferred to the building, vibration isolators should be used. The fan is mounted directly on the isolation base and must be supported for the entire length of the fan base angle. (Refer to the Centrifugal Fan Isolation Base Assembly Instructions if the base was supplied by Greenheck). Isolators are installed between the isolation base and the foundation.

After the fan, isolation base, and isolators are installed, the entire assembly must be leveled. Position the level on the isolation base, not the fan shaft, for proper leveling. Additionally, the motor and fan shafts must be level and parallel relative to each other for proper alignment.



Typical Fan on Isolation Base

CAUTION

When installing a fan, ensure the proper protective devices are used to protect personnel from moving parts and other hazards. A complete line of protective accessories are available from Greenheck including: inlet guards, outlet guards, belt guards, shaft guards, protective cages and electrical disconnects.

Electrical Disconnects

All fan motors should have disconnects located in close visual proximity to turn off electrical service. Service disconnects shall be locked out when maintenance is being performed.

Moving Parts

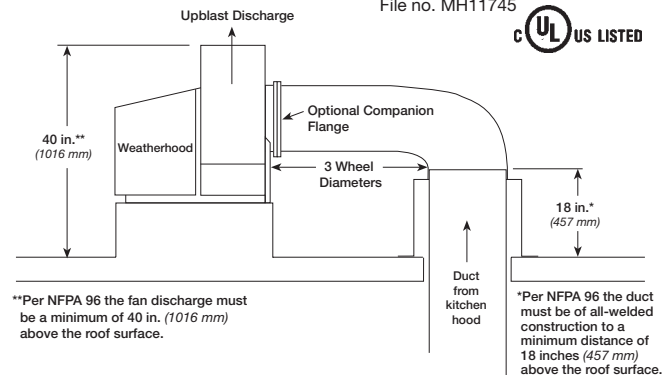
All moving parts must have guards to protect personnel. Refer to local codes for requirements as to the number, type and design. Fully secure fan wheel before performing any maintenance. The fan wheel may start “free wheeling” even if all electrical power has been disconnected. Before the initial start-up or any restart, check the guards (belt, shaft, inlet and outlet) and check the access doors to ensure that they are installed and secure.

Installation of UL/cUL 762 Listed Fans for Restaurant Exhaust

The UL/cUL 762 listing for restaurant exhaust is available on the USF-300 and 400 and CSW.

UL/cUL 762 fans are listed for a maximum operating temperature of 375°F (191°C) and includes an access door and 1 inch (25.4 mm) drain connection. An outlet guard is strongly recommended when the fan discharge is accessible. An upblast discharge is recommended. The fan discharge must be a minimum of 40 inches (1016 mm) above the roof line and the exhaust duct must be fully welded to a distance of 18 inches (457 mm) above the roof surface.

USF 300 and 400 models are listed for grease removal (UL/cUL 762)
File no. MH11745

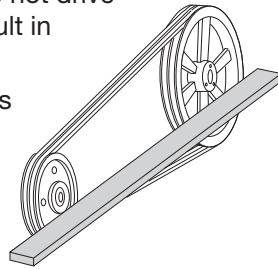


This drawing is for dimensional information only. See the latest edition of NFPA 96 Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations for detailed installation instructions, materials, duct connections and clearances.

V-Belt Drives

V-Belt Drive Installation

1. Remove the protective coating from the end of the fan shaft using mineral spirits or another similar solvent. Check to ensure that the shaft is free of nicks and burrs.
2. Slide sheaves on shafts. Do not drive sheaves on as this may result in bearing damage.
3. Align fan and motor sheaves with a straight edge or string and tighten.
4. Place belts over sheaves. Do not pry or force belts, as this could result in damage to the cords in the belts.
5. Adjust the tension until the belts appear snug. Run the unit for a few minutes and allow the belts to "set" properly.
6. With the fan off and disconnect locked out, adjust the belt tension by moving the motor pivot plate. When in operation, the tight side of the belts should be in a straight line from sheave to sheave with a slight bow on the slack side.



Aligning Sheaves with a Straight Edge

Alignment of Pulleys and Belts

Check pulleys and belts for proper alignment to avoid unnecessary belt wear, noise, vibration and power loss. Motor and drive shafts must be parallel and pulleys in line as shown in Figure 1.

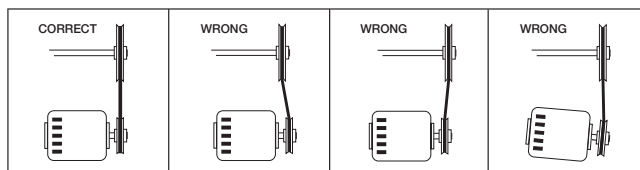


Figure 1

The adjustable motor pulley is set at the factory for the fan RPM specified by the customer. Fan RPM can be increased by closing or decreased by opening the adjustable motor pulley. Multi groove variable pitch pulleys must be adjusted an equal number of turns open or closed. Any increase in fan speed represents a substantial increase in load on the motor.

To avoid motor overheating and possible burnout, motor load amperes should always be checked and compared to nameplate rating when fan speed is increased.

Radial Gap, Overlap and Wheel Alignment

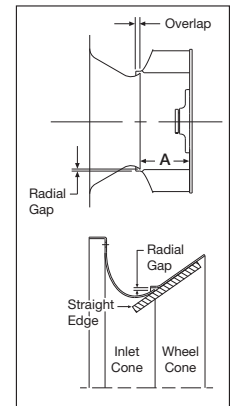
Wheels must rotate freely and not rub on the inlet cone. Model USF and CSW wheels overlap the inlet cone. Refer to the table for the proper dimension.

Radial Gap and Alignment

Efficient fan performance can be maintained by having the correct radial gap, overlap and wheel alignment. These items should be checked after the fan has been in operation for 24 hours and before start-up when the unit has been disassembled.

Radial Gap: Adjust inlet cone position such that the radial gap between the wheel cone and inlet cone is evenly distributed around the wheel.

Radial gap is adjusted by loosening the inlet cone/ring bolts and centering the cone/ring on the wheel. If additional adjustment is required to maintain a constant radial gap, loosening the bearing bolts and centering the wheel is acceptable as a secondary option.



Overlap: Overlap is adjusted by loosening the wheel hub from the shaft and moving the wheel to the desired position along the shaft.

The transition between the inlet cone and wheel should be as shown; there is a smooth feel to the profile when moving from one component to the other.

Method for Centering Wheel: On belt drive units, centering can be accomplished by (a) loosening the inlet cone bolts to move the inlet cone or by (b) loosening the bearings in order to move the shaft. Wheel and inlet cone overlap can be adjusted by loosening the wheel hub set screws and moving the wheel to the desired position. Tighten all fasteners and set screws securely and realign drive pulleys after adjustment.

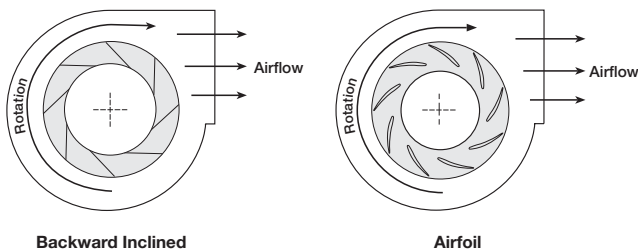
Radial Gap and Overlap Dimensions						
USF-200	USF-300	USF-400	CSW	A	Overlap	Overlap Tolerance
inches (mm)						
206	306			-	-	-
207	307			-	-	-
208	308			-	-	-
210	310			4 ¹⁵ / ₁₆ (125)	3/8 (10)	1/8 (3)
		407	7	1 ⁷ / ₁₆ (37)	2 ¹⁵ / ₃₂ (63)	1/8 (3)
		408	8	2 ¹¹ / ₁₆ (68)	1 ⁷ / ₃₂ (31)	1/8 (3)
		409	9	3 ¹¹ / ₁₆ (94)	7/32 (6)	1/8 (3)
		410	10	3 ¹¹ / ₁₆ (94)	7/32 (6)	1/8 (3)
212	312	412	12	4 ¹ / ₄ (108)	1 ¹ / ₃₂ (9)	1/8 (3)
213	313	413	13	4 ¹¹ / ₁₆ (119)	3/8 (10)	1/8 (3)
215	315	415	15	5 ³ / ₁₆ (132)	7/16 (11)	1/8 (3)
216	316	416	16	5 ³ / ₁₆ (146)	7/16 (11)	1/8 (3)
218	318	418	18	6 ³ / ₁₆ (162)	1 ⁵ / ₃₂ (12)	1/8 (3)
220	320	420	20	7 (178)	1/2 (13)	3/16 (5)
222	322	422	22	7 ¹³ / ₁₆ (198)	1 ¹⁷ / ₃₂ (13)	3/16 (5)
	324	424	24	8 ⁵ / ₁₆ (219)	9/16 (14)	1/4 (6)
	327	427	27	9 ⁷ / ₁₆ (240)	1 ¹¹ / ₁₆ (17)	1/4 (6)
	330	430	30	10 ⁹ / ₁₆ (268)	1 ¹¹ / ₁₆ (17)	3/8 (10)
	333	433	33	11 ⁷ / ₁₆ (291)	1 ⁵ / ₁₆ (24)	3/8 (10)
	336	436	36	12 ³ / ₄ (324)	1 ⁵ / ₁₆ (24)	3/8 (10)
	340	440	40	14 ³ / ₁₆ (360)	2 ⁹ / ₃₂ (23)	3/8 (10)
	344	444	44	15 ⁵ / ₁₆ (395)	1 ¹ / ₈ (29)	3/8 (10)
	349	449	49	17 ¹ / ₈ (435)	1 ¹ / ₄ (32)	1/2 (13)
			54	18 ¹³ / ₁₆ (478)	1 ¹⁷ / ₃₂ (39)	1/2 (13)
			60	20 ¹⁵ / ₁₆ (532)	1 ⁹ / ₁₆ (40)	1/2 (13)
			66	22 ⁷ / ₁₆ (581)	1 ²⁹ / ₃₂ (48)	1/2 (13)
			73	25 ¹ / ₂ (648)	1 ²⁹ / ₃₂ (48)	1/2 (13)

Wheel Rotation

Rotation direction of the wheel is critical. Incorrect rotation will result in reduced air performance, increased motor loading and possible motor burnout.

Check wheel rotation by momentarily energizing the unit and noting if rotation is in the same direction as the airflow at the outlet and conforms to the rotation decal affixed to the unit.

Wheels as viewed from the drive side:



NOTE

Model USF and CSW units should be operated only when attached to the system for which they were designed. Without proper system static pressure, the motor could be overloaded.

Field Coating Touch-Up Procedure for Scratched Areas

Standard coating and color is Greenheck's RAL 7023 Concrete Grey. The procedure outlines the correct method for repairing minor scratches in the coating.

TOUCH-UP PAINT REPAIR KIT CONTENTS

- One pint of Kem Kromik primer
- including a technical data sheet
- One pint of industrial enamel
- including a technical data sheet
- Four disposable foam brushes
- One sheet sandpaper
- Repair procedure details

1. Scuff affected area to be repaired using medium sandpaper (provided) or medium scotch brite pad. Feather the edges.
2. Clean affected area to be touched up using an alkaline based cleaner and rinse.
3. Apply Kem Kromik primer using 1 inch foam brush (provided). Follow technical data sheet instructions.
4. Allow primer to dry a minimum of 2-1/2 hours before top coating.
5. Apply topcoat with industrial enamel using 1 inch foam brush (provided). Follow technical data sheets instructions. Allow painted units to air-dry and cure before putting into service. See Technical Data sheets (included with kit) for detailed drying and cure schedules at different temperatures.

To order additional coating repair kits please reference Greenheck's part number HAZ2597 PNT FIELD REPAIR KIT, RAL 7023 CONCRETE GREY. Please contact factory with your fan's serial number for colors other than our standard.

Electrical Connections

Before electrical connections are made, the supply voltage, phase and ampere capacity must be checked for compatibility with the fan motor. In addition, the supply wiring must be properly fused and conform to local and national electrical codes. If the unit is supplied with a safety disconnect switch, ensure proper wiring to the fan motor. Be sure the disconnect is switched to the "OFF" position before connecting supply wires. If no disconnect is supplied, ensure the supply wire is not live before connection. Supply wires are then connected to the optional safety disconnect switch (if supplied) or motor.

Unit Start-Up

WARNING

Disconnect and secure to the **OFF** position all electrical power to the fan prior to inspection or servicing. Failure to comply with this safety precaution could result in serious injury or death.

Visual Inspection of Equipment

The equipment type and arrangement should be verified as ordered at once when it arrives at the jobsite. When a discrepancy is found, the local Greenheck Fan Corporation Sales Representative must be notified immediately so that corrective action may be investigated, also verify electrical conformance to specifications. Unauthorized alterations and unauthorized backcharges will not be recognized by Greenheck Fan Corporation.

After the unit has been assembled, installed and all utilities have been hooked up, the unit is now ready for operation.

Check

Before starting the unit, check the following:

1. Confirm that building supply voltage matches the voltage for which the unit is wired.
2. Check all piping and wiring penetrations made by contractors for water tightness. All penetrations must be made watertight to prevent water damage to the unit and building.
3. Rotate the fan wheel manually to be sure that it is free to operate. Remove any dirt or debris that may have accumulated during installation.
4. Check the fan bearing setscrews for tightness.
5. Check alignment of sheaves and V-belts (See maintenance section).
6. Inspect all fasteners to ensure that none have loosened during shipment.
7. Check flex coupling for proper alignment and connect between motor shaft and fan shaft (direct drive).
8. Check all guarding to ensure that it is securely attached and not interfering with rotating parts.
9. Check all electrical connections for proper attachment.
10. Check housing and ductwork, if accessible, for obstructions and foreign material that may damage the fan wheel.
11. Fill drainage piping trap.

Additional Steps for Initial Start-Up

1. Check for proper wheel rotation by momentarily energizing the fan. Access to view the wheel can be gained through the blower housing access panel.



One of the most frequently encountered problems are motors that are wired to rotate the wheel in the wrong direction. This is especially true with 3-phase installations where the motor will run in either direction, depending on how it has been wired. To reverse rotation of a 3-phase motor, interchange any two of the three electrical leads. Single phase motors can be reversed by changing internal connections as described on the motor label or wiring diagram.

2. Fans with multi-speed motors should be checked on low speed during initial start-up.
3. Check for unusual noise, vibration or overheating of bearings. Refer to the "Troubleshooting" section of this manual if a problem develops.
4. Grease may be forced out of the bearing seals during initial start-up. This is a normal self-purging feature for the type of bearing used on this product.

Vibration

On start-up and during operation, the unit should operate smoothly with minimal vibration. It is possible that a higher degree of vibration may be experienced. Excessive vibration if left unchecked, can cause a multitude of problems, including structural and/or

Common Sources of Vibration

1. Wheel Unbalance
2. Drive Pulley Misalignment
3. Incorrect Belt Tension
4. Bearing Misalignment
5. Mechanical Looseness
6. Faulty Belts
7. Drive Component Unbalance
8. Poor Inlet/Outlet Conditions
9. Foundation Stiffness

component failure. The most common sources of vibration are listed.

Many of these conditions can be discovered by careful observation. Refer to the troubleshooting section of this

manual for corrective actions. If observation cannot locate the source of vibration, a qualified technician using vibration analysis equipment should be consulted. If the problem is wheel unbalance, in-place balancing can be done through the access panel located on the side of each fan's tubular housing. Any correction weights added to the wheel should be welded to either the wheel back (single-plane balance) or to the wheel back and wheel cone (two-plane balance).

Routine Maintenance and Operation

CAUTION

When performing any service to the fan, disconnect the electrical supply and secure fan impeller.

Once the unit has been put into operation, a routine maintenance schedule should be set up to accomplish the following:

1. Lubrication of bearings and motor.
2. Wheel, housing, bolts and set screws on the entire fan should be checked for tightness.
3. Any dirt accumulation on the wheel or in the housing should be removed to prevent unbalance and possible damage.
4. Inspect fan impeller and housing looking for fatigue, corrosion, or wear.

Fan Operation

All fans should be run every thirty (30) days, or at least "bumped" every thirty days. It is preferred that each fan is run as this causes all electrical and mechanical components to get up to temperature, displacing any formed condensation, redistributes load on bearings, and redistributes grease in the bearings (motor and shaft bearings).

CAUTION

When operating conditions of the fan are to be changed (speed, pressure, temperature, etc.), consult manufacturer to determine if the unit can operate safely at the new condition.

Motors

Motor maintenance is generally limited to cleaning and lubrication. Cleaning should be limited to exterior surfaces only. Removing dust and grease buildup on the motor housing assists proper motor cooling. Never wash-down motor with high pressure spray.

Greasing of motors is only intended when fittings are provided. Many fractional motors are permanently lubricated for life and require no further lubrication. Motors supplied with grease fittings should be greased in accordance with the manufacturer's recommendations. When motor temperature does not exceed 104°F (40°C), the grease should be replaced after 2000 hours of running time.

Direct drive systems have extended grease lines to lubricate the motor without removal of any guarding.

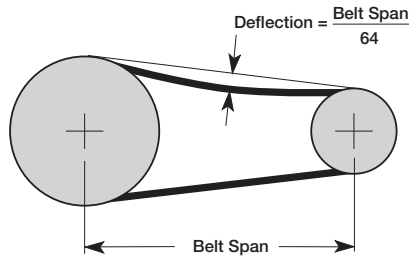
Belt Drive Maintenance

V-belt drives must be checked on a regular basis for wear, tension, alignment and dirt accumulation. Premature or frequent belt failures can be caused by improper belt tension (either too loose or too tight) or misaligned sheaves. Abnormally high belt tension or drive misalignment will cause excessive bearing loads and may result in failure of the fan and/or motor bearings. Conversely, loose belts will cause squealing on start-up, excessive belt flutter, slippage and overheated sheaves. Either excessively loose or tight belts may cause fan vibration.

When replacing V-belts on multiple groove drives all belts should be changed to provide uniform drive loading. Use a set of matched belts whenever possible. Do not pry belts on or off the sheave. Loosen belt tension until belts can be removed by simply lifting the belts off the sheaves. After replacing belts, ensure that slack in each belt is on the same side of the drive. Belt dressing should never be used.

Do not install new belts on worn sheaves. If the sheaves have grooves worn in them, they must be replaced before new belts are installed.

The proper tension for operating a V-belt drive is the lowest tension at which the belts will not slip at peak load conditions. Belts are adjusted by raising or lowering the motor pivot plate. For initial tensioning, the proper belt deflection halfway between sheave centers is 1/64-inch for each inch of belt span.



For more information about measuring belt tension, refer to Greenheck's Product Application Guide, FA/127-11, Measuring Belt Tension, found online at www.greenheck.com in the library section.

Check belt tension two times during the first 24 hours of operation and periodically thereafter.

Variable Frequency Drive Operation

For operation with variable frequency drive (VFD), always check motor amps when adjusting the operating frequency. Motor may be sized for the original selected operating speed under 60 Hz. Bypassing the VFD or increasing the speed from this original selection, even if less than 60 Hz, may cause motor to overload or failure. Consult factory with fan serial number, before increasing the upper limiting frequency.

Always check the fan rpm when adjusting the operating frequency. Do not exceed maximum class fan rpm of the wheel.

Bearing Lubrication Schedule

Shaft bearings are the most critical moving part of a fan. Therefore, special attention should be given to keeping the bearings clean and well lubricated. Proper lubrication provides for reduction in friction and wear, transmission and dissipation of heat, extended bearing life and prevention of rust.

In order for a lubricant to fulfill these tasks, the proper grease applied at regular intervals is required. See the recommended bearing lubrication schedule below.

If unusual conditions exist (temperatures below 32°F or above 200°F), moisture or contaminants - more frequent lubrication is required.

Recommended Bearing Lubrication Schedule Relubrication Schedule in Months					
Standard Grease					
Fan RPM	Bearing Bore (inches)				
	1/2 - 1	1 1/8 - 1 1/2	1 5/8 - 1 7/8	1 5/16 - 2 3/16	2 7/16 - 3
To 250	12	12	12	12	12
500	12	12	11	10	8
750	12	9	8	7	6
1000	12	7	6	5	4
1250	12	6	5	4	3
1500	12	5	4	3	2
2000	12	3	3	2	1
2500	12	2	2	1	0.5
3000	12	2	1	0.5	0.25
3500	12	1	0.5	0.25	x
4000	12	0.5	0.25	x	x
5000	12	0.25	x	x	x
Number of Shots	4	8	8	10	16

- Lubrication interval is based on 12 hour per day operation and maximum 160°F housing temperature. For 24 hour per day operation, the interval should be cut in half.
- Lubricant should be added with the shaft rotating and until clean grease is seen purging from the bearing. The lubrication interval may be modified based on the condition of the purged grease. If bearing is not visible to observe purged grease, lubricate with number of shots indicated in chart for bore size.
- For conditions including high temperatures, moisture, dirt or excessive vibration, consult the factory for a specific lubrication interval for your application.
- Lubricant should be a high quality lithium complex grease conforming to NLGI Grade 2. Factory recommends Mobilux EP-2.
- The use of synthetic lubricants will increase lubrication intervals by approximately 3 times.

In addition to lubricating the bearings at specified intervals, set screws in the bearing collars should be checked for tightness. A bearing collar which has loosened will cause premature failure of the fan shaft. Fasteners attaching the bearings to the drive frame should also be checked.

Wheel and Fastener Maintenance

Wheels require very little attention when exhausting clean air, however, air heavily laden with grease or dirt will tend to accumulate on the wheel causing unbalance. Wheels exhausting dirty or grease-laden air require frequent cleaning to assure smooth and safe operation.

All fasteners, including set screws in the bearing collars, should be checked for tightness each time maintenance checks are performed.

A proper maintenance program will help preserve the performance and reliability designed into the fan.

Bearing Replacement

For Arr. 1, 3, 8, 9 or 10

The intent of this procedure is to allow a field service technician to replace bearings with the fan remaining in place in its intended application. All work can be conducted by accessing the bearings by either removing a shaft guard, a weatherhood or working under a weatherhood. This is dependent on the size of the unit. This procedure assumes the power source has been locked out prior to removing guards and covers, belts and pulleys have been loosened and removed properly and extended lubrication lines have been disconnected at the bearing. In some cases, it may be necessary to remove the fan inlet cone and wheel if the bearings cannot be removed due to corrosion or damage. See Radial Gap, Overlap and Wheel Alignment on page 13-14 to the realign wheel upon installation.

Bearing Removal

This procedure assumes proper safety measures have been taken.

- Read and follow all instructions carefully.
 - Disconnect and lockout power before installation and maintenance.
 - Driven sheaves and belts have already been removed.
 - **Arr. 8 fans** will need the coupler removed, the motor feet marked, and slid back far enough for bearing removal. For reinstallation of coupler, follow the coupler manufacturers' installation procedures.
 - **Arr. 3 fans** will need the inlet ducting removed to access the non-drive bearing removal.
 - Shaft black coating can be removed with a solvent similar to a brake/carburetor cleaner.
1. Scribe a line around the shaft by both bearings and around the bearing base to the bearing support or write down the measurement from the end of the shaft to the bearings. This will help in repositioning the new bearing and wheel cone overlap.
 2. Follow the bearing manufacturers' procedures for removal and installation.
 3. Before removing the bearing bolts, make sure the shaft is supported slightly. Remember to consider the wheel weight on the shaft. (Arr. 3 may need the wheel to be suspended through an access door on top of the fan.)
 4. Remove both bearings from the shaft and clean/remove any burrs using an emery cloth or file.
 5. Clean mounting surface of any dirt or grease.

Bearing Installation

1. Before installing, read bearing manufacturers' procedures. Before putting the new bearings on the shaft, you may need to break what is called swivel torque on the bearings (depending on style of bearing). This is done by holding the bearing housing securely and being able to move the inner bearing race around freely.
2. Apply light film of oil on shaft, then gently slide the new bearings onto the shaft.



Do not hammer bearing onto shaft!

3. Align bearings on shaft with the previous scribe marks that are on the shaft and lock bearing to shaft.
4. Put bolts into mounting surface and bearings. Do not tighten.
5. Remove blocks if shaft is supported. (Arr. 3 release the weight of the wheel onto the bearing).
6. Set bearings on support with the scribed marks locating the bearings. Make sure bearings are square and level with the shaft.
7. Tighten bolts and torque bearing bolts, bearing set screws/locking collars as per bearing manufacturers' procedures.
8. Rotate shaft by hand to help allow the bearings to help set in. Also at this time, listen for any unusual noises such as wheel rubbing on cone and any bearing noise.
9. Connect extended lube lines in new bearings if needed.
10. Reinstall the drive sheaves and belts. Check the belt alignment.
11. Make sure to reinstall all guards and follow proper safety measures before starting up the fan.

Parts List

Each fan bears a manufacturer's nameplate with model number and serial number embossed. This information will assist the local Greenheck representative and the factory in providing service and replacement parts. Before taking any corrective action, make certain unit is not capable of operation during repairs.

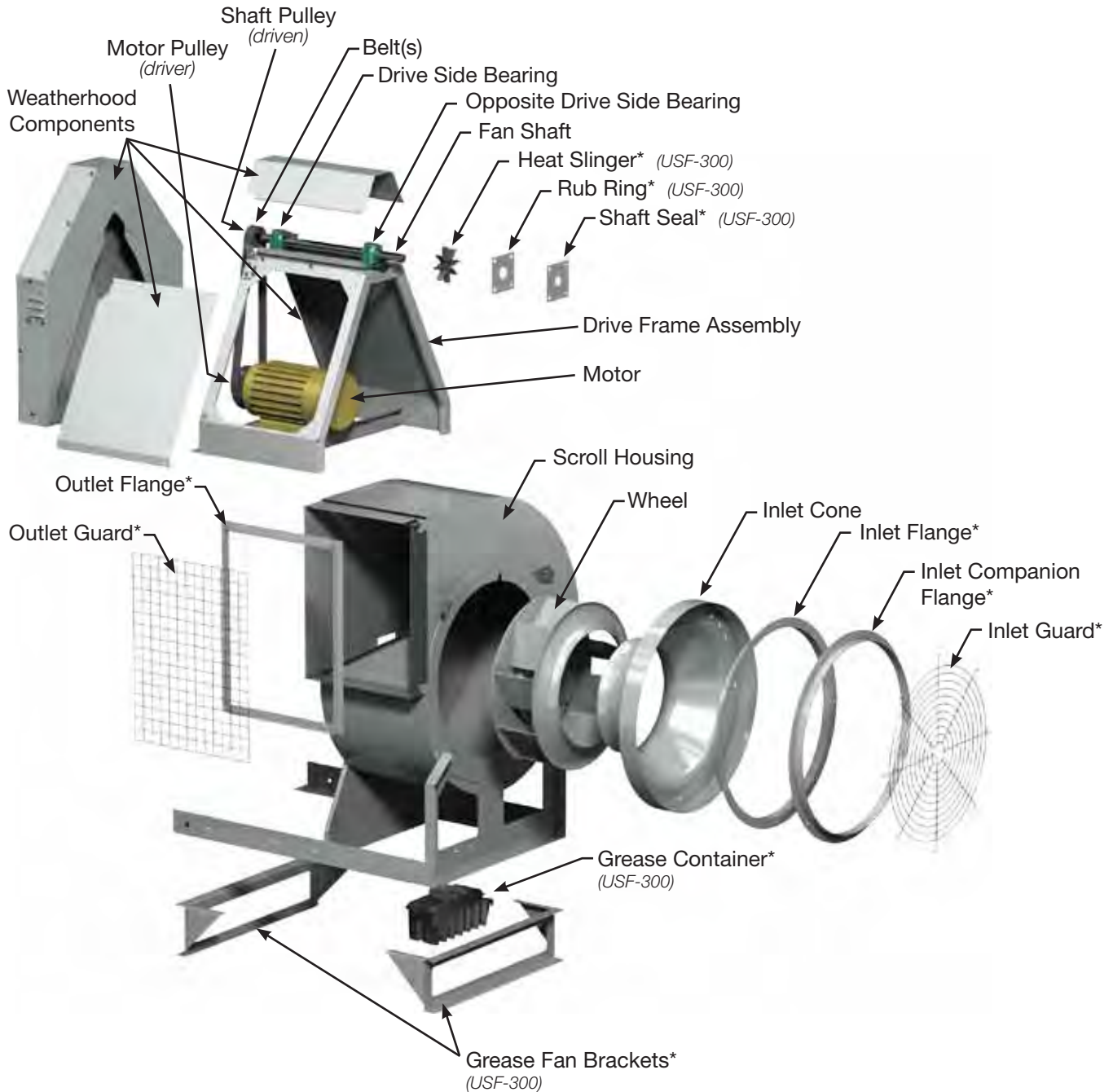
CAUTION

A fan manufactured with an explosion resistant motor does not certify the entire unit to be explosion proof. Refer to UL Listing Mark for the fans approved usage.

CAUTION

La présence d'un moteur antidéflagrant sur un ventilateur ne garantit pas que tout l'appareil est antidéflagrant. Pour connaître les emplois autorisés de l'appareil, voir son marquage de conformité UL.

- **USF-200**
- **USF-300**



*Optional Accessories

- USF-400
- CSW

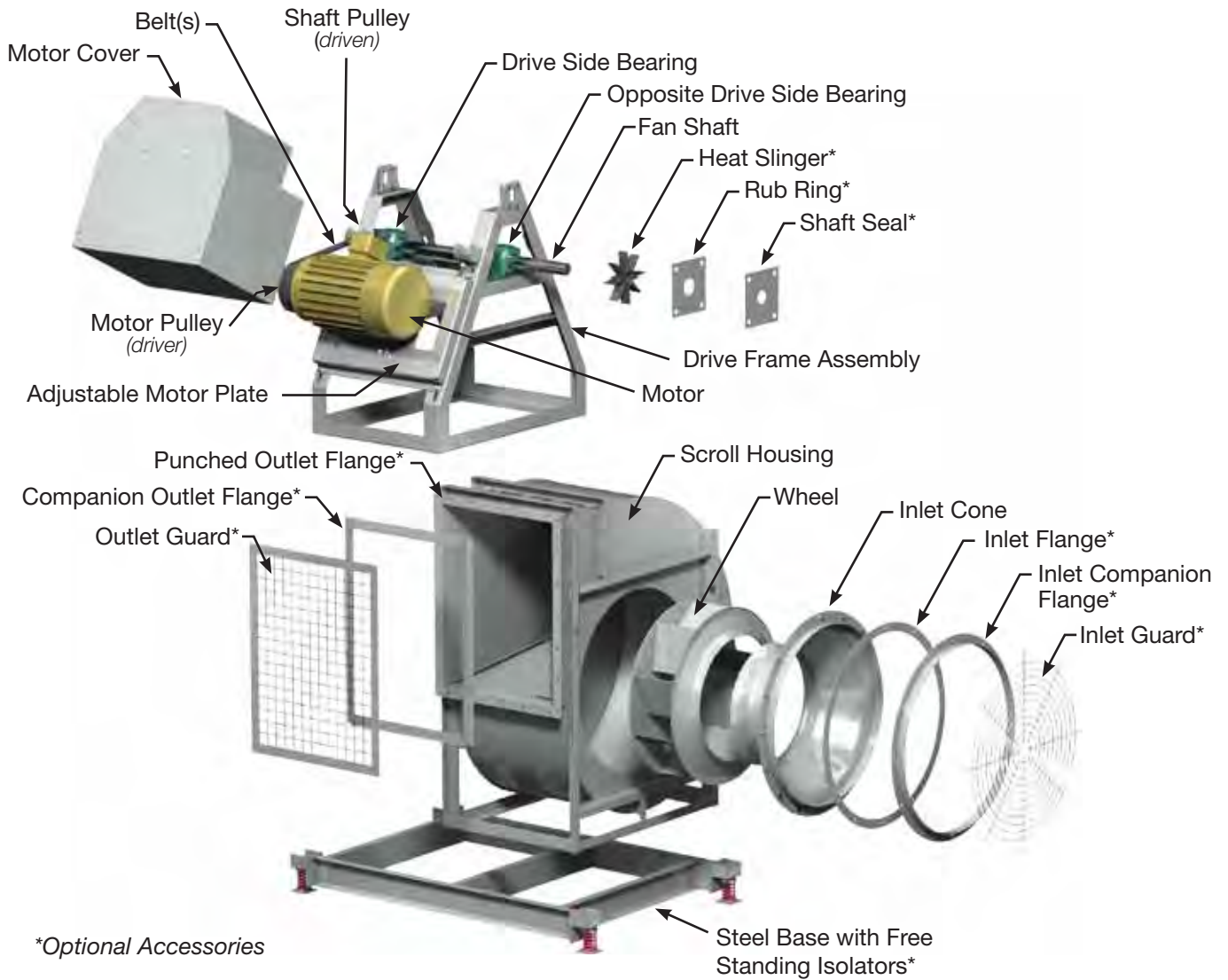


Image shows Arrangement 9. Other arrangements will have variations in motor mounting positions.

Troubleshooting

WARNING

Before taking any corrective action, make certain unit is not capable of operation during repairs.

AVERTISSEMENT

Avant d'entreprendre toute action corrective, s'assurer que l'appareil ne pourra pas fonctionner durant les réparations.

Problem	Cause	Corrective Action
Excessive Noise	Wheel Rubbing Inlet	Adjust wheel and/or inlet cone. Tighten wheel hub or bearing collars on shaft.
	V-Belt Drive	Tighten sheaves on motor/fan shaft. Adjust belt tension. Align sheaves properly (see procedure). Replace worn belts or sheaves.
	Bearings	Replace defective bearing(s). Lubricate bearings. Tighten collars and fasteners.
	Wheel Unbalance	Clean all dirt off wheel. Check wheel balance.
Low CFM	Fan	Check wheel for correct rotation.
	Duct System	Higher pressure than design. Filters need replacement.
High CFM	Fan	Decrease fan speed.
	Duct System	Resize ductwork. Access door, filters, dampers not installed.
Static Pressure Wrong	Duct system has more or less restriction than anticipated	Remove obstructions in system. Use correction factor to adjust for temperature/altitude. Resize ductwork. Clean filters/coils. Change fan speed.*
High Motor Amp Draw	Fan	Check rotation of wheel. Reduce fan speed.
	Duct System	Resize ductwork. Check proper operation of isolation and bypass dampers. Check filters and access doors.
Fan Doesn't Operate	Electrical Supply	Check fuses/circuit breakers. Check for switches turned off or disconnected. Check for correct supply voltage.
	Drive	Check for broken belts. Tighten loose pulleys.
	Motor	Assure motor is correct horsepower and not tripping overload protector.
Overheated Bearing	Lubrication	Check for excessive or insufficient grease in the bearing.
	Mechanical	Replace damaged bearing. Relieve excessive belt tension. Align bearings. Check for bent shaft.
Excessive Vibration	Belts	Adjust tightness of belts. Replacement belts should be a matched set.
	System Unbalance	Check alignment of shaft, motor and pulleys. Adjustable pitch pulleys with motors over 15 hp are especially prone to unbalance. Check wheel balance, rebalance if necessary.

* Always check motor amps and compare to nameplate rating. Excessive fan speed may overload the motor and result in motor failure. Do not exceed the maximum cataloged rpm of the fan.

Maintenance Log

Date _____ Time _____ AM/PM
Notes: _____

Date _____ Time _____ AM/PM
Notes: _____

Date _____ Time _____ AM/PM
Notes: _____

Date _____ Time _____ AM/PM
Notes: _____

Date _____ Time _____ AM/PM
Notes: _____

Date _____ Time _____ AM/PM
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Our Commitment

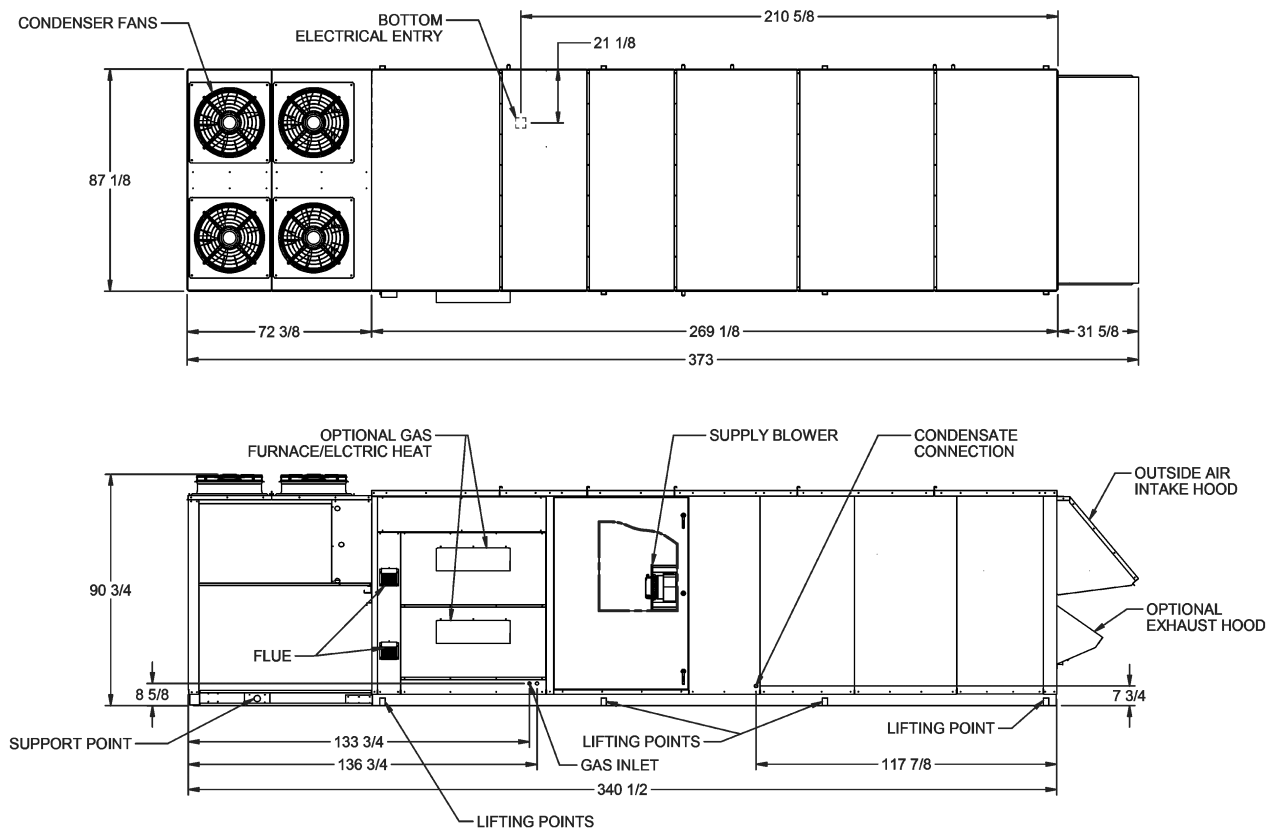
As a result of our commitment to continuous improvement, Greenheck reserves the right to change specifications without notice.

Specific Greenheck product warranties are located on greenheck.com within the product area tabs and in the Library under Warranties.

AMCA Publication 410-96, Safety Practices for Users and Installers of Industrial and Commercial Fans, provides additional safety information. This publication can be obtained from AMCA International, Inc. at www.amca.org.



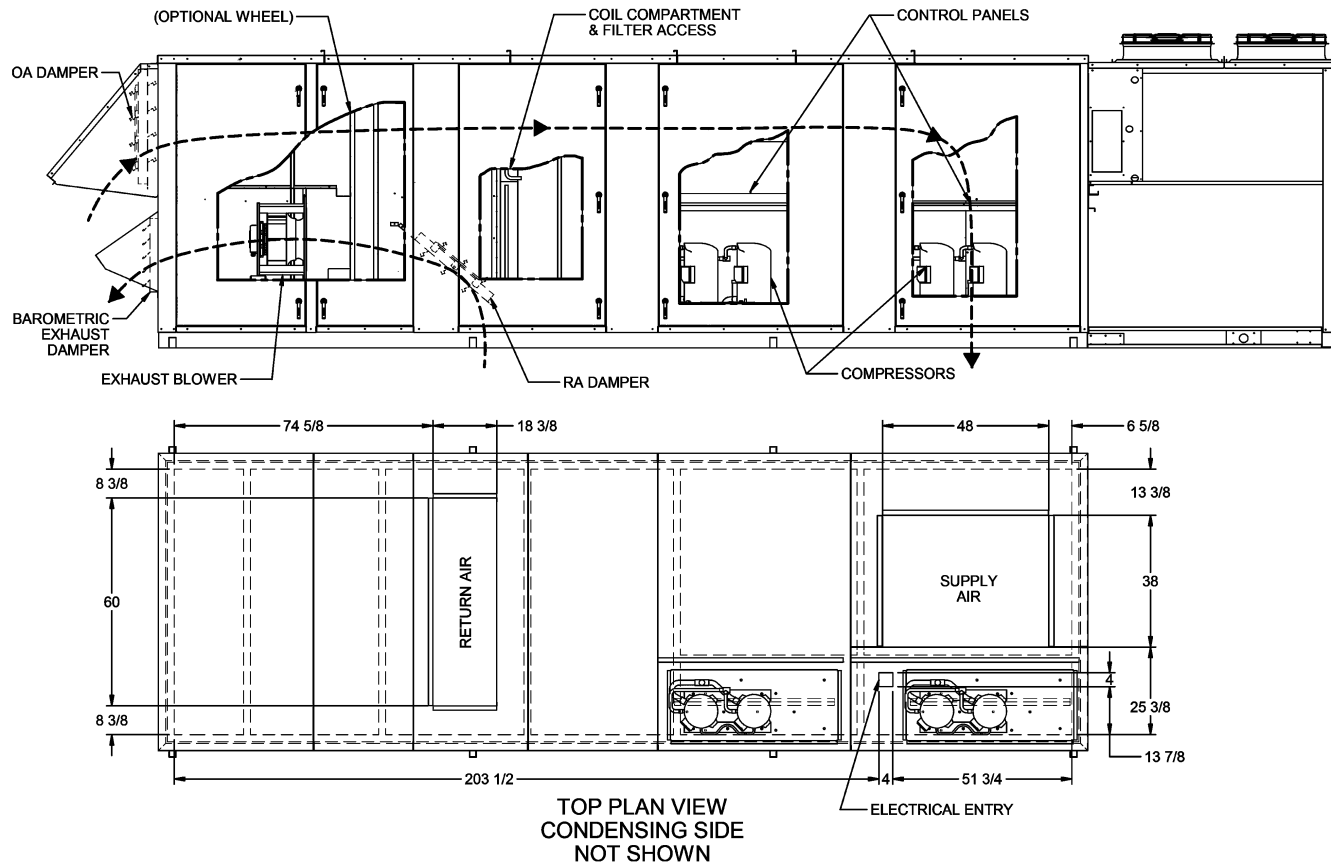
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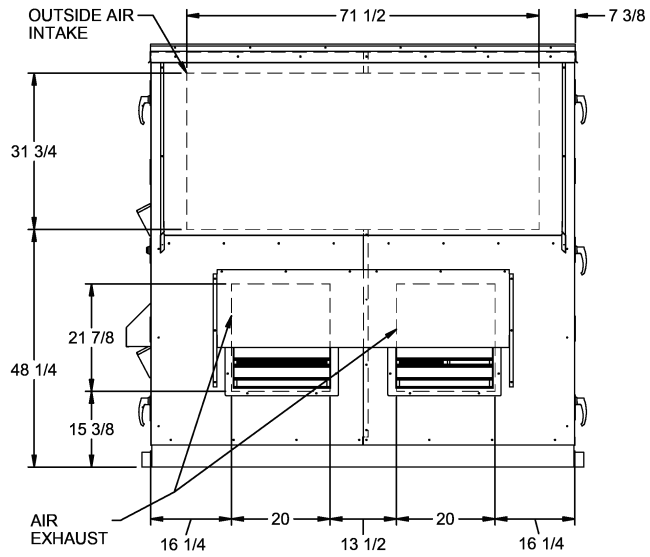


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*R D4XL CAB
05/2017

0504I-2598 - *R D4XL CAB-3

Qty: 1 Tags: ERV-1

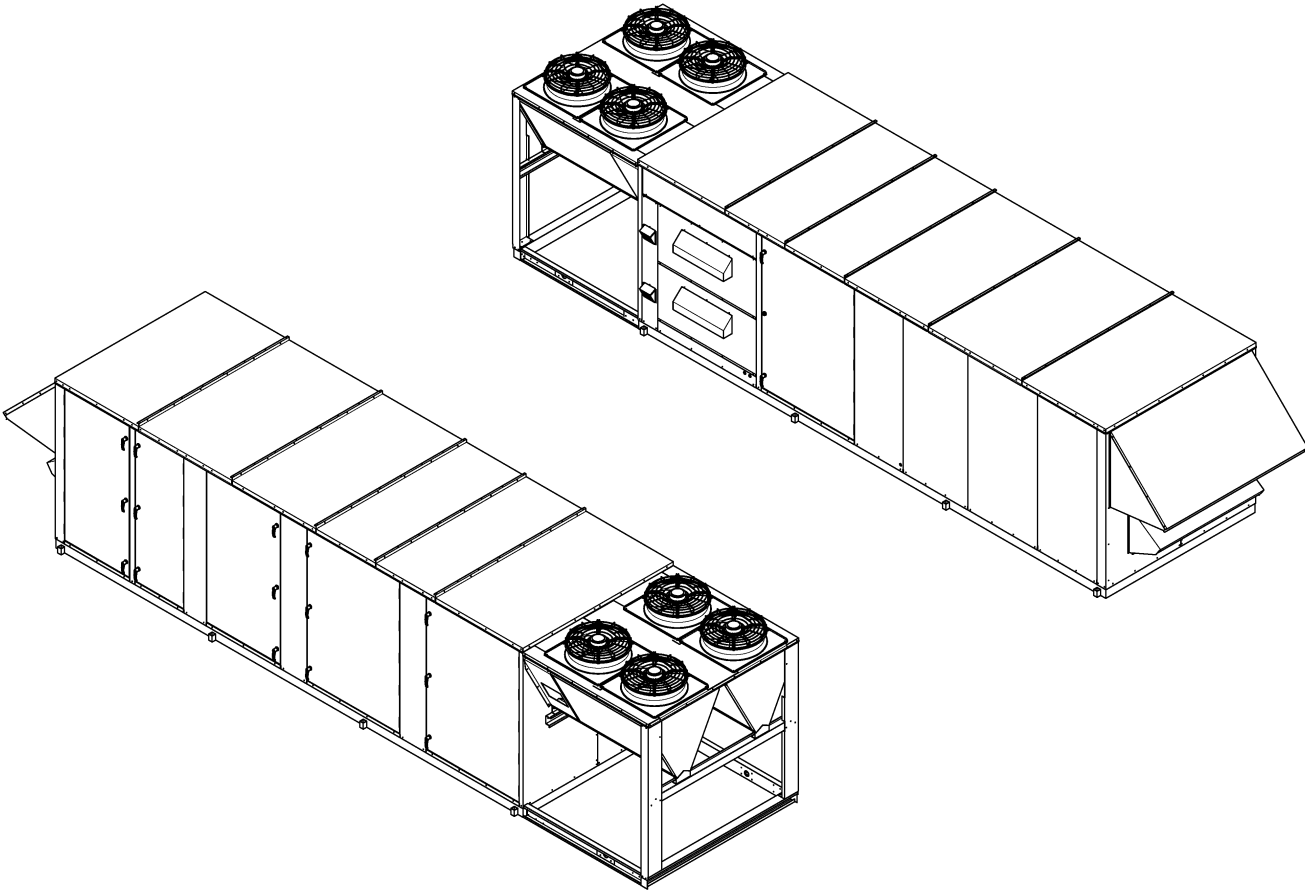
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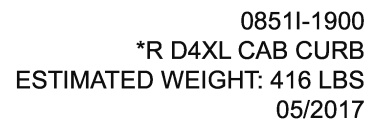
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Qty: 1 Tags: ERV-1

0504I-2598 - 4
*R D4XL CAB
05/2017



Qty: 1 Tags: ERV-1



ERV-2 RTU



Submittal

Project number: 16002

Project name: FHS BHM - 124 Peabody

Representative:

Location:

Note: This submittal is based on equipment and options listed on the attachment(s) and represents our interpretation of your requirements. It is the representative's responsibility to review this submittal and verify that it meets the job specifications.

Project Information

Project name: FHS BHM - 124 Peabody

Location: _____

Owner: _____

Architect: _____

MEP firm: _____

Mechanical contractor: _____

Date: 11/23/2021

Sales Representative

Submitted by: _____

Email: _____

Phone number: _____

Product Summary

Qty	Model Description	Unit Size	Tag(s)
1	JROA - Package Unit - DOAS	300	ERV-2

Product Data - Package Unit - DOAS

Size	Qty	Description	Model Number
300	1	Package Unit - DOAS	JROA300G4A4DABGAG1B63FKB0E270EBCBFFE100JLL1 AA00G0ACGD

Tag(s): ERV-2

Unit Voltage: 460-3-60

MCA Range: 60.1-100

MOCP: 80 Amps

Cabinets: CXL Cab with 4 cond fan with Microchannel Condenser Coil (Copper tube / Aluminum fin on heat pumps)

Cabinet Options: Vertical Supply/Vertical Return

Cooling Coil: 6 row Copper Tube Aluminum Fin DX Coil

Compressor Type: Dual Scroll/Dual Circuit with lead Circuit VFD

Refrigeration Controls: Hot Gas Bypass (Dual Circuit)

Refrigeration Controls: Hot Gas Reheat, Modulating (Single Circuit)

Refrigeration Controls: Liquid Sub Cooling, Switchable, All Circuits

CAV VAV: CAV - Constant Air Volume

Evaporator Motor Type: High efficiency ODP with VFD

Evaporator Motor Horsepower: 10 Horsepower

Supply Blower Size: 20" Direct Drive, Backward Inclined Supply Blower

Supply Blower Options: Rubber Isolation (Standard Only)

Energy Recovery & Conservation: ECW 484

Energy Recovery Options: VFD Temp Defrost

Exhaust Blower Motor Horsepower: 5 Horsepower exhaust blower motor

Exhaust/Return Blower Motor type: High efficiency ODP with VFD

Exhaust Blower Size: 18" Direct Drive, Backward Incline Exhaust Blower

Exhaust Blower Options: Gravity Relief Damper+Rubber Isolation (Standard Only)

Heating Types: Natural Gas Heat

Heater Control: Modulating 10:1 (5:1 on LP Gas)

Gas Furnace: 800 MBH (400+400 MBH)

Controls: ALC, Standard Program, DOAS

Ventilation & Controls: Motorized 2-Position OA Damper with 2-Position Actuator (ALC, Field DDC, EM)

Control Options: Exhaust Fan Interlock

ALC Ship With Options: ZS "Standard" Zone Sensor With Humidity

Maintenance Options: 115v Convenience Outlet (Field Wired)

Maintenance Options: Clogged Filter Indicator

Maintenance Options: Condensate Overflow Switch

Safety Controls: None

Filters: 2 in. MERV 8 Pleated and 4 in. MERV 14 Pleated

Disconnect: Non Fused Disconnect

Roof Curbs: C XL Cab Roof Curb 14" with 4 Cond fan With Exhaust

Corrosion Protection - Package: None

Blower HP - 10

Blower RPM - 2154

Supply Fan - BI 20

Exhaust RPM - 2214

Exhaust HP - 5

Exhaust Fan - BI 18



Tag: ERV-2

JROA300G4A4DABGAG1B63FKB0E270EBCBFFE100JLL1AA00G0ACGD

Unit Information**Package Unit - DOAS**

Model:	JROA	Unit Length:	281	in	Altitude:	0	ft
Size:	300 C4XL	Unit Width:	87.125	in	Unit Weight:	5041	lb.
Quantity:	1	Unit Height:	81	in			

Design Conditions**Filter Information**

Supply Airflow:	6000	CFM	Ambient Air DB:	95.0	F	Filters:	25x20(2), 25x16(2)
Outside Airflow:	6000	CFM				Pleated Filter Media:	40 sq.ft

Cooling Performance

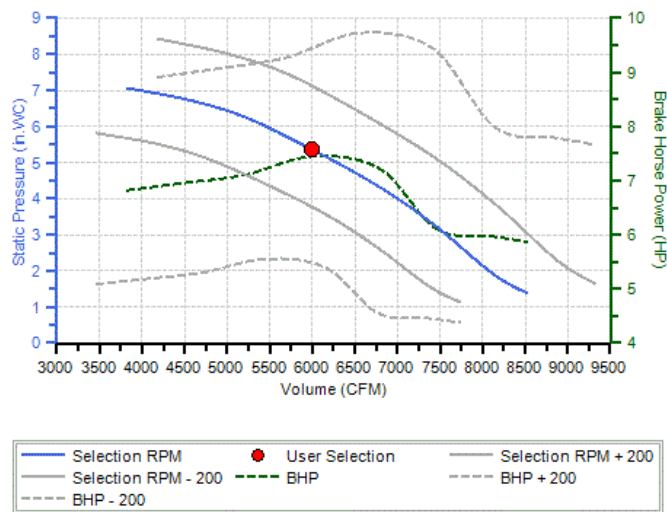
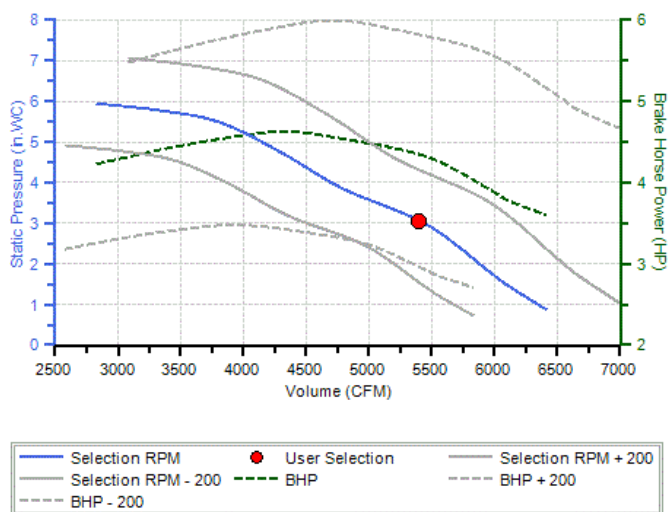
Gross Total Capacity:	360.1	MBh	Evaporator Face Area:	16	sq ft
Gross Sensible Capacity:	212.4	MBh	Evaporator Rows:	6	
Net Total Capacity:	341.1	MBh	Evaporator FPI:	12	
Net Sensible Capacity:	193.4	MBh	Condenser Face Area:	53.44	sq ft
Entering Air DB / WB (Coil):	82.9 / 70.1	F	Condenser Rows:	1	
Leaving Air DB / WB (Coil):	50.9 / 50.8	F	Condenser FPI:	19	
Leaving Air DB / WB (Subcooling):	59.2 / 54.3	F	Air Velocity:	375	fpm
Leaving Air DB / WB (Max. Reheat):	74.6 / 60.3	F	Cooling Coil Air PD:	0.54	in H2O
Leaving Air DB / WB (Unit):	77.5 / 61.4	F			
EER:	15.8		MRE:	7.93	lb/kWh
Watts:	33539		MRC:	266.08	lb/h

Heating Performance

Heat Type:	Gas	Entering Air DB:	-10.0	F	
Input Capacity:	800.0	MBh	Leaving Air DB:	88.8	F
Output Capacity:	640.0		Heating Coil Air PD:	0.12	in H2O

Energy Conservation Wheel ECW 484**Cooling****Heating**

Outside Airflow:	6000	CFM	Outside Air DB / WB:	95.0 / 78.0	F	Outside Air DB / WB:	0.0 / 0.0	F
Pre-treated OA:	6000	CFM	Pre-treated OA DB / WB:	82.9 / 70.2	F	Pre-treated OA DB / WB:	37.3 / 35.6	F
Return Airflow:	0	CFM	Return Air DB / WB:	75.0 / 63.0	F	Return Air DB / WB:	70.0 / 58.0	F
Exhaust Airflow:	5400	CFM	Exhaust Air DB / WB:	87.7 / 72.5	F	Exhaust Air DB / WB:	22.1 / 25.0	F
			Supply Air PD:	1.30	in H2O	Supply Air PD:	1.50	in H2O
			Exhaust Air PD:	1.22	in H2O	Exhaust Air PD:	1.22	in H2O
			Total Capacity:	190.09	MBh	Total Capacity:	333.25	MBh
Filters:			Latent Effectiveness:	58	%	Latent Effectiveness:	62	%
Pleated Filter Media:	sq.ft		Sensible Effectiveness:	64	%	Sensible Effectiveness:	70	%
			Total Effectiveness:	60	%	Total Effectiveness:	67	%

Supply Fan BI 20**Supply Pressure Drop Summary**External Static Pressure: **3.00** in H₂OInternal Pressure Drop: **2.37** in H₂OTotal Static Pressure: **5.37** in H₂O**Supply Fan Conditions**Fan Motor BHP: **7.45** BHPFan RPM: **2154** RPM**Internal Pressure Drop Breakdown**Cabinet: **0.16** in H₂OFilter: **0.2** in H₂OCooling Coil: **0.54** in H₂OHot Gas Reheat & Subcooling: **0.03** in H₂OHeating Coil: **0.12** in H₂OEnergy Conservation Wheel: **1.3** in H₂O**Exhaust Fan BI 18****Exhaust Pressure Drop**External Static Pressure: **1.50** in H₂OTotal Static Pressure: **3.04** in H₂O**Exhaust Fan Conditions**Fan Motor BHP: **4.34** BHPFan RPM: **2214** RPM

Unit Electrical Data

Unit Voltage-Ph-Hz: **460-3-60**
 Unit Amps - FLA: **63.63** Amps
 Min Circuit Ampacity - MCA: **68.3** Amps
 Maximum Fuse Size - MFS: **80** Amps

Motors

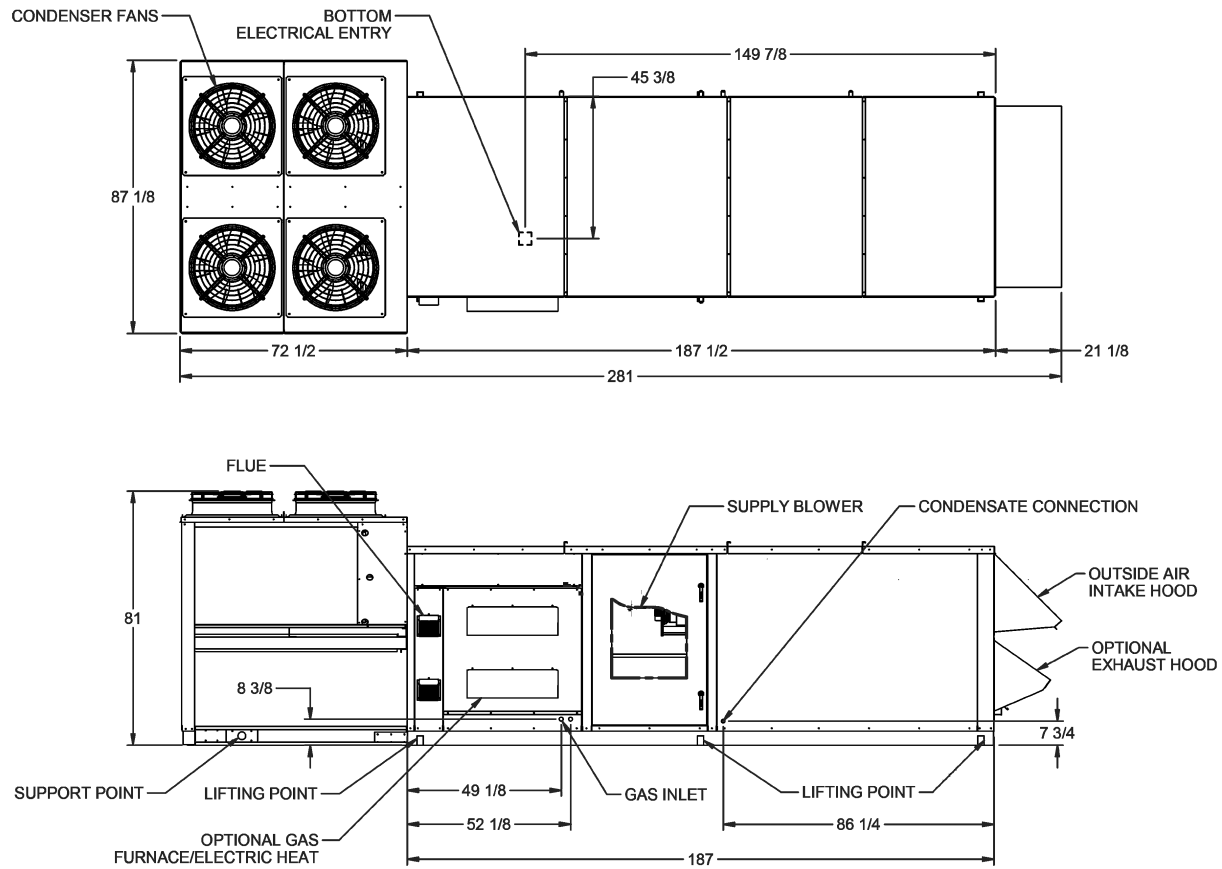
<u>Name/Type</u>	<u>Fan Service</u>	<u>Qty</u>	<u>HP (ea.)</u>	<u>FLA (ea.)</u>	<u>RLA (ea.)</u>	<u>LRA (ea.)</u>
ECW		1	0.5	1.3		
460-3 ODP Hi E (4 pole)	Exhaust	1	5	6.3		
Scroll		2			18.6	125.0
460-3 ODP Hi E (4 pole)	Supply	1	10	12.4		
630mm AC Condenser Fan	Condenser	4	1.3	1.6		

Sound Data

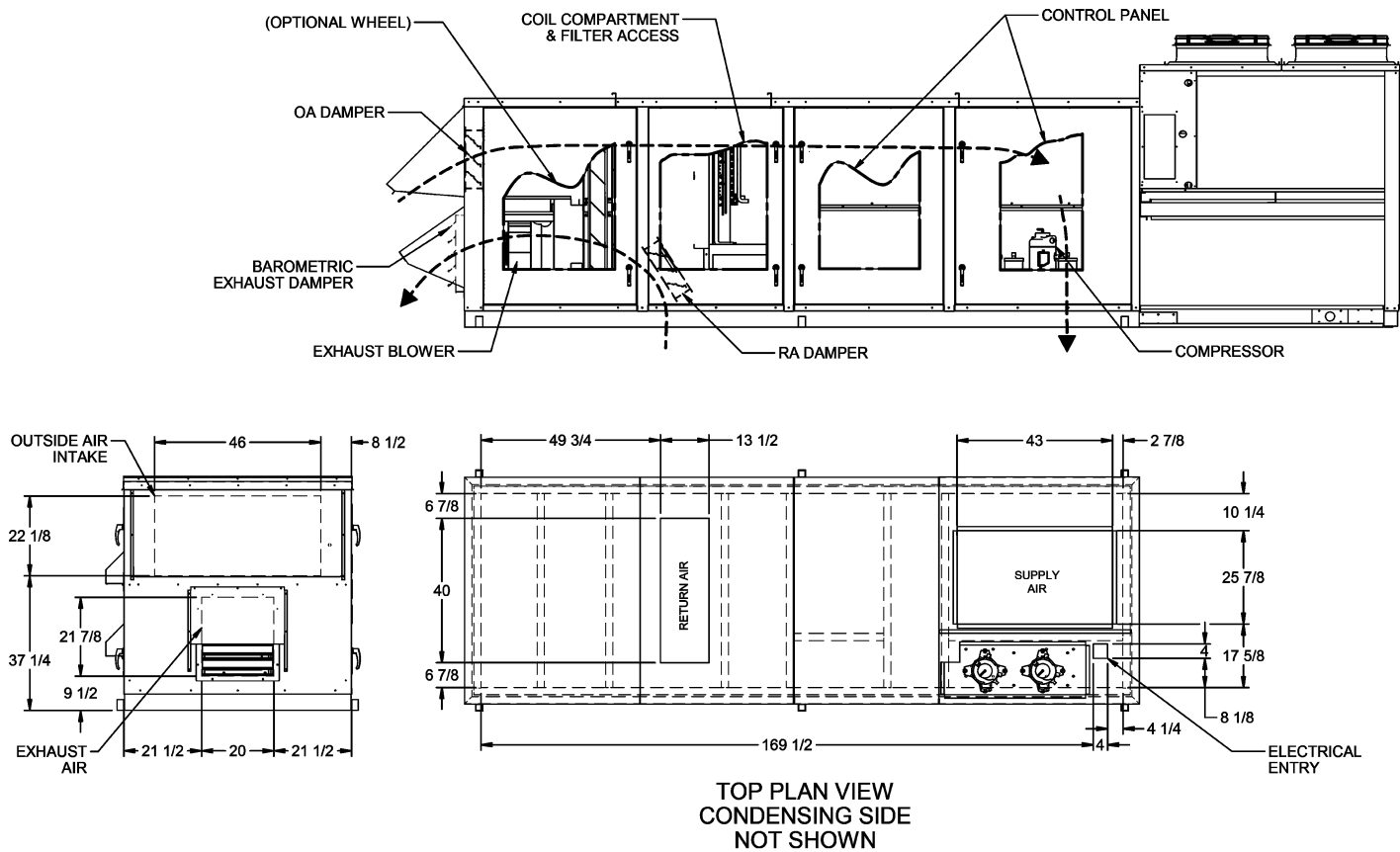
	<u>63Hz</u>	<u>125Hz</u>	<u>250Hz</u>	<u>500Hz</u>	<u>1KHz</u>	<u>2KHz</u>	<u>4KHz</u>	<u>8KHz</u>	<u>Total DBA</u>
Cabinet	69.5	87.1	85	89.9	88.3	83.5	78	72.8	92.01
Supply	55	62	74	75.0	78.0	78.0	78	70	84
Exhaust	50	58	71	72.0	72.0	72.0	72	64	79

0504I-2553 - *R C4XL CAB-1

Qty: 1 Tags: ERV-2



0504I-2553 - 1
*R C4XL CAB
05/2017

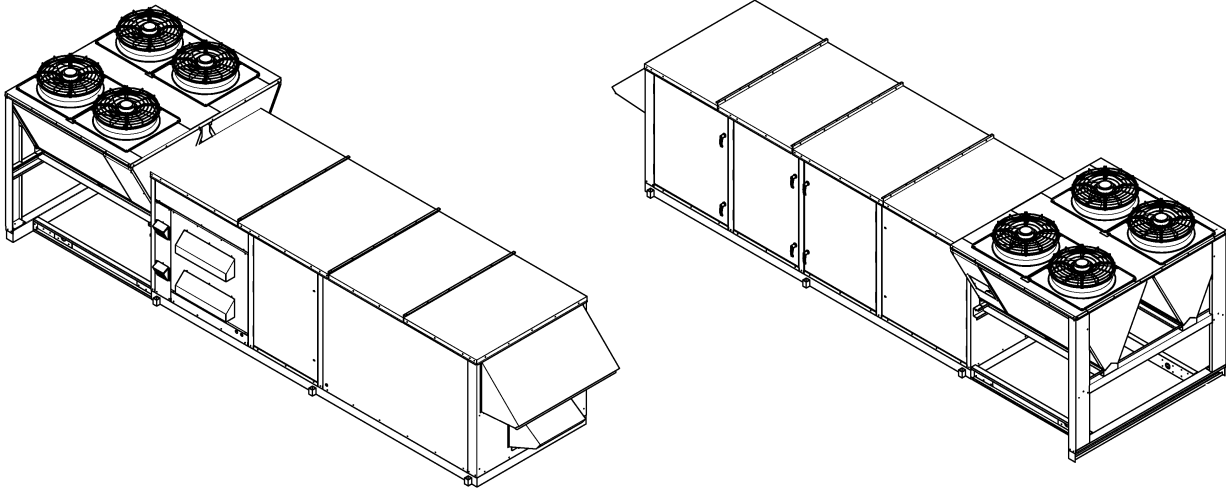


0504I-2553 - 2
*R C4XL CAB
05/2017

0504I-2553 - *R C4XL CAB-3

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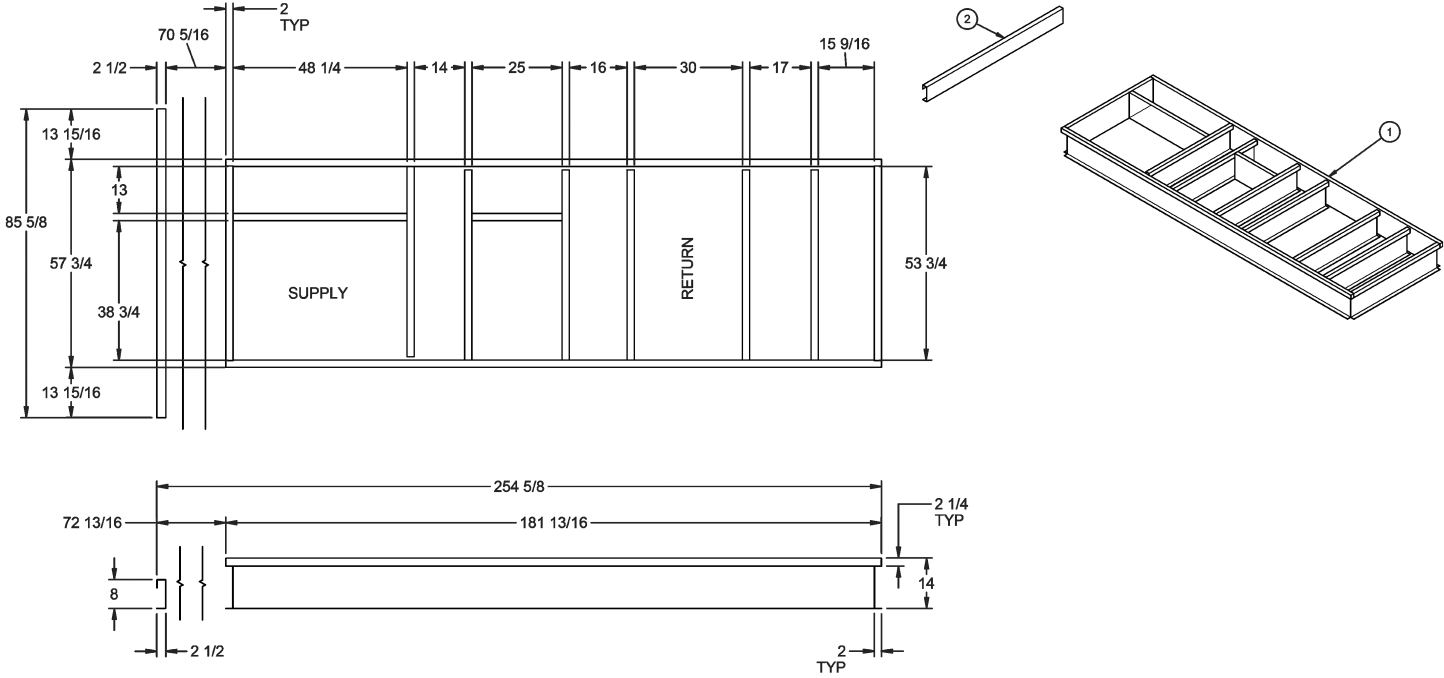
0504I-2553 - 3
*R C4XL CAB
05/2017



0851I-1890---CURB,EXH,PR-C4XL-CAB

Qty: 1 Tags: ERV-2

0851I-1890
*R C4XL CAB CURB
ESTIMATED WEIGHT: 314 LBS
05/2017



Mechanical Specifications - Tag(s): ERV-2**Application/Unit Type JROA**

JROA Series are designed for dedicated 100% outside air pre-conditioning. Units are DX air-source cooling only with or without optional heat, energy recovery wheel or exhaust.

Unit JROA

The JR Series packaged unit is a fully assembled heating and/or cooling system, ETL listed, with a single refrigerant circuit (sizes 036–096) or dual refrigerant circuits (sizes 120–1680). Standard features are hoods for outside air and exhaust (if included), factory wiring with a single point power connection, phase and voltage monitor, refrigerant piping, safeties and refrigerant/oil charge (R-410A). Also included are temperature controls (either factory or terminals for field furnished) and optional features listed below.

Unit Cabinet JROA

Cabinet is double wall design with heavy-duty frame and reinforced base. Double wall panels are constructed of G-90 galvanized steel inside and out with a polyester exterior finish for up to 2,500 hour salt-spray protection. Fixed panels on sides and top have two-inch thick, closed cell foam insulation; access panels have two-inch foam injection insulation provides an R-13 rating to reduce heat transfer losses. Access panels are fitted with one-quarter turn self-tightening latches (one lockable) and stainless steel hinges. Top panels are raised to improve water run-off and include drip edge. Heavy Duty 16-gauge base pan has 0.375 inch closed cell insulation on the underside to serve as sound attenuation and as a moisture/thermal barrier and a positive seal to the curb. Bottom openings include a minimum one-half inch turned up flange. Stainless steel and/or MAGNI® 555-coated hardware reduce fastener corrosion. Efficient micro-channel condenser coils are standard (heat-pumps have fin and tube). The condenser section on units with four or more fans has removable channels for proper roof clearance. A double-sloped, extra-large, stainless steel drain pan equipped with drain fitting positioned on exterior of cabinet to facilitate removal of condensate and eliminate standing water.

Fans JROA

Direct-drive (air foil or backward inclined) supply and exhaust (if included) blowers are provided with high-efficiency, ODP or TEFC motors (optional ECM) and variable frequency drives (VFD). VFD's may be used to field-adjust airflow. Condenser fans have external rotor, direct driven, axial cast profiled blades with a 5-1/2" spun venturi for high efficiency and low noise. Motors are Totally Enclosed Air Over (TEAO) and operated with pre-programmed VFD for accurate head pressure control.

Cabinet Options: Vertical Supply/Vertical Return

Airflow Configuration, vertical (downflow) supply and return; may or may not have exhaust/relief

Cooling Coil: 6 row Copper Tube Aluminum Fin DX Coil

Cooling Coil, 6-row copper tube, aluminum fin DX coil will be enhanced surface aluminum fins, formed on multiple rows of seamless rifled copper tubing, arranged in staggered tube configuration with galvanized steel header plates. These tubes are mechanically expanded, firmly bonding the tube to the shoulder of each fin. Dual circuit units will have intertwined coils for optimal dehumidification at part-load operation.

Compressor Type: Dual Scroll/Dual Circuit with lead Circuit VFD

Compressors are hermetic scroll type with crankcase heaters, overload protection, short cycle protection and minimum on and off timers. Installed in an insulated compartment accessible through hinged access doors compressors are mounted on rubber-in-shear isolators and isolated from the treated air stream. Refrigerant lines include circuit access/service valves and reaction torque loops. Crankcase heaters will only be activated during compressor off mode. The lead refrigeration circuit has a variable capacity, variable speed compressor with a variable speed drive and modulating hot gas bypass for additional control. The control system will be capable of modulating the compressor from 100% capacity down to 58% capacity while staging the lag compressor. Unit sizes 480 and larger have tandem type compressors. The second compressor on each tandem set is staged via a refrigeration pressure control.

Refrigeration Controls: Hot Gas Bypass (Dual Circuit)

Refrigeration Controls/Options, Hot Gas Bypass, modulating valves without Head Pressure Control (Dual Circuit)

Refrigeration Controls: Hot Gas Reheat, Modulating (Single Circuit)

Refrigeration Controls/Options, Hot Gas Reheat, Modulating with Variable Speed Head Pressure Control (Single Circuit), Includes one-row coil and Electronic valve

Refrigeration Controls: Liquid Sub Cooling, Switchable, All Circuits

Refrigeration Controls/Options, One-row Liquid Sub-cooling/reheat coil on all circuits, face-split for dual circuits with bypass piping, solenoid valves and additional refrigerant charge.

Evaporator Motor Type: High efficiency ODP with VFD

Supply Motor Type, the motor(s) will be premium efficiency, open drip proof nominal 1800 or 3600 RPM. For 1.0 horsepower and larger and it is externally protected (manual reset). Motors will be furnished with sealed ball bearings. A factory-mounted Variable Frequency Drive will be furnished for each motor

Evaporator Motor Horsepower: 10 Horsepower

Supply Motor Type, 10.0 horsepower

Supply Blower Size: 20" Direct Drive, Backward Inclined Supply Blower

Supply Blower size/Type, 20" diameter/backward-inclined; the direct-drive impeller is painted steel, statically and dynamically balanced to a grade of G=2,5 (ATE G=6,3) and designed along with the matching inlet cone to achieve the best possible aerodynamic performance. They are secured to the motor shaft with a steel hub that incorporates a keyway and locking screw.

Supply Blower Options: Rubber Isolation (Standard Only)

Supply Blower Options, reinforced neoprene pad isolation in between the blower frame and mount plus a flexible connection at the fan wall.

Energy Recovery & Conservation: ECW 484

The factory-installed enthalpy wheel shall be certified to meet the requirements of AHRI Standard 1060 and shall be AHRI listed. The rotor shall be constructed of alternating layers of flat and corrugated synthetic fibrous media and shall be fluted or formed honeycomb geometry so as to eliminate internal wheel bypass. The wheel shall include a desiccant that is permanently bound and uniformly dispersed throughout the matrix. The desiccant material shall be a 4 angstrom or smaller molecular sieve to minimize cross contamination. The wheel frames shall be evenly spaced steel spokes with a galvanized steel outer band and rigid center hub. The wheel seals shall be full contact nylon brush type. Wheel cassettes shall be constructed of galvanized steel and shall have an integral purge section minimizing cross contamination of supply air. Bearings shall be inboard mounted, permanently sealed roller type or externally flanged type. The wheel cassette shall slide out of the cabinet side for service. Wheels up to 60" shall be driven by a fractional horsepower AC motor and larger wheels shall have a 1.0 or 1.5 horsepower premium efficiency AC motor via a multilink drive belt. Outside and exhaust air streams include 2" MERV 8 filters.

Energy Recovery Options: VFD Temp Defrost

Energy Recovery Options, VFD defrost, wheel speed is slowed as frost condition occurs

Exhaust Blower Motor Horsepower: 5 Horsepower exhaust blower motor

Exhaust Motor size, 5.0 horsepower

Exhaust/Return Blower Motor type: High efficiency ODP with VFD

"Exhaust Motor Type

The motor(s) will be premium efficiency, open drip proof, nominal 1800 or 3600 RPM. For 1.0 horsepower and larger and it is externally protected (manual reset). Motors will be furnished with sealed ball bearings. A factory-mounted Variable Frequency Drive will be furnished for each motor

"

Exhaust Blower Size: 18" Direct Drive, Backward Incline Exhaust Blower

Exhaust Blower size/Type, 18" diameter/backward-inclined; the direct-drive impeller is painted steel, statically and dynamically balanced to a grade of G=2,5 (ATE G=6,3) and designed along with the matching inlet cone to achieve the best possible aerodynamic performance. They are secured to the motor shaft with a steel hub that incorporates a keyway and locking screw.

Exhaust Blower Options: Gravity Relief Damper+Rubber Isolation (Standard Only)

Exhaust Blower Options, exhaust air hood with gravity relief damper, reinforced neoprene pad isolation in between the blower frame and mount plus a flexible connection at the fan wall (Standard only).

Heating Types: Natural Gas Heat

Natural Gas Heat, Gas heaters are induced-draft combustion type with energy saving direct spark ignition systems and redundant main gas valves. The tubular section type heat exchanger is constructed of a minimum of 20-gage type 409 stainless steel. Burners are in-shot type constructed of aluminum coated steel.

Heater Control: Modulating 10:1 (5:1 on LP Gas)

Heater control, modulating 10:1 (Gas furnace)

Gas Furnace: 800 MBH (400+400 MBH)

Gas Heating Capacity, 800.0 (400.0 + 400.0) MBH input, 80% AFUE

Controls: ALC, Standard Program, DOAS

Controls, ALC I/O OPTICORE LS-1628u digital controller, factory-mounted and wired with standard program for 100% outside air. Includes low voltage control circuit, remote access support over internet/intranet or modem and BACnet and Modbus protocols.

Ventilation & Controls: Motorized 2-Position OA Damper with 2-Position Actuator (ALC, Field DDC, EM)

Ventilation Option, outside air intake hood with birdscreen plus motorized Class 1 damper with 2-position actuator – may be used with ALC or field-installed DDC or electro-mechanical 24 Volt controls

Control Options: Exhaust Fan Interlock

Control Options, exhaust fan interlock relay factory-installed and wired. Provides start/stop of a remote exhaust fan with the supply fan.

ALC Ship With Options: ZS "Standard" Zone Sensor With Humidity

ZS-H-BNK wall-mounted standard zone temperature and humidity sensor. This is used with PRR and PRM units.

Maintenance Options: 115v Convenience Outlet (Field Wired)

Maintenance Options, 115 volt GFCI convenience outlet with cover– field wired.

Maintenance Options: Clogged Filter Indicator

Maintenance Options, clogged filter switch with visual indicator and tubing for the filters ahead of the cooling coil factory-mounted. Includes terminals for connection to a DDC controller. If an ALC is included the switch is pre-wired.

Maintenance Options: Condensate Overflow Switch

Maintenance Options, condensate overflow switch mounted at the coil drain pan. The switch is wired to stop the unit if high water level is sensed.

Safety Controls: None

Safety Options, None

Filters: 2 in. MERV 8 Pleated and 4 in. MERV 14 Pleated

Pre-filter options, 2 in. plus 4 in. filter racks with 2 in. MERV 8 and 4 in. MERV 14 (pleated) filters pre-loaded in unit

Roof Curbs: C XL Cab Roof Curb 14" with 4 Cond fan With Exhaust

ROOF CURB, 14" high, un-insulated curb with sleeper for PR_A/PR_H-C4 XL cabinet with exhaust fan and four condenser fans. Curb will be formed of minimum 16-gage galvanized steel with wood nailer strip and will be capable of supporting entire unit weight Curb ships knocked down and requires to be assembled in the field.

Corrosion Protection - Package: None

Corrosion Protection, none

Product Data



Bryant heat pumps with Puron® refrigerant provide a collection of features unmatched by any other family of equipment. The 214D has been designed utilizing Bryant's non-ozone depleting Puron® refrigerant.

NOTE: Ratings contained in this document are subject to change at any time. Always refer to the AHRI directory (www.ahridirectory.org) for the most up-to-date ratings information.

INDUSTRY LEADING FEATURES / BENEFITS

Efficiency

- 14 SEER / 11.5 - 11.7 EER / 8.2 HSPF
- Microtube Technology™ refrigeration system
- Indoor air quality accessories available

Sound

- Sound level as low as 69 dBA
- Sound levels as low as 68 dBA with accessory sound blanket

Comfort

- System supports Housewise™ or standard thermostat controls

Reliability

- Non-ozone depleting Puron® refrigerant
- Scroll compressor
- Internal pressure relief valve
- Internal thermal overload
- High pressure switch
- Loss of charge switch
- Filter drier
- Balanced refrigeration system for maximum reliability

Durability

DuraGuard™ protection package:

- Solid, durable sheet metal construction
- Dense wire coil guard
- Baked-on powder paint

Applications

- Long-line - up to 250 feet (76.20 m) total equivalent length, up to 200 feet (60.96 m) condenser above evaporator, or up to 80 ft. (24.38 m) evaporator above condenser (See Longline Guide for more information.)
- Low ambient (down to -20°F/-28.9°C) with accessory kit

MODEL NUMBER NOMENCLATURE

1 N	2 N	3 N	4 A	5 A/N	6 N	7 N	8 N	9 N	10 A/N	11 A/N	12 N	14 A
2	1	4	D	N	A	0	3	6	0	0	0	0
Product Family	Tier	SEER	Major Series	Voltage	Grille Variations	Cooling Capacity			Open	Open	Open	Minor Series
2=HP	1= Legacy RNC	4=14 SEER	D=Puron	N=208/23 0-1 P=208/230 -3 E=460/3	A = Dense	1,000 Nominal Btuh			0=Not Defined	0=Not Defined	0=Not Defined	A = Original Series



Use of the AHRI Certified
TM Mark indicates a
manufacturer's
participation in the
program. For verification
of certification for individual
products, go to
www.ahridirectory.org.



STANDARD FEATURES

Feature	18	24	30	36	42	48	60
Puron Refrigerant	X	X	X	X	X	X	X
Scroll Compressor	X	X	X	X	X	X	X
Field Installed Filter Drier	X	X	X	X	X	X	X
Front Seating Service Valves	X	X	X	X	X	X	X
Internal Pressure Relief Valve	X	X	X	X	X	X	X
Internal Thermal Overload	X	X	X	X	X	X	X
Long Line capability	X	X	X	X	X	X	X
Low Ambient capability with Kit	X	X	X	X	X	X	X
Suction Line Accumulator	X	X	X	X	X	X	X
High Pressure Switch	X	X	X	X	X	X	X
Loss of Charge Switch	X	X	X	X	X	X	X

X = Standard

PHYSICAL DATA

← ACCU-1

← ACCU-2

UNIT SIZE SERIES	18-A	24-A	30-A	36-B	42-A	48-A	60-A
Compressor Type	Scroll						
REFRIGERANT	Puron® (R-410A)						
Control	TXV (Puron Hard Shutoff)						
Outdoor Heating Piston #	42	46	49	57	61	65	73
Charge lb (kg)	5.3 (2.4)	5.6 (2.5)	6.4 (2.9)	7.67 (3.48)	8.25 (3.74)	8.68 (3.94)	10.6 (4.81)
COND FAN	Forward Swept or Propeller Type, Direct Drive						
Air Discharge	Vertical						
Motor HP	1/12	1/10	1/4	1/5	1/4	1/4	1/4
Motor RPM	1100	1100	1100	1100	1100	1100	800
CFM	1700	2195	3365	3165	3800	3365	4470
VALVE CONNECT. (In. ID)							
Vapor	5/8	5/8	3/4	3/4	7/8	7/8	7/8
Liquid	3/8						
REFRIGERANT TUBES* (In. OD)							
Rated Vapor	5/8	5/8	3/4	3/4	7/8	7/8	1-1/8
Max Liquid Line	3/8						

*Units are rated with 25 ft (7.6 m) of lineset length. See *Vapor Line Sizing and Cooling Capacity Loss* table when using other sizes and lengths of lineset.

Note: See unit Installation Instruction for proper installation.

VAPOR LINE SIZING AND COOLING CAPACITY LOSS

Acceptable vapor line diameters provide adequate oil return to the compressor while avoiding excessive capacity loss. The suction line diameters shown in the chart below are acceptable for HP systems with Puron refrigerant:

Vapor Line Sizing and Cooling Capacity Losses - Puron® Refrigerant 1- Stage Heat Pump Applications

Unit Nominal Size (Btuh)	Acceptable Vapor Line Diameters (In. OD)	Cooling Capacity Loss (%) Total Equivalent Line Length (ft)										
		Standard Application			Long Line Application Requires Accessories							
		25 (7.62)	50 (15.2)	80 (24.4)	80+ (24.4+)	100 (30.48)	125 (38.10)	150 (45.72)	175 (53.34)	200 (60.96)	225 (68.58)	250 (76.20)
18000 1-Stage HP	1/2	1	2	3	3	4	6	7	8	9	10	12
	5/8	0	0	1	1	1	1	2	2	3	3	3
24000 1-Stage HP	5/8	0	1	1	1	2	3	3	4	4	5	6
	3/4	0	0	0	0	0	1	1	1	1	1	2
30000 1-Stage HP	5/8	1	2	3	3	3	4	5	6	7	8	9
	3/4	0	0	1	1	1	1	2	2	2	3	3
	7/8	0	0	0	0	0	1	1	1	1	1	1
36000 1-Stage HP	5/8	1	2	4	4	5	6	7	9	10	11	13
	3/4	0	0	1	1	1	2	2	3	3	4	4
	7/8	0	0	0	0	0	1	1	1	1	2	2
42000 1-Stage HP	3/4	0	1	2	2	2	3	4	4	5	6	6
	7/8	0	0	1	1	1	1	2	2	2	3	3
48000 1-Stage HP	3/4	0	1	2	2	3	4	5	5	6	7	8
	7/8	0	0	1	1	1	2	2	2	3	3	4
60000 1-Stage Puron HP	3/4	1	2	4	4	5	6	7	9	10	11	12
	7/8	0	1	2	2	2	3	4	4	5	5	6
	1 1/8	0	0	0	0	1	1	1	1	1	1	2

Standard Length = 80 ft. (24.4 m) or less total equivalent length

Applications in this area are long line. Accessories are required as shown recommended on Long Line Application Guidelines

Applications in this area may have height restrictions that limit allowable total equivalent length, when outdoor unit is below indoor unit. See Long Line Application Guidelines

REFRIGERANT PIPING LENGTH LIMITATIONS

Maximum Line Lengths:

The maximum allowable total equivalent length for heat pumps varies depending on the vertical separation. See the tables below for allowable lengths depending on whether the outdoor unit is on the same level, above or below the indoor unit.

Maximum Line Lengths for Heat Pump Applications

	MAXIMUM ACTUAL LENGTH ft (m)	MAXIMUM EQUIVALENT LENGTH† ft (m)	MAXIMUM VERTICAL SEPARATION ft (m)
Units on equal level	200 (61)	250 (76.2)	N/A
Outdoor unit ABOVE indoor unit	200 (61)	250 (76.2)	200 (61)
Outdoor unit BELOW indoor unit	See Table 'Maximum Total Equivalent Length: Outdoor Unit BELOW Indoor Unit'		

† Total equivalent length accounts for losses due to elbows or fitting. See the Long Line Guideline for details.

Maximum Total Equivalent Length† - Outdoor Unit BELOW Indoor Unit

Size	Liquid Line Diameter w/ TXV	HP with Puron® Refrigerant – Maximum Total Equivalent Length† Vertical Separation ft (m) Outdoor unit BELOW indoor unit;						
		0–20 (0 – 6.1)	21–30 (6.4 – 9.1)	31–40 (9.4 – 12.2)	41–50 (12.5 – 15.2)	51–60 (15.5 – 18.3)	61–70 (18.6 – 21.3)	71–80 (21.6 – 24.4)
18000 HP with Puron	3/8	250*	250*	250*	250*	250*	250*	250*
24000 HP with Puron	3/8	250*	250*	250*	250*	250*	250*	250*
30000 HP with Puron	3/8	250*	250*	250*	250*	250*	250*	250*
36000 HP with Puron	3/8	250*	250*	250*	250*	250*	250*	250*
42000 HP with Puron	3/8	250*	250*	250*	250*	250*	250*	150
48000 HP with Puron	3/8	250*	250*	250*	250*	230	160	--
60000 HP with Puron	3/8	250*	225*	190	150	110	--	--

* Maximum actual length not to exceed 200 ft (61 m)

† Total equivalent length accounts for losses due to elbows or fitting. See the Long Line Guideline for details.

-- = outside acceptable range

LONG LINE APPLICATIONS

An application is considered Long Line when the refrigerant level in the system requires the use of accessories to maintain acceptable refrigerant management for systems reliability. Defining a system as long line depends on the liquid line diameter, actual length of the tubing, and vertical separation between the indoor and outdoor units.

For Heat Pump systems, the chart below shows when an application is considered Long Line. Beyond these lengths, long line accessories are required:

HP WITH PURON® REFRIGERANT LONG LINE DESCRIPTION ft (m)

Beyond these lengths, long line accessories are required

Liquid Line Size	Units On Same Level	Outdoor Below Indoor	Outdoor Above Indoor
3/8	80 (24.4)	20 (6.1) vertical or 80 (24.4) total	80 (24.4)

Note: See Long Line Guideline for details

ACCESSORIES

ORDER NUMBER	DESCRIPTION	18-A	24-A	30-A	36-B	42-A	48-A	60-A
HC32GE234	BALL BEARING FAN MOTOR	X						
HC34GE240	BALL BEARING FAN MOTOR		X					
HC38GE219	BALL BEARING FAN MOTOR				X			
HC40GE226	BALL BEARING FAN MOTOR			X		X	X	
HC40GE228	BALL BEARING FAN MOTOR							X
KAACH1601AAA	CRKC HTR KIT					X	X	
KAACH1701AAA	CRKC HTR KIT	X	X	X	X			
KAACS0201PTC	KIT PTC	X	X	X	X	X	X	X
KAFT0101AAA	FRZ THERM KIT	X	X	X	X	X	X	X
KAATD0101TDR	TIME DELAY KIT	X	X	X	X	X	X	X
KHAIR0201AAA	ISLN RELAY KIT	X	X	X	X	X	X	X
KHALS0401LLS	SOL VALVE KIT	X	X	X	X	X	X	X
KHAOT0201SEC	OUTDR THERM KIT	X	X	X	X	X	X	X
KHAOT0301FST	OUTDR THERM KIT	X	X	X	X	X	X	X
KHASS0606MPK	SNOW STAND KIT	X	X	X	X	X	X	X
KSACY0101AAA	CYCLE PROTR KIT	X	X	X	X	X	X	X
KSAHS1701AAA	HARD START KIT	X	X	X	X	X	X	X
KSALA0301410	LOW AMBIENT KIT	X	X	X	X	X	X	X
KSALA0601AAA	MOTORMASTER KIT	X	X	X	X	X	X	X
KSASF0101AAA	SPRT FEET KIT			X	X	X	X	X
KSASF0201AAA	SPRT FEET KIT	X	X					
KSASH0601COP	SOUND BLKT KIT	X	X	X	X	X		
KSASH2101COP	SOUND BLKT KIT						X	X
KSATX0201PUR	TXV KIT (for copper coils)	X	X	X				
KSATX0301PUR	TXV KIT (for copper coils)				X	X		
KSATX0501PUR	TXV KIT (for copper coils)						X	X
KSBTX0201PUR	TXV KIT (for aluminum coils)	X	X	X				
KSBTX0301PUR	TXV KIT (for aluminum coils)				X	X		
KSBTX0401PUR	TXV KIT (for aluminum coils)						X	X

x = Accessory

ACCESSORY THERMOSTATS

Part Number	Description	Capabilities			Heat Stages	Cool Stages
		Gas	Electric	Heat Pump		
T6-WEM01	Housewise™ Wi-Fi Programmable Relative Humidity Thermostat	✓	✓	✓	4	2
T6-PRH01-A	Programmable Relative Humidity Thermostat	✓	✓	✓	3	2
T6-PHP01	Programmable Thermostat (HP or AC)		✓	✓	3	2
T6-NRH01-A	Non-Programmable Relative Humidity Thermostat	✓	✓	✓	3	2
T6-NHP01	Non-Programmable Thermostat (HP or AC)		✓	✓	3	2
T2-WHS01	Wi-Fi® Programmable	✓	✓	✓	3	2
T2-PHP01	5-2 Day Programmable Thermostat		✓	✓	3	2
T2-NHP01	Non-Programmable Thermostat (HP or AC)		✓	✓	3	2
T2SNHP01	Non-Programmable Thermostat (HP or AC)		✓	✓	2	1
T1-PHP01	5-2 Day Programmable Thermostat	✓	✓	✓	2	1
T1-NHP01	Non-Programmable Thermostat (HP or AC)	✓	✓	✓	2	1

Thermostat Accessories		
Part Number	Description	Used With
T6-EXP01-A	ExP® Computer Programming Accessory	T6-P thermostats
TSTATXXCNV10	Thermostat Conversion Kit (4 to 5 wire) – 10 pack	All Bryant branded thermostats
TX-LBP01	Large Decorative Backplate	T6-Pxx, T6-Nxx, and T2-Pxx
TX-MBP01	Medium Decorative Backplate	T2-Nxx and T1-Pxx
TX-SBP01	Small Decorative Backplate	T1-Nxx
TSTATXXSEN01-B*	Outdoor Air Temperature Sensor	All T6- thermostats

ACCESSORY USAGE GUIDELINE

Accessory	REQUIRED FOR LOW – AMBIENT COOLING APPLICATIONS (Below 55°F / 12.8°C)	REQUIRED FOR LONG LINE APPLICATIONS*	REQUIRED FOR SEA COAST APPLICATIONS (Within 2 miles / 3.22 km)
Accumulator	Standard	Standard	Standard
Ball Bearing Fan Motor	Yes†	No	No
Compressor Start Assist Capacitor and Relay	Yes	Yes	No
Crankcase Heater	Yes	Yes	No
Evaporator Freeze Thermostat	Yes	No	No
Hard Shutoff TXV	Yes	Yes	No
Isolation Relay	Yes	No	No
Liquid Line Solenoid Valve	No	See Long – Line Application Guideline	No
Motor Master™ Control or Low Ambient Switch	Yes	No	No
Support Feet	Recommended	No	Recommended

* For tubing line sets between 80 and 200 ft. (24.38 and 60.96 m) and/or 20 ft. (6.09 m) vertical differential, refer to Residential Split – System Longline Application Guideline.

† Additional requirement for Low – Ambient Controller (full modulation feature) MotorMaster® Control.

Accessory Description and Usage (Listed Alphabetically)

1. Ball-Bearing Fan Motor

A fan motor with ball bearings which permits speed reduction while maintaining bearing lubrication.

Usage Guideline:

Required on all units when using MotorMaster®

2. Compressor Start Assist - Capacitor and Relay

Start capacitor and relay gives a hard boost to compressor motor at each start up.

Usage Guideline:

Required for reciprocating compressors in the following applications:

- Long line
- Low ambient cooling
- Hard shut off expansion valve on indoor coil
- Liquid line solenoid on indoor coil

Required for single-phase scroll compressors in the following applications:

- Long line
- Low ambient cooling

Suggested for all compressors in areas with a history of low voltage problems.

3. Compressor Start Assist — PTC Type

Solid state electrical device which gives a soft boost to the compressor at each start-up.

Usage Guideline:

Suggested in installations with marginal power supply.

4. Crankcase Heater

An electric resistance heater which mounts to the base of the compressor to keep the lubricant warm during off cycles. Improves compressor lubrication on restart and minimizes the chance of liquid slugging.

Usage Guideline:

- Required in low ambient cooling applications.
- Required in long line applications.
- Suggested in all commercial applications.

5. Evaporator Freeze Thermostat

An SPST temperature-actuated switch that stops unit operation when evaporator reaches freeze-up conditions.

Usage Guideline:

Required when low ambient kit has been added.

6. Isolation Relay

An SPDT relay which switches the low-ambient controller out of the outdoor fan motor circuit when the heat pump switches to heating mode.

Usage Guideline:

Required in all heat pumps where low ambient kit has been added.

7. Liquid-Line Solenoid Valve (LLS)

An electrically operated shutoff valve which stops and starts refrigerant liquid flow in response to compressor operation. It is to be installed at the outdoor unit to control refrigerant off cycle migration in the heating mode.

Usage Guideline:

An LLS is required in all long line heat pump applications to control refrigerant off cycle migration in the heating mode. See Long Line Guideline.

8. Low-Ambient Pressure Switch Kit

A long life pressure switch which is mounted to outdoor unit service valve. It is designed to cycle the outdoor fan motor in order to maintain head pressure within normal operating limits. The control will maintain working head pressure at low-ambient temperatures down to 0°F (-18°C) when properly installed.

Usage Guideline:

A Low-Ambient Pressure Switch or MotorMaster® Low-Ambient Controller must be used when cooling operation is used at outdoor temperatures below 55°F (12.8°C).

9. MotorMaster® Low-Ambient Controller

A fan-speed control device activated by a temperature sensor, designed to control condenser fan motor speed in response to the saturated, condensing temperature during operation in cooling mode only. For outdoor temperatures down to -20°F (-28.9°C), it maintains condensing temperature at 100°F ≥10°F (37.8°C ≥ 6.5°C).

Usage Guideline:

A MotorMaster® Low Ambient Controller or Low-Ambient Pressure Switch must be used when cooling operation is used at outdoor temperatures below 55°F (12.8°C).

Suggested for all commercial applications.

Accessory Description and Usage (Listed Alphabetically) - CONTINUED

10. Outdoor Air Temperature Sensor

Designed for use with Bryant Thermostats listed in this publication. This device enables the thermostat to display the outdoor temperature. This device also is required to enable special thermostat features such as auxiliary heat lock out.

Usage Guideline:

Suggested for all Bryant thermostats listed in this publication.

11. Outdoor Thermostat

An SPDT temperature-actuated switch which turns on supplemental electric heaters when outdoor air temperature drops below a user-selected set point.

Usage Guideline:

Electric supplemental heat applications in non-variable speed indoor units when electric heat staging is desired.

12. Secondary Outdoor Thermostat

An SPDT temperature-actuated switch which turns on third-stage of supplemental electric heaters when outdoor air temperature drops below the second-stage set point.

Usage Guideline:

Outdoor thermostat applications where electric heater is capable of 3-stage operation.

13. Snow Stand Rack

Coated wire rack which supports unit 18 in. (457.2 mm) above mounting pad to allow for drainage from unit base.

Usage Guideline:

Suggested in the following applications:

Heat pump installations in heavy snowfall areas.

Heat pump installations in snow drift locations.

Heat pump installations in areas of prolonged subfreezing temperatures.

All commercial installations.

14. Sound Hood

Wraparound sound reducing cover for the compressor. Reduces the sound level by about 2 dBA.

Usage Guideline:

Suggested when unit is installed closer than 15 ft. (4.577 m) to quiet areas, bedrooms, etc.

Suggested when unit is installed between two houses less than 10 ft. (3.05 m) apart.

15. Thermostatic Expansion Valve (TXV) Bi-Flow

A modulating flow-control valve which meters refrigerant liquid flow rate into the evaporator in response to the superheat of the refrigerant gas leaving the evaporator.

Usage Guideline:

Accessory required to meet AHRI rating and system reliability, where indoor not equipped.

Required in all heat pump applications designed with Puron refrigerant.

16. Time-Delay Relay

An SPST delay relay which briefly continues operation of indoor blower motor to provide additional cooling after the compressor cycles off.

Note: Most indoor unit controls include this feature. For those that do not, use the guideline below.

Usage Guideline:

Accessory required to meet AHRI rating, where indoor not equipped.

ELECTRICAL DATA

UNIT SIZE	V/PH	OPER VOLTS*		COMPR		FAN	MCA	MAX FUSE** or CKT BRK AMPS
		MAX	MIN	LRA	RLA	FLA		
18	208/230/1	253	197	48.0	9.0	0.50	11.8	20
24				62.9	10.9	0.60	14.2	25
30				72.5	13.5	1.40	18.3	30
36				75.0	15.1	1.10	20.0	30
42				105.5	18.1	1.40	24.0	40
48				108.0	19.0	1.40	25.2	40
60				144.2	24.4	1.52	32.0	50

* Permissible limits of the voltage range at which the unit will operate satisfactorily

** Time-Delay fuse.

FLA – Full Load Amps

LRA – Locked Rotor Amps

MCA – Minimum Circuit Amps

RLA – Rated Load Amps

NOTE: Control circuit is 24-V on all units and requires external power source. Copper wire must be used from service disconnect to unit.

All motors/compressors contain internal overload protection.

Complies with 2007 requirements of ASHRAE Standards 90.1

A-WEIGHTED SOUND POWER

UNIT SIZE	STANDARD RATING (dBA)	TYPICAL OCTAVE BAND SPECTRUM (dBA, without tone adjustment)						
		125	250	500	1000	2000	4000	8000
18	69	45	48	56	62	55	53	47
24	76	46	56	59	63	63	60	55
30	77	52	62	67	68	65	62	55
36	77	51	62	66	69	64	61	53
42	76	49	61	63	65	62	60	52
48	79	53	66	69	71	67	64	57
60	73	50	63	62	63	60	58	52

NOTE: Tested in accordance with AHRI Standard 270-08 (not listed in AHRI).

A-WEIGHTED SOUND POWER WITH SOUND HOOD

UNIT SIZE	STANDARD RATING	TYPICAL OCTAVE BAND SPECTRUM (dBA, without tone adjustment)						
		125	250	500	1000	2000	4000	8000
18	68	47	48	56	61	55	52	46
24	74	47	57	59	62	61	58	51
30	77	52	62	67	67	65	62	54
36	76	52	62	66	67	64	60	52
42	74	50	61	63	64	61	58	49
48	79	54	66	69	70	67	64	56
60	73	51	64	62	63	59	56	49

NOTE: Tested in accordance with AHRI Standard 270-08 (not listed in AHRI).

CHARGING SUBCOOLING (TXV-TYPE EXPANSION DEVICE)

UNIT SIZE-SERIES	REQUIRED SUBCOOLING ° F (° C)
18	11 (6.1)
24	11 (6.1)
30	10 (5.6)
36	10 (5.6)
42	10 (5.6)
48	14 (7.8)
60	15 (8.3)

HP ONLY REPLACEMENT WITH PISTON INDOORS

When the 214D is used as a replacement component in a system with a piston fan coil, use the indoor piston size specified below:

UNIT SIZE	PISTON SIZE		
	FB4CNF	FFM	FPMA
18	0.052	0.050	0.050
24	0.057	0.057	0.056
30	0.067	0.070	0.067
36	0.070	0.072	0.069
42	0.078		
48	0.084		
60			

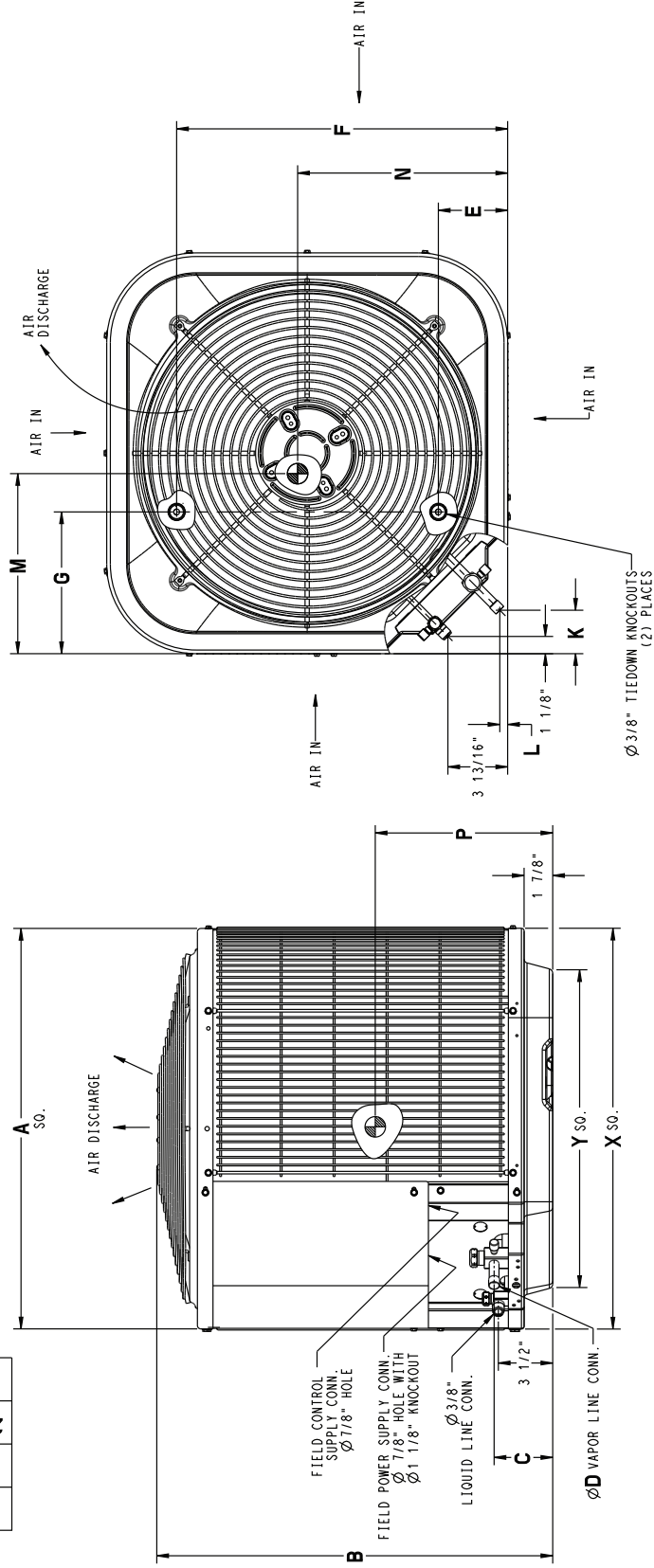
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DIMENSIONS - ENGLISH

UNIT	SERIES	ELECTRICAL CHARACTERISTICS		A	B	C	D	E	F	G	K	L	M	N	P	OPERATING WEIGHT (lbs)	SHIPPING WEIGHT (lbs)	SHIPPING DIMENSIONS (L x W x H)
214D018	A	X	O	O	23 1/8"	35 1/4"	3 3/4"	5/8"	4 7/16"	18 1/16"	2 13/16"	1/2"	11"	15 3/4"	12"	136	166	25 1/4" x 25 1/4" x 40"
214D024	A	X	O	O	25 3/4"	35 1/4"	3 3/4"	5/8"	4 7/16"	21 1/4"	2 13/16"	1/2"	12"	13 1/4"	13 1/2"	144	175	27 7/8" x 27 7/8" x 40"
214D030	A	X	O	O	31 3/16"	31 13/16"	3 3/4"	3/4"	6 9/16"	24 11/16"	2 15/16"	5/8"	15"	11"	16"	158	180	33 3/8" x 33 3/8" x 36 5/8"
214D036	B	X	O	O	31 3/16"	28 7/16"	3 3/4"	3/4"	6 9/16"	24 11/16"	2 15/16"	5/8"	15 3/4"	14"	10 3/4"	170	201	33 3/8" x 33 3/8" x 33 1/4"
214D042	A	X	O	O	31 3/16"	39 1/8"	3 7/8"	7/8"	6 9/16"	24 11/16"	2 15/16"	5/8"	15 1/2"	13 1/2"	14"	201	235	33 3/8" x 33 3/8" x 43 1/2"
214D048	A	X	O	O	31 3/16"	28 7/16"	3 7/8"	7/8"	6 9/16"	24 11/16"	2 15/16"	5/8"	16 1/2"	11 1/2"	15"	197	232	33 3/8" x 33 3/8" x 33 1/4"
214D060	A	X	O	O	31 3/16"	31 13/16"	3 7/8"	7/8"	6 9/16"	24 11/16"	2 15/16"	5/8"	14 3/4"	15 3/4"	16 1/4"	212	248	33 3/8" x 33 3/8" x 36 5/8"

X = YES
O = NO

208-230-160	230-160	208/230-3-60	460-3-60



UNIT SIZE	7C MIN. GROUND MOUNTING PAD APPLICATION DIMENSIONS	7C MIN. ROOF-TOP MOUNTING PAD APPLICATION DIMENSIONS
18	23 1/8"	17 3/4"
24	25 3/4"	20 7/16"
30, 36, 42, 48, 60	31 3/16"	23"
-	35"	26 3/4"

When installing, allow sufficient space for airflow clearance, wiring, refrigerant piping, and service. Allow 24 in. (609.6 mm) clearance to service end of unit and 48 in. (1219.2 mm) (above unit. For proper airflow, a 6-in. (152.4 mm) clearance on 1 side of unit and 12-in. (304.8 mm) on all remaining sides must be maintained. Maintain a distance of 24 in. (609.6 mm) between units or 18 in. (457.2 mm) if no overhang within 12 ft. (3.66 m) Position so water, snow, or ice from roof or eaves cannot fall directly on unit.

NOTE: 18" (457.2 mm) clearance option described above is approved for outdoor units with wire grille coil guard only. Units with lower panels require 24" (609.6 mm) between units.

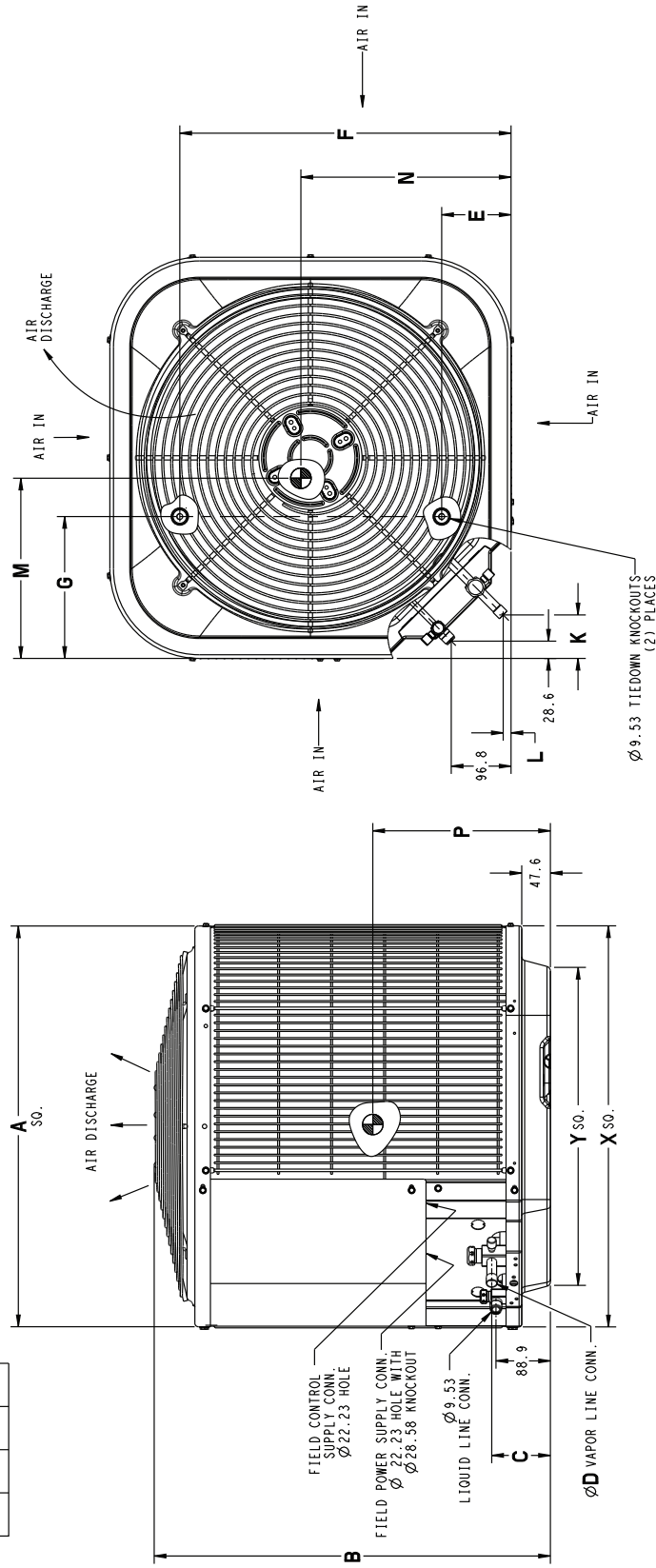
On rooftop applications, locate unit at least 6 in. (152.4 mm) above roof surface.

DIMENSIONS - SI

UNIT	SERIES	ELECTRICAL CHARACTERISTICS		A	B	C	D	E	F	G	K	L	M	N	P	OPERATING WEIGHT (Kgs)	SHIPPING WEIGHT (Kgs)	SHIPPING DIMENSIONS (L x W x H)	
214D018	A	X	0	0	587.4	895.4	95.2	15.9	112.7	458.8	198.4	71.4	12.7	279.4	400.1	304.8	61.7	75.3	641.5 X 641.5 X 1016.9
214D024	A	X	0	0	654.0	895.4	95.2	15.9	112.7	539.8	231.8	71.4	12.7	304.8	336.6	342.9	65.3	79.4	708.0 X 708.0 X 1016.9
214D030	A	X	0	0	792.2	808.0	95.2	19.0	166.7	627.1	231.8	74.6	15.9	381.0	279.4	406.4	71.7	81.6	846.6 X 846.6 X 930.6
214D036	B	X	0	0	792.2	722.3	95.2	19.0	166.7	627.1	231.8	74.6	15.9	400.1	355.6	273.1	77.1	91.2	846.6 X 846.6 X 844.2
214D042	A	X	0	0	792.2	993.8	98.4	22.2	166.7	627.1	231.8	74.6	15.9	393.7	342.9	355.6	91.2	106.6	846.6 X 846.6 X 1103.3
214D048	A	X	0	0	792.2	722.3	98.4	22.2	166.7	627.1	231.8	74.6	15.9	419.1	292.1	381.0	89.4	105.2	846.6 X 846.6 X 844.2
214D060	A	X	0	0	792.2	808.0	98.4	22.2	166.7	627.1	231.8	74.6	15.9	374.7	400.1	412.8	96.2	112.5	846.6 X 846.6 X 930.6

208-230-160	230-160	208/230-3-60	460-3-60

X = YES
O = NO



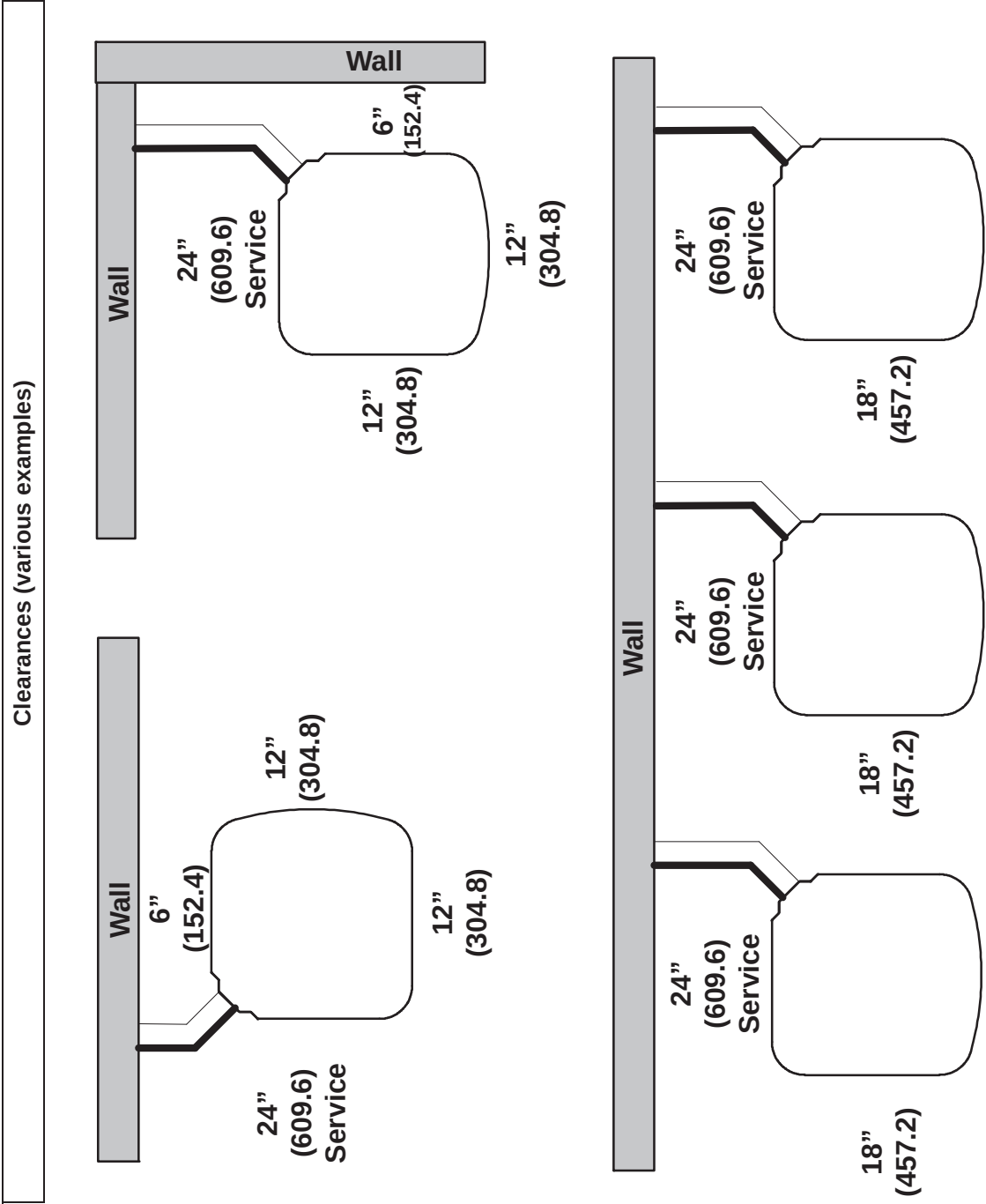
UNIT SIZE	X" MN GROUND MOUNTING PAD APPLICATION DIMENSIONS	Y" MN ROOF-TOP MOUNTING PAD APPLICATION DIMENSIONS
18	587.4	451.3
24	654.0	518.5
30, 36, 42, 48, 60	792.2	583.2
-	889.0	679.7

When installing, allow sufficient space for airflow clearance, wiring, refrigerant piping, and service. Allow 24 in. (609.6 mm) clearance to service end of unit and 48 in. (1219.2 mm) above unit. For proper airflow, a 6-in. (152.4 mm) clearance on 1 side of unit and 12-in. (304.8 mm) on all remaining sides must be maintained. Maintain a distance of 24 in. (609.6 mm) between units or 18 in. (457.2 mm) if no overhang within 12 ft. (3.66 m) Position so water, snow, or ice from roof or eaves cannot fall directly on unit.

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On rooftop applications, locate unit at least 6 in. (152.4 mm) above roof surface.

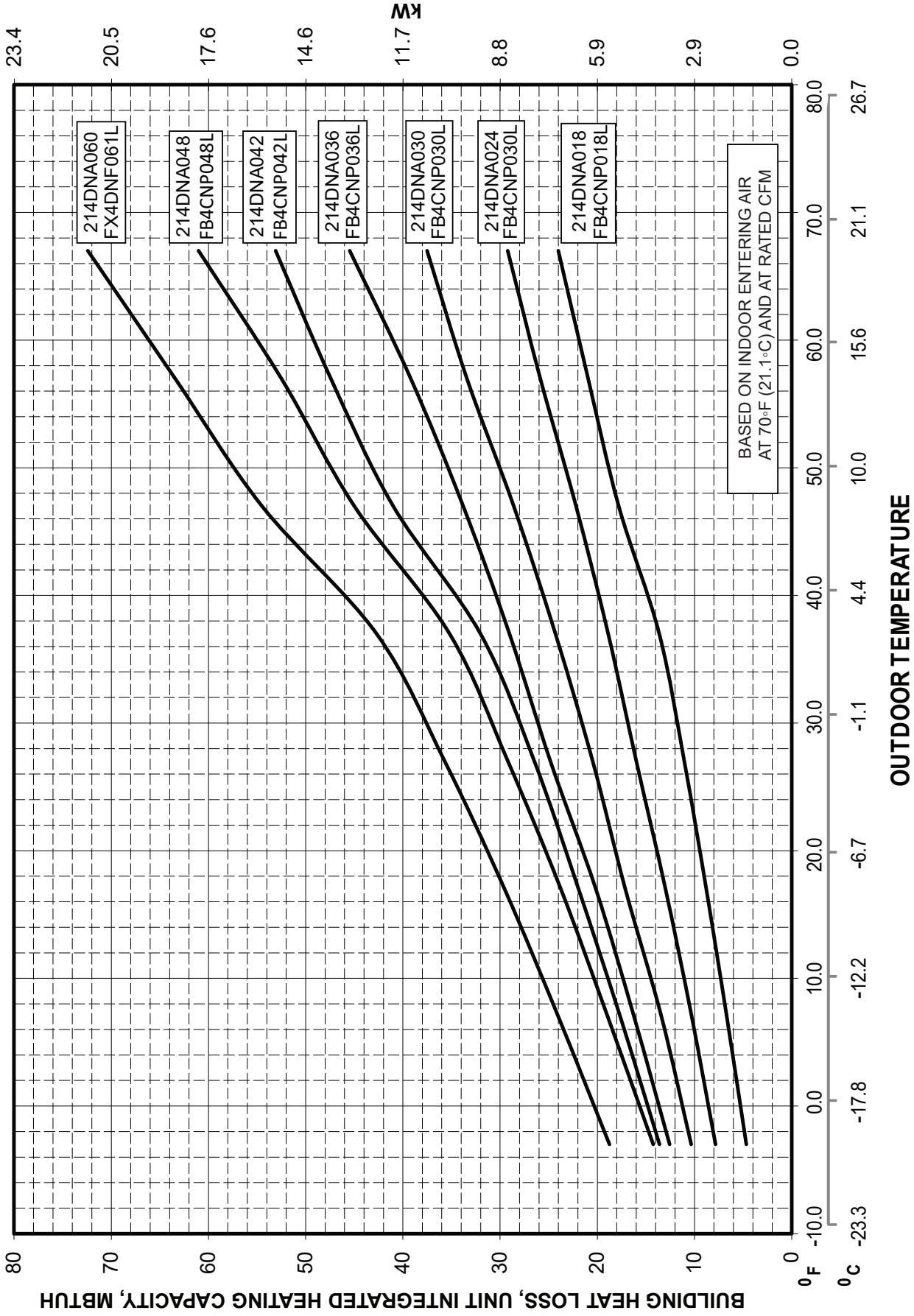
CLEARANCES



Note: Numbers in () = mm

IMPORTANT: When installing multiple units in an alcove, roof well, or partially enclosed area, ensure there is adequate ventilation to prevent re-circulation of discharge air.

BALANCE POINT WORKSHEET



TESTED AHRI COMBINATION RATINGS

NOTE: Ratings contained in this document are subject to change at any time.

For AHRI ratings certificates, please refer to the AHRI directory www.ahridirectory.org

Additional ratings and system combinations can be accessed via the Bryant database at: www.MyBryantRatings.com

For performance data at specific application &/or design conditions with various indoor unit combinations, the equipment performance calculator can be accessed at : <http://rpmobbry.wrightsoft.com/>

Model Number	Indoor Coil Model Number	Cooling Capacity	EER	SEER	High Temp		HSPF	Low Temp	
					E Capacity	E COP		H Capacity	H COP
214DNA018-A	FB4CNP018L	17,800	11.7	14	17,600	3.72	8.2	10,400	2.40
214DNA024-A	FB4CNP030L	22,200	11.5	14	22,200	3.84	8.2	13,200	2.54
214DNA030-A	FB4CNP030L	28,600	11.7	14	28,600	3.62	8.2	17,100	2.44
214DNA036-B	FB4CNP036L	33,000	11.7	14	33,800	3.62	8.2	21,000	2.40
214DNA042-A	FB4CNP042L	40,000	11.5	14	41,000	3.62	8.2	25,200	2.50
214DNA048-A	FB4CNP048L	46,000	11.7	14	45,500	3.64	8.2	27,800	2.56
214DNA060-A	FX4DN(B,F)061L	57,000	11.7	14	54,500	3.70	8.2	33,000	2.56

* AHRI = Air Conditioning, Heating & Refrigeration Institute

* Ratings are net values reflecting the effects of circulating fan heat. Supplemental electric heat is not included. Ratings are based on:

Cooling Standard: 80°F (27°C) db 67°F (19°C) wb indoor entering air temperature and 95°F (35°C) db air entering outdoor unit.

High-Temp Heating Standard: 70°F (21°C) db indoor entering air temperature and 47°F (8°C) db 43°F (6°C) wb air entering outdoor unit.

Low-Temp Heating Standard: 70°F (21°C) db indoor entering air temperature and 17°F (-8°C) db 15°F (-9°C) wb air entering outdoor unit.

COP — Coefficient of Performance

EER — Energy Efficiency Ratio

HSPF — Heating Seasonal Performance Factor

SEER — Seasonal Energy Efficiency Ratio

DETAILED COOLING CAPACITIES#

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES ° F (° C)										CONDENSER ENTERING AIR TEMPERATURES ° F (° C)															
CFM	EWB ° F (° C)	75 (23.9)		85 (29.4)		95 (35)		105 (40.6)		115 (46.1)		125 (51.7)		75 (23.9)		85 (29.4)		95 (35)		105 (40.6)		115 (46.1)		125 (51.7)			
		Capacity MBtuh		Total System KW**		Capacity MBtuh		Total System KW**		Capacity MBtuh		Total System KW**		Capacity MBtuh		Capacity MBtuh		Total System KW**		Capacity MBtuh		Total System KW**		Capacity MBtuh		Total System KW**	
		Total	Sens†	Total	Sens†	Total	Sens†	Total	Sens†	Total	Sens†	Total	Sens†	Total	Sens†	Total	Sens†	Total	Sens†	Total	Sens†	Total	Sens†	Total	Sens†		
		214DNA018 Outdoor Section With FB4CNP018L Indoor Section																									
525	72 (22.2)	21.43	10.44	1.20	20.38	10.06	13.36	19.27	9.66	15.4	18.10	9.26	1.74	16.86	8.83	1.97	15.56	8.39	2.22								
	67 (19.4)	19.44	12.77	1.19	18.48	12.39	13.36	17.47	11.99	15.3	16.40	11.58	1.73	15.26	11.15	1.96	14.06	10.69	2.21								
	63 (17.2)†	17.99	12.27	1.19	17.10	11.90	13.35	16.16	11.50	15.3	15.16	11.08	1.73	14.10	10.65	1.95	12.98	10.19	2.20								
	62 (16.7)	17.84	15.03	1.19	16.78	14.64	13.35	15.88	14.22	15.3	14.93	13.76	1.73	14.00	14.00	1.95	13.10	13.10	2.20								
	57 (13.9)	16.97	10.97	1.19	16.30	16.30	13.35	15.58	15.58	15.3	14.81	14.81	1.73	13.98	13.98	1.95	13.08	13.08	2.20								
600	72 (22.2)	21.88	10.96	1.21	20.77	10.58	13.38	19.62	10.18	15.6	18.40	9.76	1.76	17.12	9.33	1.98	15.77	8.88	2.23								
	67 (19.4)	19.86	13.61	1.20	18.86	13.22	13.37	17.80	12.82	15.5	16.69	12.39	1.75	15.51	11.95	1.97	14.27	11.48	2.22								
	63 (17.2)†	18.40	13.06	1.20	17.47	12.67	13.36	16.49	12.27	15.4	15.44	11.84	1.74	14.34	11.39	1.97	13.19	10.92	2.21								
	62 (16.7)	18.08	16.13	1.20	17.20	15.71	13.36	16.27	16.27	15.4	15.43	15.43	1.74	14.54	14.54	1.97	13.59	13.59	2.22								
	57 (13.9)	17.73	17.73	1.20	17.01	17.01	13.36	16.24	16.24	15.4	15.41	15.41	1.74	14.52	14.52	1.97	13.57	13.57	2.22								
675	72 (22.2)	22.22	11.46	1.22	21.08	11.07	13.39	19.88	10.66	15.7	18.63	10.24	1.77	17.31	9.80	2.00	15.92	9.35	2.25								
	67 (19.4)	20.19	14.41	1.22	19.15	14.01	13.38	18.06	13.60	15.6	16.91	13.16	1.76	15.70	12.71	1.99	14.44	12.22	2.23								
	63 (17.2)†	18.71	13.81	1.21	17.75	13.41	13.38	16.74	12.99	15.6	15.66	12.55	1.75	14.53	12.09	1.98	13.35	11.59	2.23								
	62 (16.7)	18.48	17.11	1.21	17.63	17.63	13.38	16.80	16.80	15.6	15.93	15.93	1.76	14.99	14.99	1.98	13.99	13.99	2.23								
	57 (13.9)	18.36	18.36	1.21	17.60	17.60	13.38	16.78	16.78	15.6	15.91	15.91	1.75	14.97	14.97	1.98	13.97	13.97	2.23								
		CONDENSER ENTERING AIR TEMPERATURES ° F (° C)																									
EVAPORATOR AIR		75 (23.9)		85 (29.4)		95 (35)		105 (40.6)		115 (46.1)		125 (51.7)		75 (23.9)		85 (29.4)		95 (35)		105 (40.6)		115 (46.1)		125 (51.7)			
CFM	EWB ° F (° C)	Capacity MBtuh		Total System KW**		Capacity MBtuh		Total System KW**		Capacity MBtuh		Total System KW**		Capacity MBtuh		Capacity MBtuh		Total System KW**		Capacity MBtuh		Total System KW**		Capacity MBtuh		Total System KW**	
		Total		Sens†		Total		Sens†		Total		Sens†		Total		Total		Sens†		Total		Sens†		Total		Sens†	
		214DNA024 Outdoor Section With FB4CNP030L Indoor Section																									
700	72 (22.2)	26.47	13.51	1.53	25.28	13.08	1.71	24.03	12.62	1.91	22.72	12.15	2.14	21.30	11.05	2.41	19.77	11.11	2.72								
	67 (19.4)	24.06	16.68	1.53	22.96	16.24	1.71	21.82	15.78	1.91	20.62	15.31	2.15	19.33	14.80	2.42	17.93	14.25	2.72								
	63 (17.2)†	22.32	16.04	1.53	21.30	15.60	1.72	20.23	15.14	1.92	19.11	14.66	2.16	17.91	14.15	2.42	16.82	13.60	2.73								
	62 (16.7)	21.92	19.75	1.53	20.94	19.28	1.72	19.93	18.78	1.92	18.88	18.78	2.16	17.88	17.88	2.42	16.83	16.83	2.73								
	57 (13.9)	21.31	21.31	1.54	20.52	20.52	1.72	19.70	19.70	1.92	18.81	18.81	2.16	17.86	17.86	2.42	16.81	16.81	2.73								
800	72 (22.2)	26.97	14.20	1.55	25.73	13.76	1.72	24.44	13.30	1.92	23.07	12.82	2.16	21.60	12.31	2.43	20.01	11.76	2.74								
	67 (19.4)	24.53	17.79	1.55	23.38	17.34	1.73	22.20	16.87	1.93	20.95	16.38	2.16	19.61	15.86	2.43	18.18	15.29	2.74								
	63 (17.2)†	22.77	17.07	1.55	21.70	16.62	1.73	20.60	16.15	1.94	19.43	15.65	2.17	18.53	15.13	2.44	17.41	17.41	2.74								
	62 (16.7)	22.45	21.17	1.55	21.45	21.27	1.73	20.50	20.50	1.94	19.55	19.55	2.17	18.53	18.53	2.44	17.41	17.41	2.74								
	57 (13.9)	22.20	22.20	1.55	21.35	21.35	1.73	20.47	20.47	1.94	19.53	19.53	2.17	18.51	18.51	2.44	17.39	17.39	2.74								
900	72 (22.2)	27.35	14.86	1.56	26.08	14.41	1.74	24.73	13.94	1.94	23.33	13.46	2.17	21.82	12.94	2.44	20.18	12.38	2.75								
	67 (19.4)	24.89	18.85	1.57	23.71	18.38	1.75	22.49	17.91	1.95	21.20	17.40	2.18	19.84	16.86	2.45	18.37	16.26	2.76								
	63 (17.2)†	23.12	18.05	1.57	22.02	17.59	1.75	20.88	17.10	1.96	19.68	16.59	2.19	18.41	16.05	2.46	17.05	15.45	2.77								
	62 (16.7)	22.97	22.97	1.57	22.08	22.08	1.75	21.14	21.14	1.95	20.14	20.14	2.19	19.07	19.07	2.45	17.88	17.88	2.76								
	57 (13.9)	22.94	22.94	1.57	22.05	22.05	1.75	21.11	21.11	1.95	20.12	20.12	2.19	19.04	19.04	2.45	17.86	17.86	2.76								
		CONDENSER ENTERING AIR TEMPERATURES ° F (° C)																									
EVAPORATOR AIR		75 (23.9)		85 (29.4)		95 (35)		105 (40.6)		115 (46.1)		125 (51.7)		75 (23.9)		85 (29.4)		95 (35)		105 (40.6)		115 (46.1)		125 (51.7)			
CFM	EWB ° F (° C)	Capacity MBtuh		Total System KW**		Capacity MBtuh		Total System KW**		Capacity MBtuh		Total System KW**		Capacity MBtuh		Capacity MBtuh		Total System KW**		Capacity MBtuh		Total System KW**		Capacity MBtuh		Total System KW**	
		Total		Sens†		Total		Sens†		Total		Sens†		Total		Total		Sens†		Total		Sens†		Total		Sens†	
		214DNA030 Outdoor Section With FB4CNP030L Indoor Section																									
875	72 (22.2)	33.97	17.32	1.97	32.47	16.75	2.17	30.87	16.16	2.40	29.15	15.54	2.67	27.30	14.87	2.98	25.29	14.15	3.33								
	67 (19.4)	30.80	21.30	1.97	29.42	20.72	2.17	27.96	20.13	2.40	26.39	19.50	2.67	24.69	18.82	2.98	22.86	18.10	3.32								
	63 (17.2)†	28.51	20.46	1.97	27.22	19.89	2.17	25.86	19.29	2.41	24.39	18.66	2.67	22.82	17.98	2.97	21.12	17.25	3.32								
	62 (16.7)	27.99	25.15	1.97	26.74	24.05	2.17	25.44	23.90	2.41	24.07	23.67	2.67	22.67	22.67	2.97	21.30	21.30	3.32								
	57 (13.9)	27.05	27.05	1.97	26.06	26.06	2.18	25.01	25.01	2.41	23.88	23.88	2.67	22.64	22.64	2.97	21.27	21.27	3.32								
1050	72 (22.2)	34.85	18.48	2.00	33.25	17.90	2.21	31.57	17.30	2.44	29.76	16.66	2.71	27.81	15.97	3.02	25.71	15.24	3.37								
	67 (19.4)	31.61	23.17	2.01	30.15	22.59	2.21	28.60	21.97	2.44	26.95	21.32	2.71	25.18	20.61	3.02	23.27	19.84	3.36								
	63 (17.2)†	29.28	22.21	2.01	27.91	21.62	2.21	26.47	21.00	2.45	24.94	20.34	2.71	23.29	19.63	3.01	21.52	18.86	3.36								
	62 (16.7)	28.88	27.53	2.01	27.62	27.37	2.21	26.36	26.36	2.45	25.12	25.12	2.71	23.77	23.77	3.01	22.28	22.28	3.36								
	57 (13.9)	28.55	28.55	2.01	27.48	27.48	2.21	26.33	26.33	2.45	25.09	25.09	2.71	23.74	23.74	3.01	22.26	22.26	3.36								
1125	72 (22.2)	35.15	18.97	2.02	33.53	18.39	2.23	31.81	17.78	2.46	29.96	17.13	2.73	27.99	16.44	3.03	25.85	15.70	3.38								
	67 (19.4)	31.89	23.92	2.02	30.39	23.37	2.23	28.82	22.74	2.46	27.14	22.07	2.73	25.34	21.35	3.03	23.41	20.56	3.38								
	63 (17.2)†	29.55	22.94	2.03	28.15	22.34	2.23	26.69	21.71	2.46	25.12	21.03	2.73	23.45	20.30	3.03	21.66	19.51	3.38								
	62 (16.7)	29.18	29.18	2.03	28.02	28.02	2.23	26.83	26.83	2.46	25.55	25.55	2.73	24.15	24.15	3.03	22.63	22.63	3.38								
	57 (13.9)	29.10	29.10	2.03	27.98	27.98	2.23	26.80	26.80	2.46	25.52	25.52	2.73	24.13	24.13	3.03	22.60	22.60	3.38								

DETAILED COOLING CAPACITIES# CONTINUED

CONDENSER ENTERING AIR TEMPERATURES ° F (° C)																			
EVAPORATOR AIR		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	EWB ° F (° C)	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**			
		Total	Sens†		Total	Sens†		Total	Sens†		Total	Sens†		Total	Sens†		Total	Sens†	
1050	72 (22.2)	39.42	20.36	2.23	37.61	19.67	2.10	35.70	18.96	2.00	33.63	18.20	3.10	31.37	17.37	3.46	28.97	16.51	3.85
	67 (19.4)	35.87	25.19	2.24	34.23	24.50	2.50	32.48	23.78	2.78	30.59	23.01	3.09	28.52	22.17	3.44	26.33	21.29	3.84
	63 (17.2)†	33.28	24.23	2.25	31.76	23.54	2.50	30.14	22.82	2.77	28.38	22.05	3.08	26.45	21.21	3.43	24.41	20.32	3.84
	62 (16.7)	32.68	29.85	2.25	31.22	29.12	2.50	29.67	28.32	2.77	28.03	27.40	3.08	26.31	26.31	3.43	24.65	24.65	3.84
	57 (13.9)	31.63	22.66	2.26	30.46	30.46	2.50	29.20	29.20	2.77	27.82	27.82	3.08	26.28	26.28	3.43	24.82	24.82	3.84
1200	72 (22.2)	40.13	21.34	2.27	38.25	20.63	2.54	36.25	19.90	2.83	34.10	19.12	3.14	31.76	18.28	3.50	29.28	17.40	3.90
	67 (19.4)	36.53	26.77	2.28	34.82	26.07	2.54	33.00	25.34	2.82	31.03	24.54	3.13	28.88	23.67	3.49	26.62	22.75	3.89
	63 (17.2)†	33.92	25.70	2.29	32.33	25.00	2.54	30.64	24.26	2.82	28.81	23.47	3.13	26.81	22.59	3.48	24.71	21.66	3.88
	62 (16.7)	33.39	31.85	2.29	31.89	31.02	2.54	30.31	30.31	2.82	28.80	28.80	3.12	27.16	27.16	3.48	25.40	25.40	3.88
	57 (13.9)	32.83	32.83	2.29	31.58	32.83	2.54	30.24	30.24	2.82	28.77	28.77	3.19	27.03	27.03	3.48	25.37	25.37	3.88
1350	72 (22.2)	40.68	22.25	2.31	38.72	21.53	2.58	36.66	20.80	2.87	34.45	20.01	3.19	32.03	19.15	3.54	29.50	18.26	3.94
	67 (19.4)	37.04	28.29	2.32	35.25	27.57	2.58	33.37	26.81	2.86	31.35	25.98	3.17	29.14	25.07	3.52	26.85	24.10	3.93
	63 (17.2)†	34.40	27.11	2.33	32.75	26.38	2.58	31.00	25.62	2.86	29.12	24.79	3.17	27.07	23.87	3.52	24.83	22.89	3.92
	62 (16.7)	33.95	33.95	2.33	32.55	32.55	2.58	31.13	31.13	2.86	29.57	29.57	3.17	27.85	27.85	3.52	26.00	26.00	3.93
	57 (13.9)	33.84	33.84	2.33	32.51	32.51	2.58	31.10	31.10	2.86	29.54	29.54	3.17	27.82	27.82	3.52	25.98	25.98	3.93
CONDENSER ENTERING AIR TEMPERATURES ° F (° C)																			
EVAPORATOR AIR		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	EWB ° F (° C)	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**			
		Total	Sens†		Total	Sens†		Total	Sens†		Total	Sens†		Total	Sens†		Total	Sens†	
1225	72 (22.2)	48.18	24.31	2.78	46.14	23.54	3.12	43.91	22.72	3.47	41.39	21.79	3.89	38.48	20.75	4.38	35.14	19.57	4.98
	67 (19.4)	43.90	29.85	2.81	42.03	29.07	3.13	40.00	28.24	3.48	37.70	27.31	3.86	35.04	26.26	4.38	31.96	25.05	5.00
	63 (17.2)†	40.78	28.76	2.83	39.02	27.98	3.14	37.15	27.15	3.48	35.01	26.22	3.88	32.54	25.16	4.38	29.68	23.95	5.01
	62 (16.7)	40.02	35.22	2.83	38.32	34.41	3.14	36.51	33.54	3.48	34.48	32.52	3.88	32.15	32.15	4.38	29.82	29.82	5.01
	57 (13.9)	38.47	38.47	2.84	37.12	37.12	3.14	35.68	35.68	3.48	34.03	34.03	3.88	32.08	32.08	4.38	29.78	29.78	5.01
1400	72 (22.2)	49.11	25.48	2.81	46.98	24.70	3.15	44.64	23.85	3.51	42.03	22.91	3.92	39.00	21.85	4.41	35.57	20.66	5.02
	67 (19.4)	44.77	31.73	2.84	42.82	30.94	3.17	40.70	30.10	3.51	38.30	29.14	3.92	35.55	28.06	4.42	32.39	26.81	5.03
	63 (17.2)†	41.63	30.52	2.86	39.80	29.72	3.17	37.83	28.87	3.52	35.61	27.92	3.92	33.04	26.83	4.42	30.10	25.58	5.04
	62 (16.7)	40.95	37.70	2.86	39.20	36.82	3.18	37.36	35.82	3.52	35.36	35.36	3.92	33.27	33.27	4.42	30.82	30.82	5.04
	57 (13.9)	40.07	40.07	2.87	38.63	38.63	3.18	37.09	37.09	3.52	35.31	35.31	3.92	33.23	33.23	4.42	30.78	30.78	5.04
1575	72 (22.2)	49.81	26.57	2.84	47.60	25.78	3.18	45.20	24.93	3.54	42.49	23.97	3.96	39.38	22.90	4.44	35.86	21.70	5.05
	67 (19.4)	45.44	33.53	2.87	43.41	32.72	3.20	41.22	31.85	3.55	38.75	30.88	3.96	35.92	29.75	4.45	32.71	28.46	5.06
	63 (17.2)†	42.28	32.19	2.89	40.38	31.38	3.21	38.36	30.51	3.55	36.06	29.53	3.96	33.43	28.40	4.45	30.42	27.09	5.08
	62 (16.7)	41.76	39.89	2.89	39.97	39.97	3.21	38.30	38.30	3.55	36.41	36.41	3.96	34.21	34.21	4.45	31.64	31.64	5.07
	57 (13.9)	41.40	41.40	2.90	39.89	39.89	3.21	38.25	38.25	3.55	36.36	36.36	3.96	34.17	34.17	4.45	31.60	31.60	5.07
CONDENSER ENTERING AIR TEMPERATURES ° F (° C)																			
EVAPORATOR AIR		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	EWB ° F (° C)	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**			
		Total	Sens†		Total	Sens†		Total	Sens†		Total	Sens†		Total	Sens†		Total	Sens†	
1400	72 (22.2)	55.75	28.05	3.23	53.27	27.12	3.59	50.55	26.11	3.96	47.46	24.99	4.37	44.01	23.75	4.83	40.13	22.38	5.35
	67 (19.4)	50.68	34.45	3.22	48.45	33.53	3.57	46.00	32.52	3.93	43.23	31.42	4.34	40.10	30.17	4.80	36.59	28.79	5.33
	63 (17.2)†	46.99	33.15	3.22	44.92	32.23	3.55	42.67	31.23	3.91	40.12	30.14	4.31	37.25	28.91	4.78	34.00	27.52	5.32
	62 (16.7)	46.10	40.65	3.21	44.11	39.69	3.55	41.94	38.63	3.91	39.54	37.40	4.31	36.87	36.87	4.77	34.21	34.21	5.32
	57 (13.9)	44.33	44.33	3.21	42.76	42.76	3.54	41.05	41.05	3.90	39.07	39.07	4.30	36.80	36.80	4.77	34.17	34.17	5.32
1600	72 (22.2)	56.80	29.37	3.28	54.22	28.42	3.64	51.35	27.39	4.01	48.15	26.25	4.42	44.55	24.98	4.88	40.56	23.60	5.40
	67 (19.4)	51.68	36.59	3.28	49.35	35.66	3.62	46.77	34.62	3.99	43.87	33.48	4.39	40.64	32.20	4.85	37.01	30.76	5.38
	63 (17.2)†	47.95	35.15	3.27	45.79	34.25	3.61	43.42	33.18	3.96	40.77	32.06	4.37	37.78	30.79	4.83	34.43	29.35	5.37
	62 (16.7)	47.16	43.44	3.27	45.10	42.39	3.60	42.90	41.17	3.96	40.54	40.54	4.37	38.10	38.10	4.83	35.30	35.30	5.38
	57 (13.9)	46.14	46.14	3.26	44.46	44.46	3.60	42.61	42.61	3.96	40.49	40.49	4.37	38.06	38.06	4.83	35.26	35.26	5.37
1800	72 (22.2)	57.65	30.65	3.33	54.95	29.68	3.69	52.00	28.64	4.06	48.67	27.48	4.47	44.97	26.19	4.93	40.86	24.79	5.45
	67 (19.4)	52.48	38.69	3.33	50.04	37.72	3.67	47.37	36.65	4.04	44.38	35.48	4.45	41.04	34.15	4.91	37.34	32.64	5.44
	63 (17.2)†	48.72	37.10	3.32	46.47	36.13	3.66	44.02	35.07	4.02	41.28	33.91	4.42	38.20	32.58	4.88	34.78	31.07	5.42
	62 (16.7)	48.09	45.92	3.32	45.89	45.89	3.66	43.96	43.96	4.02	41.71	41.71	4.43	39.13	39.13	4.89	36.17	36.17	5.43
	57 (13.9)	47.65	47.65	3.32	45.88	45.88	3.66	43.91	43.91	4.02	41.66	41.66	4.43	39.09	39.09	4.89	36.13	36.13	5.43

See notes on page 16

DETAILED COOLING CAPACITIES# CONTINUED

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES ° F (° C)																						
CFM	EWB ° F (° C)	75 (23.9)				85 (29.4)				95 (35)				105 (40.6)				115 (46.1)				125 (51.7)		Total System KW**
		Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**		
		Total	Sens†		Total	Sens†		Total	Sens†		Total	Sens†		Total	Sens†		Total	Sens†		Total	Sens†		Total	
214DNA060 Outdoor Section With FX4DN(B)F061L Indoor Section																								
1750	72 (22.2)	64.47	36.36	3.53	61.69	35.21	3.88	58.75	34.01	4.30	55.61	32.74	4.78	52.18	31.36	5.34	48.43	29.90	5.99					
	67 (19.4)	58.76	44.97	3.50	56.25	43.82	3.86	53.58	42.62	4.27	50.71	41.34	4.76	47.58	39.96	5.32	44.10	38.44	5.96					
	63 (17.2)†	54.60	43.31	3.48	52.27	42.16	3.84	49.79	40.96	4.25	47.13	39.68	4.74	44.21	38.28	5.29	40.98	36.76	5.94					
	62 (16.7)	53.59	53.34	3.48	51.34	52.14	3.84	48.98	50.87	4.25	46.43	49.42	4.73	43.81	43.81	5.29	41.19	41.19	5.94					
	57 (13.9)	51.87	51.87	3.47	50.08	50.08	3.83	48.17	48.17	4.25	46.08	46.08	4.73	43.74	43.74	5.29	41.14	41.14	5.94					
2000	72 (22.2)	65.61	38.13	3.59	62.71	36.95	3.95	59.66	35.74	4.37	56.39	34.44	4.85	52.83	33.04	5.41	48.97	31.55	6.06					
	67 (19.4)	59.86	47.88	3.57	57.21	46.69	3.92	54.43	45.47	4.34	51.45	44.16	4.82	48.19	42.72	5.38	44.64	41.17	6.03					
	63 (17.2)†	55.66	46.01	3.55	53.22	44.83	3.91	50.64	43.61	4.32	47.87	42.29	4.80	44.85	40.86	5.36	41.52	39.29	6.01					
	62 (16.7)	54.79	57.14	3.55	52.47	55.78	3.90	50.08	50.08	4.32	47.80	47.80	4.80	45.32	45.32	5.36	42.54	42.54	6.02					
	57 (13.9)	53.97	53.97	3.54	52.05	52.05	3.90	49.99	49.99	4.32	47.74	47.74	4.80	45.26	45.26	5.36	42.49	42.49	6.02					
2250	72 (22.2)	66.47	39.80	3.66	63.48	38.61	4.02	60.32	37.37	4.43	56.96	36.06	4.91	53.30	34.64	5.47	49.33	33.13	6.12					
	67 (19.4)	60.67	50.65	3.63	57.94	49.44	3.99	55.07	48.18	4.40	51.99	46.83	4.89	48.67	45.37	5.45	45.03	43.74	6.09					
	63 (17.2)†	56.46	48.58	3.61	53.93	47.38	3.97	51.26	46.11	4.38	48.41	44.76	4.87	45.32	43.28	5.43	41.91	41.91	6.07					
	62 (16.7)	55.83	55.83	3.61	53.75	53.75	3.97	51.56	51.56	4.39	49.17	49.17	4.87	46.57	46.57	5.44	43.63	43.63	6.09					
	57 (13.9)	55.71	55.71	3.61	53.68	53.68	3.97	51.49	51.49	4.39	49.12	49.12	4.87	46.49	46.49	5.43	43.58	43.58	6.09					

† Total and sensible capacities are net capacities. Blower motor heat has been subtracted.

‡ Sensible capacities shown are based on 80°F (27°C) entering air at the indoor coil. For sensible capacities at other than 80°F (27°C), deduct 835 Btuh (245 kW) per 1000 CFM (480 L/S) of indoor coil air for each degree below 80°F (27°C), or add 835 Btuh (245 kW) per 1000 CFM (480 L/S) of indoor coil air per degree above 80°F (27°C).

Detailed cooling capacities are based on indoor and outdoor unit at the same elevation per AHRI standard 210/240–2008. If additional tubing length and/or indoor unit is located above outdoor unit, a slight variation in capacity may occur.

** Sys. kw is total of indoor and outdoor unit kilowatts.

†† At TVA rating indoor condition (75°F db/63°F ewb). All other indoor air temperatures are at 80°F db.

NOTE: When the required data falls between the published data, interpolation may be performed. Extrapolation is not an acceptable practice.

EWB — Entering Wet Bulb

HEAT PUMP HEATING PERFORMANCE

INDOOR AIR			OUTDOOR COIL ENTERING AIR TEMPERATURES ° F (° C)																				
EDB ° F (° C)	CFM	-3 (19.4)		7 (-13.9)		17 (-8.3)		27 (-2.8)		37 (2.8)		47 (8.3)		57 (13.9)		67 (19.4)							
		Capacity MBtuh	Total Sys-tem KW	Capacity MBtuh	Total Sys-tem KW	Capacity MBtuh	Total Sys-tem KW	Capacity MBtuh	Total Sys-tem KW	Capacity MBtuh	Total Sys-tem KW	Capacity MBtuh	Total Sys-tem KW	Capacity MBtuh	Total Sys-tem KW	Capacity MBtuh	Total Sys-tem KW						
214DNA018 Outdoor Section With F84CNP018L Indoor Section																							
65	525	5.26	4.84	1.03	7.45	6.84	1.09	9.80	8.94	12.54	11.14	1.21	15.07	13.71	1.27	17.87	17.87	21.00	21.00	24.19	24.19	1.53	
	600	5.36	4.93	1.04	7.57	6.95	1.09	9.96	9.08	12.70	11.28	1.19	15.26	13.89	1.24	18.13	18.13	21.35	21.35	24.32	24.32	1.47	
	675	5.44	5.01	1.04	7.66	7.04	1.09	10.09	9.20	12.83	11.40	1.18	15.43	14.04	1.23	18.33	18.33	21.54	21.54	24.32	24.32	1.43	
70	525	4.98	4.58	1.08	7.15	6.57	1.14	9.49	8.65	12.28	10.90	1.27	14.78	13.45	1.33	17.54	17.54	20.61	20.61	23.84	23.84	1.61	
	600	5.08	4.67	1.08	7.27	6.68	1.14	9.64	8.79	12.45	11.05	1.25	14.98	13.63	1.31	17.80	17.80	20.95	20.95	24.01	24.01	1.55	
	675	5.16	4.75	1.09	7.38	6.78	1.14	9.77	8.91	12.58	11.17	1.24	15.14	13.78	1.29	18.01	18.01	21.21	21.21	24.05	24.05	1.50	
75	525	4.65	4.28	1.13	6.83	6.27	1.19	9.15	8.35	12.58	11.08	1.33	14.49	13.19	1.40	17.21	17.21	20.22	20.22	23.47	23.47	1.69	
	600	4.74	4.36	1.13	6.95	6.39	1.19	9.31	8.49	12.6	10.80	1.31	14.69	13.37	1.37	17.46	17.46	20.55	20.55	23.68	23.68	1.62	
	675	4.84	4.45	1.14	7.05	6.48	1.19	9.44	8.61	12.7	10.93	1.30	14.86	13.52	1.36	17.67	17.67	20.82	20.82	23.75	23.75	1.58	
214DNA024 Outdoor Section With F84CNP030L Indoor Section																							
65	700	8.09	7.45	1.53	10.51	9.65	1.59	13.25	12.08	16.10	14.30	1.71	18.99	17.28	1.79	22.27	22.27	26.02	26.02	29.55	29.55	2.06	
	800	8.23	7.57	1.54	10.66	9.80	1.58	13.63	12.43	16.28	14.46	1.70	19.22	17.49	1.76	22.55	22.55	26.19	26.19	29.49	29.49	2.00	
	900	8.35	7.69	1.54	10.81	9.93	1.59	13.78	12.56	16.44	14.60	1.69	19.41	17.67	1.74	22.78	22.78	26.20	26.20	29.26	29.26	1.95	
70	700	7.69	7.08	1.60	10.12	9.30	1.66	12.77	11.64	15.81	14.04	1.80	18.67	16.99	1.87	21.95	21.95	25.62	25.62	29.23	29.23	2.16	
	800	7.84	7.21	1.60	10.29	9.45	1.65	12.99	11.84	15.99	14.20	1.78	18.89	17.19	1.84	22.20	22.20	25.88	25.88	29.23	29.23	2.10	
	900	7.96	7.32	1.61	10.43	9.59	1.66	13.21	12.05	16.16	14.35	1.77	19.08	17.37	1.83	22.42	22.42	25.96	25.96	29.10	29.10	2.05	
75	700	7.30	6.71	1.67	9.74	8.95	1.73	12.37	11.28	15.54	13.80	1.88	18.37	16.72	1.96	21.60	21.60	25.21	25.21	28.90	28.90	2.26	
	800	7.44	6.84	1.67	9.90	9.10	1.73	12.57	11.46	15.73	13.97	1.86	18.58	16.91	1.93	21.86	21.86	25.31	25.31	28.93	28.93	2.20	
	900	7.55	6.95	1.68	10.03	9.22	1.73	12.73	11.61	15.88	14.10	1.85	18.76	17.07	1.92	22.08	22.08	25.68	25.68	28.88	28.88	2.15	
214DNA030 Outdoor Section With F84CNP030L Indoor Section																							
65	875	10.54	9.70	1.80	13.55	12.45	1.87	17.16	15.64	19.5	18.19	2.04	24.30	22.12	2.14	28.57	28.57	33.42	33.42	37.91	37.91	2.51	
	1050	10.81	9.95	1.81	13.87	12.75	1.88	17.44	15.90	20.83	18.50	2.02	24.73	22.50	2.11	29.10	29.10	33.84	33.84	37.90	37.90	2.43	
	1125	10.91	10.04	1.82	13.99	12.85	1.88	17.54	15.99	20.96	18.61	2.02	24.88	22.64	2.11	29.28	29.28	33.88	33.88	37.80	37.80	2.41	
70	875	10.08	9.27	1.87	13.10	12.04	1.95	16.82	15.34	20.13	17.88	2.13	23.89	21.74	2.23	28.09	28.09	32.88	32.88	37.48	37.48	2.62	
	1050	10.34	9.51	1.89	13.40	12.31	1.95	17.12	15.61	20.47	18.18	2.11	24.31	22.12	2.20	28.60	28.60	33.42	33.42	37.51	37.51	2.53	
	1125	10.44	9.60	1.90	13.51	12.42	1.96	17.23	15.71	20.4	18.29	2.11	24.46	22.26	2.20	28.79	28.79	33.53	33.53	37.48	37.48	2.50	
75	875	9.61	8.84	1.95	12.64	11.62	2.02	16.08	14.66	21.11	19.78	2.22	23.48	21.37	2.32	27.62	27.62	32.34	32.34	37.01	37.01	2.73	
	1050	9.86	9.07	1.96	12.94	11.89	2.03	16.76	15.28	21.2	19.81	2.20	23.89	21.74	2.30	28.11	28.11	32.93	32.93	37.11	37.11	2.64	
	1125	9.95	9.16	1.97	13.05	11.99	2.04	16.87	15.39	21.2	20.23	2.19	24.04	21.88	2.29	28.30	28.30	33.08	33.08	37.07	37.07	2.62	
214DNA036 Outdoor Section With F84CNP036L Indoor Section																							
65	1050	12.92	11.89	2.18	16.50	15.16	2.26	20.40	18.60	23.4	24.90	22.12	2.45	29.12	26.50	2.55	33.86	33.86	39.25	39.25	45.49	45.49	3.02
	1200	13.19	12.13	2.20	16.81	15.44	2.27	20.77	18.94	23.5	25.23	22.40	2.44	29.49	26.84	2.53	34.32	34.32	39.87	39.87	46.23	46.23	2.94
	1350	13.43	12.35	2.23	17.08	15.69	2.29	21.13	19.27	23.6	25.51	22.66	2.44	29.82	27.14	2.52	34.70	34.70	40.38	40.38	46.70	46.70	2.88
70	1050	12.30	11.32	2.26	15.91	14.62	2.34	19.81	18.06	24.3	24.51	21.77	2.55	28.67	26.09	2.65	33.35	33.35	38.60	38.60	44.71	44.71	3.15
	1200	12.56	11.56	2.28	16.22	14.90	2.36	20.15	18.38	24.4	24.82	22.05	2.54	29.04	26.43	2.63	33.80	33.80	39.20	39.20	45.47	45.47	3.07
	1350	12.80	11.77	2.31	16.48	15.15	2.38	20.47	18.66	24.5	25.10	22.29	2.55	29.36	26.72	2.63	34.19	34.19	39.70	39.70	46.01	46.01	3.02
75	1050	11.66	10.73	2.35	15.30	14.06	2.43	19.20	17.50	25.3	24.07	21.37	2.66	28.23	25.69	2.77	32.83	32.83	37.95	37.95	43.92	43.92	3.29
	1200	11.92	10.97	2.37	15.60	14.34	2.45	19.54	17.82	25.5	24.41	21.68	2.65	28.54	26.02	2.75	33.28	33.28	38.54	38.54	44.68	44.68	3.22
	1350	12.15	11.18	2.40	15.87	14.58	2.47	19.85	18.10	25.5	24.69	21.93	2.65	28.91	26.31	2.74	33.66	33.66	39.03	39.03	45.28	45.28	3.16

See notes on page 18

HEAT PUMP HEATING PERFORMANCE CONTINUED

INDOOR AIR			OUTDOOR COIL ENTERING AIR TEMPERATURES ° F (° C)																						
EDB ° F (° C)	CFM	-3 (19.4)		7 (-13.9)		17 (-8.3)		27 (-2.8)		37 (2.8)		47 (8.3)		57 (13.9)		67 (19.4)									
		Capacity MBtuh	Total Sys-tem KW	Capacity MBtuh	Total Sys-tem KW	Capacity MBtuh	Total Sys-tem KW	Capacity MBtuh	Total Sys-tem KW	Capacity MBtuh	Total Sys-tem KW	Capacity MBtuh	Total Sys-tem KW	Capacity MBtuh	Total Sys-tem KW	Capacity MBtuh	Total Sys-tem KW								
214DNA042 Outdoor Section With FB4CNP042L Indoor Section																									
65	1225	15.59	14.35	2.48	19.93	18.31	2.59	24.83	22.64	2.71	30.26	26.88	2.87	35.66	32.45	3.01	41.58	41.58	3.18	48.02	48.02	3.34	53.69	53.69	3.47
	1400	15.91	14.64	2.50	20.28	18.64	2.59	25.75	23.48	2.72	30.60	27.17	2.84	36.05	32.81	2.98	42.10	42.10	3.14	48.21	48.21	3.26	53.51	53.51	3.37
	1575	16.19	14.89	2.51	20.58	18.91	2.60	26.05	23.75	2.72	30.91	27.46	2.84	36.39	33.12	2.96	42.45	42.45	3.10	48.18	48.18	3.20	53.24	53.24	3.31
70	1225	14.78	13.60	2.58	19.20	17.64	2.69	24.06	21.93	2.82	29.80	26.47	2.98	35.19	32.02	3.14	41.00	41.00	3.32	47.42	47.42	3.48	53.09	53.09	3.62
	1400	15.07	13.87	2.59	19.52	17.94	2.69	24.44	22.28	2.81	30.13	26.76	2.96	35.55	32.35	3.10	41.49	41.49	3.27	47.70	47.70	3.40	52.99	52.99	3.52
	1575	15.33	14.10	2.61	19.82	18.21	2.71	24.79	22.60	2.82	30.42	27.02	2.95	35.89	32.66	3.09	41.91	41.91	3.24	47.75	47.75	3.35	52.74	52.74	3.45
75	1225	14.00	12.88	2.68	18.50	17.00	2.79	23.38	21.32	2.93	29.35	26.07	3.11	34.70	31.57	3.28	40.41	40.41	3.47	46.83	46.83	3.64	52.47	52.47	3.79
	1400	14.27	13.13	2.69	18.80	17.28	2.80	23.74	21.65	2.92	29.68	26.36	3.09	35.07	31.92	3.24	40.89	40.89	3.41	47.13	47.13	3.55	52.43	52.43	3.68
	1575	14.51	13.34	2.71	19.07	17.53	2.81	24.05	21.93	2.93	29.95	26.60	3.07	35.39	32.20	3.21	41.30	41.30	3.38	47.26	47.26	3.50	52.23	52.23	3.60
214DNA048 Outdoor Section With FB4CNP048L Indoor Section																									
65	1400	16.35	15.04	2.75	21.40	19.66	2.87	26.82	24.46	3.00	33.50	29.76	3.17	39.20	35.67	3.31	45.68	45.68	3.48	53.36	53.36	3.67	61.87	61.87	3.84
	1600	16.69	15.36	2.78	21.78	20.01	2.89	27.25	24.85	3.00	33.88	30.09	3.16	39.67	36.10	3.29	46.26	46.26	3.44	54.19	54.19	3.61	62.42	62.42	3.76
	1800	17.00	15.64	2.81	22.12	20.33	2.91	27.64	25.20	3.02	34.22	30.40	3.17	40.06	36.45	3.28	46.75	46.75	3.42	54.77	54.77	3.57	62.78	62.78	3.72
70	1400	15.48	14.25	2.85	20.80	18.93	2.97	26.05	23.75	3.11	32.86	29.19	3.29	38.68	35.20	3.45	45.00	45.00	3.62	52.51	52.51	3.82	61.02	61.02	4.00
	1600	15.80	14.54	2.87	20.97	19.27	2.99	26.47	24.14	3.12	33.35	29.62	3.28	39.10	35.58	3.42	45.56	45.56	3.58	53.28	53.28	3.75	61.59	61.59	3.92
	1800	16.05	14.76	2.91	21.28	19.55	3.02	26.84	24.47	3.13	33.71	29.94	3.29	39.47	35.92	3.42	46.04	46.04	3.56	53.98	53.98	3.72	61.98	61.98	3.87
85	1400	13.11	12.07	3.19	18.31	16.83	3.34	23.83	21.72	3.50	29.75	26.42	3.67	37.16	33.82	3.93	43.00	43.00	4.12	49.89	49.89	4.32	58.18	58.18	4.52
	1600	13.37	12.30	3.22	18.63	17.12	3.35	24.21	22.07	3.50	30.22	26.84	3.66	37.55	34.17	3.89	43.52	43.52	4.07	50.66	50.66	4.25	58.86	58.86	4.43
	1800	13.58	12.49	3.25	18.88	17.35	3.38	24.50	22.34	3.51	30.57	27.15	3.66	37.88	34.48	3.87	43.96	43.96	4.04	51.35	51.35	4.20	59.33	59.33	4.37
214DNA060 Outdoor Section With FB4DNP061L Indoor Section																									
65	1750	21.14	19.45	3.33	26.85	24.67	3.46	33.16	30.23	3.60	40.66	36.11	3.79	47.51	43.23	3.95	55.22	55.22	4.13	64.29	64.29	4.32	73.31	73.31	4.50
	2000	21.51	19.79	3.36	27.26	25.05	3.48	33.65	30.68	3.61	41.05	36.45	3.77	48.03	43.70	3.92	55.88	55.88	4.08	64.95	64.95	4.23	73.54	73.54	4.40
	2250	21.84	20.10	3.40	27.62	25.39	3.51	34.07	31.07	3.63	41.40	36.77	3.78	48.48	44.12	3.91	56.46	56.46	4.07	65.31	65.31	4.19	73.39	73.39	4.34
70	1750	20.38	18.75	3.48	26.13	24.01	3.62	32.40	29.54	3.78	40.19	35.69	3.97	46.94	42.71	4.14	54.50	54.50	4.32	63.44	63.44	4.51	72.41	72.41	4.70
	2000	20.74	19.08	3.51	26.54	24.39	3.64	32.87	29.97	3.77	40.59	36.05	3.96	47.44	43.17	4.11	55.15	55.15	4.27	64.14	64.14	4.42	72.69	72.69	4.60
	2250	21.08	19.40	3.55	26.91	24.73	3.67	33.30	30.36	3.79	40.95	36.37	3.96	47.88	43.57	4.09	55.71	55.71	4.25	64.55	64.55	4.38	72.63	72.63	4.53
75	1750	19.58	18.01	3.63	25.36	23.30	3.78	31.62	28.83	3.94	39.67	35.23	4.16	46.37	42.20	4.33	53.80	53.80	4.52	62.59	62.59	4.72	71.50	71.50	4.92
	2000	19.94	18.35	3.67	25.78	23.69	3.80	32.10	29.27	3.94	40.12	35.64	4.14	46.85	42.63	4.29	54.42	54.42	4.46	63.33	63.33	4.63	71.81	71.81	4.80
	2250	20.28	18.65	3.71	26.15	24.03	3.83	32.52	29.65	3.96	40.49	35.96	4.14	47.28	43.02	4.28	54.97	54.97	4.43	63.78	63.78	4.57	71.82	71.82	4.73

NOTE: When the required data falls between the published data, interpolation may be performed. Extrapolation is not an acceptable practice.

* The Btuh heating capacity values shown are net integrated values from which the defrost effect has been subtracted. The Btuh heating from supplement heaters should be added to those values to obtain total Sys. capacity.

† The kW values include the compressor, outdoor fan motor, and indoor blower motor. The kW from supplement heaters should be added to these values to obtain total Sys. kilowatts.

EDB — Entering Dry Bulb

GUIDE SPECIFICATIONS

GENERAL

AIR-COOLED, SPLIT-SYSTEM HEAT PUMP

214DNA

1-1/2 TO 5 NOMINAL TONS

System Description

Outdoor-mounted, air-cooled, split-system heat pump unit suitable for ground or rooftop installation. Unit consists of a hermetic compressor, an air-cooled coil, propeller-type condenser fan, and a control box. Unit will discharge supply air upward as shown on contract drawings. Unit will be used in a refrigeration circuit to match up to a packaged fan coil or coil unit.

Quality Assurance

- Unit will be rated in accordance with the latest edition of AHRI Standard 240.
- Unit will be certified for capacity and efficiency, and listed in the latest AHRI directory.
- Unit construction will comply with latest edition of ANSI/ASHRAE and with NEC.
- Unit will be constructed in accordance with UL standards and will carry the UL label of approval. Unit will have C-UL approval.
- Unit cabinet will be capable of withstanding Federal Test Method Standard No. 141 (Method 6061) 500-hr salt spray test.
- Air-cooled condenser coils are pressure tested and the outdoor unit is leak tested.
- Unit constructed in ISO9001 approved facility.

Delivery, Storage, and Handling

- Unit will be shipped as single package only and is stored and handled per unit manufacturer's recommendations.

Warranty (for inclusion by specifying engineer)

- U.S. and Canada only.

PRODUCTS

Equipment

- Factory assembled, single piece, air-cooled heat pump unit. Contained within the unit enclosure is all factory wiring, piping, controls, compressor, refrigerant charge Puron® (R-410A), and special features required prior to field start-up.

Unit Cabinet

- Unit cabinet will be constructed of galvanized steel, bonderized, and coated with a powder coat paint.
- Available with dense grille only.

Fans

- Condenser fan will be direct-drive propeller type, discharging air upward.
- Condenser fan motors will be totally enclosed, 1-phase type with class B insulation and permanently lubricated bearings.
- Shafts will be corrosion resistant.
- Fan blades will be statically and dynamically balanced.
- Condenser fan openings will be equipped with steel wire safety guards.

Compressor

- Compressor will be hermetically sealed.
- Compressor will be mounted on rubber vibration isolators.

Condenser Coil

- Condenser coil will be air cooled.
- Coil will be constructed of aluminum fins mechanically bonded to copper tubes which are then cleaned, dehydrated, and sealed.

Refrigeration Components

- Refrigeration circuit components will include liquid-line shutoff valve with sweat connections, vapor-line shutoff valve with sweat connections, system charge of Puron® (R-410A) refrigerant, POE compressor oil, accumulator, and reversing valve.

Operating Characteristics

- The capacity of the unit will meet or exceed _____ Btuh at a suction temperature of _____ °F/°C. The power consumption at full load will not exceed _____ kW.
- Combination of the unit and the evaporator or fan coil unit will have a total net cooling capacity of _____ Btuh or greater at conditions of _____ CFM entering air temperature at the evaporator at _____ °F wet bulb and _____ °F/°C dry bulb, and air entering the unit at _____ °F/°C.
- The system will have a SEER of _____ Btuh/watt or greater at DOE conditions.

Electrical Requirements

- Nominal unit electrical characteristics will be _____ v, single phase, 60 hz. The unit will be capable of satisfactory operation within voltage limits of _____ v to _____ v.
- Unit electrical power will be single point connection.
- Control circuit will be 24v.

Special Features

- Refer to section of this literature identifying accessories and descriptions for specific features and available enhancements.

SYSTEM DESIGN SUMMARY

1. Intended for outdoor installation with free air inlet and outlet. Outdoor fan external static pressure available is less than 0.01-in. wc.
2. Minimum outdoor operating air temperature without low-ambient operation accessory is 55°F (12.8°C).
3. Maximum outdoor operating air temperature for cooling mode is 125°F (51.7°C).
4. Minimum outdoor operating air temperature for heating mode is -10°F (-23.3°C).
5. Maximum outdoor operating air temperature for heating mode is 66°F (18.9°C).
6. For reliable operation, unit should be level in all horizontal planes.
7. For interconnecting refrigerant tube lengths greater than 80 ft (23.4 m) and/or elevation differences between indoor and outdoor units greater than 20 ft (6.1 m), consult Residential Piping and Longline Guideline and Service Manual available from equipment distributor.
8. If any refrigerant tubing is buried, provide a 6 in. (152.4 mm) vertical rise to the valve connections at the unit. Refrigerant tubing lengths up to 36 in. (914.4 mm) may be buried without further consideration. Do not bury refrigerant lines longer than 36 in. (914.4 mm).
9. Use only copper wire for electric connection at unit. Aluminum and clad aluminum are not acceptable for the type of connector provided.
10. Do not apply capillary tube indoor coils to these units.
11. Factory-supplied filter drier must be installed.

Section 2

Preliminary Lighting Specification

FHS-BHM Exterior Amenity Lighting
Preliminary Lighting Specifications
12-16-21

INFORMATION ONLY



Oakewood Design

Description

Recessed LED module with interchangeable 2-inch round or square lens pinhole apertures are available in various finishes to suit any décor. Use with 4-inch nominal recessed housings suitable for residential and shallow plenum commercial construction or can be used to retrofit existing installations. Field interchangeable primary optics provide various distribution patterns and spacing to mounting height ratios. Use for general and task lighting in low to medium height ceilings where energy savings, long life and optical control are required.

Specification Features

Module

- Field interchangeable and upgradable LED module consists of LED array, primary optic and driver.
- Integral die cast aluminum heat sink provides passive thermal cooling achieving L70 at 50,000 hours in IC and non-IC applications.

Retention

- Heat treated compression springs hold module securely in the housing, can be removed thru the aperture for service or replacement

LED Array

- Proximity phosphors over chip on board LEDs provide a uniform source with high efficiency and no pixilation.
- Available in 90 CRI minimum, R9 greater than 50 and color accuracy within 3 SDCM provide color accuracy and uniformity.
- Compatible with Zhaga book 12 standards for interchangeability and can be replaced in the field

Gaskets

- Closed cell gaskets achieve restrictive airflow requirements without additional caulking

Primary Optic

- Precision molded TIR optic organizes source flux into useful beams without stray lumens in the field.
- Two-piece construction with matte black mounting ring and polarized turn and lock mounting aligns optic to source and minimizes backlight in the housing.
- Exceeds ENERGY STAR® color angular uniformity requirements, color deviation is typically less than 0.002 u' v'.

- Available in narrow flood, flood and wide flood distributions, ordered separately, ships with narrow flood installed.
- Also available in asymmetric distribution providing vertical illumination

Trims

- Die formed steel trims are available in 2-inch round or square pinhole apertures and can be interchanged in the field.
- Available in a broad range of painted or plated finishes, can be painted in the field to match any décor.
- Magnetic attachment holds trim tightly to ceiling and eliminates light leaks.

Shielding

- Diffuse clear lens provides light control and source shielding.

Driver

- Integral UNV 120 - 277V 50/60 Hz constant current driver provides noise free operation.
- Continuous, flicker-free dimming from 100% to 5% with select leading or trailing edge 120V phase cut dimmers.
- Driver can be replaced in the field.
- Inline electrical quick connect and E26 adapter not provided.

Compliance

- cULus listed / certified for use with Halo housings, classified for use with other's housings, see instruction sheet for conditions of acceptability.
- Wet location listed in covered ceilings and IP65 certified.
- Airtight per ASTM-E283.
- Suitable for use in clothes closets when installed in accordance with the NEC 410.16 spacing requirements
- EMI/RFI emissions per FCC 47CFR Part 15 B.
- Contains no mercury or lead and RoHS compliant.
- Photometric testing in accordance with IES LM-79-08.
- Lumen maintenance projections in accordance with IES LM-80-08 and TM-21-11.
- Can be used for State of California Title 24 high efficacy luminaire compliance, reference the California Energy Commission Title 20 Appliance Efficiency Database for current listings.
- ENERGY STAR® listed, reference qualified product listings.
- Meets State of California voluntary lamp standards.
- Zhaga book 12 compatible.

Warranty

Five year limited warranty, consult website for details.
www.eaton.com/lighting/Legal

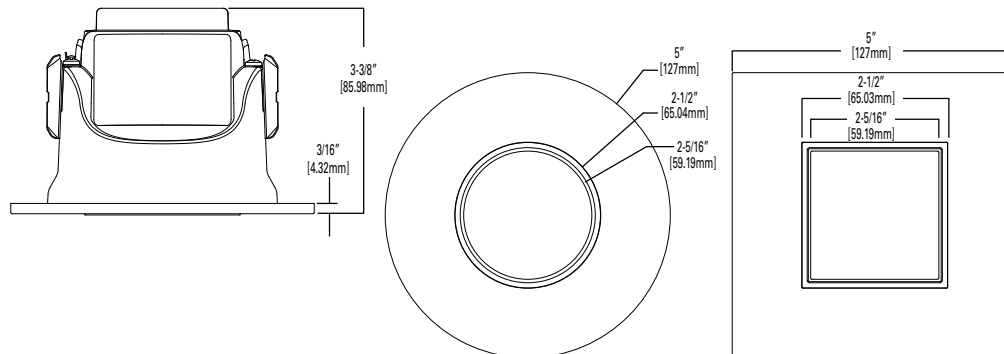


Refer to ENERGY STAR® Qualified Products List. Can be used to comply with California Title 24 High Efficacy requirements. Certified to California Appliance Efficiency Database under JAB8. Indoor LED nominal CCT of 4000K or less.



Eaton is a founding member of the Zhaga Consortium

Dimensions



ML4D

TL43R

TL44S

900 Lumen Series

LED

2-Inch Round and Square Lens Pinhole Downlight



ENERGY DATA		
Lumens	900 Series	
Input Voltage	120V	277V
Input Current	101.6 (mA)	45.7 (mA)
Input Power	12.1 (W)	11.9 (W)
Efficiency	84.93 %	83.45 %
Inrush (A)	1.3	4.7
THD: ≤ 20%		
PF: ≥ 0.90		
T Ambient -40 - +40°C		
Sound Rating ≤ 20dba		

Ordering Information

SAMPLE NUMBER: ML4D09NFL927E - TL43R2GMWWB

A complete luminaire consists of a housing, LED module and trim, order separately.

Models	Lumens	Distribution	CRI/CCT	Driver	Accessories
ML4D = 4" LED module	09 =900 lumens (nominal)	NFL =25 degree narrow flood FL =40 degree flood	927 =90 CRI , 2700K 930 =90 CRI , 3000K 935 =90 CRI , 3500K 940 =90 CRI , 4000K	E =UNV 120 - 277V 50-60Hz, LE & TE phase cut 5% dimming at 120V only	TIR50AWW25 =asymmetric wall wash TIR50NFL25 =25° narrow flood TIR50FL40 =40° flood TIR50WFL55 =55° wide flood LH501MB12PK =Media holder for (1) 50mm lens, matte black, 12 pack HE26LED =Edison base adapter for retrofit HE26LED-24PK =Edison base adapter for retrofit 24 pack
Trims	Shielding	Flange Finish	Accessories		
TL43R = 2" round lens pinhole TL44S = 2" square lens pinhole	2G =Diffuse clear	MWWB =Matte white flange, white lens frame MWBB =Matte white flange, black lens frame MBBB =Matte black flange, black lens frame BNBB =Brushed nickel flange, black lens frame ORBBB =Oil rubbed bronze flange, black lens frame GBBB =German bronze flange, black lens frame BCuBB =Brushed copper, black lens frame	T24HWKIT =Title 24 hard wire kit, converts incandescent, low voltage and compact fluorescent housings to LED H4NCMF =4" new construction mounting frame compatible with H245RICAT, H99RTAT, H1499RICAT, and E4RTATSB remodeler housings.		

Housings

Halo Ultra-shallow LED Housings

H245ICAT=4" IC, airtight ultra-shallow new construction housing, LED, 120 - 277V

H245RICAT=4" IC, airtight ultra-shallow remodeler housing, LED, 120 - 277V

Halo LED Housings

H995ICAT=4" IC, airtight shallow new construction housing, LED, 120 - 277V

H995RICAT=4" IC, airtight shallow remodeler housing, LED, 120 - 277V

Halo Housings

H99TAT=4" non-IC, airtight shallow new construction housing, E26, 120V

H99RTAT=4" non-IC, airtight shallow remodeler housing, E26, 120V

H99ICAT=4" IC, airtight shallow new construction housing, E26, 120V

E4TATSB=4" non-IC, airtight shallow new construction housing, adjustable socket bracket, E26, 120V

E4RTATSB=4" non-IC, airtight shallow remodeler housing, adjustable socket bracket, E26, 120V

E4ICATSB=4" non-IC, airtight shallow new construction housing, adjustable socket bracket, E26, 120V

Halo Surface Mount Housings

HS4R=Surface round, 120-277V

HS4S=Surface square, 120-277V



HE26LED
Edison Base Adapter for retrofit (order separately)

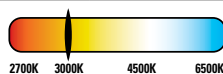
Photometry

ML4D09NFL930-TIR50NFL25-TL43R2G_X_TL44S2GX

Description	Halo 2 Inch ML4 Round And Square Lensed Downlight-Narrow Flood Distribution
Test Number	P189395
Module	900 Series, 90CRI, Narrow Flood optic
Trim	2" Aperture, Open Round DL
Lumens	916 Lm
Efficacy	79.83
Spacing Criteria	0.39
CPCB	4688.3
Beam Angle (FWHM)	26.6

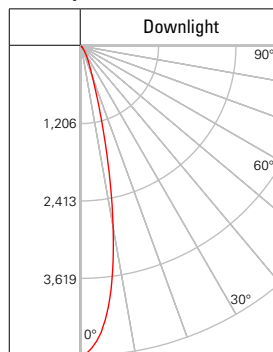
Color Metric Summary

TM-30-15	R _f = 91.5
	R _g = 97.7
CRI/ CIE	R _a = 92.8
	R ₉ = 57.4



25°

Candlepower Distribution



Candelas at Nadir

Angle	0-deg
0	4688
5	4166
10	2790
20	504
30	139
40	39
50	11
60	5
70	3
80	2
90	0

Foot-candle Values at Nadir

0 deg Aiming Angle		
DD	FC	DIA
5.5'	155	2
7'	95.7	2.6
8'	73.3	3
9'	57.9	3.4
10'	46.9	3.8
12'	32.6	4.6

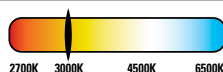
DD = distance down to illuminated work plane
FC = initial foot-candles at nadir
DIA = diameter

ML4D09NFL930-TIR50FL40-TL43R2G_X_TL44S2GX

Description	Halo 2 Inch ML4 Round And Square Lensed Downlight- Flood Distribution
Test Number	P189401
Module	900 Series, 90CRI, Flood optic
Trim	2" Aperture, Open Round DL
Lumens	919 Lm
Efficacy	78.94
Spacing Criteria	0.64
CPCB	1868
Beam Angle (FWHM)	39.3

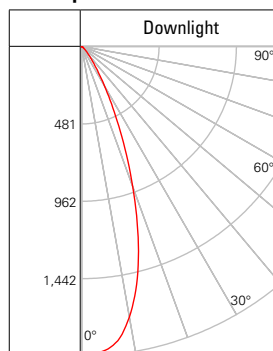
Color Metric Summary

TM-30-15	R _f = 91.4
	R _g = 97.7
CRI/ CIE	R _a = 92.7
	R ₉ = 57.2



40°

Candlepower Distribution



Candelas at Nadir

Angle	0-deg
0	1868
5	1832
10	1658
20	903
30	278
40	70
50	21
60	8
70	4
80	2
90	0

Foot-candle Values at Nadir

0 deg Aiming Angle		
DD	FC	DIA
5.5'	61.8	3.4
7'	38.1	4.4
8'	29.2	5
9'	23.1	5.8
10'	18.7	6.4
12'	13	7.6

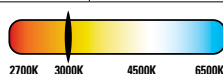
DD = distance down to illuminated work plane
FC = initial foot-candles at nadir
DIA = diameter

ML4D09NFL930-TIR50WFL55-TL43R2G_X_TL44S2GX

Description	Halo 2 Inch ML4 Round And Square Lensed Downlight-Wide Flood Distribution
Test Number	P189407
Module	900 Series, 90CRI, Wide Flood optic
Trim	2" Aperture, Open Round DL
Lumens	857 Lm
Efficacy	74.41
Spacing Criteria	0.78
CPCB	1032.3
Beam Angle (FWHM)	52.1

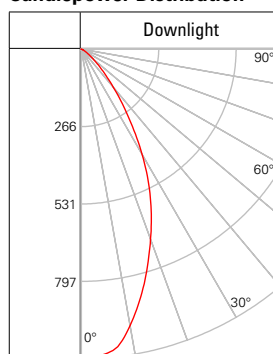
Color Metric Summary

TM-30-15	R _f = 91.4
	R _g = 97.6
CRI/ CIE	R _a = 92.7
	R ₉ = 57.1



55°

Candlepower Distribution



Candelas at Nadir

Angle	0-deg
0	1032
5	1017
10	936
20	675
30	406
40	166
50	54
60	16
70	5
80	1
90	0

Foot-candle Values at Nadir

0 deg Aiming Angle		
DD	FC	DIA
5.5'	34.1	4.2
7'	21.1	5.4
8'	16.1	6.2
9'	12.7	7
10'	10.3	7.8
12'	7.2	9.2

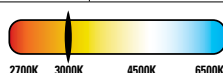
DD = distance down to illuminated work plane
FC = initial foot-candles at nadir
DIA = diameter

ML4D09NFL930-TIR50AWW25-TL43R2GMWWB_TL44S2GMWWB

Description	Halo 2 Inch ML4 Round And Square Lensed Downlight-Asymmetric
Test Number	P189448
Module	900 Series, 90CRI, Asymmetric
Trim	2" Aperture, Open Round DL
Lumens	683 Lm
Efficacy	61.03
Spacing Criteria	1.51
Peak intensity	2070
Peak angle	23

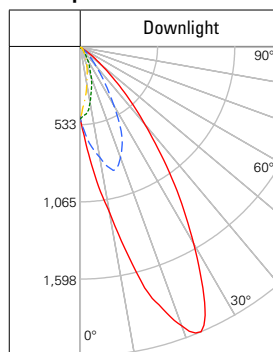
Color Metric Summary

TM-30-15	R _f = 91.4
	R _g = 97.6
CRI/ CIE	R _a = 92.7
	R ₉ = 57.0



22.5° 25°

Candlepower Distribution



Candelas at Nadir

Angle	0-deg
0	479
5	751
10	1115
20	1986
30	1520
40	675
50	190
60	27
70	2
80	2
90	0

Single Unit Footcandles
2.5' from wall
(distance from fixture along wall)

DD	•
1'	0.4
2'	12.2
3'	28.9
4'	31.8
5'	26.5
6'	18.8
7'	12
8'	7.8
9'	5.2
10'	3.6

Multiplier Table

CCT Option	2700K	3000K	3500K	4000K
CCT Multiplier	0.946	1.000	1.020	1.042

Representative photometric test report for 3000K color temperature, 90CRI.
Multipliers may be used to determine relative lumen values with other color temperatures.

Project		Catalog #		Type	
Prepared by		Notes		Date	



Lumière

Cambria 203

LED / Halogen
Accent / Flood

Typical Applications

- Hospitality • Commercial Landscape • Outdoor Area/Site • Residential
- Architectural

Interactive Menu

- Order Information [page 2](#)
- Cambria 203 MR16 Halogen Photometric Data [page 3](#)
- Cambria 203 LED Photometric Data [page 4](#)
- Product Warranty



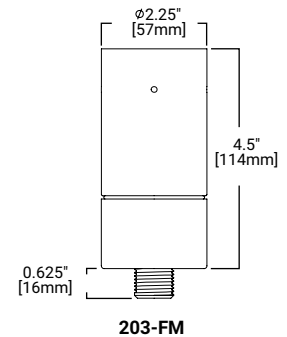
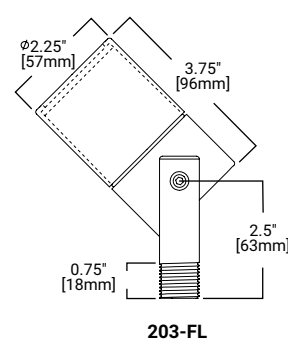
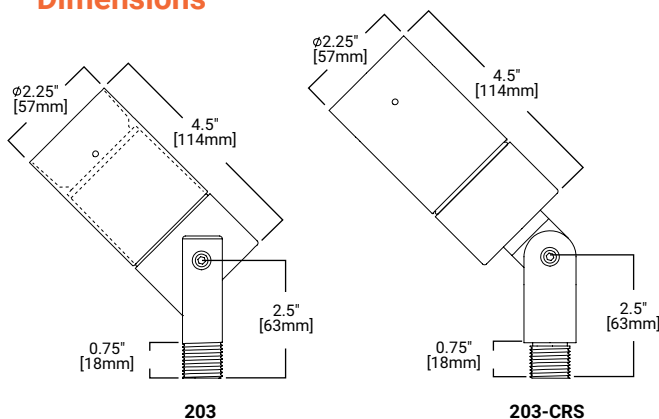
Product Features



Top Product Features

- 340° tilt, 360° rotation
- Precision-machined aluminum, brass, bronze, copper or stainless steel
- Stainless steel hardware
- Siphon Protection System (S.P.S.)
- Holds up to three optical accessories
- Three-year warranty

Dimensions



TECHNICAL DATA
8W LED, L70/60,000 hours at 25°C
Low Voltage: 50W Halogen MR16

Order Information

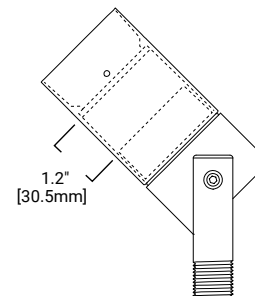
SAMPLE ORDER NUMBER: 203-FL-50MR16-12-NSS

Series	Construction	Source (for LED, select from each column and combine)	Voltage	Finish
Series	Construction	Source (for LED, select from each column and combine)	Voltage	Finish
203	CRSRIRV6IEVTMZIP7IR47 FM6IEVPWLSR247 FLPWLDIRW7MHIMZIP7IR47	50MR16 8LED 27 30 40 5LED AMFIV 25 36	12	Painted BK BZ CS VE WT Premium Finish NBR2EVEPWEWW NCP2EVEPSTTIV NBZ2EVEPWSR NSS2EVEP7EMRPWW7HP
Notes	Notes	Notes	Notes	Notes

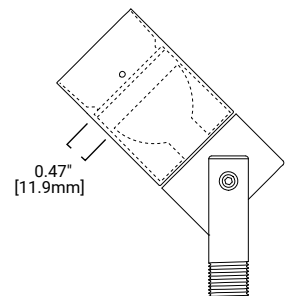
Optical Accessories - Order Separately

Filters (2.00" Diameter)	Optical Lenses (2.00" Diameter)	Optical Louvers (2.00" Diameter)
F71 F72 F73 F74 F75 F76 F77 F78 F79 F80 F22 F33 F44 F55 F66	LSL DIF OSL	LVR
Notes	Notes	Notes

Lamp or LED Module Replacement



LED LOCATION



MR16 LOCATION

Mounting Accessories - Order Separately

Ground Mounting	Surface / Wall Mounting	Low Voltage Tree Mounting
GS01 GS03 MLMRKV GS04 MLMRKV GS05 MLMRKV GS08 GS13	FS1 MLWMRK FS2 MLHEP RS1 MLWMRK RS2 MLWMRK TM01 VWWSV TM05 MVMRK	TM04 EHNW VWMEV TM04-2 TM04-3 TM04-4 TM07 VWMEV TM07-2 TM07-3 TM07-4 TM07-6
Notes	Notes	Notes

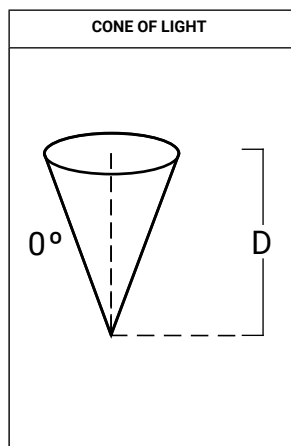
Cambria 203 LED Photometric Data

LED Lumen and CBCP Table - 3000K

[View IES files](#)

		Flush Hood			Regressed Hood (Black)			Regressed Hood (Silver)		
		CBCP	LUMENS	LPW	CBCP	LUMENS	LPW	CBCP	LUMENS	LPW
10	BASE	7758	456	57	7188	387	48.4	6554	385	51.4
	+DIFF	1278	372	46.5	1256	286	35.7	1206	303	40.3
	+LSL	1700	402	50.3	1685	328	41	1557	328	43.7
	+LVR	6837	315	39.9	6276	305	38.2	6010	292	38.9
	+OSL	1700	402	50.3	1685	328	41	1557	328	43.7
25	BASE	3454	536	68.7	3285	480	60.8	3026	465	63.6
	+DIFF	977	435	55.7	936	344	43.5	924	361	46.3
	+LSL	1021	482	61.8	999	406	51.4	923	401	54.1
	+LVR	1864	492	63.1	1815	443	56.1	1705	438	57.6
	+OSL	1864	492	63.1	1815	443	56.1	1705	438	57.6
36	BASE	1469	525	68.2	683	339	43.5	1444	474	60.8
	+DIFF	696	432	56.1	616	392	50.3	645	345	44.8
	+LSL	624	476	61.9	1279	324	41.5	622	408	53.6
	+LVR	1322	344	44.7	1197	434	56.3	1242	323	42.5
	+OSL	624	476	61.9	1279	324	41.5	622	408	53.6

Horizontal Illuminance on Surface - Cambria 203 Standard Recessed Hood - 3000K



Filename: 203-SS-8LED3010-12-BK.ies		
Test No.: P349415		
Distance	FC	Beam Diameter
2'	1797.1	0.4
4'	449.3	0.8
6'	199.7	1.2
8'	112.3	1.6
10'	71.9	2
15'	31.9	3.2
20'	18	4.2
30'	8	6.4
40'	4.5	8.4

Filename: 203-SS-8LED3025-12-BK.ies		
Test No.: P349495		
Distance	FC	Beam Diameter
2'	821.4	0.6
4'	205.3	1.2
6'	91.3	1.8
8'	51.3	2.4
10'	32.9	3
15'	14.6	4.6
20'	8.2	6
30'	3.7	9.2
40'	2.1	12.2

Filename: 203-SS-8LED3036-12-BK.ies		
Test No.: P349480		
Distance	FC	Beam Diameter
2'	361.1	1
4'	90.3	2.2
6'	40.1	3.4
8'	22.6	4.6
10'	14.4	5.8
15'	6.4	8.6
20'	3.6	11.6
30'	1.6	17.4
40'	0.9	23.2

CCT MULTIPLIER TABLE

CCT (K) / COLOR	MULTIPLIER
2700K	1.04
3000K	1.00
4000K	0.78

Note: Multiplier can be used to calculate center beam candle power (CBCP), Lumens and footcandle (FC) values.

Horizontal Illuminance on Surface - Cambria 203 Flush Lens Hood - 3000K

Filename: 203-FL-8LED3010-12-BK.ies		
Test No.: P349420		
Distance	FC	Beam Diameter
2'	1939.5	0.4
4'	484.9	0.8
6'	215.5	1.2
8'	121.2	1.6
10'	77.6	2
15'	34.5	3
20'	19.4	4.2
30'	8.6	6.2
40'	4.8	8.4

Filename: 203-FL-8LED3025-12-BK.ies		
Test No.: P349500		
Distance	FC	Beam Diameter
2'	863.4	0.6
4'	215.9	1.2
6'	95.9	1.8
8'	54	2.4
10'	34.5	3
15'	15.3	4.6
20'	8.6	6.2
30'	3.8	9.2
40'	2.2	12.4

Filename: 203-FL-8LED3036-12-BK.ies		
Test No.: P349485		
Distance	FC	Beam Diameter
2'	367.2	1
4'	91.8	2.2
6'	40.8	3.4
8'	22.9	4.6
10'	14.7	5.8
15'	6.5	8.6
20'	3.7	11.6
30'	1.6	17.4
40'	0.9	23.2

TECHNICAL INFORMATION

1. Dimming is dependant on remote transformer compatibility with LED module. Please see compatibility for dimmer switch and transformer selection.
2. When using a magnetic dimmer switch there are two recommended LED compatible 120V magnetic dimming switches: Lutron Ariadni AVLV-600P and Lutron Diva DVLV-600P



RUBIX - model: WS-W2504, WS-W2505

LED Wall Mount

WAC LIGHTING
Responsible Lighting®



Fixture Type:

Catalog Number:

Project:

Location:

PRODUCT DESCRIPTION

Available in single- and twin-light configurations, this die cast aluminum LED wall luminaire is wet location listed for a broad range of exterior lighting applications. Designed with a square profile, this version of Rubix mounts upwards or downwards.

FEATURES

- Energy Star® rated
- CEC Title 24 Compliant
- Mounts up or down
- IP65 Rated, ETL & cETL Wet Location Listed
- Die-Cast Aluminum Construction
- Universal Voltage Input (120V - 277V)
- Dimming: ELV (120V) or 0-10V

SPECIFICATIONS

Construction: Aluminum with etched glass.

Power: Integral driver in luminaire. 120V - 277V input.

Light Source: High output LED

Mounting: Mounts directly to junction box

Dimming: 0-10V Dimming: 100%-10%

ELV Dimming: 100%-15% (120V only)

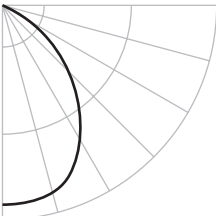
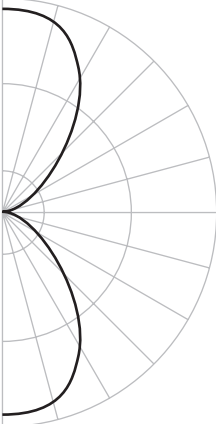
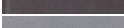
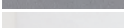
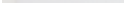
Finish: Brushed Aluminum (AL), Black (BK), Bronze (BZ), Graphite (GH), White (WT)

Color Temp: 3000K

CRI: 90

Rated Life: 70,000 hours

Standards: Energy Star® rated, IP65 Rated, ETL & cETL Wet Location Listed, CEC Title 24 Compliant, Dark Sky Friendly.

	Beam	Photometry	Voltage	Watt	Lumens	Finish
 Single Light  WS-W2504 Dark Sky Friendly 86° Energy Star®			120V - 277V	16W	750	
 Double Light  WS-W2505 86°			120V - 277V	30W	1400	
						AL Brushed Aluminum  BK Black  BZ Bronze  GH Graphite  WT White 

 -

Example: **WS-W2504-GH**

waclighting.com
Phone (800) 526.2588
Fax (800) 526.2585

Headquarters/Eastern Distribution Center
44 Harbor Park Drive
Port Washington, NY 11050

Central Distribution Center
1600 Distribution Ct
Lithia Springs, GA 30122

Western Distribution Center
1750 Archibald Avenue
Ontario, CA 91760



LED STEP LIGHTS SL-60 SERIES

GO GREEN

TYPE

SPECIFICATIONS

CONSTRUCTION: Die Cast Aluminum, Brass or Stainless Steel step light

LIGHT SOURCE: Integrated 12v 3w LED or 120v 4w LED with Driver On Board (No need for separate LED driver); 200 Lumens, warm white 3000K

LIFETIME RATING: 50,000 hours

SOCKET: None

GASKET: Black neosponge closed cell; .190" thickness

WIRING 12V: 6" black 18 gauge zip cord.

WIRING 120V: Standard Black (line), White (neutral), Green (ground)

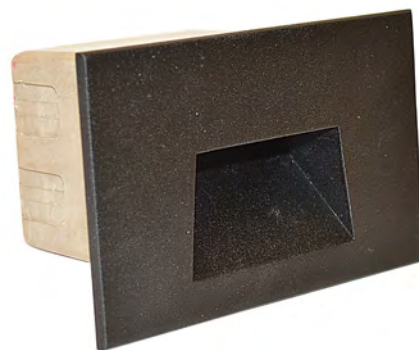
SINGLE GANG BOX: Focus FA-SG-BOX fiberglass box included.

Fixture insert only without Back Box is available (SL60NB) if back box is supplied by others or is already installed;

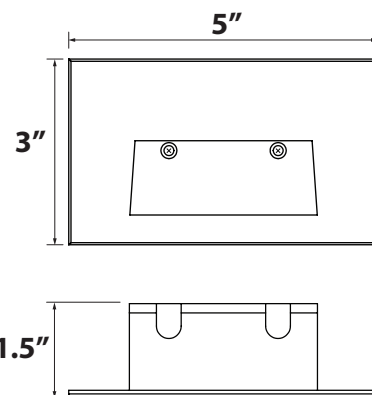
NOTE: If box is supplied by others it must have minimum inside dimensions of 3"(l) x 2"(w) x 2.5"(d) and plate mounting holes 3.22" to 3.30" apart on center.

MOUNTING: Stainless Steel bracket and hardware for mounting in single gang junction box; Face plate attaches to bracket with two provided screws

FINISH: Aluminum - Black texture polyester powder coat; optional finishes available
Brass - Unfinished; optional finishes available
Stainless Steel-Brushed



SL-60-LED12VBLT



SL60NB insert

ORDERING INFORMATION

CATALOG NO.	DESCRIPTION	LIGHT SOURCE	WEIGHT
SL60-LED12V-BLT	12v Aluminum LED Step Light	3w LED Module	2.0 lbs.
SL60-LED12V-BRS	12v Brass LED Step Light	3w LED Module	3.0 lbs.
SL60-LED12V-SS	12v Stainless LED Step Light	3w LED Module	2.0 lbs.
SL60-LED120-BLT	120v Aluminum LED Step Light	4w LED Module	2.0 lbs.
SL60-LED120-BRS	120v Brass LED Step Light	4w LED Module	3.0 lbs.
SL60-LED120-SS	120v Stainless LED Step Light	4w LED Module	2.0 lbs.

NO BACK BOX MODELS:

SL60NB-LED12V-BLT	12v Aluminum LED Step Light Insert	3w LED Module	2.0 lbs.
SL60NB-LED12V-BRS	12v Brass LED Step Light Insert	3w LED Module	3.0 lbs.
SL60NB-LED12V-SS	12v Stainless LED Step Light Insert	3w LED Module	2.0 lbs.

SL60NB-LED120-BLT	120v Aluminum LED Step Light Insert	4w LED Module	2.0 lbs.
SL60NB-LED120-BRS	120v Brass LED Step Light Insert	4w LED Module	3.0 lbs.
SL60NB-LED120-SS	120v Stainless LED Step Light Insert	4w LED Module	2.0 lbs.

FASG-BOX	Plastic Single Gang Box only	1.0 lbs.



FA-SG-BOX Single Gang Box



JOB INFORMATION

Type:	Date:
Job Name:	
Cat. No.:	
Lamp(s):	
Specifier:	
Contractor:	
Notes:	

FOCUS INDUSTRIES INC.
25301 COMMERCENTRE DRIVE
LAKE FOREST, CA 92630

www.focusindustries.com
sales@focusindustries.com
(949) 830-1350 • FAX (949) 830-3390

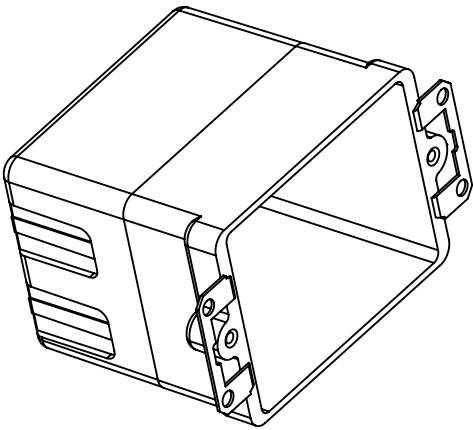
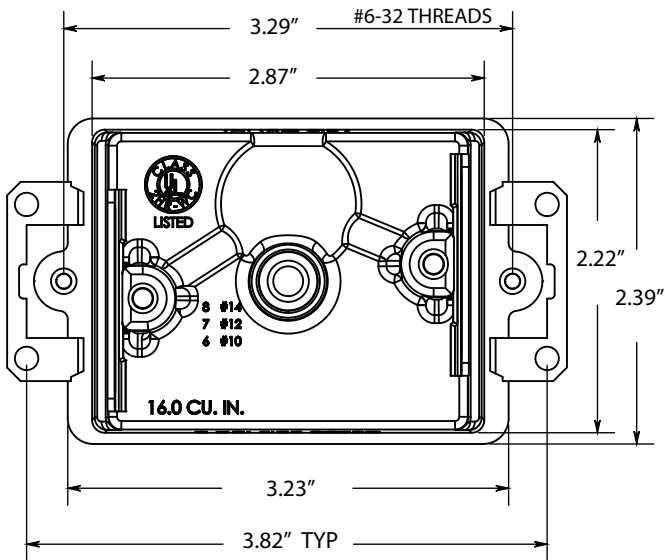
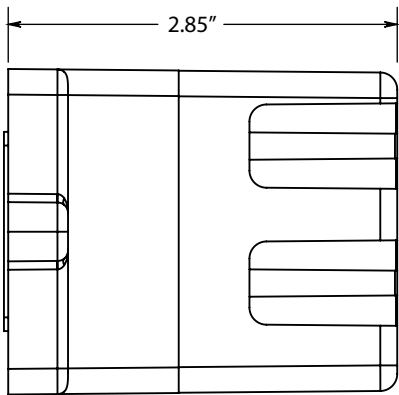
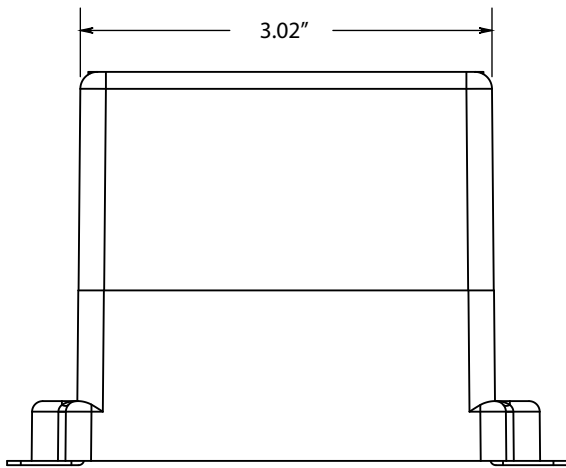
Black Texture (Standard)	Antique Verde	Bronze Texture	Camel	White Texture	Hunter Texture	Rust	Weathered Iron	Weathered Brown	Stucco	Rubbed Verde	Chrome Powder	Acid Rust	Acid Verde	Black Acid Treatment
-BLT	-ATV	-BRT	-CAM	-WTX	-HTX	-RST	-WIR	-WBR	-STU	-RBV	-CPR	-BAR/CAR	-BAV/CAV	-BAT



LED STEP LIGHTS SL-60 SERIES

TYPE

FA-SG-BOX
Single Gang Box



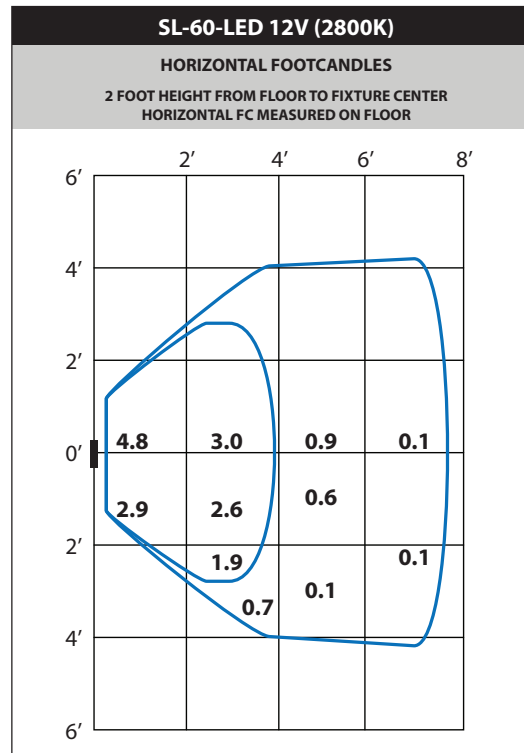
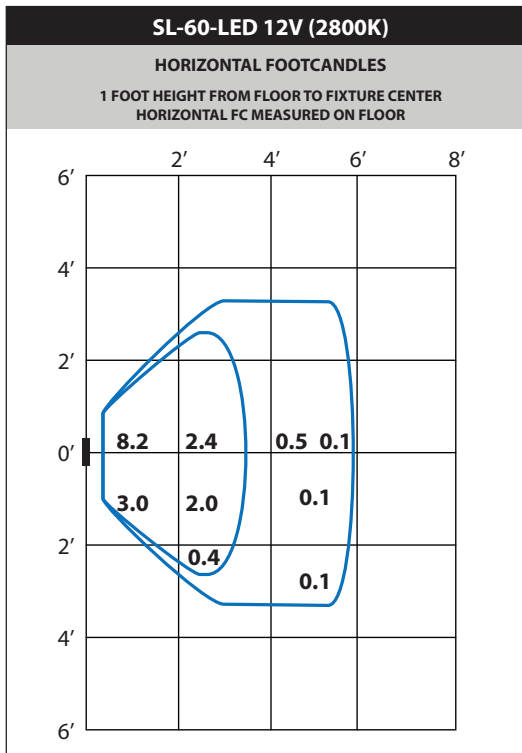
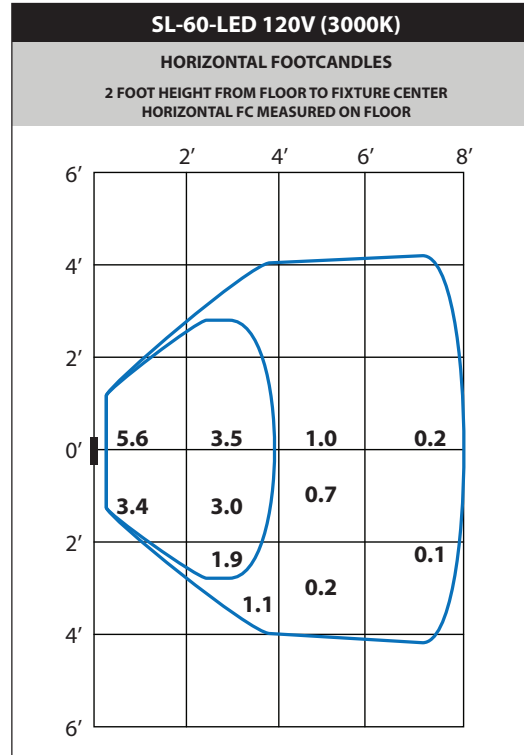
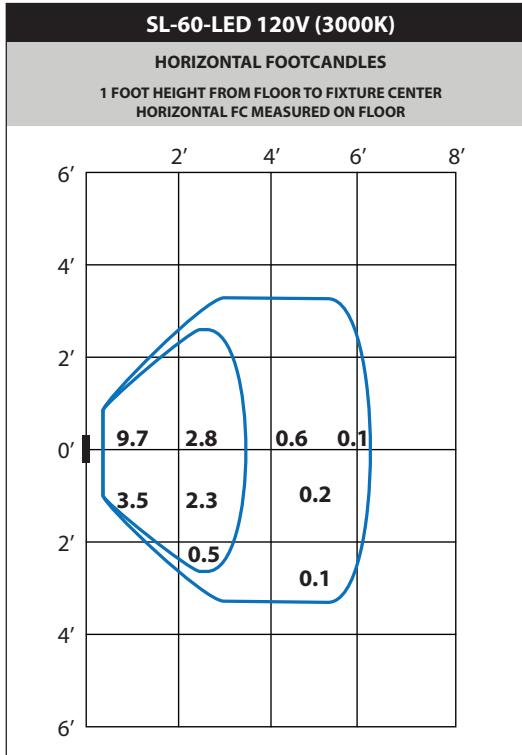
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-BLT	-ATV	-BRT	-CAM	-WTX	-HTX	-RST	-WIR	-WBR	-STU	-RBV	-CPR	-BAR/CAR	-BAV/CAV	-BAT



LED STEP LIGHTS SL-60 SERIES

TYPE

LIGHT DISTRIBUTIONS AND PHOTOMETRICS



Black Texture (Standard)	Antique Verde	Bronze Texture	Camel	White Texture	Hunter Texture	Rust	Weathered Iron	Weathered Brown	Stucco	Rubbed Verde	Chrome Powder	Acid Rust	Acid Verde	Black Acid Treatment
-BLT	-ATV	-BRT	-CAM	-WTX	-HTX	-RST	-WIR	-WBR	-STU	-RBV	-CPR	-BAR/CAR	-BAV/CAV	-BAT

JOB _____ TYPE _____

NOTES _____ APPROVALS _____

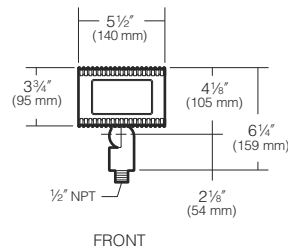
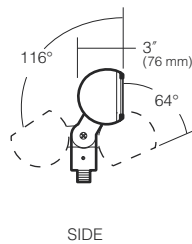
FEATURES

- Unique swivel mount provides superior aiming without loosening over time
- IP66 Certified to keep dust and moisture out
- Available in 3000K, 4000K and 5000K standard CCT
- Spot, Narrow Flood and Wide Flood distributions

Certifications

SPECIFICATIONS


Approx. Weight = 3.16 lbs.


ORDERING CODE

EL218						
Fixture¹	Distribution	Drive Current	Electrical Module			Fixture Finish
	S Spot	3 350mA, 10W	Source	Color Temperature	Voltage	Aluminum
	F Narrow Flood	5 550mA, 16W	8L 8 LEDs	3K 3000K	UV 120 to 277V with a ±10% tolerance	BL Black
	W Wide Flood			4K 4200K		DB Dark Bronze
				5K 5100K		GR Verde Green

Fixture Options
<u>Barn Doors</u>
BD215BL Black
BD215DB Dark Bronze
BD215GR Verde Green
<u>Fixed Hood</u>
FH215BL Black
FH215DB Dark Bronze
FH215GR Verde Green

Mounting Options
Refer to 120 Volt Mounting Options Spec Sheet http://cdn.kimlighting.com/content/products/specs/specs_files/kl_120vmounting_spec.pdf for individual mounting options.

¹ U.S. PATENT D298,656

Kim Lighting reserves the right to change specifications without notice.

LUMINAIRE PERFORMANCE

Spectroradiometric			
	3000K	4200K	5100K
Correlated Color Temp. CCT (K)	2800 to 3175K	3800 to 4600K	4600 to 5600K
Color Rendering Index (CRI)	≥72	≥72	≥72
Power Factor	>.90 @ 120V	>.90 @ 120V	>.90 @ 120V

Electrical Drive Current					
350mA			550mA		
Volts -AC	Amps - AC	System Watts	Volts -AC	Amps - AC	System Watts
120	0.08	10	120	0.13	16
208	0.05	10	208	0.08	16
240	0.04	10	240	0.07	16
277	0.04	10	277	0.06	16

Absolute Lumens				
Temp.	mA	Spot	Narrow Flood	Wide Flood
3000K	350	1078	938	889
4200K		1143	992	925
5100K		1152	1008	953
3000K	550	1608	1411	1331
4200K		1691	1487	1386
5100K		1703	1511	1422

Main Beam Candela and Beam Angle							
Temp.	mA	Spot (3 x 3)	Beam°	Narrow Flood (4 x 4)	Beam°	Wide Flood (6 x 6)	Beam°
3000K	350	7865	19°	2722	32°	665	53°
4200K		8742	18°	2962	31°	694	52°
5100K		8578	18°	2656	30°	709	53°
3000K	550	11962	19°	4024	32°	1009	53°
4200K		13129	18°	4408	31°	1050	52°
5100K		12974	18°	4655	32°	1066	52°

LED performance and lumen output continues to improve at a rapid pace. Log onto www.kimlighting.com to download the most current photometric files from Kim Lighting's IES File Library. For custom optics and color temperature configurations, contact factory.

Projected Lumen Maintenance		
TM21-11*	100,000 hrs	Calculated (L70)
.96	.95	927,000 hrs

* 60,000 hrs, 350mA, Ts 57°C / 25°C ambient.

Kim Lighting reserves the right to change specifications without notice.

SPECIFICATIONS

Housing and Lens Frame:

- Die-cast low copper alloy (<0.6% Cu) aluminum.

Swivel:

- Die-cast aluminum with locking teeth and 1/2" solid brass NPT mount. Provides horizontal rotation independent of the threaded mount. Swivel locked by 1/4-20 stainless set screw. Clear anodized prior to powder coating for added corrosion resistance.

Gasketing:

- Silicone gaskets throughout.

Fasteners:

- Stainless steel.

Wiring:

- No. 18AWM rated 105°C.

Optical System:

- High performance acrylic optic securely attached to internal heat sink for maximum thermal dissipation.

Driver:

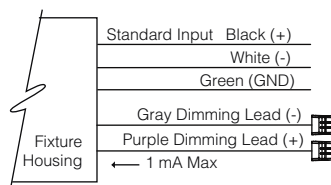
- Universal Voltage from 120 to 277V with a $\pm 10\%$ tolerance. Driver has a 0-10V dimming interface for multi-level illumination options. Driver is Underwriters Laboratories recognized.

Finish:

- Each luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidyl isocyanurate (TGIC) polyester powdercoat finish. Standard colors include (BL) Black, (DB) Dark Bronze, (GR) Verde Green.

Dimming:

- Dimming range from 10% to 100% through the use of the standard 0-10V interface on the programmable driver.
- Modular wiring harness in the service area provides user access to the dimming circuitry.
- Dimming circuitry compatible with 0-10V, user-defined, control devices.
- Optional factory programmed dimming profile.
- IP710 dimmer recommended.



Certifications and Listings:

- UL 1598 Standard for Luminaires.
- UL 8750 Standard for Safety for Light Emitting Diode (LED) Equipment for use in Lighting Products.
- IP66 certified.
- CSA C22.2#250.0 Luminaires.
- RoHS compliant.

CAUTION:

- Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury.

WARRANTY:

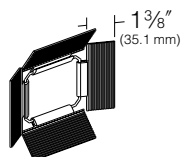
- For full warranty see <http://www.hubbellighting.com/resources/warranty>

OPTIONS

Barn Doors

BD215

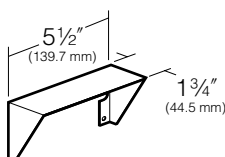
Extruded aluminum, fully adjustable. Provides beam and glare control. Available in Black, Dark Bronze or Verde Green finish.



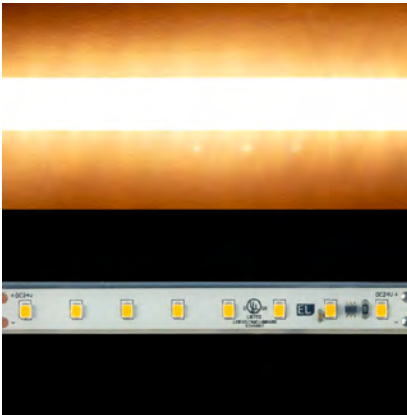
Fixed Hood

FH215

Formed .062" thick aluminum. Provides glare control. Available in Black, Dark Bronze or Verde Green finish.



Kim Lighting reserves the right to change specifications without notice.



Waterproof High Efficacy 2835 LED Strip Light - 3,000K - 80/m - CurrentControl - 10m Reel

Product No.: wp-3000K-CC2835HE-80-10-10m

SHIPS IN: 1 day, typically

View the Product Description Page for required parts, accessories, photos and videos.



Product Features

Sold by the 10 meter reel, foot and sample kit.

Efficacy in the lighting industry refers to the amount of light produced by a light source within a certain wattage. It is an important factor when budgeting for lighting costs. Waterproof High Efficacy 2835 LED Strip Light from Environmental Lights achieves one of the best lumen to watt ratios for any LED strip light. This means that you can be sure you are getting the most light for your money. Our Waterproof High Efficacy 2835 LED Strip Light produces 138.71 lumens per watt, making it a great value. It includes 80 LED chips per meter and features a 10 mm wide circuit board. Each reel of Waterproof High Efficacy 2835 LED Strip Light is 10 meters long and is powered by 24 VDC. The inclusion of current control chips on the strip means that you can achieve longer run lengths without any visible effects of voltage drop. This strip light is perfectly suited for situations where it is important to get a high lumen to watt ratio from your lighting, making it a great choice for large scale retail and gaming installations.

Features List:

- 138.71 lumens per watt
- Luminous flux of 1290 lm/m
- 80 LEDs per meter
- 3,000K
- CurrentControl
- UL Listed

Specifications

Ambient Temperature	-20°C to 50°C
Average Lifetime	50,000 hours
Beam Angle	120°
Brightness	1290 lumens/meter
Efficacy	138.7 lumens/watt
Brightness 2	4100 mW/meter
Efficacy 2	440.9 mWatt/watt
CCT	3,000K
CRI	80+
Circuit Type	CurrentControl
Height (English)	0.22 in
Height (Metric)	5.5 mm
IP Rating	IP65
Input Current	3875 mA
Input Voltage	24 DC
LED Density	80 LEDs/meter
LED Node Size	2835
LED Spacing (English)	0.49 in
LED Spacing (Metric)	12.5 mm
Length (English)	32.8 ft
Length (Metric)	10 m
Manufacturer	EnvironmentalLights
Min. Cutting Increment (English)	3.94 in
Min. Cutting Increment (Metric)	100 mm
Power (Watts)	93
Power (Watts/ft)	2.80
Power (Watts/m)	9.30
Rating	UL Listed, RoHS
Strip Width	10 mm
Warranty	3 years limited
Width (English)	0.55 in
Width (Metric)	14 mm

SIERRA 4000 G LED

Specification

Pure in form yet bold in statement, Sierra provides a striking appearance, day or night. The translucent matte acrylic lens diffuses light uniformly along its length through direct and indirect reflector elements. Extruded aluminum body features a horizontal cut at the transition to the lens. Illuminated column in ceramic metal halide lamp is top mounted in the cap for easy relamping and increased efficiency. RGBW model is for visual accenting only. Electrical assembly is housed in a weatherproof enclosure, accessible through the handhole. A complementary low-level bollard is also available.



Model	Lamp	Color Temperature	Volt	Pole	Finish	Option
SE4000G	LED	WW - 3000K	UNV - 120-277V	13RB - 13' Column	SG - Silver Grey	DIM - 0-10vDC Dimming
		NW - 4000K		16RB - 16' Column	DG - Dark Grey	EFBC - External flange with base cover and anchor bolts
		R - Red			GG - Graphite Grey	N - None
		G - Green			BLK - Matte Black	
		B - Blue			BRZ - Dark Bronze	
		RB - Royal Blue			CC - Custom RAL Color	
		A - Amber				

Ordering Information

SE4000G	LED	WW	UNV	13RB	DG	DIM

Specifications are subject to change without notification

HessAmerica > Products > Lighting Products > Illuminating Columns > SIERRA 4000 G

https://www.hessamerica.com/Products/Lighting/Illuminating_Columns/SIERRA_4000_G/

SIERRA 4000 G LED

Specification

DESCRIPTION

Contemporary LED light column for pathway or area illumination.

HOUSING

Cylindrical base with horizontal cut at top of shaft is constructed from 0.197" nominal wall, 6082 aluminum tubing. Hand hole cover is plasma cut with kerf not to exceed 1/8" and includes triangular tamper-resistant locking device. Cylindrical lens is impact-resistant matte acrylic. Lens assembly is secured with stainless steel socket head cap screws from inside the base. Fabricated aluminum top cap is gasketed to create a weather-tight seal to the lens. Top cap is secured to the lens with two socket head cap screws. Nominal column height is 13' or 16'.

OPTICS

LED column designed for pathway or area illumination. Cylindrical lens is impact-resistant, non-yellowing, matte acrylic. Lens shall have excellent diffusion properties to produce homogeneous, uniform horizontal and vertical distribution. The textured lens surface is fingerprint and scratch resistant for enhanced service life.

Single high-power white LED engine is mounted at the base of the matte acrylic cylindrical lens. The LED, combined with a high-efficiency reflector, projects light upward onto specular reflector located in the top cap to provide even illumination of the lens.

Single color LED models consist of an array of nine 3 watt high brightness LEDs arranged in a circular pattern mounted at the base of the matte acrylic cylindrical lens. LEDs fitted with narrow beam lenses project light upward onto the specular reflector located in the top cap to provide even illumination of the cylindrical lens.

ELECTRICAL

Universal LED driver is mounted in a weather-proof enclosure at the base of the column. Input voltage to universal driver is 120v through 277v AC, 50/60 Hz.

BUG RATING

B1-U4-G2 for all white LED models

DELIVERED LUMEN OUTPUT (WHITE) / POWER CONSUMPTION

3000K: 3738 lumens / 37 watts

4000K: 3831 lumens / 37 watts

LED LUMEN OUTPUT (Not Delivered) / POWER CONSUMPTION

Blue: 330 lumens / 41 watts

Royal Blue: 3820 mW / 41 watts

Green: 737 lumens / 41 watts

Red: 337 lumens / 30 watts

Amber: 220 lumens / 30 watts

MOUNTING

Standard mounting is internal flange with anchor bolts consisting of four hot-dip galvanized anchor bolts (Ø5/8" x 18" x 3") with two leveling nuts and washers per bolt. Optional mounting for external flange with anchor bolts and base cover. Base cover is fabricated from 0.080" spun aluminum and finished to match luminaire. Four hot-dip galvanized anchor bolts (Ø1/2" x 15" x 3") with two leveling nuts and washers per bolt. Anchor bolts may be pre-shipped in advance upon request.

WEIGHT: 13' column = 80lbs / 16' column =

EPA: 13' column = 7.75 sq. ft / 16' column = 9.6 sq.ft.

Specifications are subject to change without notification

HessAmerica > Products > Lighting Products > Illuminating Columns > SIERRA 4000 G

https://www.hessamerica.com/Products/Lighting/Illuminating_Columns/SIERRA_4000_G/

FINISH

Standard finishes are finely textured matte silver grey metallic, dark grey, graphite grey, matte black, or dark bronze. Special colors available on request.

CERTIFICATION

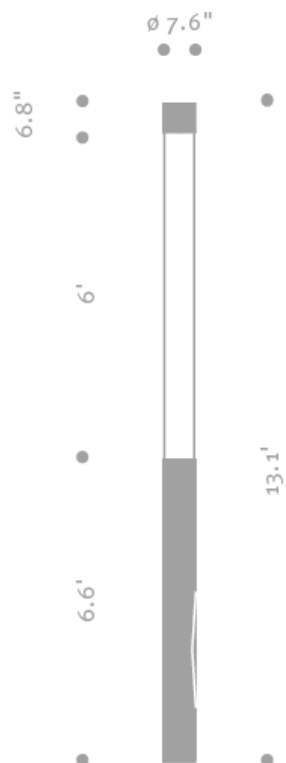
CSA/US Certified for Wet Locations

WARRANTY

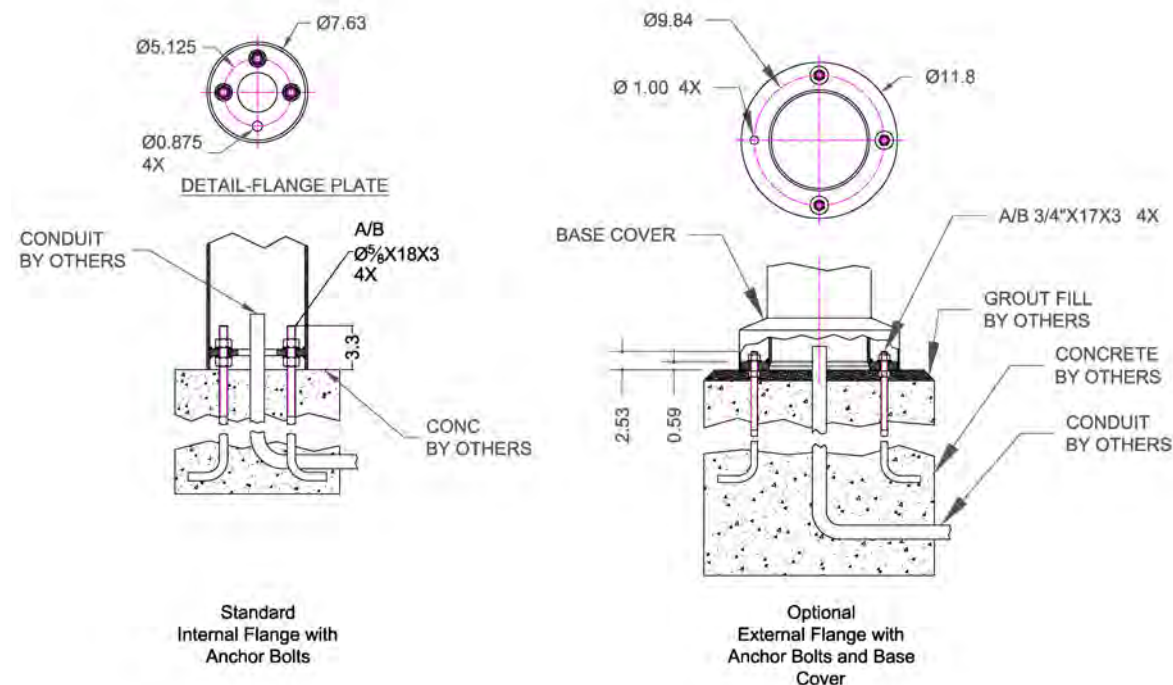
Limited product warranty period including LEDs is five years. Driver shall carry the manufacturer's limited warranty.

Additional information

Dimensions



Mounting detail



Specifications are subject to change without notification

HessAmerica > Products > Lighting Products > Illuminating Columns > SIERRA 4000 G

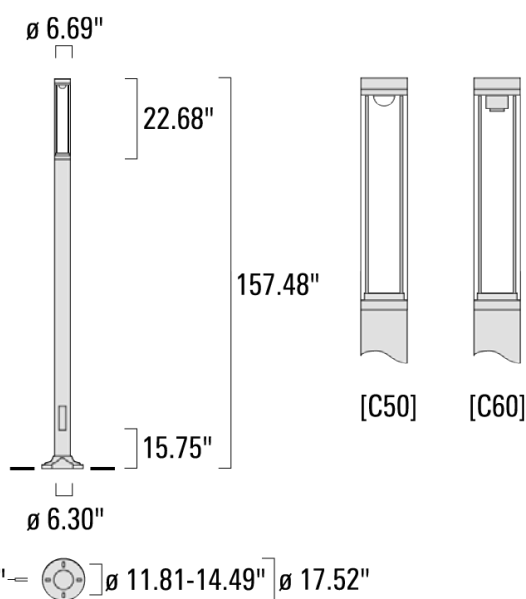
https://www.hessamerica.com/Products/Lighting/Illuminating_Columns/SIERRA_4000_G/

LTM440 LED-FT

Light Columns

1/5

we-ef



Description

IP66. Light column with shielded light source. Suitable for installation in landscaped areas.

LTM440 LED-FT

Light Columns

2/5

we-ef

Specifications

Material Specification

Body:	Luminaire head, base plate and base plate cover constructed in die cast aluminum
Lens:	Clear polycarbonate lens.
Colours:	RAL9004 Black RAL9007 Grey Metallic RAL9016 White RAL8019 Dark Bronze
 ETL	ETL, UL-1598 equivalent, CSA-C22.2#250.0. Suitable for Wet Locations.
Gasket:	Silicone rubber gasket
Fasteners:	PCS Polymer Coated Stainless Steel hardware
Ingress protection:	IP66
Impact protection:	IK10
Corrosion protection:	5CE
Mounting:	Light column suitable for installation in landscaped areas on concrete foundations, or in landscaped areas using optional planted root, 697-9307
Listings:	ETL listed. Suitable for wet locations.

Electrical Specification

Power supply:	Integral [ECG] LED driver in 120-277V
Driver / Ballast:	Integral EC electronic converter

Lifetime

Ta=25°/40° L70B50 > 90000h

LTM440 LED-FT

Light Columns

3/5



Choices

Light Distributions



[C50] Type V Short



symmetric distribution [C60]

Nominal Lumen

2890

2935

3010

3930

4050

4100

6145

6330

6695

Nominal Watt

17

24

37

Colour Temperatures

2700 K

3000 K

4000 K

Colours

RAL9004 Black

RAL9007 Grey Metallic

RAL9016 White

RAL8019 Dark Bronze

LTM440 LED-FT

Light Columns

4/5



Configurations

Light Distributions	Part ID	Light Source	Delivered Lumens	Rated Input Power	CRI	Weight	Link
 [C50] Type V Short	115-1778	LED-FT-17W (2700K)	2397.8	20	80	55.10	 
	115-1521	LED-FT-17W (3000K)	2508.1	20	80	55.10	 
	115-1522	LED-FT-17W (4000K)	2614.3	20	80	55.10	 
	115-1779	LED-FT-24W (2700K)	3308.7	27	80	55.10	 
	115-1523	LED-FT-24W (3000K)	3447.6	27	80	55.10	 
	115-1524	LED-FT-24W (4000K)	3594.6	27	80	55.10	 
	115-1837	LED-FT-37W (2700K)	5020.2	42	80	55.10	 
	115-1565	LED-FT-37W (3000K)	5171.3	42	80	55.10	 
	115-1566	LED-FT-37W (4000K)	5469.5	42	80	55.10	 
 symmetric distribution [C60]	115-1517	LED-FT-17W (3000K)			80	55.10	 
	115-1518	LED-FT-17W (4000K)	2030.7	20	80	55.10	 
	115-1519	LED-FT-24W (3000K)			80	55.10	 
	115-1520	LED-FT-24W (4000K)			80	55.10	 

Related Families / LTM400

Family		Dimensions	Wattage	Nominal Lumen	Links	
					Links	Download Data Sheet
LTM440 LED-FT		157.48	17 -37 W	2890 -6695	 	 
LTM444 LED		157.48	18 -27 W	2097 -4050	 	 

LTM440 LED-FT

Light Columns

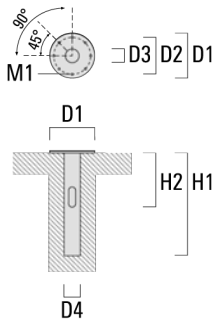
5/5



Mounting Accessories

Planted root

	D1	D2	D3	D4	H1	H2	M1	Weight (lbs)
■ 300-0949 Planted root ESV10	415	340	126	133	1000	500	18	55.78 lbs



DESCRIPTION

Cambria 213 is a small, low voltage dimmable LED and halogen MR16 luminaire. It features a unique hanging design that allows placement where standard mounting methods are not possible. Various lenses, louvers and color or dichroic filters can be combined - up to three at once - to create multiple lighting effects. The Lumière exclusive Siphon Protection System (S.P.S.) prevents water from siphoning into the fixture through its own lead wires.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

A ... Material

Housing and hood are precision-machined from corrosion-resistant billet stock 6061-T6 aluminum, C360 brass, C932 bronze, C110 copper or 303/304 stainless steel. Mounting ring is die-cast zinc with brass mounting collar, both finished to match housing and hood.

B ... Finish Painted

Fixtures constructed from 6061-T6 aluminum are double protected by an ROHS compliant undercoating and polyester powdercoat paint finish, surpassing the rigorous demands of the outdoor environment. A variety of standard colors are available.

C ... Brass, Bronze, Copper or Stainless Steel

Fixtures constructed from brass, bronze, copper or stainless steel are left unpainted to reveal the natural beauty of the material. Brass, bronze and copper will patina naturally over time.

D ... Hood

Hood is removable for easy relamping and accepts up to three internal accessories at once (lenses, louvers, filters) to achieve multiple lighting effects.

E ... Gasket

Housing and hood are sealed with a high temperature silicone o-ring gasket to prevent water intrusion.

F ... Lens

Tempered glass lens, factory sealed with high temperature adhesive to prevent water intrusion and breakage due to thermal shock.

G ... Socket

Ceramic socket with 250° C Teflon® coated lead wires and GU5.3 bi-pin base.

H ... Electrical

Remote 12V transformer required (not included). NOTE: initial power draw on LED equipped fixtures is 15 watts. When sizing transformer use 15 watts per LED fixture. Nominal power draw after start up is 6 watts or 10 watts accordingly. Also, LEDs are more voltage sensitive than standard halogen MR16 lamps. The LED module is designed to operate between 10 and 13 volts. Any less or more voltage can cause premature failures.

I ... Lamp

Halogen lamp not included. Available from Lumière as an accessory - see reverse side for details and catalog logic. LED modules are included and are available in four color temperatures (2700, 3000, 4000 and 5700) and three distributions (spot, narrow, and flood). Both color temperature and distribution must be specified when ordering - see reverse side for details and catalog logic.

J ... Labels & Approvals

UL and cUL listed, standard wet label. IP65 rated. Manufactured to ISO 9001-2000 Quality Systems Standard. IBEW union made. Approved by New York City Dept. of Buildings, Bureau of Electrical Control for use in NYC, NY.

K ... Warranty

Lumière warrants its fixtures against defects in materials & workmanship for three (3) years. Auxiliary equipment such as transformers, ballasts and lamps carry the original manufacturer's warranty.

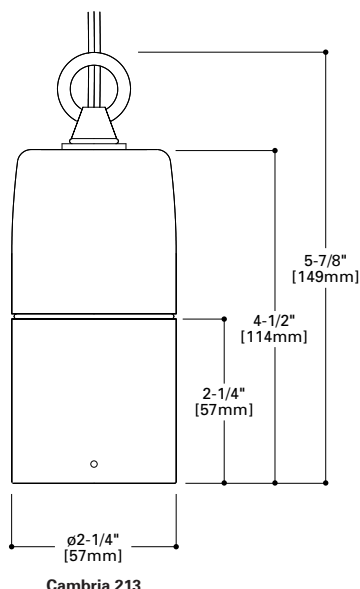


**CAMBRIA
213**

**10W LED
6W LED
50W (max.) MR16**
Halogen
Low Voltage

Accent/Flood

IP65



ORDERING INFORMATION

Sample Number: 213-6LED2712-12-BK

Series
213=LED or MR16 Cambria Hanging Downlight

Source
50MR16= 50W Max Halogen MR16, GU5.3 Base
6LED2712= 6W 2700K, 12 Degree Spot, GU5.3 Base
6LED2721= 6W 2700K, 21 Degree Narrow, GU5.3 Base
6LED2741= 6W 2700K, 41 Degree Wide, GU5.3 Base
6LED3012= 6W 3000K, 12 Degree Spot, GU5.3 Base
6LED3021= 6W 3000K, 21 Degree Narrow, GU5.3 Base
6LED3041= 6W 3000K, 41 Degree Wide, GU5.3 Base
6LED4012= 6W 4000K, 12 Degree Spot, GU5.3 Base
6LED4021= 6W 4000K, 21 Degree Narrow, GU5.3 Base
6LED4041= 6W 4000K, 41 Degree Wide, GU5.3 Base
6LED5712= 6W 5700K, 12 Degree Spot, GU6.3 Base
6LED5721= 6W 5700K, 21 Degree Narrow, GU5.3 Base
6LED5741= 6W 5700K, 41 Degree Wide, GU5.3 Base
10LED2712= 10W 2700K, 12 Degree Spot, GU5.3 Base
10LED2721= 10W 2700K, 21 Degree Narrow, GU5.3 Base
10LED2741=10W 2700K, 41 Degree Wide, GU5.3 Base
10LED3012=10W 3000K, 12 Degree Spot, GU5.3 Base
10LED3021=10W 3000K, 21 Degree Narrow, GU5.3 Base
10LED3041=10W 3000K, 41 Degree Wide, GU5.3 Base
10LED4012=10W 4000K, 12 Degree Spot, GU5.3 Base
10LED4021=10W 4000K, 21 Degree Narrow, GU5.3 Base
10LED4041=10W 4000K, 41 Degree Wide, GU5.3 Base
10LED5712=10W 5700K 12 Degree Spot, GU5.3 Base
10LED5721=10W 5700K, 21 Degree Narrow, GU5.3 Base
10LED5741=10W 5700K, 41 Degree Wide, GU5.3 Base

Voltage
12=12V

Finish
Painted
BK= Black
BZ= Bronze
CS= City Silver
VE= Verde
WT= White
Metal
NBR= Brass
NBZ= Bronze
NCP= Copper
NSS= Stainless Steel

Accessories
Glare Shield
FH203=Angled Glare Shield, MR16
Glare Shield Finish
BK= Black
CS= City Silver
WT= White
NCP= Copper
Filters
F71= Peach Dichroic Filter, 2.00" Dia
F73= Green Dichroic Filter, 2.00" Dia
F75= Yellow Dichroic Filter, 2.00" Dia
F77= Dark Blue Dichroic Filter, 2.00" Dia
F79= Neutral Density Dichroic Filter, 2.00" Dia
F22= Red Color Filter, 2.00" Dia
F44= Green Color Filter, 2.00" Dia
F66= Mercury Vapor Color Filter, 2.00" Dia
Optical Lenses
LSL= Linear Spread Lens (elongate standard beam spread), 2.00" Dia
DIF= Diffused Lens (provide even illumination), 2.00" Dia
Optical Louver
LVR=Hex Cell Louver (reduce glare), 2.00" Dia
Lamps
MR8-12-20N=20W MR8 GZ4 Bi-Pin Narrow Beam
FTB=20W MR11 GU4 Bi-Pin Narrow Spot
FTC=20W MR11 GU4 Bi-Pin Spot
FST=20W MR11 DC Bayonet Base Spot
FTE=35W MR11 GU4 Bi-Pin Narrow Spot
FTH=35W MR11 GU4 Bi-Pin Narrow Flood
BAW=35W MR11 DC Bayonet Base Narrow Flood
ESX=20W MR16 GU5.3 Bi-Pin Narrow Spot
FRB=35W MR16 GU5.3 Bi-Pin Narrow Spot
FMW=35W MR16 GU5.3 Bi-Pin Flood
EXZ=50W MR16 GU5.3 Bi-Pin Narrow Flood
FNV=50W MR16 GU5.3 Bi-Pin Very Wide Flood
EYJ=75W MR16 GU5.3 Bi-Pin Narrow Flood
TAL20-FL=20W MR16 Turn and Lock Flood
TAL50-FL=50W MR16 Turn and Lock Flood
HP3650-NSP=50W PAR36 Halogen Narrow Spot, 12V
HP3650-FL=50W PAR36 Halogen Flood, 12V
HP56240-MFL=240W PAR56 Halogen Medium Flood, 12V, Mogul Eng Prong Base
HGT435=35W T4 GY6.35 Base Halogen, 12V
HP2035-NSP=35W PAR20 Halogen Narrow Spot, Medium Base
HP2050-NSP=50W PAR20 Halogen Narrow Spot, Medium Base
HP2050-NFL=50W PAR20 Halogen Narrow Flood, Medium Base
HP3050-SP=50W PAR30 Halogen Spot, Medium Base
HP3075-NSP=75W PAR30 Halogen Narrow Spot, Medium Base
HP3075-NFL=75W PAR30 Halogen Narrow Flood, Medium Base
HP38150-SP= 150W PAR38 Halogen Spot, Medium Base
HP38250-SP= 250W PAR38 Halogen Spot, Medium Base
HP56300-MFL= 300W PAR56 Halogen Medium Flood, Mogul Eng Prong Base
MHT639= 39W T6 Metal Halide
MHT6150= 150W T6 Metal Halide
MHP2039-FL= 39W PAR20 Metal Halide Flood
MHP3039-FL= 39W PAR30 Metal Halide Flood
MHP3070-FL= 70W PAR30 Metal Halide Flood
MHP3870-FL= 70W PAR38 Metal Halide Flood
MHP38100-SP= 100W PAR38 Metal Halide Spot
MHP38100-WFL= 100W PAR38 Metal Halide Wide Flood
CFL9= 9W Compact Fluorescent Lamp
CFL26= 26W Compact Fluorescent Lamp
CFL42= 42W Compact Fluorescent Lamp
BZ= Bronze
VE= Verde
NBR= Brass
F72= Amber Dichroic Filter, 2.00" Dia
F74= Medium Blue Dichroic Filter, 2.00" Dia
F76= Red Dichroic Filter, 2.00" Dia
F78= Light Blue Dichroic Filter, 2.00" Dia
F80= Magenta Dichroic Filter, 2.00" Dia
F33= Blue Color Filter, 2.00" Dia
F55= Yellow Color Filter, 2.00" Dia
OSL= Overall Spread Lens (increase beam spread), 2.00" Dia
MR8-12-20W=20W MR8 GZ4 Bi-Pin Wide Beam
FTD=20W MR11 GU4 Bi-Pin Narrow Flood
FSS=20W MR11 DC Bayonet Base Narrow Spot
FSV=20W MR11 DC Bayonet Base Narrow Flood
FTF=35W MR11 GU4 Bi-Pin Spot
GDY=35W MR11 DC Bayonet Base Narrow Spot
EZX=20W MR16 GU5.3 Bi-Pin Very Narrow Spot
BAB=20W MR16 GU5.3 Bi-Pin Flood
FRA=35W MR16 GU5.3 Bi-Pin Spot
EXT=50W MR16 GU5.3 Bi-Pin Flood
EXN=50W MR16 GU5.3 Bi-Pin Flood
EYF=75W MR16 GU5.3 Bi-Pin Narrow Spot
EYC=75W MR16 GU5.3 Bi-Pin Flood
TAL20-SP=20W MR16 Turn and Lock Spot
TAL50-SP=50W MR16 Turn and Lock Spot
HP3650-SP=50W PAR36 Halogen Spot, 12V
HP3650-WFL=50W PAR36 Halogen Wide Flood, 12V
HGT420=20W T4 GY6.35 Base Halogen, 12V
HGT450=50W T4 GY6.35 Base Halogen, 12V
HP2035-NFL=35W PAR20 Halogen Narrow Flood, Medium Base
HP2050-SP=50W PAR20 Halogen Spot, Medium Base
HP3050-NSP=50W PAR30 Halogen Narrow Spot, Medium Base
HP3050-NFL=50W PAR30 Halogen Narrow Flood, Medium Base
HP3075-SP=75W PAR30 Halogen Spot, Medium Base
HP3075-FL=75W PAR30 Halogen Flood, Medium Base
HP38150-FL= 150W PAR38 Halogen Flood, Medium Base
HP38250-FL= 250W PAR38 Halogen Flood, Medium Base
MHT439= 39W T4 Metal Halide
MHT670= 70W T6 Metal Halide
MHP2039-SP= 39W PAR20 Metal Halide Spot
MHP3039-SP= 39W PAR30 Metal Halide Spot
MHP3070-SP= 70W PAR30 Metal Halide Spot
MHP3870-SP= 70W PAR38 Metal Halide Spot
MHP3870-WFL= 70W PAR38 Metal Halide Wide Flood
MHP38100-FL= 100W PAR38 Metal Halide Flood
CFL5= 5W Compact Fluorescent Lamp
CFL13= 13W Compact Fluorescent Lamp
CFL32= 32W Compact Fluorescent Lamp

PHOTOMETRIC DATA

Cambria 213

Lamp=50MR16/NSP
(EXT)
CBCP=11,000

Cone of Light

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
2'0"	2550	0'6"
4'0"	638	1'0"
6'0"	283	1'6"
8'0"	159	2'0"
10'0"	102	3'0"
15'0"	45	4'0"

Lamp Wattage Multiplier
20W x 0.32

Cambria 213

Lamp=50MR16/FL
(EXN)
CBCP=2000

Cone of Light

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
2'0"	431	1'6"
4'0"	106	3'0"
6'0"	48	5'0"
8'0"	27	6'6"
10'0"	17	8'0"
15'0"	7	12'0"

Lamp Wattage Multiplier
20W x 0.30
35W x 0.57

LAMP INFORMATION

Lamp	Watts	Beam Spread	CBCP	°K	Life (hrs.)	Base	Volts
6LED2712	6	12°	3358	2700	50000	GU5.3 bi-pin	12
6LED2721	6	21°	937	2700	50000	GU5.3 bi-pin	12
6LED2741	6	41°	472	2700	50000	GU5.3 bi-pin	12
6LED3012	6	12°	3694	3000	50000	GU5.3 bi-pin	12
6LED3021	6	21°	1019	3000	50000	GU5.3 bi-pin	12
6LED3041	6	41°	646	3000	50000	GU5.3 bi-pin	12
6LED4012	6	12°	4280	4000	50000	GU5.3 bi-pin	12
6LED4021	6	21°	1179	4000	50000	GU5.3 bi-pin	12
6LED4041	6	41°	754	4000	50000	GU5.3 bi-pin	12
6LED5712	6	12°	4496	5700	50000	GU5.3 bi-pin	12
6LED5721	6	21°	1275	5700	50000	GU5.3 bi-pin	12
6LED5741	6	41°	792	5700	50000	GU5.3 bi-pin	12
10LED2712	10	12°	5037	2700	50000	GU5.3 bi-pin	12
10LED2721	10	21°	1406	2700	50000	GU5.3 bi-pin	12
10LED2741	10	41°	708	2700	50000	GU5.3 bi-pin	12
10LED3012	10	12°	5513	3000	50000	GU5.3 bi-pin	12
10LED3021	10	21°	1521	3000	50000	GU5.3 bi-pin	12
10LED3041	10	41°	964	3000	50000	GU5.3 bi-pin	12
10LED4012	10	12°	6389	4000	50000	GU5.3 bi-pin	12
10LED4021	10	21°	1759	4000	50000	GU5.3 bi-pin	12
10LED4041	10	41°	1125	4000	50000	GU5.3 bi-pin	12
10LED5712	10	12°	6711	5700	50000	GU5.3 bi-pin	12
10LED5721	10	21°	1903	5700	50000	GU5.3 bi-pin	12
10LED5741	10	41°	1182	5700	50000	GU5.3 bi-pin	12
50MR16/NSP	50	12°	11,000	3050	4000	GU5.3 bi-pin	12
50MR16/NSL	50	25°	3200	3050	4000	GU5.3 bi-pin	12
50MR16/FL	50	40°	2000	3050	4000	GU5.3 bi-pin	12
50MR16/WFL	50	60°	1200	3050	4000	GU5.3 bi-pin	12

NOTES AND FORMULAS

- Beam diameter is to 50% of maximum footcandles, rounded to the nearest half-foot.
- Footcandle values are initial. Apply appropriate light loss factors where necessary.

BRIGHT 3.F

The Bright 3.F is a small, powerful IP69K outdoor recessed fixture. It is available in white light with 7 different optics options and can be installed in-grade, wall or ceiling mount. Not suitable for use in swimming pools or fountains. Drive-over rated up to 11,000 lbs. **The Bright 3, Smoothy 5 and Litus 5 series all use the same LED.**

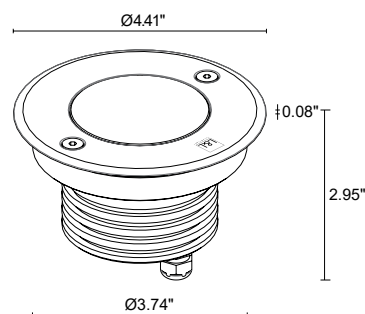
TECHNICAL DATA

Wattage / Input	10W, 13W (24VDC)
Power Supply	Remote, not included. See page 2.
Construction	Body: Anodized Aluminum EN AW 6082 Trim: AISI 316L Stainless Steel Lens: Tempered Serigraphed-Gray and Transparent Extra-Clear Glass Cable Length: 4.92' standard
CCT	2700K, 3000K, 4000K
CRI	>80, >90
Delivered Lumens	See Delivered Lumens Chart
Efficacy	84.5-75.9 lm/W (10W), 86.5 lm/W-70.1 (13W)
Optics	7 Standard (see below)
Finishes	Stainless Steel
Fixture Dimensions	Ø4.41" x 2.95" h
Cut-out Size	Ø3.78" (for ceiling or wall installations)
Fixture Weight	1.72 lbs
LED Source	1 COB LED High Density
Lumen Maintenance	L95, B10 >50,000hrs (Ta 25°C)
Color Consistency	3-Step MacAdam
Operating Temp.	-4°F to +113°F
IP Rating	IP68, IP69K
IK Rating	IK10



Cut-out Dimensions for ceiling/wall installations with fixing spring = Ø3.78"

Fixture Dimensions



Delivered Lumens (3000K, 55°)	10W	13W
CRI 80	845 lm	1125 lm
CRI 90	759 lm	911 lm

ORDERING INFORMATION

Example: CB3F001000F0MI or CB3F001000F0MI-1. Accessories / Power Supplies ordered separately.

					I	-	
Model No.	CRI	Optical Accessories	CCT	Optics	Finish	Cable Length	
CB3F00 (10W)	0 - CRI>80	000 - None	F0 - 2700K	S - 16°	I - Stainless Steel	4.92' standard	
CB3F01 (13W)	1 - CRI>90	010 - Anti-Glare Screen <i>Not available with diffuse optics.</i>	50 - 3000K	M - 21°		1 - 16.40'	
		001 - Honeycomb Louvre <i>Honeycomb Louvre only available with 16°, 21°, 38°, 55° optics</i>	90 - 4000K	L - 38°		2 - 32.81'	
				K - 55°		3 - 49.21'	
				P - 58° sharp		4 - 65.62'	
		020 - None - Diffus		W - 16°x69°			
				D - Diffus			

Job Name/Date:

Fixture Type Designation:

SUGGESTED POWER SUPPLIES

24VDC

Part Number	Description	Input/Output	# of Fixtures 10W / 13W	
PPLT00481	Non-Dim	120-277VAC to 24VDC, 24W, Class 2	1-1	1-1
PPLT00056	Non-Dim	120-277VAC to 24VDC, 26W, Class 2, IP66	1-2	1-1
PPLT00157	Non-Dim	120-277VAC to 24VDC, 60W, Class 2	1-4	1-3
PPLT00158	Non-Dim	120-277VAC to 24VDC, 100W, Class 2	1-8	1-6
PPLT00543	0-10V Dimming to 10%	120-277VAC to 24VDC, 100W, Class 2	1-8	1-6

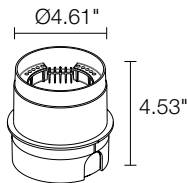
For other power supply options consult factory.

ACCESSORIES

Installation

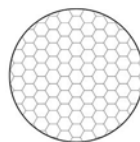


WC0105
Outer Casing
For in-grade use

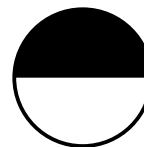


WG0400
Fixing Spring
For ceiling/wall use

Anti-glare



Honeycomb Louvre*
Can be provided on all fixed optics except for the sharp, diffuse and elliptical optics.
*Order together with lighting fixture

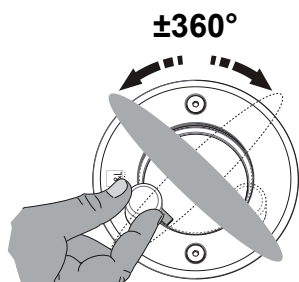


Anti-Glare Screen*
Can be provided on all optics except for diffuse optics.
*Order together with lighting fixture

Optional



WE0201
Magnet for 16°x69° adjustable optics



16°, 21°: optical system consisting of a high-efficiency TIR lens combined with a high-quality technical filter, 38°, 55°: optical system consisting of a high-efficiency TIR lens, sharp 58°: SHARP optical system consisting of a plano-convex lens for an extremely well-defined light beam, combined with a high-quality technical filter, 16°x69° adjustable through 360°: optical system consisting of a high-efficiency TIR lens combined with a high-quality elliptical technical filter and integrated with magnetic material for adjusting the ellipsis (patented), diffuse

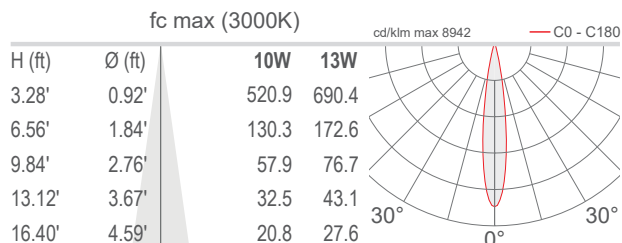
Job Name/Date:

Fixture Type Designation:

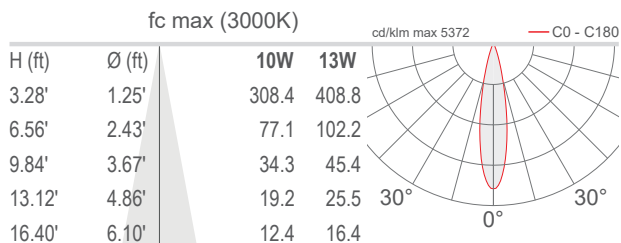
PHOTOMETRIC DATA

Note all Photometry is 3000K

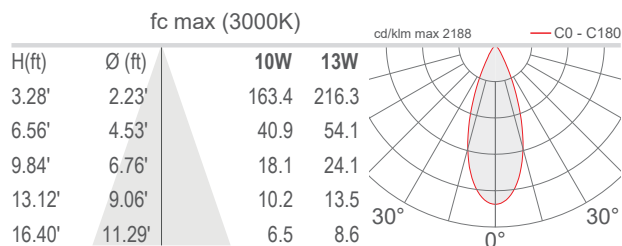
S - 16°



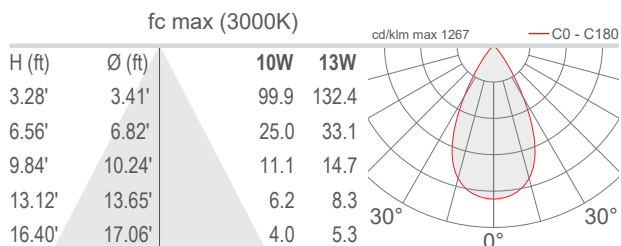
M - 21°



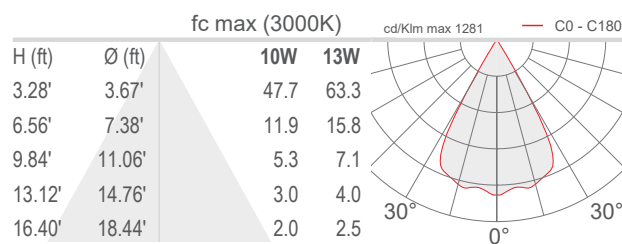
L - 38°



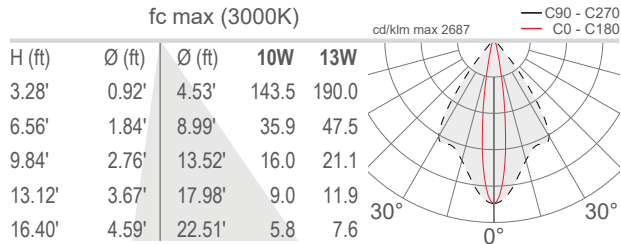
K - 55°



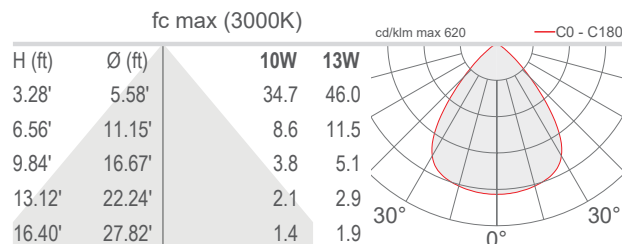
P - 58° Sharp



W - 16°x69° Orientabile / Adjustable



D - Diffuso / Diffuse



Job Name/Date:

Fixture Type Designation:

FHS-BHM Exterior Facade
Preliminary Lighting Specifications
12-16-21

INFORMATION ONLY



Oakwood Design

Description

Recessed LED module with interchangeable 2-inch round or square lens pinhole apertures are available in various finishes to suit any décor. Use with 4-inch nominal recessed housings suitable for residential and shallow plenum commercial construction or can be used to retrofit existing installations. Field interchangeable primary optics provide various distribution patterns and spacing to mounting height ratios. Use for general and task lighting in low to medium height ceilings where energy savings, long life and optical control are required.

Specification Features

Module

- Field interchangeable and upgradable LED module consists of LED array, primary optic and driver.
- Integral die cast aluminum heat sink provides passive thermal cooling achieving L70 at 50,000 hours in IC and non-IC applications.

Retention

- Heat treated compression springs hold module securely in the housing, can be removed thru the aperture for service or replacement

LED Array

- Proximity phosphors over chip on board LEDs provide a uniform source with high efficiency and no pixilation.
- Available in 90 CRI minimum, R9 greater than 50 and color accuracy within 3 SDCM provide color accuracy and uniformity.
- Compatible with Zhaga book 12 standards for interchangeability and can be replaced in the field

Gaskets

- Closed cell gaskets achieve restrictive airflow requirements without additional caulking

Primary Optic

- Precision molded TIR optic organizes source flux into useful beams without stray lumens in the field.
- Two-piece construction with matte black mounting ring and polarized turn and lock mounting aligns optic to source and minimizes backlight in the housing.
- Exceeds ENERGY STAR® color angular uniformity requirements, color deviation is typically less than 0.002 u' v'.

- Available in narrow flood, flood and wide flood distributions, ordered separately, ships with narrow flood installed.
- Also available in asymmetric distribution providing vertical illumination

Trims

- Die formed steel trims are available in 2-inch round or square pinhole apertures and can be interchanged in the field.
- Available in a broad range of painted or plated finishes, can be painted in the field to match any décor.
- Magnetic attachment holds trim tightly to ceiling and eliminates light leaks.

Shielding

- Diffuse clear lens provides light control and source shielding.

Driver

- Integral UNV 120 - 277V 50/60 Hz constant current driver provides noise free operation.
- Continuous, flicker-free dimming from 100% to 5% with select leading or trailing edge 120V phase cut dimmers.
- Driver can be replaced in the field.
- Inline electrical quick connect and E26 adapter not provided.

Compliance

- cULus listed / certified for use with Halo housings, classified for use with other's housings, see instruction sheet for conditions of acceptability.
- Wet location listed in covered ceilings and IP65 certified.
- Airtight per ASTM-E283.
- Suitable for use in clothes closets when installed in accordance with the NEC 410.16 spacing requirements
- EMI/RFI emissions per FCC 47CFR Part 15 B.
- Contains no mercury or lead and RoHS compliant.
- Photometric testing in accordance with IES LM-79-08.
- Lumen maintenance projections in accordance with IES LM-80-08 and TM-21-11.
- Can be used for State of California Title 24 high efficacy luminaire compliance, reference the California Energy Commission Title 20 Appliance Efficiency Database for current listings.
- ENERGY STAR® listed, reference qualified product listings.
- Meets State of California voluntary lamp standards.
- Zhaga book 12 compatible.

Warranty

Five year limited warranty, consult website for details.
www.eaton.com/lighting/Legal

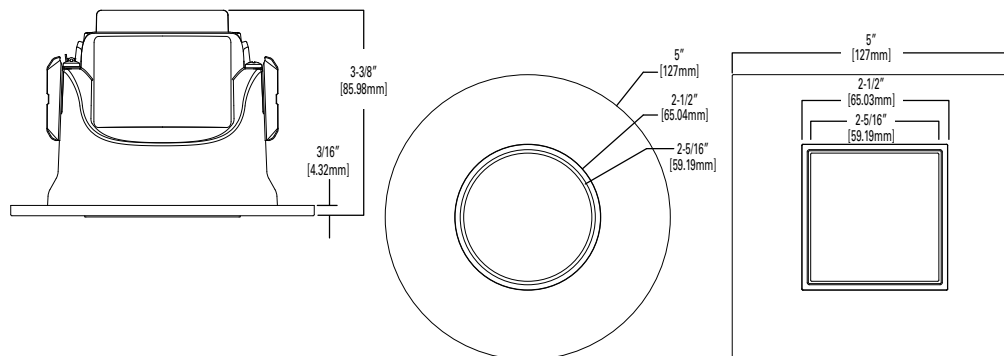


Refer to ENERGY STAR® Qualified Products List. Can be used to comply with California Title 24 High Efficacy requirements. Certified to California Appliance Efficiency Database under JAB8. Indoor LED nominal CCT of 4000K or less.



Eaton is a founding member of the Zhaga Consortium

Dimensions



ML4D

TL43R

TL44S

900 Lumen Series

LED

2-Inch Round and Square Lens Pinhole Downlight



ENERGY DATA		
Lumens	900 Series	
Input Voltage	120V	277V
Input Current	101.6 (mA)	45.7 (mA)
Input Power	12.1 (W)	11.9 (W)
Efficiency	84.93 %	83.45 %
Inrush (A)	1.3	4.7
THD: ≤ 20%		
PF: ≥ 0.90		
T Ambient -40 - +40°C		
Sound Rating ≤ 20dba		

Ordering Information

SAMPLE NUMBER: ML4D09NFL927E - TL43R2GMWWB

A complete luminaire consists of a housing, LED module and trim, order separately.

Models	Lumens	Distribution	CRI/CCT	Driver	Accessories
ML4D = 4" LED module	09 =900 lumens (nominal)	NFL =25 degree narrow flood FL =40 degree flood	927 =90 CRI , 2700K 930 =90 CRI , 3000K 935 =90 CRI , 3500K 940 =90 CRI , 4000K	E =UNV 120 - 277V 50-60Hz, LE & TE phase cut 5% dimming at 120V only	TIR50AWW25 =asymmetric wall wash TIR50NFL25 =25° narrow flood TIR50FL40 =40° flood TIR50WFL55 =55° wide flood LH501MB12PK =Media holder for (1) 50mm lens, matte black, 12 pack HE26LED =Edison base adapter for retrofit HE26LED-24PK =Edison base adapter for retrofit 24 pack
Trims	Shielding	Flange Finish	Accessories		
TL43R = 2" round lens pinhole TL44S = 2" square lens pinhole	2G =Diffuse clear	MWWB =Matte white flange, white lens frame MWBB =Matte white flange, black lens frame MBBB =Matte black flange, black lens frame BNBB =Brushed nickel flange, black lens frame ORBBB =Oil rubbed bronze flange, black lens frame GBBB =German bronze flange, black lens frame BCuBB =Brushed copper, black lens frame	T24HWKIT =Title 24 hard wire kit, converts incandescent, low voltage and compact fluorescent housings to LED H4NCMF =4" new construction mounting frame compatible with H245RICAT, H99RTAT, H1499RICAT, and E4RTATSB remodeler housings.		

Housings

Halo Ultra-shallow LED Housings

H245ICAT=4" IC, airtight ultra-shallow new construction housing, LED, 120 - 277V

H245RICAT=4" IC, airtight ultra-shallow remodeler housing, LED, 120 - 277V

Halo LED Housings

H995ICAT=4" IC, airtight shallow new construction housing, LED, 120 - 277V

H995RICAT=4" IC, airtight shallow remodeler housing, LED, 120 - 277V

Halo Housings

H99TAT=4" non-IC, airtight shallow new construction housing, E26, 120V

H99RTAT=4" non-IC, airtight shallow remodeler housing, E26, 120V

H99ICAT=4" IC, airtight shallow new construction housing, E26, 120V

E4TATSB=4" non-IC, airtight shallow new construction housing, adjustable socket bracket, E26, 120V

E4RTATSB=4" non-IC, airtight shallow remodeler housing, adjustable socket bracket, E26, 120V

E4ICATSB=4" non-IC, airtight shallow new construction housing, adjustable socket bracket, E26, 120V

Halo Surface Mount Housings

HS4R=Surface round, 120-277V

HS4S=Surface square, 120-277V



HE26LED
Edison Base Adapter for retrofit (order separately)

FIN - model: WP-LED1

Endurance Wallpack

WAC LIGHTING

Responsible Lighting®

Fixture Type:

Catalog Number:

Project:

Location:



PRODUCT DESCRIPTION

Die cast aluminum factory sealed housings with patent pending design for a water and dust proof IP66 rated outdoor luminaire

FEATURES

- Factory-Sealed LED Light Engine
- 20° Forward Throw Illumination
- Photo/Motion Sensor Compatible (Sold Separately)
- Built-in Level For Easy Adjustment
- Suitable to install in all directions
- Multi-Function Dimming: ELV (120V) or 0-10V
- 85 CRI
- 100,000 hour rated life

SPECIFICATIONS

Construction: Die-cast aluminum

Power: Integral driver in luminaire. Universal voltage input (120V-277V)

Dimming: 100% - 30% with 0 - 10V dimmer (120V - 277V)

100% - 15% with Electronic Low Voltage (ELV) dimmer (120V only)

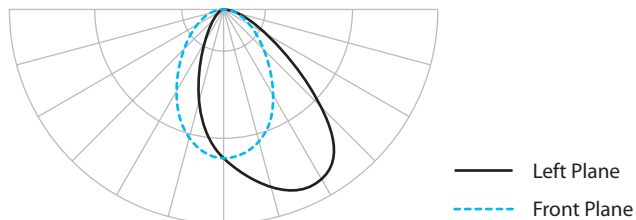
Finish: Architectural Bronze, Graphite, and White

Standards: Energy Star®, DLC rated, IP66, Wet Location, ETL & cETL Listed

Total Harmonic Distortion: 35%

Operating Temperature: -40°C (-40°F) to 40°C (104°F)

PHOTOMETRY

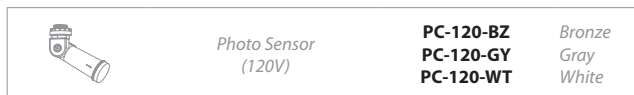
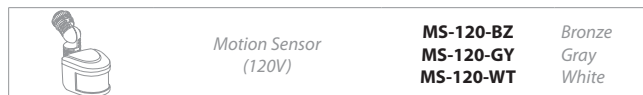


ORDER NUMBER

		Power	Comparable	Delivered Lumens		Color Temp	Finish
				3000K	5000K		
	WP-LED119	19W	39W HID	1390	1460	30 3000K 50 5000K	aBZ Architectural Bronze
	WP-LED127	27W	70W HID	2075	2135		aGH Architectural Graphite
	WP-LED135	35W	100W HID	2750	2825		aWT Architectural White

Example: WP-LED119-50-BZ

ACCESSORIES



WAC Lighting

www.waclighting.com

Phone (800) 526.2588 • Fax (800) 526.2585

Headquarters/Eastern Distribution Center

44 Harbor Park Drive • Port Washington, NY 11050

Phone (516) 515.5000 • Fax (516) 515.5050

Western Distribution Center

1750 Archibald Avenue • Ontario, CA 91760

Phone (800) 526.2588 • Fax (800) 526.2585

RUBIX - model: WS-W2504, WS-W2505

LED Wall Mount

WAC LIGHTING
Responsible Lighting®



Fixture Type:

Catalog Number:

Project:

Location:

PRODUCT DESCRIPTION

Available in single- and twin-light configurations, this die cast aluminum LED wall luminaire is wet location listed for a broad range of exterior lighting applications. Designed with a square profile, this version of Rubix mounts upwards or downwards.

FEATURES

- Energy Star® rated
- CEC Title 24 Compliant
- Mounts up or down
- IP65 Rated, ETL & cETL Wet Location Listed
- Die-Cast Aluminum Construction
- Universal Voltage Input (120V - 277V)
- Dimming: ELV (120V) or 0-10V

SPECIFICATIONS

Construction: Aluminum with etched glass.

Power: Integral driver in luminaire. 120V - 277V input.

Light Source: High output LED

Mounting: Mounts directly to junction box

Dimming: 0-10V Dimming: 100%-10%

ELV Dimming: 100%-15% (120V only)

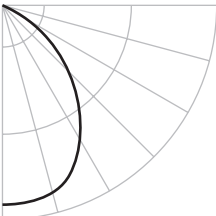
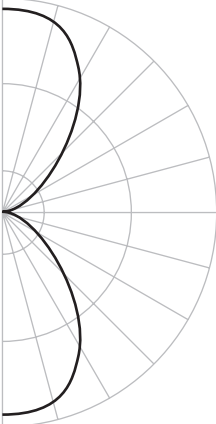
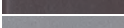
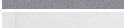
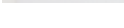
Finish: Brushed Aluminum (AL), Black (BK), Bronze (BZ), Graphite (GH), White (WT)

Color Temp: 3000K

CRI: 90

Rated Life: 70,000 hours

Standards: Energy Star® rated, IP65 Rated, ETL & cETL Wet Location Listed, CEC Title 24 Compliant, Dark Sky Friendly.

	Beam	Photometry	Voltage	Watt	Lumens	Finish
 Single Light	5" x 6.5" x 5"	WS-W2504 Dark Sky Friendly 86° Energy Star®				
			120V - 277V	16W	750	
 Double Light	5" x 6.5" x 5"	WS-W2505 86°				
			120V - 277V	30W	1400	
AL Brushed Aluminum  BK Black  BZ Bronze  GH Graphite  WT White 						

 -

Example: **WS-W2504-GH**

waclighting.com
Phone (800) 526.2588
Fax (800) 526.2585

Headquarters/Eastern Distribution Center
44 Harbor Park Drive
Port Washington, NY 11050

Central Distribution Center
1600 Distribution Ct
Lithia Springs, GA 30122

Western Distribution Center
1750 Archibald Avenue
Ontario, CA 91760

RUBIX - model: WS-W2504, WS-W2505

LED Wall Mount

WAC LIGHTING
Responsible Lighting®



Fixture Type:

Catalog Number:

Project:

Location:

PRODUCT DESCRIPTION

Available in single- and twin-light configurations, this die cast aluminum LED wall luminaire is wet location listed for a broad range of exterior lighting applications. Designed with a square profile, this version of Rubix mounts upwards or downwards.

FEATURES

- Energy Star® rated
- CEC Title 24 Compliant
- Mounts up or down
- IP65 Rated, ETL & cETL Wet Location Listed
- Die-Cast Aluminum Construction
- Universal Voltage Input (120V - 277V)
- Dimming: ELV (120V) or 0-10V

SPECIFICATIONS

Construction: Aluminum with etched glass.

Power: Integral driver in luminaire. 120V - 277V input.

Light Source: High output LED

Mounting: Mounts directly to junction box

Dimming: 0-10V Dimming: 100%-10%

ELV Dimming: 100%-15% (120V only)

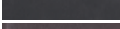
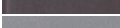
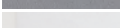
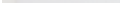
Finish: Brushed Aluminum (AL), Black (BK), Bronze (BZ), Graphite (GH), White (WT)

Color Temp: 3000K

CRI: 90

Rated Life: 70,000 hours

Standards: Energy Star® rated, IP65 Rated, ETL & cETL Wet Location Listed, CEC Title 24 Compliant, Dark Sky Friendly.

	Beam	Photometry	Voltage	Watt	Lumens	Finish
 Single Light	 5" 6.5" 5"	WS-W2504 Dark Sky Friendly 86° Energy Star®	120V - 277V	16W	750	
 Double Light	 5" 6.5" 5"	WS-W2505 86°	120V - 277V	30W	1400	
AL Brushed Aluminum  BK Black  BZ Bronze  GH Graphite  WT White 						

 -

Example: **WS-W2504-GH**

waclighting.com
Phone (800) 526.2588
Fax (800) 526.2585

Headquarters/Eastern Distribution Center
44 Harbor Park Drive
Port Washington, NY 11050

Central Distribution Center
1600 Distribution Ct
Lithia Springs, GA 30122

Western Distribution Center
1750 Archibald Avenue
Ontario, CA 91760

Application

LED wall mounted luminaires with directed light designed to be mounted at various heights for general purpose illumination or glare free illumination when below eye level.

Materials

Luminaire housing constructed of die-cast marine grade, copper free ($\leq 0.3\%$ copper content) A360.0 aluminum alloy
Matte safety glass
Silicone applied robotically to casting, plasma treated for increased adhesion
High temperature silicone gasket
Mechanically captive stainless steel fasteners

NRTL listed to North American Standards, suitable for wet locations
Protection class IP 65
Weight: 3.1 lbs

Electrical

Operating voltage	120-277V AC
Minimum start temperature	-40° C
LED module wattage	6.1 W
System wattage	8.0 W
Controllability	0-10V, TRIAC, and ELV dimmable
Color rendering index	Ra > 90
Luminaire lumens	504 lumens (3000K)
Lifetime at Ta=15° C	> 500,000 h (L70)
Lifetime at Ta=35° C	322,000 h (L70)

LED color temperature

4000K - Product number + **K4**
3500K - Product number + **K35**
3000K - Product number + **K3**
2700K - Product number + **K27**

BEGA can supply you with suitable LED replacement modules for up to 20 years after the purchase of LED luminaires - see website for details

Finish

All BEGA standard finishes are matte, textured polyester powder coat with minimum 3 mil thickness.

Available colors	Black (BLK)	White (WHT)	RAL:
	Bronze (BRZ)	Silver (SLV)	CUS:

Type:

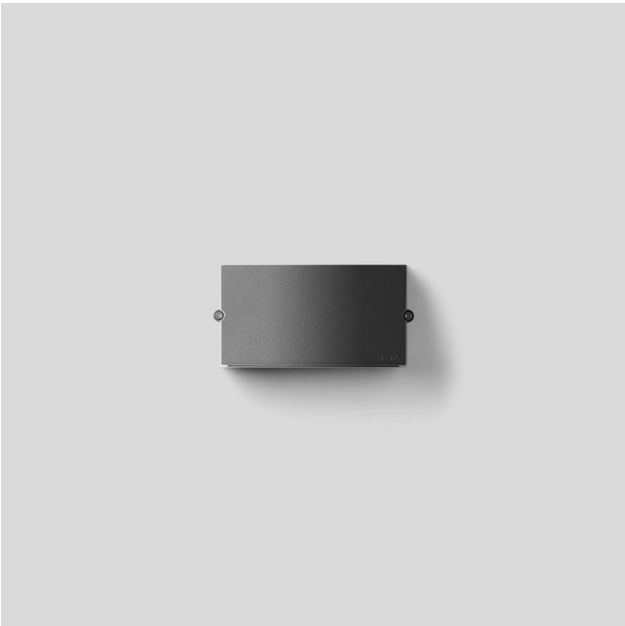
BEGA Product:

Project:

Modified:



LED wall luminaires - directed				
	LED	A	B	C
24 372	ADA 6.1 W	7 7/8	4 3/8	3 3/8



2-1/2" x 4-3/4" LED Step Light

120V Input

Fits a single gang box

Electrical Data

Catalog Number	Wattage	Source Lumens	Efficacy
SS3007	4W	120lm	30lpw

Construction

Die-cast aluminum housing with solite lens. Surface mount luminaire illuminates stairs, steps or pathways. Energy-saving LED emits through the solite glass lens.

LED Light Engine

- Wattage: 4W
- Lumens: 120lm
- Color Temperature: 2700K (available in amber, see SS3007-AMB)
- Color Rendering Index: 90 CRI

Electrical

- Integral 120V input driver
- Non-dimmable

Finishes

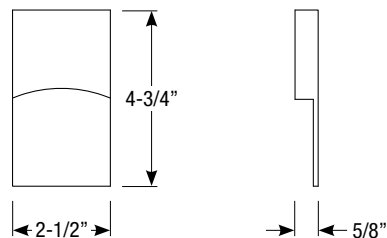
Available in bronze, silver metallic or white.

Installation

Fits in standard single-switch box, and a 2" x 3" handy box. Junction box mounts vertically.

Listings

- UL listed to US and Canadian standards for wet locations
- ADA compliant



Order Matrix

Step Light Order Matrix (Example: SS3007-BZ)

Series
SS3007-BZ (Bronze LED Step Light)
SS3007-SM (Silver Metallic LED Step Light)
SS3007-WT (White LED Step Light)



LED STEP LIGHTS SL-60 SERIES

GO GREEN

TYPE

SPECIFICATIONS

CONSTRUCTION: Die Cast Aluminum, Brass or Stainless Steel step light

LIGHT SOURCE: Integrated 12v 3w LED or 120v 4w LED with Driver On Board (No need for separate LED driver); 200 Lumens, warm white 3000K

LIFETIME RATING: 50,000 hours

SOCKET: None

GASKET: Black neosponge closed cell; .190" thickness

WIRING 12V: 6" black 18 gauge zip cord.

WIRING 120V: Standard Black (line), White (neutral), Green (ground)

SINGLE GANG BOX: Focus FA-SG-BOX fiberglass box included.

Fixture insert only without Back Box is available (SL60NB) if back box is supplied by others or is already installed;

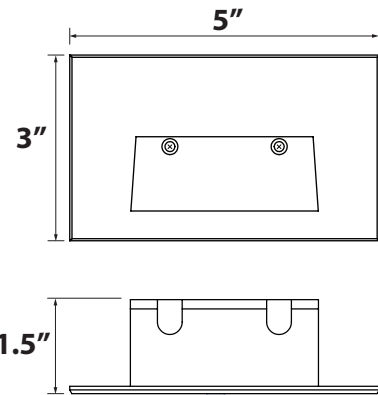
NOTE: If box is supplied by others it must have minimum inside dimensions of 3"(l) x 2"(w) x 2.5"(d) and plate mounting holes 3.22" to 3.30" apart on center.

MOUNTING: Stainless Steel bracket and hardware for mounting in single gang junction box; Face plate attaches to bracket with two provided screws

FINISH: Aluminum - Black texture polyester powder coat; optional finishes available
Brass - Unfinished; optional finishes available
Stainless Steel-Brushed



SL-60-LED12VBLT



SL60NB insert

ORDERING INFORMATION

CATALOG NO.	DESCRIPTION	LIGHT SOURCE	WEIGHT
SL60-LED12V-BLT	12v Aluminum LED Step Light	3w LED Module	2.0 lbs.
SL60-LED12V-BRS	12v Brass LED Step Light	3w LED Module	3.0 lbs.
SL60-LED12V-SS	12v Stainless LED Step Light	3w LED Module	2.0 lbs.
SL60-LED120-BLT	120v Aluminum LED Step Light	4w LED Module	2.0 lbs.
SL60-LED120-BRS	120v Brass LED Step Light	4w LED Module	3.0 lbs.
SL60-LED120-SS	120v Stainless LED Step Light	4w LED Module	2.0 lbs.

NO BACK BOX MODELS:

SL60NB-LED12V-BLT	12v Aluminum LED Step Light Insert	3w LED Module	2.0 lbs.
SL60NB-LED12V-BRS	12v Brass LED Step Light Insert	3w LED Module	3.0 lbs.
SL60NB-LED12V-SS	12v Stainless LED Step Light Insert	3w LED Module	2.0 lbs.

SL60NB-LED120-BLT	120v Aluminum LED Step Light Insert	4w LED Module	2.0 lbs.
SL60NB-LED120-BRS	120v Brass LED Step Light Insert	4w LED Module	3.0 lbs.
SL60NB-LED120-SS	120v Stainless LED Step Light Insert	4w LED Module	2.0 lbs.

FASG-BOX	Plastic Single Gang Box only	1.0 lbs.



FA-SG-BOX Single Gang Box



JOB INFORMATION

Type:	Date:
Job Name:	
Cat. No.:	
Lamp(s):	
Specifier:	
Contractor:	
Notes:	

FOCUS INDUSTRIES INC.
25301 COMMERCENTRE DRIVE
LAKE FOREST, CA 92630

www.focusindustries.com
sales@focusindustries.com
(949) 830-1350 • FAX (949) 830-3390

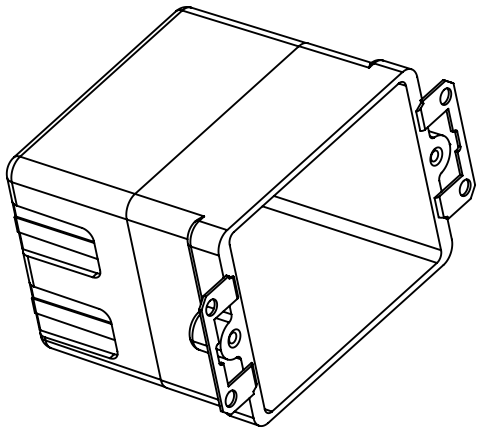
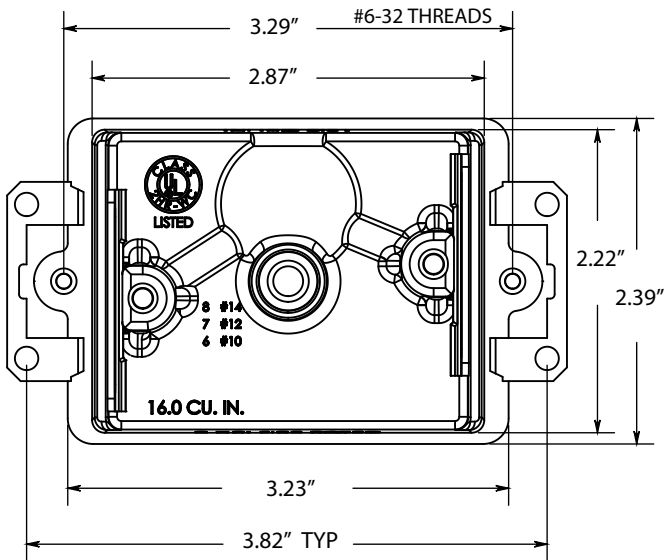
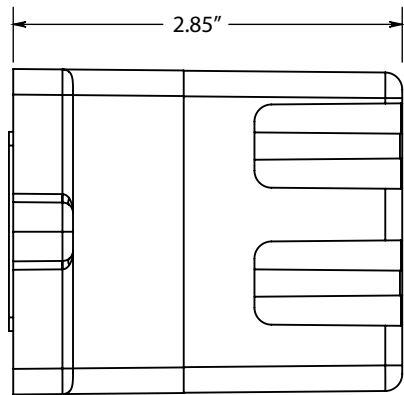
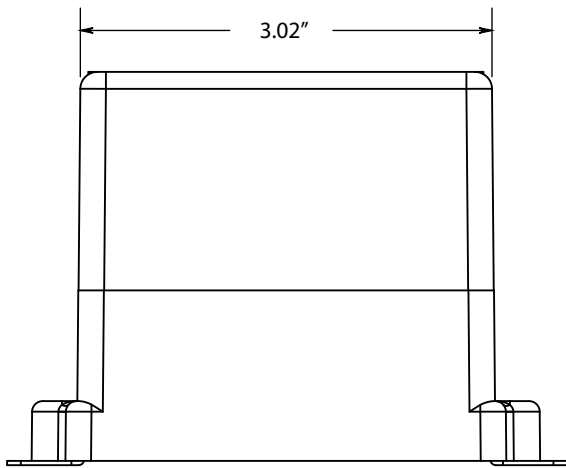
Black Texture (Standard)	Antique Verde	Bronze Texture	Camel	White Texture	Hunter Texture	Rust	Weathered Iron	Weathered Brown	Stucco	Rubbed Verde	Chrome Powder	Acid Rust	Acid Verde	Black Acid Treatment
-BLT	-ATV	-BRT	-CAM	-WTX	-HTX	-RST	-WIR	-WBR	-STU	-RBV	-CPR	-BAR/CAR	-BAV/CAV	-BAT



LED STEP LIGHTS SL-60 SERIES

TYPE

FA-SG-BOX
Single Gang Box



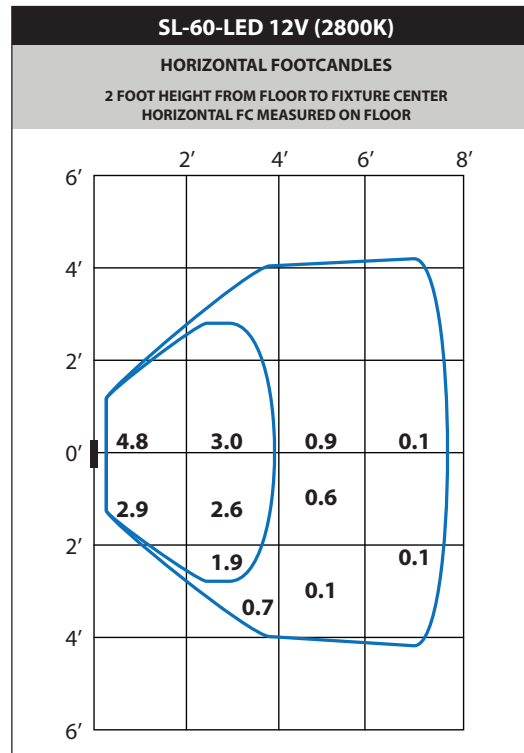
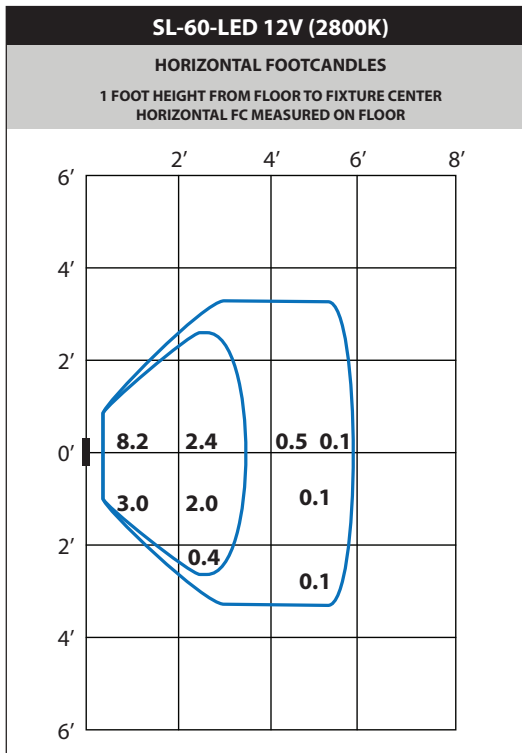
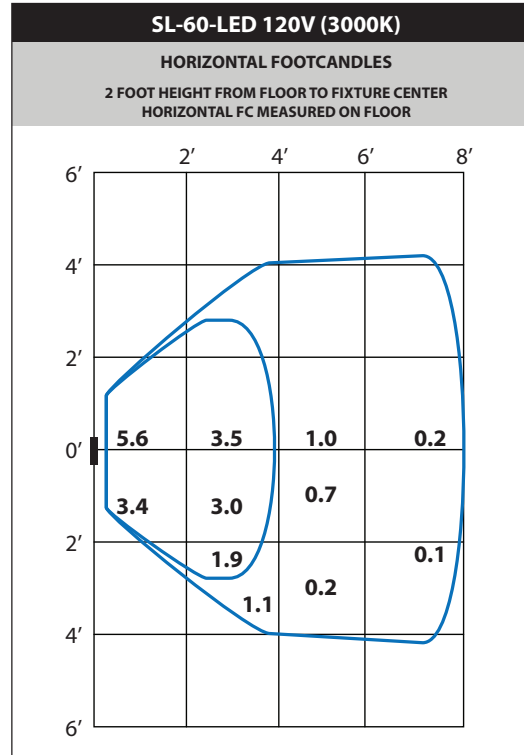
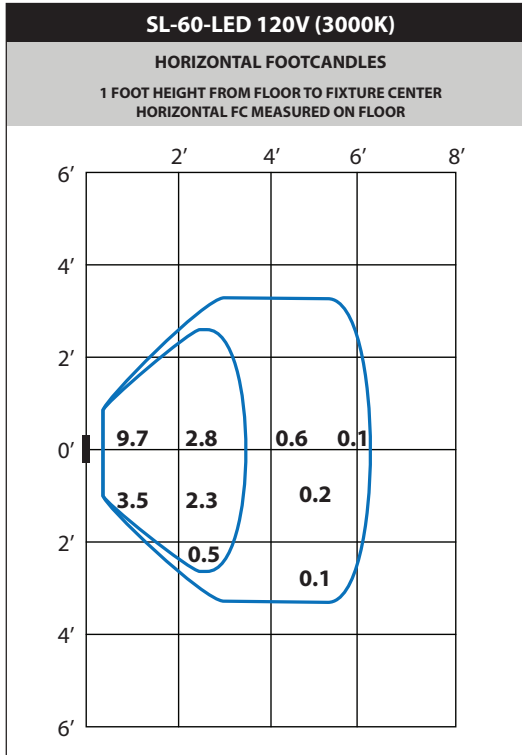
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-BLT	-ATV	-BRT	-CAM	-WTX	-HTX	-RST	-WIR	-WBR	-STU	-RBV	-CPR	-BAR/CAR	-BAV/CAV	-BAT



LED STEP LIGHTS SL-60 SERIES

TYPE

LIGHT DISTRIBUTIONS AND PHOTOMETRICS



Black Texture (Standard)	Antique Verde	Bronze Texture	Camel	White Texture	Hunter Texture	Rust	Weathered Iron	Weathered Brown	Stucco	Rubbed Verde	Chrome Powder	Acid Rust	Acid Verde	Black Acid Treatment
-BLT	-ATV	-BRT	-CAM	-WTX	-HTX	-RST	-WIR	-WBR	-STU	-RBV	-CPR	-BAR/CAR	-BAV/CAV	-BAT

Application

This LED wall luminaire with an asymmetric light distribution can be used to illuminate ceiling or ground surfaces in front of the mounting surface. Can be used for uplight or downlight applications.

Materials

Luminaire housing constructed of die-cast marine grade, copper free (≤0.3% copper content) A360.0 aluminum alloy
Clear safety glass
Reflector made of pure anodized aluminum
Silicone applied robotically to casting, plasma treated for increased adhesion
High temperature silicone gasket
Mechanically captive stainless steel fasteners

NRTL listed to North American Standards, suitable for wet locations
Protection class IP 65
Weight: 6.8lbs

Electrical

Operating voltage	120-277V AC
Minimum start temperature	-30° C
LED module wattage	17.9 W
System wattage	23 W
Controllability	0-10V dimmable
Color rendering index	Ra > 90
Luminaire lumens	2352 lumens (3000K)
Lifetime at Ta = 15° C	>500,000 h (L70)
Lifetime at Ta = 25° C	133,000 h (L70)

LED color temperature

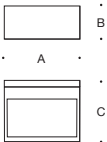
4000K - Product number + **K4**
3500K - Product number + **K35**
3000K - Product number + **K3 (EXPRESS)**
2700K - Product number + **K27**

BEGA can supply you with suitable LED replacement modules for up to 20 years after the purchase of LED luminaires - see website for details

Finish

All BEGA standard finishes are matte, textured polyester powder coat with minimum 3 mil thickness.

Available colors	Black (BLK)	White (WHT)	RAL:
	Bronze (BRZ)	Silver (SLV)	CUS :



LED wall luminaire · asymmetric light distribution				
	LED	A	B	C
22386	17.9 W	9 1/2	4 1/8	7 7/8

Type:
BEGA Product:
Project:
Modified:



Application

This LED wall luminaire with an asymmetric light distribution can be used to illuminate ceiling or ground surfaces in front of the mounting surface. Can be used for uplight or downlight applications.

Materials

Luminaire housing constructed of die-cast marine grade, copper free (≤0.3% copper content) A360.0 aluminum alloy
Clear safety glass
Reflector made of pure anodized aluminum
Silicone applied robotically to casting, plasma treated for increased adhesion
High temperature silicone gasket
Mechanically captive stainless steel fasteners

NRTL listed to North American Standards, suitable for wet locations
Protection class IP 65
Weight: 11 lbs

Electrical

Operating voltage	120-277V AC
Minimum start temperature	-40° C
LED module wattage	43.4 W
System wattage	50 W
Controllability	0-10V dimmable
Color rendering index	Ra > 80
Luminaire lumens	4549 lumens (3000K)
Lifetime at Ta = 15° C	50,000 h (L70)

LED color temperature

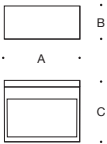
4000K - Product number + **K4**
3500K - Product number + **K35**
3000K - Product number + **K3**
2700K - Product number + **K27**

BEGA can supply you with suitable LED replacement modules for up to 20 years after the purchase of LED luminaires - see website for details

Finish

All BEGA standard finishes are matte, textured polyester powder coat with minimum 3 mil thickness.

Available colors	Black (BLK)	White (WHT)	RAL:
	Bronze (BRZ)	Silver (SLV)	CUS:



LED wall luminaire · asymmetric light distribution				
	LED	A	B	C
33 386	43.4 W	12 ½	5	8 ⅝

Type:
BEGA Product:
Project:
Modified:



JOB _____ TYPE _____

NOTES _____ APPROVALS _____

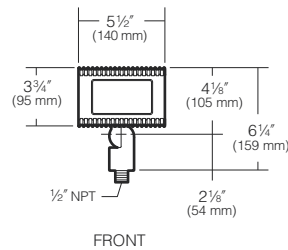
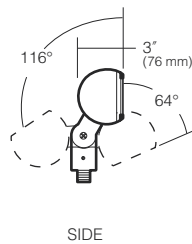
FEATURES

- Unique swivel mount provides superior aiming without loosening over time
- IP66 Certified to keep dust and moisture out
- Available in 3000K, 4000K and 5000K standard CCT
- Spot, Narrow Flood and Wide Flood distributions

Certifications

SPECIFICATIONS


Approx. Weight = 3.16 lbs.


ORDERING CODE

EL218						
Fixture¹	Distribution	Drive Current	Electrical Module			Fixture Finish
	S Spot	3 350mA, 10W	Source	Color Temperature	Voltage	Aluminum
	F Narrow Flood	5 550mA, 16W	8L 8 LEDs	3K 3000K	UV 120 to 277V with a ±10% tolerance	BL Black
	W Wide Flood			4K 4200K		DB Dark Bronze
				5K 5100K		GR Verde Green

Fixture Options
<u>Barn Doors</u>
BD215BL Black
BD215DB Dark Bronze
BD215GR Verde Green
<u>Fixed Hood</u>
FH215BL Black
FH215DB Dark Bronze
FH215GR Verde Green

Mounting Options
Refer to 120 Volt Mounting Options Spec Sheet http://cdn.kimlighting.com/content/products/specs/specs_files/kl_120vmounting_spec.pdf for individual mounting options.

¹ U.S. PATENT D298,656

Kim Lighting reserves the right to change specifications without notice.

LUMINAIRE PERFORMANCE

Spectroradiometric			
	3000K	4200K	5100K
Correlated Color Temp. CCT (K)	2800 to 3175K	3800 to 4600K	4600 to 5600K
Color Rendering Index (CRI)	≥72	≥72	≥72
Power Factor	>.90 @ 120V	>.90 @ 120V	>.90 @ 120V

Electrical Drive Current					
350mA			550mA		
Volts -AC	Amps - AC	System Watts	Volts -AC	Amps - AC	System Watts
120	0.08	10	120	0.13	16
208	0.05	10	208	0.08	16
240	0.04	10	240	0.07	16
277	0.04	10	277	0.06	16

Absolute Lumens				
Temp.	mA	Spot	Narrow Flood	Wide Flood
3000K	350	1078	938	889
4200K		1143	992	925
5100K		1152	1008	953
3000K	550	1608	1411	1331
4200K		1691	1487	1386
5100K		1703	1511	1422

Main Beam Candela and Beam Angle							
Temp.	mA	Spot (3 x 3)	Beam°	Narrow Flood (4 x 4)	Beam°	Wide Flood (6 x 6)	Beam°
3000K	350	7865	19°	2722	32°	665	53°
4200K		8742	18°	2962	31°	694	52°
5100K		8578	18°	2656	30°	709	53°
3000K	550	11962	19°	4024	32°	1009	53°
4200K		13129	18°	4408	31°	1050	52°
5100K		12974	18°	4655	32°	1066	52°

LED performance and lumen output continues to improve at a rapid pace. Log onto www.kimlighting.com to download the most current photometric files from Kim Lighting's IES File Library. For custom optics and color temperature configurations, contact factory.

Projected Lumen Maintenance		
TM21-11*	100,000 hrs	Calculated (L70)
.96	.95	927,000 hrs

* 60,000 hrs, 350mA, Ts 57°C / 25°C ambient.

Kim Lighting reserves the right to change specifications without notice.

SPECIFICATIONS

Housing and Lens Frame:

- Die-cast low copper alloy (<0.6% Cu) aluminum.

Swivel:

- Die-cast aluminum with locking teeth and 1/2" solid brass NPT mount. Provides horizontal rotation independent of the threaded mount. Swivel locked by 1/4-20 stainless set screw. Clear anodized prior to powder coating for added corrosion resistance.

Gasketing:

- Silicone gaskets throughout.

Fasteners:

- Stainless steel.

Wiring:

- No. 18AWM rated 105°C.

Optical System:

- High performance acrylic optic securely attached to internal heat sink for maximum thermal dissipation.

Driver:

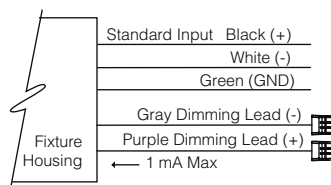
- Universal Voltage from 120 to 277V with a $\pm 10\%$ tolerance. Driver has a 0-10V dimming interface for multi-level illumination options. Driver is Underwriters Laboratories recognized.

Finish:

- Each luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidyl isocyanurate (TGIC) polyester powdercoat finish. Standard colors include (BL) Black, (DB) Dark Bronze, (GR) Verde Green.

Dimming:

- Dimming range from 10% to 100% through the use of the standard 0-10V interface on the programmable driver.
- Modular wiring harness in the service area provides user access to the dimming circuitry.
- Dimming circuitry compatible with 0-10V, user-defined, control devices.
- Optional factory programmed dimming profile.
- IP710 dimmer recommended.



Certifications and Listings:

- UL 1598 Standard for Luminaires.
- UL 8750 Standard for Safety for Light Emitting Diode (LED) Equipment for use in Lighting Products.
- IP66 certified.
- CSA C22.2#250.0 Luminaires.
- RoHS compliant.

CAUTION:

- Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury.

WARRANTY:

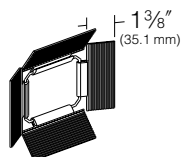
- For full warranty see <http://www.hubbellighting.com/resources/warranty>

OPTIONS

Barn Doors

BD215

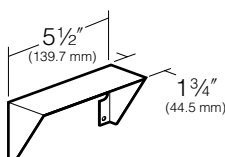
Extruded aluminum, fully adjustable. Provides beam and glare control. Available in Black, Dark Bronze or Verde Green finish.



Fixed Hood

FH215

Formed .062" thick aluminum. Provides glare control. Available in Black, Dark Bronze or Verde Green finish.

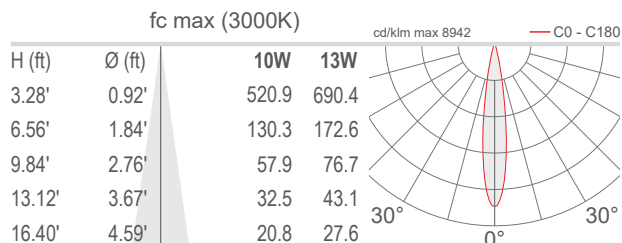


Kim Lighting reserves the right to change specifications without notice.

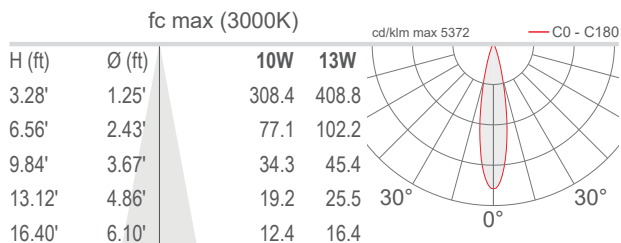
PHOTOMETRIC DATA

Note all Photometry is 3000K

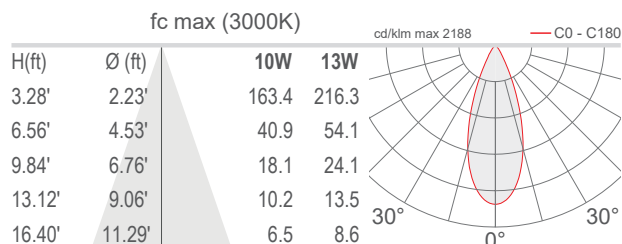
S - 16°



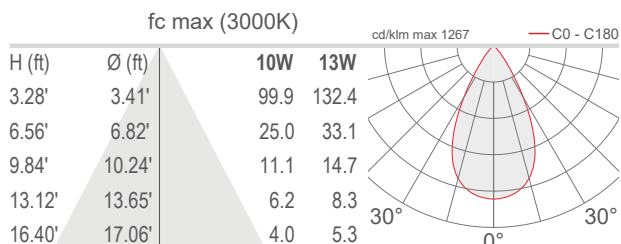
M - 21°



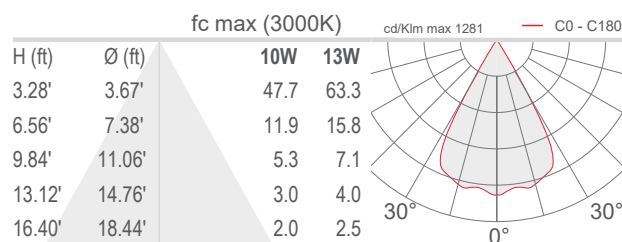
L - 38°



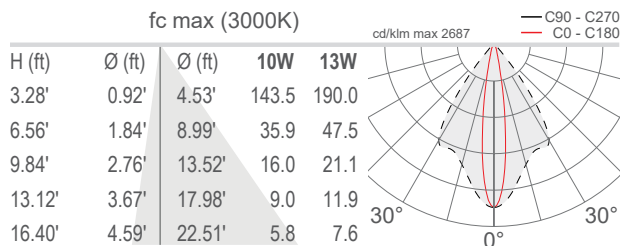
K - 55°



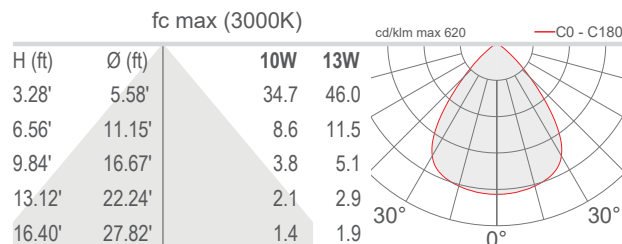
P - 58° Sharp



W - 16°x69° Orientabile / Adjustable



D - Diffuso / Diffuse



Job Name/Date:

Fixture Type Designation:



City of Birmingham
A Walkable Community

Preliminary Site Plan Review Application

Planning Division

Form will not be processed until it is completely filled out.

1. Applicant

Name: FHS BIRMINGHAM, LLC
 Address: 3400 EAST LAFAYETTE
DETROIT, MICHIGAN 48207
 Phone Number: 248.760.6291
 Fax Number: _____
 Email address: NICO.SCHULTZ@SOAVE.COM

2. Property Owner

Name: FHS BIRMINGHAM, LLC
 Address: 3400 EAST LAFAYETTE
DETROIT, MICHIGAN 48207
 Phone Number: 248.760.6291
 Fax Number: _____
 Email address: NICO.SCHULTZ@SOAVE.COM

3. Applicants Attorney/Contact Person

Name: RICK RATTNER (WWRP)
 Address: 380 NORTH OLD WOODWARD
BIRMINGHAM, MICHIGAN 48009
 Phone Number: 248.642.0333
 Fax Number: _____
 Email address: RDR@WWRPLAW.COM

4. Project Designer/Developer

Name: CHRISTOPHER J. LONGE, AIA.
 Address: 124 PEABODY
BIRMINGHAM, MICHIGAN 48009
 Phone Number: 248.258.6940
 Fax Number: _____
 Email address: CJLONGE@CJLONGEAIA.COM

5. Required Attachments

- Required fee (see [Fee Schedule](#) for applicable amount)
- Two (2) folded copies of scaled plans including:
 - Certified land survey
 - Color elevations showing all materials
 - Site plan (including property lines, buildings and structures for the subject site as well as all adjacent properties within 200 ft. of the property line)
 - Landscape plan
 - Photometric plan
 - Interior floor plan
- Photographs of existing site and/or building.
- Current aerial photos of the subject site, including all adjacent properties within 200 ft.
- Warranty Deed with legal description of property.
- Samples of all materials to be used.
- Catalog sheets for all proposed lighting, mechanical equipment and outdoor furniture.
- A signed letter from DTE approving the location of all electrical transformers and electrical equipment.
- Completed Checklist.
- Digital copy of plans.
- Additional information as required.

6. Project Information

Address/Location of the property: 770 SOUTH ADAMS / 1000 HAYNES STREET
 Name of development: _____
 Sidwell #: 19.36.283.016 (770) / 19.36.283.024 (1000)
 Current Use: VACANT OFFICE / BANK
 Proposed Use: APARTMENTS - R3
 Area of Site in Acres: TOTAL 2.1
 Current zoning: MU-3 / MU-5
 Is the property located in the floodplain? NO

Name of Historic District Site is Located in: N/A
 Date of Historic District Commission Approval: N/A
 Date of Design Review Board Approval: N/A
 Will proposed project require the division of platted lots? N/A
 Will proposed project require the combination of platted lots? YES

7. Details of the Proposed Development (attach separate sheet if necessary)

770 ADAMS - NEW 5 STORY APARTMENT
1000 HAYNES - NEW 6 STORY APARTMENT

8. Buildings and Structures

Number of Buildings on Site: 1
Height of Buildings & # of Stories: 66 FT (MU-3) 5
77 FT (MU-5) 6

Use of Buildings: APARTMENT
Height of Rooftop Mechanical Equipment: 12'

9. Floor Use and Area (in Square Feet)

Proposed Commercial Structures:

Total basement floor area: N/A
Number of square feet per upper floor:
Total floor area:
Floor area ratio (total floor area ÷ total land area):
Open space:
Percent of open space:

Office Space:
Retail Space:
Industrial Space:
Assembly Space:
Seating Capacity:
Maximum Occupancy Load:

Proposed Residential Structures:

Total number of units: 171
Number of one bedroom units: 84
Number of two bedroom units: 70
Number of three bedroom units: 9
Open space: N/A
Percent of open space: N/A

Rental units or condominiums?
Size of one bedroom units: 733 TO 882 SF
Size of two bedroom units: 1103 TO 1293 SF
Size of three bedroom units: 1600 TO 1661 ST
Seating Capacity:
Maximum Occupancy Load:

Proposed Additions:

Total basement floor area, if any, of addition: N/A
Number of floors to be added:
Square footage added per floor:
Total building floor area (including addition):
Floor area ratio (total floor area ÷ total land area):
Open Space:
Percent of open space:

Use of addition:
Height of addition:
Office space in addition:
Retail space in addition:
Industrial space in addition:
Assembly space in addition:
Maximum building occupancy load (including addition):

10. Required and Proposed Setbacks

Required front setback: 0
Required rear setback:
Required total side setback: 0
Side setback: 1 FT

Proposed front setback: 1 FT
Proposed rear setback: 1 FT
Proposed total side setback: 2 FT
Second side setback: 1 FT

11. Required and Proposed Parking

Required number of parking spaces: 228
Typical angle of parking spaces: 90 DEGREES
Typical width of maneuvering lanes: 20'
Location of parking on site: INTERIOR PARKING
Location of parking off site: INTERIOR PARKING
Number of light standards in parking area: N/A
Screenwall material: INTERIOR PARKING

Proposed number of parking spaces: 311
Typical size of parking spaces: 9 X 20
Number of spaces <180 sq. ft.: 0
Number of handicap spaces: 13
Shared parking agreement? N/A
Height of light standards in parking area: N/A
Height of screenwall: N/A

12. Landscaping

Location of landscape areas: N/A

Proposed landscape material: _____

13. Streetscape

Sidewalk width: VARIES

Number of benches: 4

Number of planters: _____

Number of existing street trees: _____

Number of proposed street trees: 10

Streetscape plan submitted? _____

Description of benches or planters: WROUGHT IRON

Species of existing trees: _____

Species of proposed trees: _____

14. Loading

Required number of loading spaces: 0

Typical angle of loading spaces: _____

Screenwall material: 1

Location of loading spaces on site: SOUTH PROPERTY LINE

Proposed number of loading spaces: 1

Typical size of loading spaces: 12 WIDE X 50 LONG X 20 HIGH

Height of screenwall: _____

Typical time loading spaces are used: SCHEDULED

15. Exterior Waste Receptacles

Required number of waste receptacles: TBD.

Location of waste receptacles: _____

Screenwall material: _____

Proposed number of waste receptacles: _____

Size of waste receptacles: _____

Height of screenwall: _____

16. Mechanical Equipment

Utilities and Transformers:

Number of ground mounted transformers: 4 ESTIMATED

Size of transformers (L•W•H): 6X6X6

Number of utility easements: TBD

Screenwall material: GATED/WALLED

Location of all utilities & easements: _____

SOUTH PROPERTY LINE

Height of screenwall: _____

Ground Mounted Mechanical Equipment:

Number of ground mounted units: N/A

Size of ground mounted units (L•W•H): _____

Screenwall material: _____

Location of all ground mounted units: _____

Height of screenwall: _____

Rooftop Mechanical Equipment:

Number of rooftop units: TBD.

Type of rooftop units: _____

Screenwall material: _____

Location of screenwall: _____

Location of all rooftop units: _____

Size of rooftop units (L•W•H): _____

Percentage of rooftop covered by mechanical units: _____

Height of screenwall: _____

Distance from rooftop units to all screenwalls: _____

17. Accessory Buildings

Number of accessory buildings: N/A

Location of accessory buildings: _____

Size of accessory buildings: _____

Height of accessory buildings: _____

12. Landscaping

Location of landscape areas: N/A

Proposed landscape material: _____

13. Streetscape

Sidewalk width: VARIES
Number of benches: 4
Number of planters: _____
Number of existing street trees: _____
Number of proposed street trees: 18
Streetscape plan submitted? _____

Description of benches or planters: WROUGHT IRON

Species of existing trees: _____
Species of proposed trees: _____

14. Loading

Required number of loading spaces: 0
Typical angle of loading spaces: _____
Screenwall material: 1
Location of loading spaces on site: SOUTH PROPERTY LINE

Proposed number of loading spaces: 1
Typical size of loading spaces: 12 WIDE X 50 LONG X 20 HIGH
Height of screenwall: _____
Typical time loading spaces are used: SCHEDULED

15. Exterior Waste Receptacles

Required number of waste receptacles: TBD.
Location of waste receptacles: _____
Screenwall material: _____

Proposed number of waste receptacles: _____
Size of waste receptacles: _____
Height of screenwall: _____

16. Mechanical Equipment

Utilities and Transformers:

Number of ground mounted transformers: 4 ESTIMATED
Size of transformers (L•W•H): 6X6X6
Number of utility easements: TBD
Screenwall material: GATED/WALLED

Location of all utilities & easements: _____
SOUTH PROPERTY LINE
Height of screenwall: _____

Ground Mounted Mechanical Equipment:

Number of ground mounted units: N/A
Size of ground mounted units (L•W•H): _____
Screenwall material: _____

Location of all ground mounted units: _____
Height of screenwall: _____

Rooftop Mechanical Equipment:

Number of rooftop units: TBD.
Type of rooftop units: _____

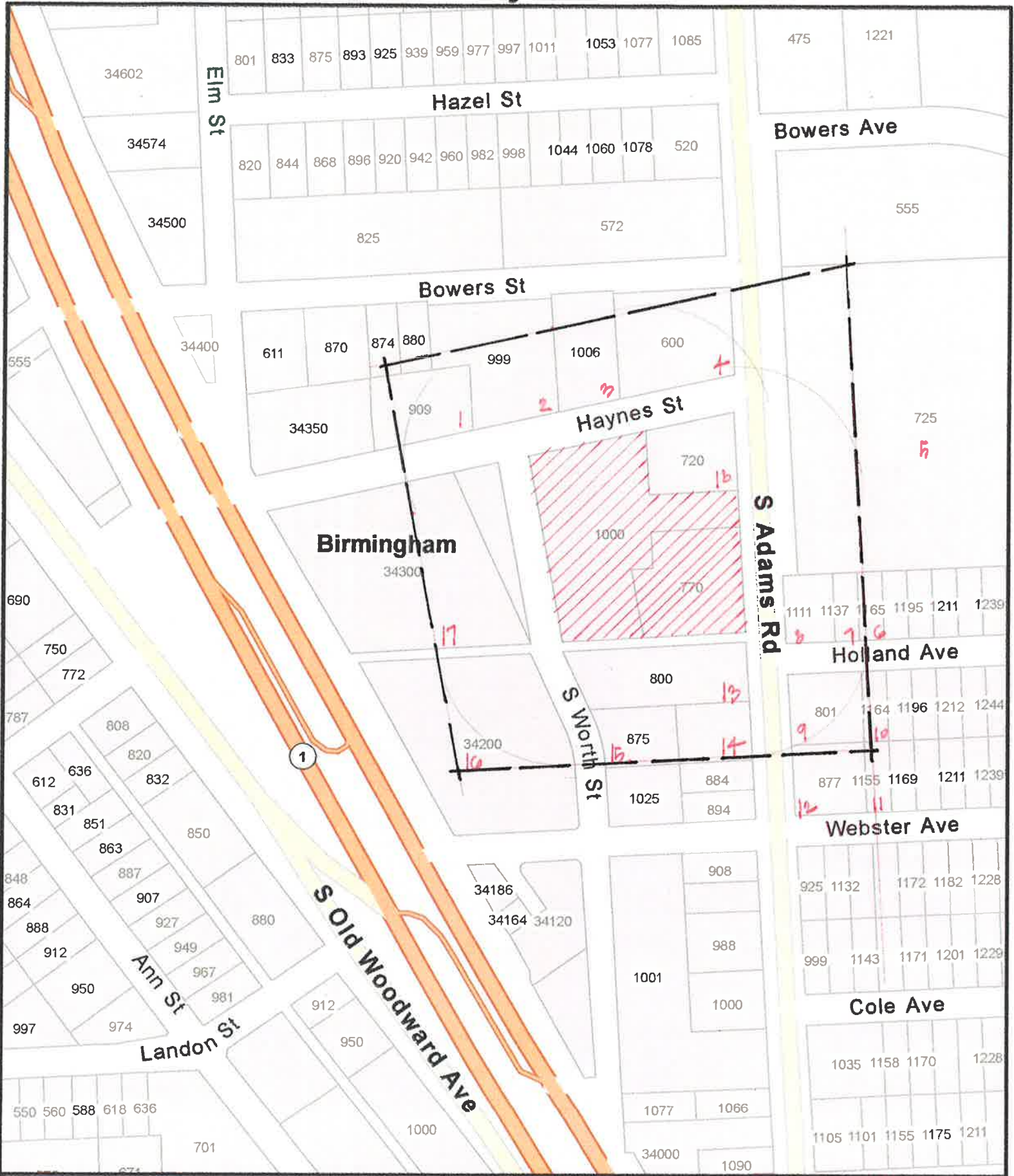
Screenwall material: _____
Location of screenwall: _____

Location of all rooftop units: _____
Size of rooftop units (L•W•H): _____
Percentage of rooftop covered by mechanical units: _____
Height of screenwall: _____
Distance from rooftop units to all screenwalls: _____

17. Accessory Buildings

Number of accessory buildings: N/A
Location of accessory buildings: N/A

Size of accessory buildings: _____
Height of accessory buildings: _____



- 2 Foot Contours
- 5 Foot Contours
- FEMA Base Flood Elevations
- FEMA Cross Sections
- 100 yr - FEMA Floodplain
- 100 yr (detailed) - FEMA Floodplain
- 500 yr - FEMA Floodplain
- FLOODWAY - FEMA Floodplain

Disclaimer: The information provided herewith has been compiled from recorded deeds, plats, tax maps, surveys and other public records. It is not a legally recorded map or survey and is not intended to be used as one. Users should consult the information sources mentioned above when questions arise. FEMA Floodplain data may not always be present on the map.

OAKLAND
 ADVANTAGE COMMUNITY PLANNING
 David Coulter
 Oakland County Executive

Date Created: 7/15/2021

 NORTH
 1 inch = 200 feet

18. Building Lighting

Number of light standards on building: _____
Size of light fixtures (L•W•H): _____
Maximum wattage per fixture: _____
Light level at each property line: _____

Type of light standards on building: _____
Height from grade: _____
Proposed wattage per fixture: _____

19. Site Lighting

Number of light fixtures: _____
Size of light fixtures (L•W•H): _____
Maximum wattage per fixture: _____
Light level at each property line: _____

Type of light fixtures: _____
Height from grade: _____
Proposed wattage per fixture: _____
Holiday tree lighting receptacles: _____

20. Adjacent Properties

Number of properties within 200 ft.: _____

Property #1

Number of buildings on site: 909 HAYNES
Zoning district: MU-5 (B2)
Use type: OFFICE
Square footage of principal building: UNKNOWN
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 19.36.281.030

North, south, east or west of property? NORTH

Property #2

Number of buildings on site: 999 HAYNES
Zoning district: MU-5 (B2)
Use type: OFFICE
Square footage of principal building: UNKNOWN
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 19.36.281.029

North, south, east or west of property? NORTH

Property #3

Number of buildings on site: 1006 HAYNES
Zoning district: MU-5 (B2)
Use type: OFFICE
Square footage of principal building: UNKNOWN
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 19.36.281.017

North, south, east or west of property? NORTH

Property #4

Number of buildings on site: 600 SOUTH ADAMS
Zoning district: MU-3 (B2)
Use type: OFFICE
Square footage of principal building: UNKNOWN
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 19.36.281.031

North, south, east or west of property? NORTH

Property #5

Number of buildings on site: 725 SOUTH ADAMS
Zoning district: B2
Use type: RETAIL / OFFICE
Square footage of principal building: UNKNOWN
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 20.31.151.002

North, south, east or west of property? EAST

18. Building Lighting

Number of light standards on building: _____
Size of light fixtures (L•W•H): _____
Maximum wattage per fixture: _____
Light level at each property line: _____

Type of light standards on building: _____
Height from grade: _____
Proposed wattage per fixture: _____

19. Site Lighting

Number of light fixtures: _____
Size of light fixtures (L•W•H): _____
Maximum wattage per fixture: _____
Light level at each property line: _____

Type of light fixtures: _____
Height from grade: _____
Proposed wattage per fixture: _____
Holiday tree lighting receptacles: _____

20. Adjacent Properties

Number of properties within 200 ft.: _____

Property # 6

Number of buildings on site: 1165 HOLLAND
Zoning district: R3
Use type: RESIDENCE
Square footage of principal building: UNKNOWN
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 20.31.151.023

North, south, east or west of property? EAST

Property #7

Number of buildings on site: 1137 HOLLAND
Zoning district: R3
Use type: RESIDENCE
Square footage of principal building: UNKNOWN
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 20.31.151.022

North, south, east or west of property? EAST

Property #8

Number of buildings on site: 1111 SOUTH ADAMS
Zoning district: 0-2
Use type: OFFICE
Square footage of principal building: UNKNOWN
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 20.31.151.021

North, south, east or west of property? EAST

Property #9

Number of buildings on site: 801 SOUTH ADAMS
Zoning district: 0-2
Use type: OFFICE
Square footage of principal building: UNKNOWN
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 20.31.153.066

North, south, east or west of property? EAST

Property #10

Number of buildings on site: 1164 HOLLAND
Zoning district: R3
Use type: RESIDENCE
Square footage of principal building: UNKNOWN
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 20.31.153.003

North, south, east or west of property? EAST

18. Building Lighting

Number of light standards on building: _____
Size of light fixtures (L•W•H): _____
Maximum wattage per fixture: _____
Light level at each property line: _____

Type of light standards on building: _____
Height from grade: _____
Proposed wattage per fixture: _____

19. Site Lighting

Number of light fixtures: _____
Size of light fixtures (L•W•H): _____
Maximum wattage per fixture: _____
Light level at each property line: _____

Type of light fixtures: _____
Height from grade: _____
Proposed wattage per fixture: _____
Holiday tree lighting receptacles: _____

20. Adjacent Properties

Number of properties within 200 ft.: _____

Property # 11

Number of buildings on site: 1155 WEBSTER
Zoning district: R3
Use type: RESIDENCE
Square footage of principal building: UNKNOWN
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 20.31.153.034

North, south, east or west of property? EAST

Property #12

Number of buildings on site: 877 SOUTH ADAMS
Zoning district: 0-2
Use type: OFFICE
Square footage of principal building: UNKNOWN
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 20.31.153.062

North, south, east or west of property? SOUTH

Property #13

Number of buildings on site: 800 SOUTH ADAMS
Zoning district: MU3 & MU5 (B2)
Use type: OFFICE
Square footage of principal building: UNKNOWN
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 19.36.283.009

North, south, east or west of property? SOUTH

Property #14

Number of buildings on site: VACANT
Zoning district: MU3 (B2)
Use type: PARKING LOT
Square footage of principal building: _____
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 19.36.283.025

North, south, east or west of property? SOUTH

Property #15

Number of buildings on site: 875 SOUTH WORTH
Zoning district: MU5 (B2)
Use type: OFFICE
Square footage of principal building: UNKNOWN
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 19.36.283.021

North, south, east or west of property? SOUTH

18. Building Lighting

Number of light standards on building: _____
Size of light fixtures (L•W•H): _____
Maximum wattage per fixture: _____
Light level at each property line: _____

Type of light standards on building: _____
Height from grade: _____
Proposed wattage per fixture: _____

19. Site Lighting

Number of light fixtures: _____
Size of light fixtures (L•W•H): _____
Maximum wattage per fixture: _____
Light level at each property line: _____

Type of light fixtures: _____
Height from grade: _____
Proposed wattage per fixture: _____
Holiday tree lighting receptacles: _____

20. Adjacent Properties

Number of properties within 200 ft.: _____

Property # 16

Number of buildings on site: 34200 WOODWARD AVE
Zoning district: MU5 & MU7 (B2)
Use type: RETAIL
Square footage of principal building: UNKNOWN
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 19.36.282.005

North, south, east or west of property? _____

Property #17

Number of buildings on site: 34300 WOODWARD AVE
Zoning district: MU3 & MU5 (B2)
Use type: RETAIL / OFFICE
Square footage of principal building: UNKNOWN
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 19.36.282.006

North, south, east or west of property? _____

Property #18

Number of buildings on site: 720 SOUTH ADAMS
Zoning district: MU3 (B2)
Use type: RETAIL (VACANT)
Square footage of principal building: UNKNOWN
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: 19.36.283.014

North, south, east or west of property? _____

Property

Number of buildings on site: _____
Zoning district: _____
Use type: _____
Square footage of principal building: _____
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: _____

North, south, east or west of property? _____

Property

Number of buildings on site: _____
Zoning district: _____
Use type: _____
Square footage of principal building: _____
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: _____

North, south, east or west of property? _____

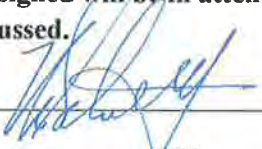
Property #6

Number of buildings on site: _____
Zoning district: _____
Use type: _____
Square footage of principal building: _____
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: _____

North, south, east or west of property? _____

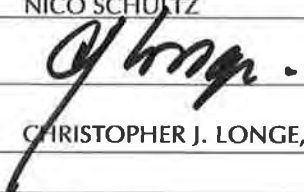
The undersigned states the above information is true and correct, and understands that it is the responsibility of the applicant to advise the Planning Division and / or Building Division of any additional changes made to an approved site plan. The undersigned further states that they have reviewed the procedures and guidelines for site plan review in Birmingham, and have complied with same. The undersigned will be in attendance at the Planning Board meeting when this application will be discussed.

Signature of Owner:  _____ Date: 7.19.21

Print Name: _____ NICO SCHULTZ

Signature of Applicant: _____ Date: 7.19.21

Print Name: _____ NICO SCHULTZ

Signature of Architect:  _____ Date: 7.19.21

Print Name: _____ CHRISTOPHER J. LONGE, AIA.

Office Use Only

Application #: _____ Date Received: _____ Fee: _____

Date of Approval: _____ Date of Denial: _____ Accepted by: _____



PRELIMINARY SIT PLAN REVIEW APPLICATION CHECKLIST - PLANNING DIVISION

Applicant: FHS BIRMINGHAM, LLC Case #: _____ Date: 7.19.21
3400 EAST LAFAYETTE
Address: DETROIT, MICHIGAN 48207 Project: _____

All site plans and elevation drawings prepared for approval shall be prepared in accordance with the following specifications and other applicable requirements of the City of Birmingham. If more than one page is used, each page shall be numbered sequentially. All plans must be legible and of sufficient quality to provide for quality reproduction or recording. Plans must be no larger than 24" x 36", and must be folded and stapled together. The address of the site must be clearly noted on all plans and supporting documentation.

Preliminary Site Plan

A full site plan detailing the proposed changes for which approval is requested shall be drawn at a scale no smaller than 1" = 100' (unless the drawing will not fit on one 24" X 36" sheet) and shall include:

- ☒ 1. Name and address of applicant and proof of ownership;
- ☐ 2. Name of Development (if applicable);
- ☒ 3. Address of site and legal description of the real estate;
- ☒ 4. Name and address of the land surveyor;
- ☐ 5. Legend and notes, including a graphic scale, north point, and date;
- ☒ 6. A separate location map;
- ☒ 7. A map showing the boundary lines of adjacent land and the existing zoning of the area proposed to be developed as well as the adjacent land;
- ☒ 8. Aerial photographs of the subject site and surrounding properties;
- ☒ 9. Details of all proposed site plan changes;
- ☐ 10. Site plan showing the subject site in its entirety, including property lines, buildings and structures. Site plan must show the same details for all adjacent properties within 200 ft. of the subject sites property lines;
- ☐ 11. A chart indicating the dates of any previous approvals by the Planning Board, Board of Zoning Appeals, Design Review Board, or the Historic District Commission ("HDC");
- ☒ 12. Existing and proposed layout of streets, open space and other basic elements of the plan;
- ☐ 13. Existing and proposed utilities and easements and their purpose;
- ☐ 14. Location of natural streams, regulated drains, 100-year flood plains, floodway, water courses, marshes, wooded areas, isolated preserve-able trees, wetlands, historic features, existing structures, dry wells, utility lines, fire hydrants and any other significant feature(s) that may influence the design of the development;
- ☐ 15. General description, location, and types of structures on site;
- ☐ 16. Location of sidewalks, curb cuts, and parking lots on subject site and all sites within 200 ft. of the property line;
- ☐ 17. Details of existing or proposed lighting, signage and other pertinent development features;
- ☐ 18. Elevation drawings showing proposed design;

- ___ 19. Screening to be utilized in concealing any exposed mechanical or electrical equipment and all trash receptacle areas;
- ___ 20. Location of all exterior lighting fixtures;
- ___ 21. A landscape plan showing all existing and proposed planting and screening materials, including the number, size, and type of plantings proposed and the method of irrigation; and
- ___ 22. Any other information requested in writing by the Planning Division, the Planning Board, or the Building Official deemed important to the development.

Elevation Drawings

Complete elevation drawings detailing the proposed changes for which approval is requested shall be drawn at a scale no smaller than 1" = 100' (unless the drawing will not fit on one 24" X 36" sheet) and shall include:

- ___ 23. Color elevation drawings showing the proposed design for each façade of the building;
- ___ 24. List of all materials to be used for the building, marked on the elevation drawings;
- ___ 25. Elevation drawings of all screenwalls to be utilized in concealing any exposed mechanical or electrical equipment, trash receptacle areas and parking areas;
- ___ 26. Details of existing or proposed lighting, signage and other pertinent development features;
- ___ 27. Itemized list of all materials to be used, including exact size specifications, color, style, and the name of the manufacturer;
- ___ 28. Location of all exterior lighting fixtures, exact size specifications, color, style and the name of the manufacturer of all fixtures, and a photometric analysis of all exterior lighting fixtures showing light levels to all property lines; and
- ___ 29. Any other information requested in writing by the Planning Division, the Planning Board, or the Building Official deemed important to the development.



Notice Signs - Rental Application Community Development

1. Applicant

Name: FHS BIRMINGHAM, LLC
Address: 3400 EAST LAFAYETTE
DETROIT, MICHIGAN 48207
Phone Number: 248.760.6291
Fax Number: _____

Property Owner

Name: FHS BIRMINGHAM, LLC
Address: 3400 EAST LAFAYETTE
DETROIT, MICHIGAN 48207
Phone Number: 248.760.6291
Fax Number: _____

2. Project Information

Address/Location of Property: 770 SOUTH ADAMS / 1000 HAYNES
Name of Development: 2.1
Area in Acres: _____

Name of Historic District site is in, if any: N/A
Current Use: OFFICE
Current Zoning: MU3 & MU5 (B2)

3. Date of Board Review

Board of Building Trades Appeals: _____
City Commission: _____
Historic District Commission: _____
Planning Board: _____

Board of Zoning Appeals: _____
Design Review Board: _____
Housing Board of Appeals: _____

The undersigned states the above information is true and correct, and understands that it is the responsibility of the applicant to post the Notice Sign(s) at least 15 days prior to the date on which the project will be reviewed by the appropriate board or commission, and to ensure that the Notice Sign(s) remains posted during the entire 15 day mandatory posting period. The undersigned further agrees to pay a rental fee and security deposit for the Notice Sign(s), and to remove all such signs on the day immediately following the date of the hearing at which the project was reviewed. The security deposit will be refunded when the Notice Sign(s) are returned undamaged to the Community Development Department. Failure to return the Notice Sign(s) and/or damage to the Notice Sign(s) will result in forfeiture of the security deposit.

Signature of Applicant: _____

Date: 7/19/21

Office Use Only

Application #: _____	Date Received: _____	Fee: _____
Date of Approval: _____	Date of Denial: _____	Reviewed by: _____



MEMORANDUM

Planning Division

DATE: January 4th, 2021

TO: Planning Board Members

FROM: Leah Blizinski, City Planner

APPROVED: Nicholas Dupuis, Planning Director

SUBJECT: 100 Townsend – Rugby Grille – Special Land Use Permit (SLUP),
Final Site Plan & Design Review

The subject site is located at 100 Townsend, on the North side of Townsend St., West of Pierce St., it is a restaurant space located within the Townsend Hotel. The parcel is zoned B-4, Business-Residential and D-4 in the Downtown Overlay District. The applicant, Rugby Grille, is an existing SLUP with an existing outdoor café on public/private property and is proposing to expand the outdoor café by adding an additional outdoor dining platform in the Townsend right of way. An outdoor café is permitted in the B-4 Zoning District per Article 2.37 (C) (d). The proposed café meets the overall goals of the 2016 Plan, which is to create a more pedestrian-friendly environment.

The applicant has submitted a Special Land Use Permit and Final Site Plan/Design Review application for the expanded outdoor dining. The applicant is proposing to continue their existing 16-seat outdoor dining deck which is partially on private and partially on public property. The existing deck is located on approximately 27.8' x 4.5' (125.1 sq. ft.) of public property and 27.8' X 5.5' (152.9 sq. ft.) of private property. The applicant is proposing to add a second 20-seat, 9' X 50' (450 sq. ft.) outdoor dining platform in the street right of way (which encompasses one 9' X 20' parallel parking space). A 5' clear sidewalk path will separate the existing outdoor dining section from the proposed new in-street outdoor dining section.

As the site is also in a Historic District, the applicant will be required to obtain approval from the Historic District Commission ("HDC"). The applicant is scheduled for a review at the Historic District Commission on February 2, 2022. In addition, the applicant is also required to obtain a recommendation from the Advisory Parking Committee regarding the use of public parking spaces. This review is also scheduled on February 2, 2022.

1.0 Land Use and Zoning

- 1.1 Existing Land Use – The existing site is used as a hotel with an associated restaurant use with indoor and outdoor dining. No changes are proposed to the existing use. Land uses surrounding the site are retail, commercial and public property.
- 1.2 Zoning – The property is zoned B4, Business-Residential and D4 in the Downtown Overlay District. The existing use and surrounding uses appear to conform to the permitted uses of each Zoning District.
- 1.3 Summary of Adjacent Land Use and Zoning – The following chart summarizes the existing land use and zoning adjacent to and/or in the vicinity of the subject site.

	North	South	East	West
Existing Land Use	Government Office (City Hall)	Commercial/ Retail	Parking Structure (Pierce Street Parking Garage)	Public Park (Shain Park)
Existing Zoning District	PP (Public Property)	B4 (Business-Residential)	PP (Public Property)	PP (Public Property)
Overlay Zoning District	C, Community Use	D-4, Downtown Four or Five Stories	Parking/D-3, Downtown Three or Four Stories	C, Community Use

2.0 Downtown Overlay District

The subject site is located on Townsend St. between Pierce and Merrill streets, in the D-4 Downtown Overlay District. The purpose of the Downtown Overlay District is in part to “encourage a form of development that will achieve the physical qualities necessary to maintain and enhance the economic vitality of Downtown Birmingham and to maintain the desired character of the City of Birmingham”.

A food and drink establishment is a permitted use in the B-4 zoning district and Outdoor café is a permitted use. In addition, alcoholic beverage sales for on premise consumption are a permitted use requiring a Special Land Use Permit.

3.0 Setback and Height Requirements

Please see the attached zoning compliance summary sheet for details on setback and height requirements. There are no bulk, area, height or placement issues with the proposed outdoor dining platform.

4.0 Screening and Landscaping

- 4.1 Dumpster Screening – No changes are proposed to the dumpster screening.
- 4.2 Parking Lot Screening – The subject site is located within the Parking Assessment District. Therefore, no additional off-street parking facility and accompanying screening is required or proposed.
- 4.3 Mechanical Equipment Screening – The applicant is not proposing any changes to the existing rooftop mechanical units on the building.
- 4.4 Landscaping – The applicant is not proposing any new landscaping beds on site. Rather, there will be planters in the new outdoor dining area in between each of the tables and on the East and West ends of the deck, outside of the railing/canopy. The planters will contain seasonal ornamental plantings such as assorted Mandevilla Climbing Vine, Verbenum and Zanzibar (ZZ Plant). On the East end of the new deck, containing the outdoor dining's service area, the applicant is proposing planters on the South side (between service area and drive lane), but not on the East side. None of the proposed plant species is prohibited via the Zoning Ordinance. The Mandevilla Climbing Vine is proposed to utilize a 36" high arbor lattice at the middle of the planter that will act as a divider and provide privacy between dining parties.
- 4.5 Streetscape – There are no new streetscape items proposed as a part of this Special Land Use Permit Amendment and Final Site Plan/Design Review application.

5.0 Parking, Loading and Circulation

- 5.1 Parking – The subject site is located within the Parking Assessment District. Therefore, no additional off-street parking facility is required or proposed. One on-street parallel parking space is proposed to be removed for the on-street outdoor dining area.
- 5.2 Loading – The tenant space for this use measures 4,236 sq. ft. No off-street loading spaces are required for the less than 5,000 sq. ft. commercial use.
- 5.3 Vehicular Circulation and Access – The vehicular circulation and access is proposed to remain the same as is existing. The subject site is currently accessed by vehicles on Henrietta and Pierce streets.

- 5.4 Pedestrian Circulation and Access – Pedestrians are able to access the restaurant space through a front door on Townsend St.

6.0 Lighting

Existing pedestrian scale street light fixtures illuminate Townsend. The applicant is not proposing additional lighting on the building façade or the existing approved outdoor dining area. The applicant is proposing to add 16 Artemide Mini Spot lights underneath the proposed awning to light the dining areas in the new on-street section. A detail specification sheet for the light fixture is attached to this report.

Based on a review of the specifications provided and the minimal impact of the light fixtures proposed, the Planning Division did not seek a photometric plan pursuant to Article 4, Section 4.21 (C) of the Zoning Ordinance.

Fixture	Type	Location	Lumens
Artemide Mini Spot	LED 2W > 80 CRI / 10 degree beam spread	Under awning on- street	100

7.0 Departmental Reports

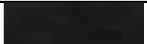
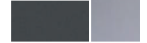
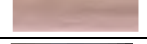
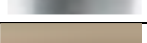
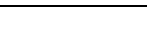
- 7.1 Engineering Division – Please see attached Engineering Division comments.
- 7.2 Department of Public Services – The Department of Public Services (DPS) has no comments at this time.
- 7.3 Fire Department – Any comments from the Fire Department will be included at Final Site Plan review.
- 7.4 Police Department – Please see attached Police Department comments.
- 7.5 Parking Manager – The Parking Manager has no concerns at this time.
- 7.6 Building Division – Please see the attached Building Division Comments.

8.0 Design Review

The applicant is not proposing any changes to the building, façade, streetscape, or existing approved outdoor dining area. For the purposes of this Special Land Use Permit, Final Site Plan and Design Review application for expanded outdoor dining at the Rugby

Grille, the Planning Division will consider only the design of the proposed outdoor dining sections.

The changes specific to the proposed new outdoor dining are simple and involve a new deck platform, awning, planters, service station and tables and chairs. A complete list of all of the new proposed materials is as follows:

Material	Location	Color
Fiberglass Resin Chairs	On-street outdoor dining chairs	
Aluminum, Resin and Polypropylene	On-street outdoor dining tables	
Steel and Aluminum	Planter boxes	
Trex Composite	On-street deck	
Power Coated Steel	Platform railings	
Artemide Mini Spot Lights	Under awning on-street	
DGS Series Electric Infrared Heater	Under awning on-street	
Sunbrella Canvas, Aluminum Frame	Awning on-street	

Outdoor Dining

Outdoor cafes must comply with the site plan criteria as required by Article 4.44 OD-01 Outdoor Dining Standards. Outdoor cafes are permitted immediately adjacent to the principal use, subject to site plan review and the following conditions:

1. Outdoor dining areas shall provide and service refuse containers within the outdoor dining area and maintain the area in good order.
2. All outdoor activity must cease at the close of business or as noted in subsection 3 below.
3. When an outdoor dining area is immediately adjacent to any single-family or multiple-family residential district, all outdoor activity must cease at the close of business or 10:00 p.m., whichever is earlier.
4. Outdoor dining may be permitted on the sidewalk throughout the year with a valid Outdoor Dining License, provided that all outdoor dining fixtures and furnishings must be stored indoors each night between November 16 and March 31 to allow for snow removal.
5. All tables and chairs provided in the outdoor dining area shall be constructed primarily of metal, wood, or material of comparable quality.
6. Table umbrellas shall be considered under Site Plan Review and shall not impede sight lines into a retail establishment, pedestrian flow in the outdoor dining area, or pedestrian or vehicular traffic flow outside the outdoor dining area.
7. For outdoor dining located in the public right-of-way:

- (a) All such uses shall be subject to a license from the city, upon forms provided by the Community Development Department, contingent on compliance with all city codes, including any conditions required by the Planning Board in conjunction with Site Plan approval.
- (b) In order to safeguard the flow of pedestrians on the public sidewalk, such uses shall maintain an unobstructed sidewalk width as required by the Planning Board, but in no case less than 5 feet.
- (c) Outdoor dining is permitted to extend in the right-of-way in front of neighboring properties, with the written permission of the property owner(s) and with Planning Board approval, if such property is vacant or the first floor storefront(s) is/are vacant. Outdoor dining areas may extend up to 50% of the width of the neighboring lot(s) storefront(s), or up to 50% of the lot(s) frontage, if such lot is vacant.
- (d) City Commission approval is also required for outdoor dining extensions onto neighboring property if the establishment making such a request holds a bistro license.
- (e) An elevated, ADA compliant, enclosed platform may be erected on the street in front of an eating establishment to create an outdoor dining area from April 1 through November 15 only if the Engineering Department determines there is sufficient space available for this purpose given parking and traffic conditions.
- (f) No such facility shall erect or install permanent fixtures in the public right-of-way.

The applicant has provided specification sheets on all products/materials to be installed. Based on the specification sheets provided for the tables and chairs, their construction appears to be comprised of polypropylene (plastic) resin. **The Planning Board should discuss the proposed tables and chairs, and determine whether or not the proposed polypropylene material may be considered a material of comparable quality to wood or metal.**

The applicant intends to serve patrons in the outdoor dining area during the same hours as the interior of the restaurant, which are 7AM-10PM 7 days a week. The proposed outdoor café is not immediately adjacent to any single-family zoned property.

The applicant proposes to install a 50' X 9' Trex composite platform on-street that will take the place of one on-street parking space and will be adjacent to 4 remaining on-street parking spaces on the North side of Townsend St. The deck will be enclosed by 3ft tall primed and powder coat paint finished steel railings with brass steel tube rails on top to match the existing on the frontage outdoor dining area. An 8'6"-10'6" aluminum framework with Sunbrella Canvas fabric in a "Charcoal Gray" color will partially cover the deck with infrared heaters and mini spot lights mounted on the underside of the awning. Aluminum "box" planters are proposed at each end of the deck and in between dining tables.

9.0 Required Attachments

	Submitted	Not Submitted	Not Required
Existing Conditions Plan	☒	☐	☐
Detailed and Scaled Site Plan	☒	☐	☐
Certified Land Survey	☒	☐	☐
Interior Floor Plans	☐	☐	☒
Landscape Plan	☒	☐	☐
Photometric Plan	☐	☐	☒
Colored Elevations	☒	☐	☐
Material Specification Sheets	☒	☐	☐
Material Samples	☐	☐	☒
Site & Aerial Photographs	☒	☐	☐

10.0 Approval Criteria

In accordance with Article 7, section 7.27 of the Zoning Ordinance, the proposed plans for development must meet the following conditions:

- (1) The location, size and height of the building, walls and fences shall be such that there is adequate landscaped open space so as to provide light, air and access to the persons occupying the structure.
- (2) The location, size and height of the building, walls and fences shall be such that there will be no interference with adequate light, air and access to adjacent lands and buildings.
- (3) The location, size and height of the building, walls and fences shall be such that they will not hinder the reasonable development of adjoining property nor diminish the value thereof.
- (4) The site plan, and its relation to streets, driveways and sidewalks, shall be such as to not interfere with or be hazardous to vehicular and pedestrian traffic.
- (5) The proposed development will be compatible with other uses and buildings in the neighborhood and will not be contrary to the spirit and purpose of this chapter.
- (6) The location, shape and size of required landscaped open space is such as to provide adequate open space for the benefit of the inhabitants of the building and the surrounding neighborhood.

In addition, Article 7, Section 7.26 requires applications for a Special Land Use Permit to meet the following criteria:

- (1) The use is consistent with and will promote the intent and purpose of this Zoning Ordinance.
- (2) The use will be compatible with adjacent uses of land, the natural environment, and the capabilities of public services and facilities affected by the land use.
- (3) The use is consistent with the public health, safety and welfare of the city.
- (4) The use is in compliance with all other requirements of this Zoning Ordinance.
- (5) The use will not be injurious to the surrounding neighborhood.
- (6) The use is in compliance with state and federal statutes.

11.0 Recommendation

Based on a review of the site plan submitted, the Planning Division recommends that the Planning Board recommend **POSTPONEMENT** of the Special Land Use and Final Site Plan/Design Review application for 100 Townsend St. – Rugby Grille – pending receipt of the following:

1. The applicant must receive Historic District Commission approval for all exterior changes proposed within the Shain Park Historic District;
2. The applicant must obtain a recommendation from the Advisory Parking Committee for the use of public parking spaces;
3. The applicant must submit new specification sheets for tables/chair constructed of metal or wood, or receive approval for a material of comparable quality by the Planning Board; and
4. The applicant must comply with the requests of all City Departments.

12.0 Sample Motion Language (*Final Site Plan & Design Review*)

Motion to **POSTPONE** the Final Site Plan & Design Review 100 Townsend St. – Rugby Grille – pending receipt of the following:

1. The applicant must receive Historic District Commission approval for all exterior changes proposed within the Shain Park Historic District;
2. The applicant must obtain a recommendation from the Advisory Parking Committee for the use of public parking spaces;
3. The applicant must submit new specification sheets for tables/chair constructed of metal or wood, or receive approval for a material of comparable quality by the Planning Board; and
4. The applicant must comply with the requests of all City Departments.

OR

Motion to recommend **APPROVAL** to the City Commission the Final Site Plan & Design Review for 100 Townsend St. – Ruby Grille – subject to the following conditions:

1. The applicant must receive Historic District Commission approval for all exterior changes proposed within the Shain Park Historic District;
2. The applicant must obtain a recommendation from the Advisory Parking Committee for the use of public parking spaces;
3. The applicant must submit new specification sheets for tables/chair constructed of metal or wood, or receive approval for a material of comparable quality by the Planning Board; and
4. The applicant must comply with the requests of all City Departments.

OR

Motion to recommend the **DENIAL** to the City Commission the Final Site Plan & Design Review for 100 Townsend St. – Rugby Grille – for the following reasons:

1. _____
2. _____
3. _____

13.0 Sample Motion Language (*Special Land Use Permit*)

Motion to **POSTPONE** the Special Land Use Permit 100 Townsend St. – Rugby Grille -
– pending receipt of the following:

1. The applicant must receive Historic District Commission approval for all exterior changes proposed within the Shain Park Historic District;
2. The applicant must obtain a recommendation from the Advisory Parking Committee for the use of public parking spaces;
3. The applicant must submit new specification sheets for tables/chair constructed of metal or wood, or receive approval for a material of comparable quality by the Planning Board; and
4. The applicant must comply with the requests of all City Departments.

OR

Motion to recommend **APPROVAL** to the City Commission the Special Land Use Permit 100 Townsend St. – Rugby Grille – subject to the conditions of Final Site Plan & Design Review approval.

OR

Motion to recommend **DENIAL** to the City Commission the Special Land Use Permit for 100 Townsend St. – Rugby Grille – for the following reasons:

1. _____
2. _____
3. _____

Zoning Compliance Summary Sheet
SLUP, FSP & DR
100 Townsend St – Townsend Hotel – Rugby Grille

Existing Site: 4,236 sq. ft. (Rugby Grille space)

Zoning: B-4, Business-Residential, D-4 Overlay
Land Use: Food and drink establishment

Existing Land Use and Zoning of Adjacent Properties:

	North	South	East	West
Existing Land Use	Government Office (City Hall)	Commercial/ Retail	Parking Structure (Pierce Street Parking Garage)	Public Park (Shain Park)
Existing Zoning District	PP, Public Property	B-4, Business-Residential	PP, Public Property	PP, Public Property
Existing Overlay Zoning	C, Community Use	D-4, Downtown Four or Five Stories	D-3, Downtown Three or Four Stories / Parking	C, Community Use

Land Area: existing: 1.02 acres
proposed: 1.02 acres

Minimum Lot Area: required: N/A
proposed: N/A

Minimum Floor Area: required: 600 sq ft (efficiency or one bedroom)
800 sq ft (two bedroom)
1,000 sq ft (three or more bedroom)
proposed: N/A

Maximum Total Floor Area: required: 100% for commercial/offices uses
proposed: Existing

Minimum Open Space: required: N/A
proposed: N/A

Maximum Lot Coverage: required: N/A
proposed: N/A

Front Setback: required: 0 ft

	proposed:	0 ft
Side Setbacks:	required:	0 ft
	proposed:	0 ft
Rear Setback:	required:	N/A
	proposed:	N/A
Max. Bldg. Height:	required:	80 ft
	proposed:	Existing
Minimum Eave Height:	required:	20 ft
	proposed:	Existing
First Floor Ceiling:	required:	N/A
	proposed:	N/A
Front Entry:	required:	Principal pedestrian entrances must be on frontage line.
	proposed:	Existing
Parking:	required:	Not required for commercial properties in Parking Assessment District
	proposed:	N/A
Loading Area:	required:	N/A
	proposed:	N/A
Screening:		
<u>Parking:</u>	required:	N/A
	proposed:	N/A
<u>AC/Mech. units:</u>	required:	N/A
	proposed:	N/A
<u>Dumpster:</u>	required:	N/A
	proposed:	N/A

DATE: 1/13/2022

TO: Leah Blinzinski, City Planner

FROM: Scott D. Zielinski, Assistant City Engineer

SUBJECT: 100 Townsend – SLUP, FSP & DR – Review Comments

The Engineering Department has completed a review of the drawings issued for SLUP & HDC Review dated Dec. 21, 2021.

Townsend Street is a varying width street on the south side of the Townsend Hotel. Townsend St at the proposed location is approximately 32 feet wide with 6'-6" wide parking spaces on the north side of the road. Assuming the same size parking spaces along the south side of the road provides on 9.5 foot wide lanes in each direction.

The drawings indicate that the proposed platform is not to extend past the edge of the marked existing parking, then additionally the platform is drawn with the dimension that it will be 7'-0" to 7'-2" wide. The west edge of the patio has been drawn to line up with the eastern end of the taper for the Valet Zone. This causes for an overlap of the patio with a no parking area for at least 8 feet. The Proposed awning for the patio is shown to be 8' wide at 8'-6" above the sidewalk elevation.

Given the existing road limits and conditions, and the known traffic, including but not limited to tour busses and large private busing. The Engineering Department provides the following comments;

- The Platform should not be placed in the existing no parking zone as it can cause safety risks related to turning radius of vehicles as they enter the Valet Zone, overlapping the no parking area may lead to potential risk the platform could be struck by a vehicle entering the Valet Zone.
- The platform width should be limited to the inside dimension of the existing parking spaces (approximately 6'-6"),
- Due to width of the road the awning shall not extend further into the road then the edge of the platform, as the awning would present a safety risk for a bus to come in contact with the edge of the awning if it hangs into the road.
- Consideration for protection to the trees in regards to awning placement (Tree's shall not be harmed to place awning)
- Platform would need to be designed to allow water to travel under the structure along the curb line.
- Power for lighting elements would require ADA compliant covering for cords that cross the sidewalk.

CITY OF BIRMINGHAM
Community Development – Building Department
151 Martin Street, Birmingham, MI 48009

January 14, 2022

RE: Final Site Plan Review Comments
100 Townsend, Rugby Grille Dining Deck

As requested, the Building Department has examined the plans for the proposed project referenced above. The plans were provided to the Planning Department for site plan review purposes only and present conceptual elevations and floor plans. Although the plans lack sufficient detail to perform a code review, the following comments are offered for Planning Design Review purposes and applicant consideration:

Applicable Building Codes:

- **2015 Michigan Building Code.** Applies to all buildings other than those regulated by the *Michigan Residential Code*.
- **2015 Michigan Mechanical Code.** (Residential requirements for mechanical construction in all detached one and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories in height with a separate means of egress and their accessory structures are contained in the Michigan Residential Code)
- **2018 Michigan Plumbing Code.** (Residential requirements for plumbing construction in all detached one and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories in height with a separate means of egress and their accessory structures are contained in the Michigan Residential Code)
- **2017 National Electrical Code along with the Michigan Part 8 Rules.** (Residential requirements for electrical construction in all detached one and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories in height with a separate means of egress and their accessory structures are contained in the Michigan Residential Code)

Review Comments:

1. The applicant needs to verify that the minimum number of toilet room facilities will be provided when combining both the indoor and outdoor dining occupants.
2. Temporary power cords across sidewalks are only permitted for short term special events. The length of time the dining deck will be in place requires a permanent electrical supply installation.
3. The west end of the platform obstructs vehicle access to the drop off lane at the entry to the hotel.



Leah Blizinski <lblizinski@bhamgov.org>

100 Townsend - SLUP, FSP & DR - Review and Comment

Carrie Laird <Claird@bhamgov.org>
To: Leah Blizinski <lblizinski@bhamgov.org>
Cc: "Wood, Lauren" <Lwood@bhamgov.org>

Tue, Jan 18, 2022 at 12:13 PM

DPS has the following comments:

- DPS will not remove any snow that accumulates up against the deck from either plowing the street or from adjacent parking areas (unable to maneuver equipment right up close to the deck) . Owner/applicant is responsible for snow removal and salting if necessary.
- Likewise, any trash accumulation up against or surrounding the deck area is the responsibility of others as well.

Thank you!

On Tue, Jan 11, 2022 at 8:56 AM Leah Blizinski <lblizinski@bhamgov.org> wrote:

[Quoted text hidden]

--

Carrie A. Laird
Parks & Recreation Manager
851 S. Eton
Birmingham, MI 48009
248-530-1714

[Quoted text hidden]



Leah Blizinski <lblizinski@bhamgov.org>

100 Townsend - SLUP, FSP & DR - Review and Comment

Ryan Weingartz <rweingartz@bhamgov.org>

Tue, Jan 18, 2022 at 2:09 PM

To: Leah Blizinski <lblizinski@bhamgov.org>

The only thing I would be concerned with is the parking space to the right of the deck, depending on how tight of a spot many people might not want to park in a space butting up to outdoor seating. I have attached a picture of the area I am talking about.

Any questions please let me know

On Tue, Jan 11, 2022 at 8:56 AM Leah Blizinski <lblizinski@bhamgov.org> wrote:

[Quoted text hidden]

--

Ryan Weingartz

Parking Systems Manager

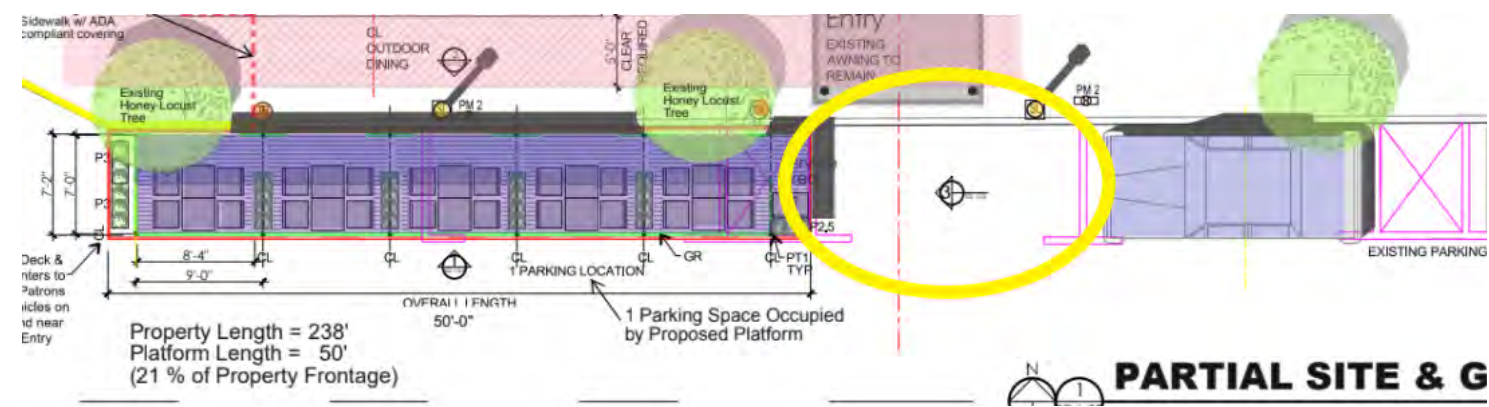
[City of Birmingham](#)[151 Martin Street](#)

Birmingham, MI 48009

(248) 530-1257



100 Townsend site plan.png
191K





Special Land Use Permit Application

Planning Division

Form will not be processed until it is completely filled out.

1. Applicant

Name: THC Investors Limited Partnership
 Address: 100 Townsend Street
Birmingham, MI 48009
 Phone Number: 248-642-7900
 Fax Number: _____
 Email address: Sroth@townsendhotel.com

2. Property Owner

Name: Same
 Address: _____

 Phone Number: _____
 Fax Number: _____
 Email address: _____

3. Applicant's Attorney/Contact Person

Name: Kelly A. Allen, Adkison, Need, Allen & Rentrop PLLC
 Address: 39572 Woodward, Suite 200
Bloomfield Hills, MI 48304
 Phone Number: 248-540-7400
 Fax Number: 248-540-7401
 Email address: kallen@anafirm.com

4. Project Designer/Developer

Name: John Gardner R.A. AIA, Luckenbach|Ziegelman|Gardner Architects
 Address: _____
555 South Old Woodward, Birmingham, MI 48009
 Phone Number: 248-642-3990
 Fax Number: _____
 Email address: gard-arch1@sbcglobal.net

5. Required Attachments

- I. Two (2) paper copies and one (1) digital copy of all project plans including:
 - i. A detailed Existing Conditions Plan including the subject site in its entirety, including all property lines, buildings, structures, curb cuts, sidewalks, drives, ramps and all parking on site and on the street(s) adjacent to the site, and must show the same detail for all adjacent properties within 200 ft. of the subject site's property lines;
 - ii. A detailed and scaled Site Plan depicting accurately and in detail the proposed construction, alteration or repair;
 - iii. A certified Land Survey;
 - iv. Interior floor plans;
 - v. A Landscape Plan;
 - vi. A Photometric Plan;
 - vii. Colored elevation drawings for each building elevation;
- II. Specification sheets for all proposed materials, light fixtures and mechanical equipment;
- III. Samples of all proposed materials;
- IV. Photographs of existing conditions on the site including all structures, parking areas, landscaping and adjacent structures;
- V. Current aerial photographs of the site and surrounding properties;
- VI. Warranty Deed, or Consent of Property Owner if applicant is not the owner;
- VII. Any other data requested by the Planning Board, Planning Department, or other City Departments.

6. Project Information

Address/Location of the property: 100 Townsend

 Name of development: The Townsend Hotel
 Sidwell #: 19-38-134-008
 Current Use: Hotel
 Proposed Use: _____
 Area of Site in Acres: 1.02
 Current zoning: B-4
 Is the property located in the floodplain? no
 Name of Historic District Site is located in: _____
 Date of Historic District Commission Approval: _____
 Date of Application for Preliminary Site Plan: on file
 Date of Preliminary Site Plan Approval: on file

Date of Application for Final Site Plan: on file
 Date of Final Site Plan Approval: on file
 Date of Application for Revised Final Site Plan: _____
 Date of Revised Final Site Plan Approval: _____
 Date of Design Review Board Approval: _____
 Is there a current SLUP in effect for this site? yes
 Date of Application for SLUP: on file
 Date of SLUP Approval: _____
 Date of Last SLUP Amendment: 2017 as to Ownership Only
 Will proposed project require the division of platted lots? no

 Will proposed project require the combination of platted lots?
no

7. Details of the Proposed Development (attach separate sheet if necessary)

Proposal for Outdoor Dining See Attached Plans

8. Buildings and Structures

Number of Buildings on Site: EXISTING
Height of Buildings & # of Stories: NO CHANGES

Use of Buildings: HOTEL & RESTAURANT (USE GROUP B)
Height of Rooftop Mechanical Equipment: NA

9. Floor Use and Area (in Square Feet)

Proposed Commercial Structures:

Total basement floor area: EXISTING
Number of square feet per upper floor:
Total floor area:
Floor area ratio (total floor area ÷ total land area):
Open space:
Percent of open space:

Office Space:
Retail Space:
Industrial Space:
Assembly Space:
Seating Capacity:
Maximum Occupancy Load:

Proposed Residential Structures:

Total number of units: NONE
Number of one bedroom units:
Number of two bedroom units:
Number of three bedroom units:
Open space:
Percent of open space:

Rental units or condominiums?
Size of one bedroom units:
Size of two bedroom units:
Size of three bedroom units:
Seating Capacity:
Maximum Occupancy Load:

Proposed Additions:

Total basement floor area, if any, of addition: NONE
Number of floors to be added:
Square footage added per floor:
Total building floor area (including addition):
Floor area ratio (total floor area ÷ total land area):
Open Space:
Percent of open space:

Use of addition:
Height of addition:
Office space in addition:
Retail space in addition:
Industrial space in addition:
Assembly space in addition:
Maximum building occupancy load (including addition):

10. Required and Proposed Setbacks

Required front setback: ON FILE
Required rear setback:
Required total side setback:
Side setback:

Proposed front setback:
Proposed rear setback:
Proposed total side setback:
Second side setback:

11. Required and Proposed Parking

Required number of parking spaces: ON FILE
Typical angle of parking spaces:
Typical width of maneuvering lanes:
Location of parking on site:
Location of parking off site:
Number of light standards in parking area:
Screenwall material:

Proposed number of parking spaces:
Typical size of parking spaces:
Number of spaces <180 sq. ft.:
Number of handicap spaces:
Shared parking agreement?
Height of light standards in parking area:
Height of screenwall:

12. Landscaping

Location of landscape areas: ON FILE

Proposed landscape material: SEE ATTACHED PROPOSED PLANS
FOR PLANTER MATERIAL AND PLANTS

13. Streetscape

Sidewalk width: SEE ATTACHED PLANS

Number of benches: 1 EXISTING. NO ADDITIONAL PROPOSED

Number of planters: 12 PROPOSED IN NEW OUTDOOR SEATING AREA

Number of existing street trees: FOUR (4)

Number of proposed street trees: NO NEW STREET TREES PROPOSED

Streetscape plan submitted? YES

Description of benches or planters:

Species of existing trees: HONEY LOCUST

Species of proposed trees: NO NEW TREES PROPOSED

14. Loading

Required number of loading spaces: ON FILE

Typical angle of loading spaces:

Screenwall material:

Location of loading spaces on site:

Proposed number of loading spaces: NO CHANGES TO EXISTING

Typical size of loading spaces:

Height of screenwall:

Typical time loading spaces are used:

15. Exterior Waste Receptacles

Required number of waste receptacles:

Location of waste receptacles:

Screenwall material:

Proposed number of waste receptacles: 2

Size of waste receptacles: SEE ATTACHED PLAN

Height of screenwall: NONE PROPOSED

16. Mechanical Equipment

Utilities and Transformers:

Number of ground mounted transformers: ON FILE

Size of transformers (L•W•H):

Number of utility easements:

Screenwall material:

Location of all utilities & easements: NO CHANGES PROPOSED

Height of screenwall:

Ground Mounted Mechanical Equipment:

Number of ground mounted units: NA

Size of ground mounted units (L•W•H):

Screenwall material:

Location of all ground mounted units:

Height of screenwall:

Rooftop Mechanical Equipment:

Number of rooftop units: ON FILE / NA

Type of rooftop units:

Screenwall material:

Location of screenwall:

Location of all rooftop units:

Size of rooftop units (L•W•H):

Percentage of rooftop covered by mechanical units:

Height of screenwall:

Distance from rooftop units to all screenwalls:

17. Accessory Buildings

Number of accessory buildings:

Location of accessory buildings:

Size of accessory buildings: SEE ATTACHED PLANS & ELEVATIONS

Height of accessory buildings: FOR EXT DINING AWNINGS & FRAMES

18. Building Lighting

Number of light standards on building: ON FILE

Type of light standards on building: NO CHANGES

Size of light fixtures (L•W•H): _____
Maximum wattage per fixture: _____
Light level at each property line: _____

Height from grade: _____
Proposed wattage per fixture: _____

19. Site Lighting

Number of light fixtures: 7 CITY STREET LIGHTS ALONG TOWNSEND
Size of light fixtures (L•W•H): _____
Maximum wattage per fixture: _____
Light level at each property line: _____

Type of light fixtures: EXISTING / NO CHANGES PROPOSED
Height from grade: _____
Proposed wattage per fixture: _____
Holiday tree lighting receptacles: _____

20. Adjacent Properties

Number of properties within 200 ft.: ON FILE / SEE ATTACHED DRAWINGS

Property #1

Number of buildings on site: 1 - CITY OF BHAM CITY HALL
Zoning district: PP
Use type: MUNICIPAL CITY OFFICES BUILDING
Square footage of principal building: _____
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: CITY OFFICES / POLICE STATION

North, south, east or west of property? _____

Property #2

Number of buildings on site: 1 - PIERCE STREET PARKING STRUCTURE
Zoning district: PP/P
Use type: PARKING
Square footage of principal building: _____
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: CITY OWNED PARKING STRUCTURE

North, south, east or west of property? NORTH

Property #3

Number of buildings on site: 1- MARGOT EUROPEAN SPA
Zoning district: B4/D2
Use type: BUSINESS
Square footage of principal building: _____
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: SPA

North, south, east or west of property? SOUTH

Property #4

Number of buildings on site: 1 - BELLA PIATTI
Zoning district: B4/D2
Use type: BUSINESS
Square footage of principal building: _____
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: RESTAURANT

North, south, east or west of property? SOUTH

Property #5

Number of buildings on site: 1 - ANTONIO SALON & SPA
Zoning district: B4/D2
Use type: BUSINESS
Square footage of principal building: _____
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property Description: SALON & SPA

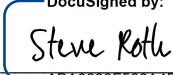
North, south, east or west of property? SOUTH

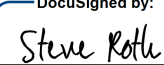
- Property #6 1 - Private Residence - R8
- Property #7 1 - Shain Park - PP/C
- Property #8 1 - Chief Financial Credit Union - B4/D4
- Property #9 1 - JP Morgan Private Bank - B4/D2

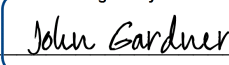
- Residential SOUTHWEST
- Public Park EAST
- Business NORTHWEST
- Business SOUTH

The undersigned states the above information is true and correct, and understands that it is the responsibility of the applicant to advise the Planning Division and / or Building Division of any additional changes made to an approved site plan. The undersigned further states that they have reviewed the procedures and guidelines for Site Plan Review in Birmingham, and have complied with same. The undersigned will be in attendance at the Planning Board meeting when this application will be discussed.

By providing your e-mail to the City, you agree to receive news notifications from the City. If you do not wish to receive these messages, you may unsubscribe at any time.

Signature of Owner:  Date: 11/22/2021
DocuSigned by: ABA0693F568A4F9...
 Print Name: Steven Roth

Signature of Applicant:  Date: 11/22/2021
DocuSigned by: ABA0693F568A4F9...
 Print Name: Steven Roth

Signature of Architect:  Date: 11/22/2021
DocuSigned by: 2A8C4C866F15468...
 Print Name: John Gardner

Office Use Only

Application #: _____ Date Received: _____ Fee: _____
 Date of Approval: _____ Date of Denial: _____ Accepted by: _____



SPECIAL LAND USE PERMIT APPLICATION CHECKLIST – PLANNING DIVISION

Applicant: THC Investors Limited Partnership Case #: _____ Date: _____
 Address: 100 Townsend Project: Outdoor Dining

All site plans and elevation drawings prepared for approval shall be prepared in accordance with the following specifications and other applicable requirements of the City of Birmingham. If more than one page is used, each page shall be numbered sequentially. All plans must be legible and of sufficient quality to provide for quality reproduction or recording. Plans must be no larger than 24" x 36", and must be folded and stapled together. The address of the site must be clearly noted on all plans and supporting documentation.

Site Plan for Special Land Use Permit

A full Site Plan detailing the proposed changes for which approval is requested shall be drawn at a scale no smaller than 1" = 100' (unless the drawing will not fit on one 24" X 36" sheet) and shall include:

- ☐ 1. Name and address of applicant and proof of ownership;
- ☐ 2. Name of Development (if applicable);
- ☐ 3. Address of site and legal description of the real estate;
- ☐ 4. Name and address of the land surveyor;
- ☐ 5. Legend and notes, including a graphic scale, north point, and date;
- ☐ 6. A separate location map;
- ☐ 7. A map showing the boundary lines of adjacent land and the existing zoning of the area proposed to be developed as well as the adjacent land;
- ☐ 8. Aerial photographs of the subject site and surrounding properties;
- ☐ 9. A detailed and scaled Site Plan depicting accurately and in detail the proposed construction, alteration or repair;
- ☐ 10. A detailed Existing Conditions Plan including the subject site in its entirety, including all property lines, buildings, structures, curb cuts, sidewalks, drives, ramps and all parking on site and on the street(s) adjacent to the site, and must show the same detail for all adjacent properties within 200 ft. of the subject site's property lines;
- ☐ 11. Interior floor plans;
- ☐ 12. A chart indicating the dates of any previous approvals by the Planning Board, Board of Zoning Appeals, Design Review Board, or the Historic District Commission ("HDC");

- ☐ 13. Existing and proposed layout of streets, open space and other basic elements of the plan;
- ☐ 14. Existing and proposed utilities and easements and their purpose;
- ☐ 15. Location of natural streams, regulated drains, 100-year flood plains, floodway, water courses, marshes, wooded areas, isolated preserve-able trees, wetlands, historic features, existing structures, dry wells, utility lines, fire hydrants and any other significant feature(s) that may influence the design of the development;
- ☐ 16. General description, location, and types of structures on site;
- ☐ 17. Location of sidewalks, curb cuts, and parking lots on subject site and all sites within 200 ft. of the property line;
- ☐ 18. Details of existing or proposed lighting, signage and other pertinent development features;
- ☐ 19. Elevation drawings showing proposed design;
- ☐ 20. Screening to be utilized in concealing any exposed mechanical or electrical equipment and all trash receptacle areas;
- ☐ 21. Location of all exterior lighting fixtures;
- ☐ 22. A Photometric Plan depicting proposed illuminance levels at all property lines;
- ☐ 23. A Landscape Plan showing all existing and proposed planting and screening materials, including the number, size, and type of plantings proposed and the method of irrigation; and
- ☐ 24. Any other information requested in writing by the Planning Division, the Planning Board, or the Building Official deemed important to the development.

Elevation Drawings

Complete elevation drawings detailing the proposed changes for which approval is requested shall be drawn at a scale no smaller than 1" = 100' (unless the drawing will not fit on one 24" X 36" sheet) and shall include:

- ☐ 25. Color elevation drawings showing the proposed design for each façade of the building;
- ☐ 26. List of all materials to be used for the building, marked on the elevation drawings;
- ☐ 27. Elevation drawings of all screenwalls to be utilized in concealing any exposed mechanical or electrical equipment, trash receptacle areas and parking areas;
- ☐ 28. Details of existing or proposed lighting, signage and other pertinent development features;
- ☐ 29. A list of any requested design changes;
- ☐ 30. Itemized list and specification sheets of all materials, light fixtures and mechanical equipment to be used, including exact size specifications, color, style, and the name of the manufacturer;
- ☐ 31. Location of all exterior lighting fixtures, exact size specifications, color, style and the name of the manufacturer of all fixtures, and a photometric analysis of all exterior lighting fixtures showing light levels to all property lines; and
- ☐ 32. Any other information requested in writing by the Planning Division, the Planning Board, or the Building Official deemed important to the development.



Notice Signs - Rental Application Community Development

1. Applicant

Name: THC Investors Limited PartnershipAddress: 100 Townsend

Phone Number: _____

Fax Number: _____

Email address: _____

Property Owner

Name: Same

Address: _____

Phone Number: _____

Fax Number: _____

Email address: _____

2. Project Information

Address/Location of Property: _____

Name of Development: _____

Area in Acres: _____

Name of Historic District site is in, if any: _____

Current Use: _____

Current Zoning: _____

3. Date of Board Review

Board of Building Trades Appeals: _____

City Commission: _____

Historic District Commission: _____

Planning Board: _____

Board of Zoning Appeals: _____

Design Review Board: _____

Housing Board of Appeals: _____

The undersigned states the above information is true and correct, and understands that it is the responsibility of the applicant to post the Notice Sign(s) at least 15 days prior to the date on which the project will be reviewed by the appropriate board or commission, and to ensure that the Notice Sign(s) remains posted during the entire 15 day mandatory posting period. The undersigned further agrees to pay a rental fee and security deposit for the Notice Sign(s), and to remove all such signs on the day immediately following the date of the hearing at which the project was reviewed. The security deposit will be refunded when the Notice Sign(s) are returned undamaged to the Community Development Department. Failure to return the Notice Sign(s) and/or damage to the Notice Sign(s) will result in forfeiture of the security deposit.

DocuSigned by:

Signature of Applicant: _____

Steve Roth

ABA0693F568A4F9...

Date: 11/22/2021

Office Use Only

Application #: _____

Date Received: _____

Fee: _____

Date of Approval: _____

Date of Denial: _____

Reviewed by: _____



FEE SCHEDULE

Application	Fees
Administrative Approval	\$100
Administrative Sign Approval	\$100
Board of Zoning Appeals* - Single Family Residential - All Other Zoning Districts	\$310 \$510
Community Impact Study Review*	\$2,050
Design Review*	\$350
Division/Combination of Platted Lots	\$200
Historic District Review* - Single Family Residential - All Other Zoning Districts	No Charge \$350
Public Notice Sign - Notice Sign Rental - Returnable Sign Bond	\$50 \$100 ➔ \$150 total
Preliminary/Final Site Plan Review - R4 – R8 Zoning District - Nonresidential Districts	\$850, plus \$50 per dwelling unit \$1,050, plus \$50 per acre or portion of acre
Special Land Use Permit* - Plus Site Plan Review - Plus Design Review - Plus Publish of Legal Notice - Plus Sign Rental and Deposit	\$800 \$1,050 \$350 \$450 \$150 ➔ \$2,800 total
Special Land Use Permit Annual Renewal	\$200
Temporary Use Permit	\$100
Zoning Compliance Letter	\$50

***The fees for Board of Zoning Appeals, Community Impact Study Review, Design Review, Site Plan Review, Historic District Review and Special Land Use Permits shall be double the listed amounts in the event the work is commenced prior to the filing of an application for review by the City of Birmingham.**

Luckenbach|Ziegelman|Gardner Architects PLLC

Townsend Hotel - Rugby Grill Exterior Dining
HDC & SLUP Review
100 Townsend Street / Birmingham, Michigan

Project Number -018-2021

Zoning Information

Building Area / Building Criteria



Zoning

- Zoning = B4
- Downtown Overlay District = D4
- Part of Downtown Birmingham Parking Assessment District
- Shain Park Historic District

Legal Description:
See Site Plan - Sheet S-1

HDC & SLIP REVIEW

Sheet Schedule

A R C H I T E C T U R A L			
●		SD 100	TITLE, SHEET SCHEDULE, AND ZONING INFORMATION
●		S.1	SURVEY
●		SD 101	SITE PLAN, LOCATION, AND SITE INFORMATION
●		SD 102	GROUND FLOOR PLAN + TECHNICAL DETAILS
●		SD 103	EXTERIOR ELEVATIONS
●		SD 104	PLAN & ELEVATION DETAILS
●		SD 105	FURNITURE FIXTURES / PLANTS AND PLANTER DETAILS

HISTORIC DISTRICT COMMISSION & SPECIAL LAND USE PLANNING REVIEW

L|Z|G
Architects

Luckenbach|Ziegelman|Gardner
A r c h i t e c t s

555 S. Old Woodward Ave. Suite 27L
Birmingham, Michigan 48009

email:
gardner-arch1@sbcglobal.net

tele:
248.642.3990

[illegible]

sheet title:

Title Sheet, Sheet Schedule

project

THE TOWNSEND HOTEL
Rugby Grill
Exterior Dining

project address:

100 Townsend Street
Birmingham, Michigan

designed

drawn

coordination checked

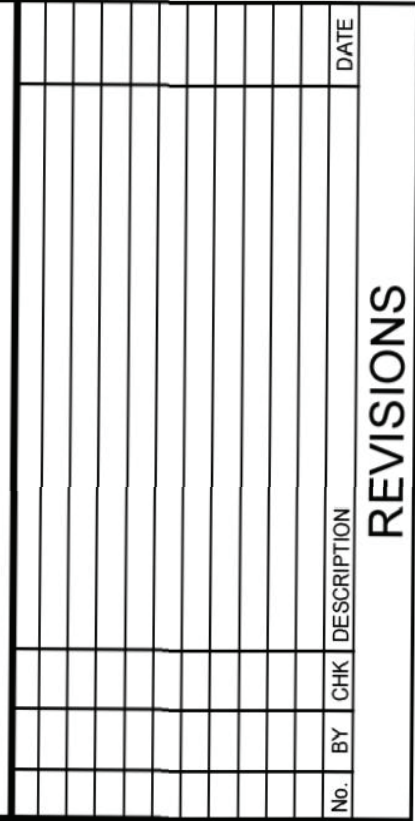
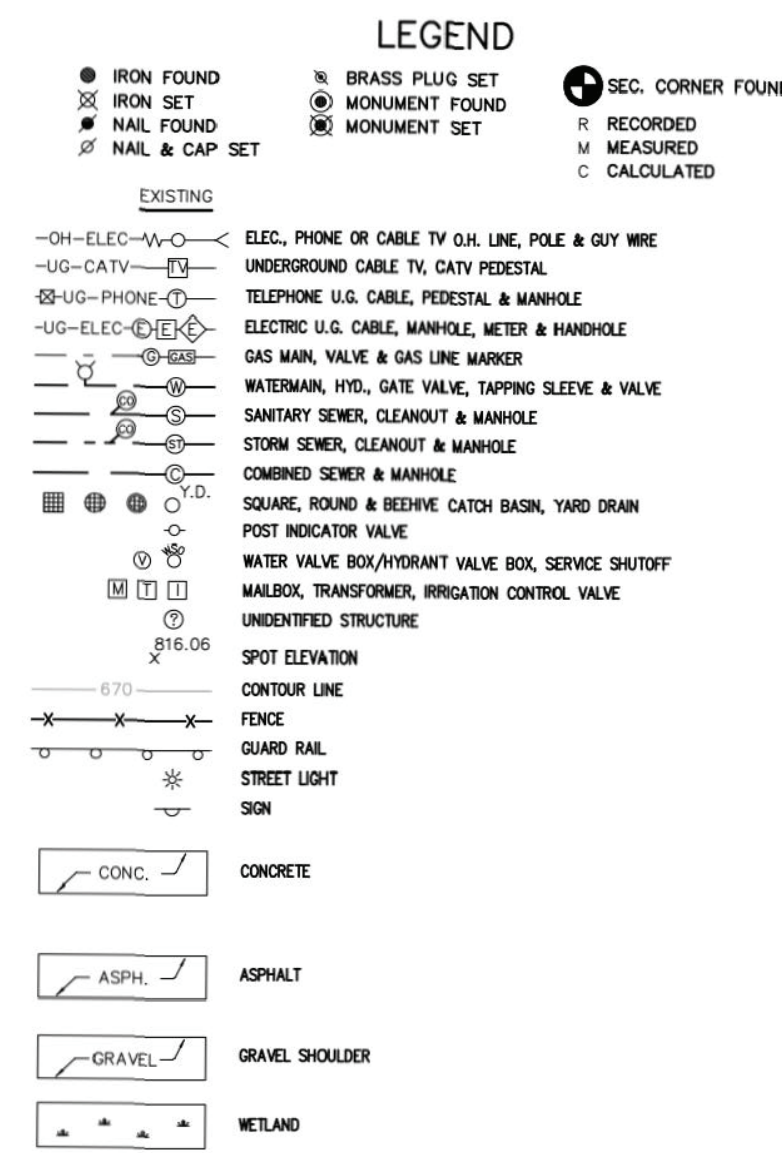
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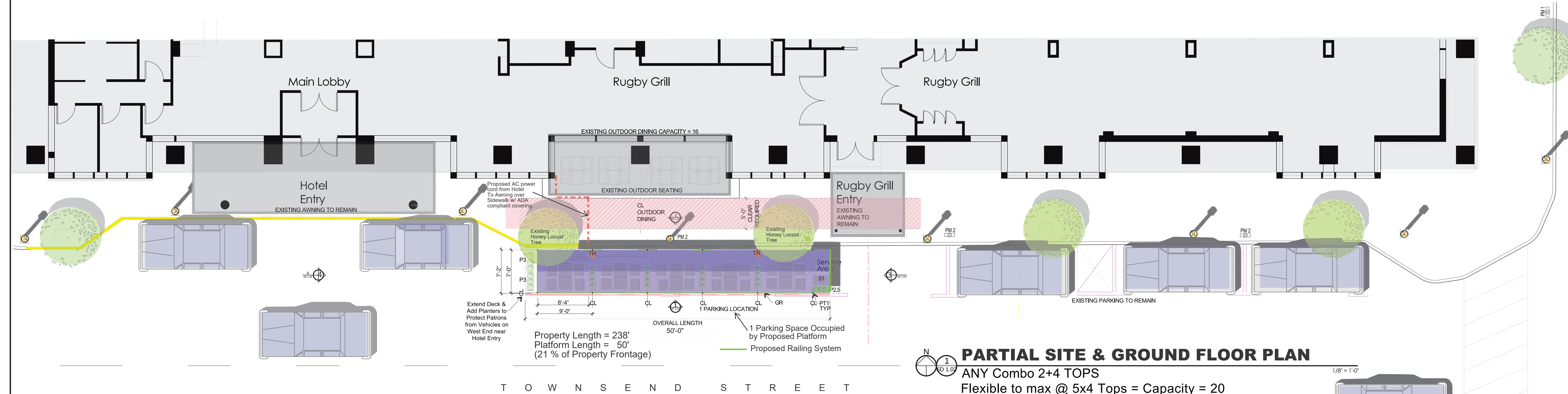
project number:

018-2021

sheet number:

SD-1.00





PARTIAL SITE & GROUND FLOOR PLAN

ANY Combo 2+4 TOPS

Flexible to max @ 5x4 Tops = Capacity = 20

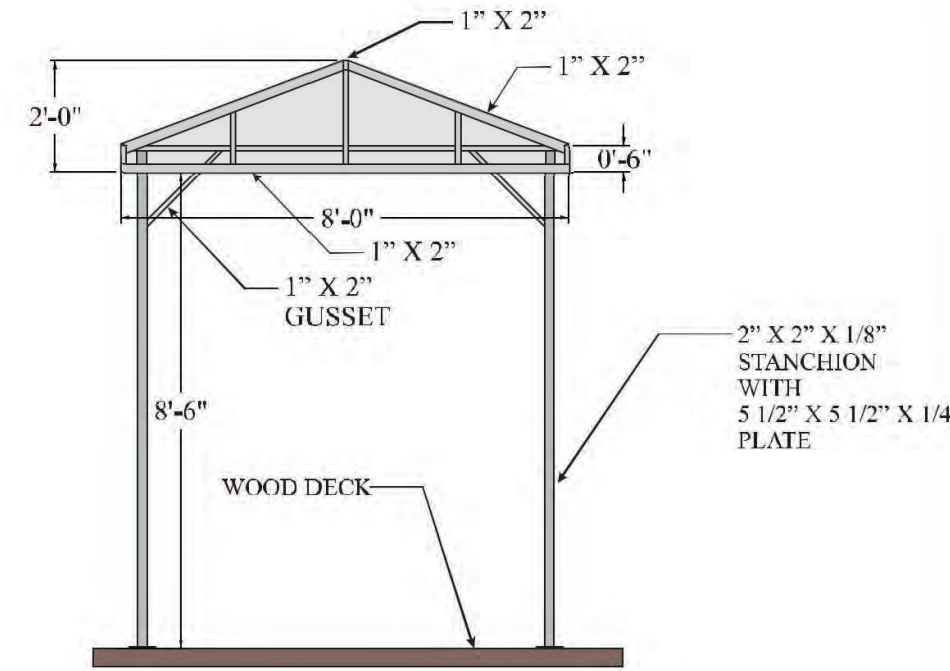
Key

- P3 12"x12"x36" L Planter
- P4 12"x12"x48" L Planter
- PLANTER LATTICE FOR PLANT CLIMBING.
- 36" HIGH ARBOR AT MIDDLE OF PLANTER TO HELP DEFINE THE DINING AREA AND PROVIDE PRIVACY
- S1 24" X 30" Service Station
- C1 CHAIR TYPE 1
- T1 TABLE TYPE 1 28" X 28" X 29.5" H
- TR TRASH RECEPTICAL
- GR GUARD RAIL = 36" HIGH MAX STEEL RAIL - DESIGN TO MATCH EXISTING
- PT1 2X2 ALUM POST FOR AWNING STRUCTURE
- PM2 EXISTING PARKING METER
- SL EXISTING STREET LAMP

SUNBRELLA CANVAS AWNING COLORS

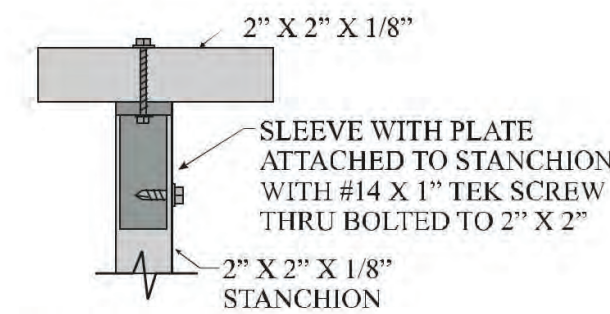


10
YEAR
WARRANTY

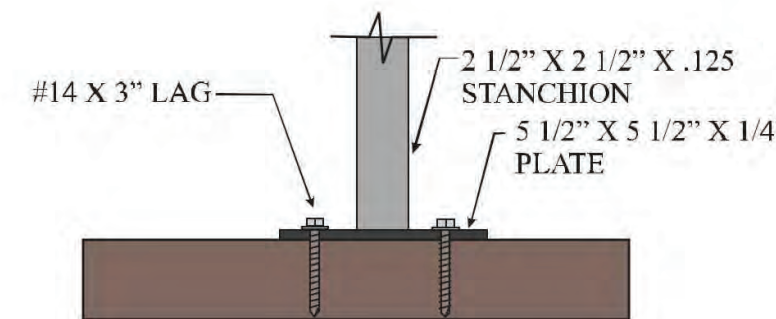


EAST & WEST ELEVATIONS
(SIMILAR)
Structure Shown / Sunbrella Canvas
Fabric Covered Material over
Aluminum Framework

4 DETAILS



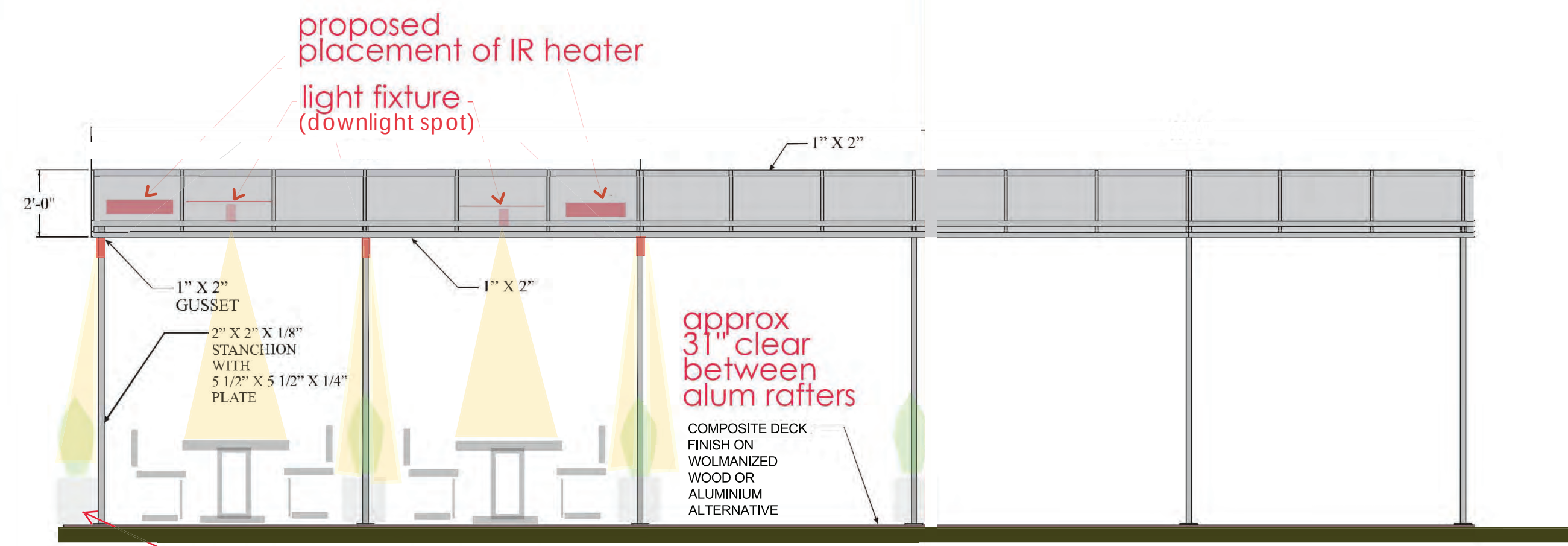
STANCHION TO
AWNING ATTACHMENT
DETAIL



STANCHION TO
WOOD DECK
ATTACHMENT DETAIL

Marygrove
DALE BACHE
TOWNSEND HOTEL
100 TOWNSEND STREET
BIRMINGHAM, MI 48009
10/20/2021

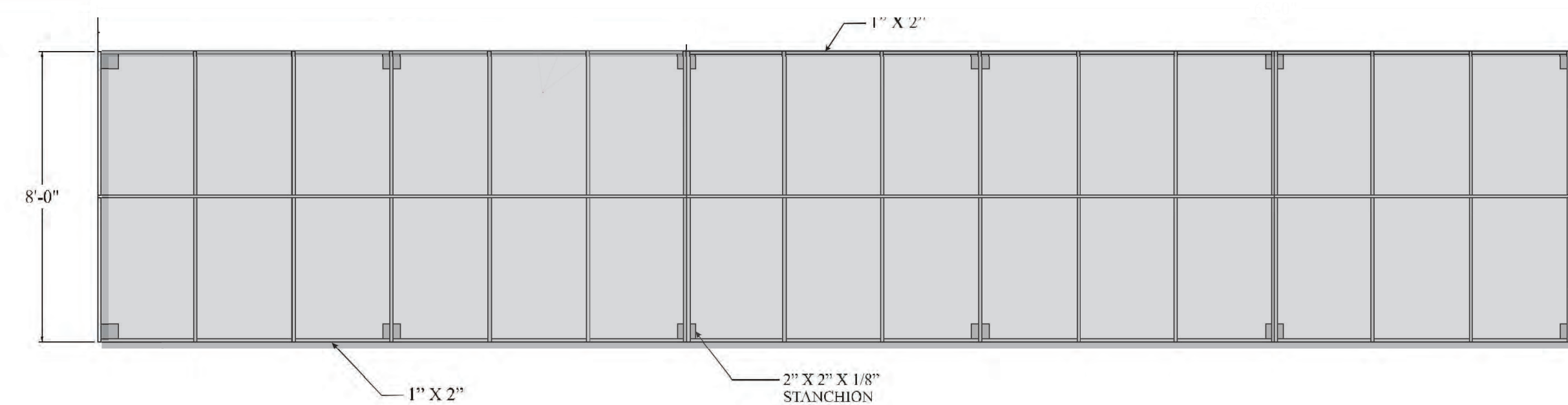
NOTES:
ALL FRAMING ALUMINUM
1" X 1" X .093 UNLESS NOTED
FRAMES MILL FINISH
FABRIC: SUNBRELLA CHARCOAL GREY 6044



SOUTH SECTION / ELEVATION
aluminum "box"
planters w/ seasonal
ornamental plantings

AWNING IS FREE STANDING
FABRIC COVERING IS SEASONAL

2 AWNING SECTIONS / ELEVATIONS



3 AWNING STUCTURE FRAMING PLAN

AWNING IS FREE STANDING
FABRIC COVERING IS SEASONAL

seal:

L|Z|G
Architects

Luckenbach|Ziegelman|Gardner
A r c h i t e c t s

555 S. Old Woodward Ave. Suite 27L
Birmingham, Michigan 48009

email:
gardner-arch1@sbcglobal.net

tele:
248.642.3990

[illegible]

sheet title:

Plan Detail & South Elevation

project

THE TOWNSEND HOTEL
Rugby Grill

Exterior Dining

project address:

100 Townsend Street
Birmingham, Michigan

designer

drawn

coordination checked

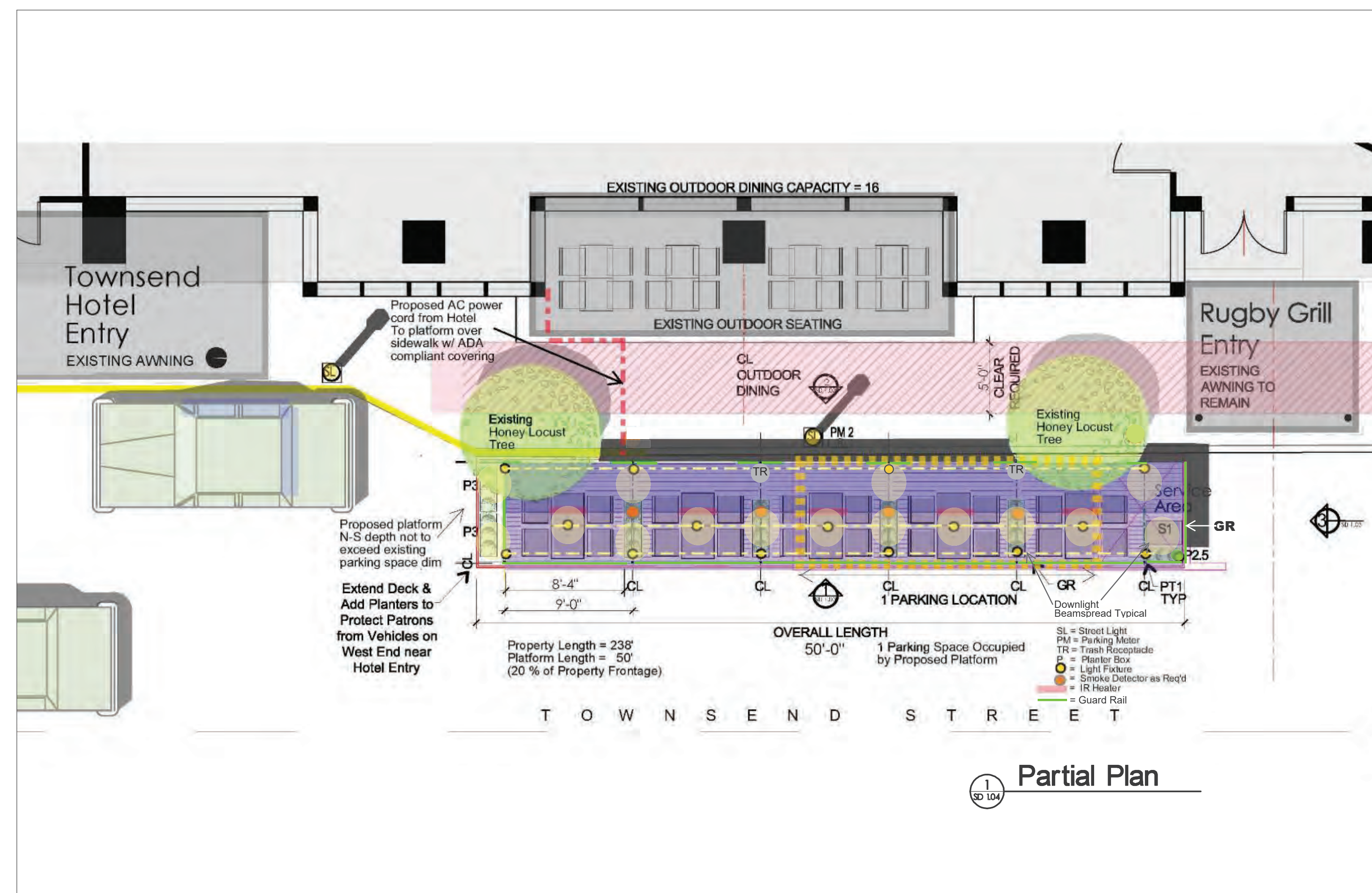
checked approved

project number:

018-2021

sheet number:

SD-1.04



SKU: 4785202000
Nardi 4785202000 Anthracite Cube 70 Table



T1 Table type 1

Description

Cube is a solid, minimalist professional table made out of resin with a DurelTop square surface. It is an innovative new system in the production of tabletops developed to reach the highest levels of practicality, resistance, and elegance. It also features an aluminum structure that confers solidity and sturdiness. Square-base legs in lacquered aluminum.

Features:

- Stackable table 70x70 cm.
- DurelTOP in polypropylene with UV additives and uniformly colored.
- Legs in coated aluminum.
- Matte finish.
- Adjustable height feet.
- Recyclable resin.

Specifications

Width:27.6 in.

Height:29.5 in.

Depth:27.6 in.

Color:Black

Stackable:Yes

Table height = 29.5"

SKU: 4024302000
Nardi 4024302000 Anthracite Bora Bistrot Chair



Description

Lightweight and cool, Bora is a chair without armrests in fiberglass resin, with a continuous tubular structure and rounded profile. The seat and back form a single piece, with shapes that complement the soft fabric padding.

Features:

- Monobloc chair without armrest.
- Uniformly colored fiberglass polypropylene resins with UV additives.
- Matte Finish
- With non-slip feet.
- Recyclable Resin

Specifications

Width:23 in.

Height:33.9 in.

Depth:21.7 in.

Color:Black

With Arms:No

With Back:Yes

Stackable:Yes

Shipping Weight:12.50 pounds

C1



Planter Box

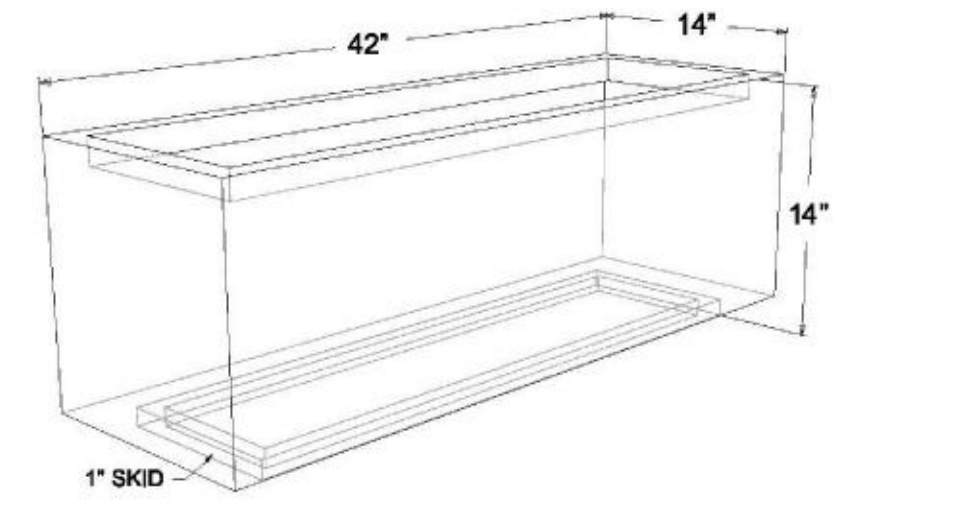


Low Rectangular Planter - Medium

42"L X 14"W X 14"H

Weight - Steel : 63 lbs. Aluminum : 27 lbs.

Capacity : 4.25 cubic feet





YARDART
uniquegardendecor.com
(866) 382-8600

BISTRO FURNITURE

PLANTER BOX



Artemide Mini Spot
LED 2W > 80 CRI /17° beam spread
Dim = 1 1/4" dia x 4" height 100 lm

DGS SERIES
FILTERED SHORT-WAVE ELECTRIC INFRARED HEATER



PRODUCT SPECIFICATIONS

Electrical Consumption:
1,500 to 3,000 watts

Equivalent BTU/h:
5,118 to 10,236 BTU/h

Mounting Options:
Chairs or Mounting Bracket for Universal Positioning

Lamp Elements:
Gold-filtered Quartz Lamps

Housing:
Bronzed Extruded Aluminum Body with Rustproof Body Parts and Protective Grill

Certifications & Approvals:
CE Certified, Indoor & Outdoor Commercial, Outdoor Residential, IP55 Water Resistant

Limited Warranty:
1 year (All Components)

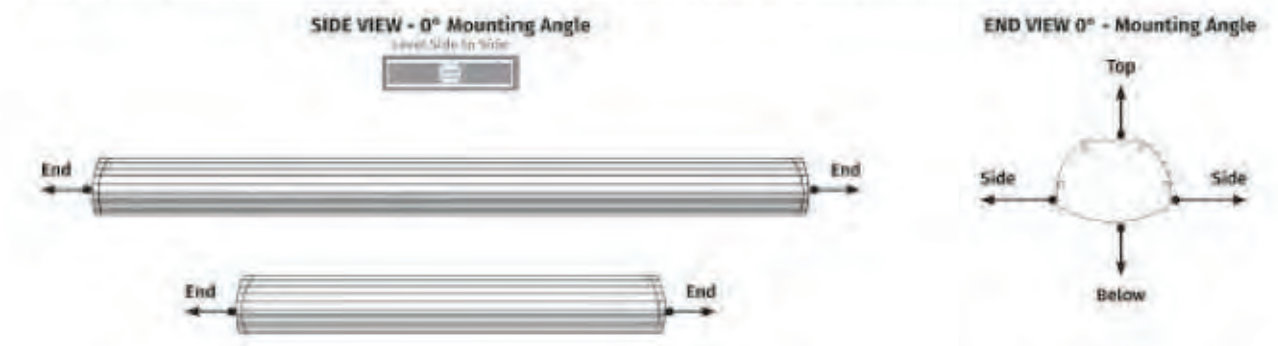
Electrical:
120VAC (1,500 watts); 230VAC (2,000 and 3,000 watts)

AVAILABLE DGS MODELS & CLEARANCES

MODEL #	WATTS	VOLTS	AMPS	BTU/h	HEIGHT	COVERAGE	DIMENSIONS (INCHES)	WEIGHT	MOUNTING ANGLE	SIDE	TOP	BELOW	END
DGS-21-A15	1,500	120	12.5	5,118	7-9 ft.	100 ft²	21.06"L x 4.61"W x 4.84"H	5.7 lbs	0°	10	3	64	21
DGS-21-C20	2,000	230	8.7	6,824	7-9 ft.	100 ft²	21.06"L x 4.61"W x 4.84"H	5.7 lbs	0°	10	3	64	21
DGS-22-C30	3,000	230	13.0	10,236	8-10 ft.	150 ft²	36.75"L x 4.61"W x 4.84"H	9.7 lbs	0°	13	3.5	77	25

SIDE VIEW - 0° Mounting Angle

END VIEW 0° - Mounting Angle



DGS SERIES

DETROIT RADIANT PRODUCTS COMPANY

21400 Houser Road, Warren, Michigan 48091 USA
+1.588.756.0950 | sales@drp-usa.com

www.REXUSIDEHEAT.com

CE ENEC

Series No. 1.800.001.1018 (2018)

BRASS RAIL TO MATCH EXISTING SIZE AND PROFILE

1 1/2" x 1 1/2" STEEL TUBE FRAME TO MATCH EXISTING

3/4" x 3/4" STEEL TUBE INNER FRAME

3/8" DIAGONAL ROD TO MATCH EXISTING

4X4 X 1/4" STL PL FEET TO MATCH EXISTING

FINISH: PRIMED & POWER COAT PAINT (SHOP FINISH BAKED ENAMEL) COLOR: MEDIUM BRONZE TO MATCH EXISTING

TREX COMPOSITE DECK SYSTEM



RUGBY GRILL EXIST'G RAIL

LIGHTING

IR HEATER

GUARD RAIL



Mandevilla Climbing Vine Annual



Verbenum



ZZZ Plant



PLANTER BOX VEGETATION

RECEPTACLE

HDC & SLUP REVIEW

seal:

L|Z|G
Architects

Luckenbach|Ziegelman|Gardner
A r c h i t e c t s

555 S. Old Woodward Ave, Suite 27L
Birmingham, Michigan 48009

email:
gardner-arch1@sbcglobal.net

tele:
248.642.3990

issue date

OWNER REVIEW NOV 15, 2021

HDC REVIEW DEC 20, 2021

PLANNING SLUP REVIEW DEC 20, 2021

sheet title:

FFE:
FURNITURE,
FIXTURES,
PLANTS &
PLANTERS

project:

THE TOWNSEND HOTEL

Rugby Grill

Exterior Dining

project address:

100 Townsend Street

Birmingham, Michigan

designed

drawn JG

coordination checked

checked approved

project number:

018-2021

sheet number:

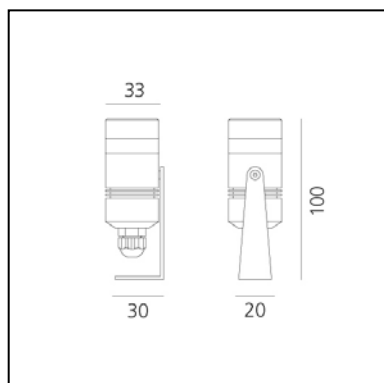
SD 5.00

Minispot 17° 3000K

Studio Artemide



IP65  



LUMINAIRE

- Watt: **2W**
- Delivered lumens output: **100lm**
- CCT: **3000K**
- Efficiency: **71%**
- Efficacy: **49.77lm/W**
- CRI: **80**

Notes

Fixed optic. PMMA lenses. Beams (10°).
White monochromatic LEDs available
Colour temperatures:
Warm = 3000K

DESCRIPTION

Light fixture with high-performance LED light sources.
Ground, floor, wall installation.
Composed by body, metal ring, diffuser in transparent polycarbonate.
Body and metal ring in computer numerical control machined billet anticorodal aluminium.
Painted spot with 2-stage outdoor treatment: primer, outdoor paint.
Silicone gaskets.
100cm-long two-pole connection cable H05RN-F.
Picket for ground installation in galvanized sheet iron.
Technical features of light fixtures in compliance with EN60598-1 and part 2-13.

PRODUCT CODE: NL702910K0

FEATURES

- Article Code: **NL702910K0**
- Colour: **Silver**
- Installation: **Projector**
- Series: **Architectural Outdoor**
- Area contract: **null, Outdoor**
- design by: **Studio Artemide**

DIMENSIONS

- Width: **cm 2**
- Height: **cm 10**
- Diameter: **cm 3**

SOURCES INCLUDED

- Category: **Led**
- Number: **1**
- Watt: **3 W**
- Color temperature (K): **3000K**
- LED current: **700 mA**

Accessories

NO
IMAGE
AVAILABLE

EGO PICCHETTO NL97150

NO
IMAGE
AVAILABLE

Driver 14W - 700mA 220-240 - 79x38x25 (LxWxH) -
IP67 - Undimable DV3003

NO
IMAGE
AVAILABLE

Driver 30W - 700mA 220-240 - 120x38x25
(LxWxH) - IP67 - Non Dimmerabile DV3004

NO
IMAGE
AVAILABLE

Driver 38W - 220-240 - 185x35x33 (LxWxH) - IP67 -
Dimmable DALI DV1042

RUGBY GRILLE

First Course

Townsend Prime Steak Tips \$18

pommes puffs, roasted garlic, sweet peppers, au poivre

Rugby Grille Shrimp Cocktail \$25

cocktail sauce, hot mustard

Charcuterie Board \$35

chef's cheeses, select cured meats, marcona almonds, seasonal jams, fruit, crostini

Caprese \$22

buffalo mozzarella cheese, heirloom tomatoes, pan roasted pine nuts, petite basil, extra virgin olive oil, prosciutto crisps

Crab Cake \$28

spicy pepper coulis, béarnaise, petite dressed greens

Arancini \$22

roasted tomato sauce, goat cheese, fresh herbs, shaved seasonal truffle

Beef Tartare \$40

hand-chopped prime tenderloin, egg, shallots, caper, toast points

Soup & Salad

Townsend French Onion Soup \$12

crostini, gruyere, parmesan

Chicken Noodle \$10

roasted chicken brodo, carrots, onion, celery, confit chicken, ditalini pasta

Chopped Salad \$23

romaine, heirloom tomatoes, calabrese salami, calabrian chili, chickpeas, dunbarton cheese, green onion, whole grain mustard vinaigrette

Townsend House Salad \$14

great lakes greens, carrots, cucumbers, tomatoes, roasted shallot vinaigrette

Fall Salad \$19

shredded kale, baby arugula, pomegranate seeds, roasted apples, pepitas, dried cherries, ricotta salata, white balsamic honey vinaigrette

Rugby Caesar Salad \$16

artisan romaine, garlic crouton, parmigiano-reggiano, house made caesar dressing

Sides \$10

Char-Roasted Red Peppers with Feta

Sautéed Spinach

Chef's Potato

Grilled Asparagus with Béarnaise

Fried Brussels Sprouts with Vinegar Salt

Sautéed Mushrooms

Truffle Fries \$18

Steaks

USDA Prime

all steaks are served with roasted marble potatoes and fall vegetable

8 oz. Prime Filet \$68

18 oz. Prime Bone-In Ribeye \$75

16 oz. Wagyu NY Strip \$120

Add Signature Sauce

Bordelaise Béarnaise Au Poivre

Mains

Rugby Burger \$34

charred onion jam, lettuce, duck confit, gruyere cheese served with french fries

Add Foie Gras \$25

Add Seasonal Shaved Truffle \$18

Lamb Wellington - MKT

puff pastry, mushroom lamb duxelles, bresaola, cherry lamb jus, pan roasted carrots and green beans

Brick Chicken \$38

crispy skin amish chicken breast, marbled mash, pan roasted baby root vegetable, natural thyme jus

Casarecce Pasta \$35

fennel chutney, pangrattato, fire roasted tomato sauce, shaved parmesan

Loch Duart Salmon \$44

maple and pistachio glazed salmon, parsnip purée, petite fall vegetable

Duck Cannelloni \$35

confit duck, caramelized onion, mustard lemon cream sauce, duck jus, aged parmesan, petite greens

Halibut \$48

chanterelle risotto, mushroom balsamic reduction, pan seared halibut, dressed tatsoi

Dover Sole \$74

green bean amandine, lemon beurre blanc, capers, herb butter

Berkshire Pork Loin \$54

cherry bacon gremolata crust, fig and port reduction, potato croquette, fire roasted squash

Ask about menu items that are cooked to order or served raw.

Notice: consuming raw or under cooked meats, poultry, seafood, shellfish or eggs may increase your risk of foodborne illness.

RUGBY GRILLE

Breakfast Favorites

Avocado Toast \$18

sourdough, smashed avocado, confit tomato, crispy chickpeas, pickled onion
your choice of egg served with dressed greens

Acai Bowl \$12

organic granola, local honey, acai greek yogurt, mixed berries

Brûléed French Toast \$20

brioche, strawberry rhubarb, crème anglaise

Oatmeal \$8

steel cut oats, brown sugar, rum raisins, fresh blueberries

Lox \$22

scottish salmon, tomato, red onion, capers, sliced egg, cream cheese, choice of bagel

Leek Quiche \$22

butter crust, swiss cheese, sauteed leeks, spring pencil asparagus, topped with a poached egg, lardon and hollandaise with petite mixed greens

Two Eggs \$18

two eggs any style, choice of bacon, pork or chicken sausage, toast, rugby potatoes or fresh fruit

Hash \$17

corned beef, peppers, onion, crispy potatoes and 2 eggs any style

French Omelet \$18

choice of three - spinach, mushroom, tomato, onion, peppers, ham, bacon, swiss, cheddar, mozzarella, choice of toast
additional items/egg whites add \$1.50

Belgian Waffle or Pancakes \$14

buttermilk batter, michigan maple syrup, seasonal berries

Townsend Benedict \$20

poached eggs, canadian bacon, english muffin, hollandaise, grilled asparagus, dressed greens
Substitute Smoked Salmon \$26

Latke Benedict \$28

poached eggs, cured salmon, latkes, hollandaise, grilled asparagus, dressed greens

Sides

Toast \$6

Rugby Potatoes \$6

Breakfast Meat \$6

Fruit \$6

Pastry \$7

House or Steak Fries \$10

Truffle Fries \$18

Starters

Rugby Grille Classic Shrimp Cocktail \$25

cocktail sauce, hot mustard

Townsend French Onion Soup \$12

crostini, gruyere, parmesan

Chicken Noodle Soup \$10

roasted chicken brodo, carrots, onion, celery, ditalini pasta

Rugby Caesar Salad \$16

artisan romaine, garlic crouton, parmigiano-reggiano, house made caesar dressing

Townsend House Salad \$14

great lakes greens, carrots, cucumber, tomatoes, roasted shallot vinaigrette

Rainbow Salad \$19

butter lettuce, watermelon radish, roasted beets, fresh dill, strawberries, toasted pistachios, black diamond white cheddar, white balsamic poppy seed dressing

Rugby Chopped Salad \$23

romaine lettuce, heirloom tomatoes, calabrese salami, calabrian chili, chickpeas, dunbarton cheese, green onion, whole grain mustard vinaigrette

Add To Any Salad

Chicken \$7 Salmon \$16 Shrimp \$24

House Specialties

Rugby Burger \$28

cheddar cheese, bibb lettuce, heirloom tomato and herb aioli on a toasted brioche bun

Turkey Club \$18

roasted michigan turkey breast, bacon, lettuce, heirloom tomato, herb mayonnaise, toasted multi-grain

Townsend Grilled Cheese \$17

sourdough bread, heirloom tomato, port salut & gruyere

Add Bacon \$6

Rugby Vegetable Bowl \$24

steamed basmati rice topped with stir-fried onion, mixed peppers, carrot, broccolini and baby zucchini in a chinese brown garlic sauce

Add Grilled Chicken Breast \$7

Brick Chicken \$38

crispy skin amish chicken breast, chef's potato, green beans, butter & brown sugar braised carrots, natural jus

Fish & Chips \$26

beer batter, steak fries with vinegar powder, fresh english peas, tartar sauce

Filet \$68

8 oz. prime tenderloin served bordelaise sauce, chef's potatoes and fresh vegetable

Ask about menu items that are cooked to order or served raw.

Notice: consuming raw or under cooked meats, poultry, seafood, shellfish or eggs may increase your risk of foodborne illness.



MEMORANDUM

Planning Division

DATE: January 26th, 2021

TO: Planning Board Members

FROM: Leah Blizinski, City Planner

APPROVED: Nicholas Dupuis, Planning Director

SUBJECT: 159 N. Eton – Final Site Plan and Design Review

The applicant has submitted a Final Site Plan and Design Review application for a new outdoor patio on private property in the B-1 Neighborhood Business District in the N. Eton corridor. The roughly 1-acre site is currently home to two one-story multi-tenant commercial buildings. The proposed changes are to the South building only which houses Jet's Pizza, Cannelle Patisserie and formerly housed Patrick Irla Jewelry. Cannelle Patisserie expanded into vacant spaces in the building in 2018 and 2021 and now seeks to build a new patio and move their existing approved outdoor dining area.

The applicant is proposing a hardscape concrete patio that will be situated on the Eastern side of the property, adjacent to the sidewalk along the property's Eton Street frontage and will be comprised of a concrete surface, brick piers, metal guardrail, perimeter landscaping, metal posts, sun shade canopy and string lights. On the East side of the building, the applicant proposes a new pass-thru window, a new window, modifications to the driveway, slight reconfigured parking and new sidewalk/steps connecting the walkway in front of the building to the adjacent sidewalk and associated pedestrian-scale streetscape improvements including a new lawn area and 'plaza.'

In the public right of way, the applicant is proposing two new lawn spaces (between the existing pedestrian sidewalk and the street curb), where there currently is crushed rock, to improve the aesthetics and make the area more inviting to pedestrians.

1.0 Land Use and Zoning

1. Existing Land Use – Commercial
2. Zoning – B1 (Neighborhood Business)
3. Summary of Adjacent Land Use and Zoning –

	North	South	East	West
Existing Land Use	Multi-Family	Railroad	Single-Family Residential	Railroad
Existing Zoning District	R7 (Multiple-Family Residential)	PP (Public Property)	R2 (Single Family Residential)	PP (Public Property)
Overlay Zoning District	N/A	N/A	N/A	N/A

The proposed uses of a bakery and outdoor café are permitted in the B1 zoning district.

2.0 Setback and Height Requirements

Please see the attached zoning compliance summary sheet for details on setback and height requirements. There are currently no issues with bulk, height or placement with the Final Site Plan and Design Review application submitted.

3.0 Screening and Landscaping

1. Dumpster Screening – The applicant is not proposing any new dumpsters on the property.
2. Parking Lot Screening – Screening of the North side of the property (adjacent to R7) is non-conforming in its material where there is an existing vine-covered chain link fence. Screening is also non-conforming on the East side of the parking lot (adjacent to R2) where there is a screenwall of capped masonry that does not meet the 32" min. height requirement or provide the requisite breaks in the screenwall, per the Zoning Ordinance, Article 4, Section 4.54, Subsection (B). Additionally, there are two unscreened sections of parking along Eton Street, adjacent to the North and South faces of the South building. The applicant is not proposing any changes to the existing parking lot screening. **The applicant should revise the site plans to meet the screening standards set forth in Article 4, Section 4.54, Subsections (A) through (E) of the Zoning Ordinance along the North and East boundaries of the site.**
3. Mechanical Equipment Screening – There is existing rooftop mechanical equipment screening on the South portion of the South building on the site. There is no existing rooftop mechanical screening on the North portion of the

South building or on the North building. The applicant is not proposing any changes to the existing mechanical equipment or screening. Per to the Zoning Ordinance, Article 4, Section 4.54, Subsection (C) (8) "Rooftop mechanical and other equipment shall be limited, position and screened to minimize view from adjacent properties and public rights-of-way." Article 4, Section 4.54, Subsection (C)(8)(b) requires that "to Minimize the visual impact of such equipment from other points of observation, rooftop mechanical and other equipment shall be obscured by a screenwall composed of materials compatible with the building or by landscaping demonstrated to provide an effective permanent visual barrier" and (c) states that "any screenwall barrier: (i) Shall, to the best extent possible, not extend above the top edge of an imaginary plane extending upward no more than 45 degrees from the eave line; and (ii)." **The applicant should revise the site plans to meet all rooftop mechanical screening requirements of Article 4, Section 4.54, Subsection (B) (8) of the Zoning Ordinance.**

4. Landscaping – Under Article 4, Section 4.20, Subsection (B) (2) of the Zoning Ordinance, it states that, "In addition to sub-sections (D) (1) through 6 and (E), all other sub-sections apply to properties in the City of Birmingham that are subject to site plan review pursuant to Section 7.24 of the Birmingham Zoning Ordinance, if: ...(c) The property has an existing or proposed unenclosed parking facility with 20 or more parking spaces." As the project is subject to site plan review under Section 7.24 and 4.20 (B) (2) (c); all Landscaping Standards in 4.20 apply. Specifically Article 4, Section 4.20 Subsection (F) Parking Lot Landscaping, which require that "(1) Within the parking lot there shall be interior landscaping areas that total not less than 5% of the total parking lot interior area (2) Each interior planting area shall be at least 150 sq. ft. in size, and not less than 8 feet in any single dimension (3) There shall be at least one canopy tree for each 150 sq. ft. or fraction thereof of interior planting area required and (4) The interior planting areas shall be located in a manner that breaks up the expanse of paving throughout the parking lot interior" must be met. **The applicant is not currently proposing any new landscaping within the parking lot, however, the applicant should revise the site plans to include landscaping which meets all requirements in Article 4, Section 4.20, Subsections (D) through (H) of the Zoning Ordinance.**
5. Streetscape – The applicant is proposing to maintain 6 existing street trees as part of the streetscape and is proposing to replace the rocks between the sidewalk and the curb with lawn on the South portion of the site only. Per the Zoning Ordinance, Article 4, Section 4.20, Subsection (D) (2), "all undeveloped and unpaved portions of a site shall be planted with grass, ground cover, shrubs or other suitable live plant material, which shall extend to any abutting street pavement edge." The site is nonconforming in that the space between the

sidewalk and street pavement edge along the entire East street frontage is filled with rock and not live material. Additionally, Article 4, Section 4.20, Subsection (G) requires "all site plans shall include in the right-of-way along all streets, at least 1 street tree for each 40 feet of linear frontage." Currently, the site has 6 street trees for its approximately 350 linear feet of frontage and does not meet the minimum requirement. **The applicant should submit a landscape plan which includes at least 1 street tree for each 40 feet of linear frontage and grass, ground cover, shrubs or other suitable live plant material between the sidewalk and the curb along the entire Eton Street frontage of the property.**

In addition, the applicant is proposing to include 1 trash can and 2 benches as a part of the project in a small new 'plaza' within the right of way between the sidewalk and the curb. **See attached Police Department comment regarding safety and the lack of barrier between the street and the 'plaza.'**

4.0 Parking, Loading and Circulation

1. Parking – The site is comprised of two, one-story buildings. The North building is comprised of approximately 7,900 sq. ft. of retail/commercial uses and the South building is comprised of approximately 2,560 sq. ft. of retail/commercial uses for a total of approximately 10,460 sq. ft. of retail/commercial on site. A breakdown of the parking requirement is provided below:

Tenant	Use	Area (sq. ft.)	Required Parking
Jet's Pizza	Retail	1,350	4.5
Canelle	Retail	1,210	4
Eton Salon	Salon	750	8
Zack's	Retail	750	2.5
Dry Cleaner	Retail	1,500	5
New Salon	Salon	1,370	10
Eton Market	Retail	1,880	6.25
Spa Mariana	Salon	1,650	10
	TOTAL:	10,460	51

There is an existing off-street surface parking facility on site with 69 marked parking spaces. The applicant is proposing to remove 2 parking spaces for the outdoor dining patio, leaving a total of 67 marked parking spaces, thus meeting the parking requirements of the existing and proposed development. Additionally, the parking spaces measure at least 180 sq. ft. as required by the Zoning Ordinance.

2. Loading – Article 4, Section 4.24 of the Zoning Ordinance requires 1 loading space for commercial uses between 5,001 and 20,000 sq. ft. The requisite 1

loading space is provided onsite along the rear of the buildings. Thus, the proposed site plan meets the ordinance for loading spaces required.

3. Vehicular Circulation and Access – The applicant is proposing to reconfigure the curb cut in front of the South building to reduce the width of the vehicular exit path (to align with the end of the existing parking space lengths) and expand the landscaped area between the sidewalk and the street. There are no other changes proposed to vehicular circulation and access. The existing vehicle access to the site is provided by an approximately 23 ft. wide drive on Eton at the North end of the site providing for one-way traffic with a 23 ft. wide exit drive directly to the north of the building and proposed new outdoor dining patio. Both the existing and the proposed entry drives provide for one-way traffic at a time.
4. Pedestrian Circulation and Access – Pedestrian access to the building is currently via a sidewalk onsite leading from the onsite parking to the building entry. Currently, pedestrian access directly from the public sidewalk to the building does not exist without crossing vehicular traffic through the parking lot. The applicant is proposing to provide pedestrian access directly from the public sidewalk to the private sidewalk at the building's front façade by removing the existing railing and installing a small set of concrete risers. The applicant is also proposing a "pass-thru" serving window on the East façade along Eton Street that is directly adjacent to the public sidewalk. **See the Building Department review comments that the new set of stairs must include handrails as well as concerns that the "pass-thru" serving window could impede pedestrian flow on the public sidewalk. Also, currently, the plans appear to show a portion of the concrete risers and patio landscaping on public property. Pursuant to Article 4, Section 4.44, Subsection (A) (7) (f), the applicant should revise the site plans to clearly show that all elements of the patio will be constructed on private property within the bounds of the subject parcel and that the 7' wide clear public sidewalk will be maintained, as well as to address how the "pass-thru" window will not impede pedestrian flow on the public sidewalk.**

5.0 Lighting

The applicant is not proposing any new permanent lighting fixtures on the building or site. Therefore, a photometric plan was not required. The applicant is proposing to use only LED string lights in the outdoor dining patio. **The applicant should revise the site plans to show how electricity is being supplied to the LED string lights on the outdoor patio.**

Fixture	Type	Location	Lumens
String Lights	LED	Hardscape Patio	?

6.0 Departmental Reports

1. Engineering Division – Please see attached Engineering Division Comments.
2. Department of Public Services – The Department of Public Services (DPS) has no concerns at this time.
3. Fire Department – Any comments received from the Fire Department will be included at Final Site Plan review.
4. Police Department – See attached communications. The Police Department notes that “The proposed new plaza on the East side of the building is adjacent to N. Eton. No barrier protection from the roadway. Potential safety issue.”
5. Building Division – Please see attached Building Division comments.
6. Parking Division – The Parking Division had no comments or concerns on the proposed site plan.

7.0 Master Plan Compliance

The proposed plan contains pedestrian scale elements at the property’s intersection with a public sidewalk, including a walk-up “pass-thru” window, increased glazing, a sun-shade canopy, benches, trash receptacle and landscaping. The building also does not exceed height requirements, and is built with high quality materials such as brick and glass.

8.0 Design Review

As noted above, the proposal is for a new outdoor dining hardscape patio with driveway, landscape and building facade modifications. The following materials are proposed on the building exterior:

Material	Location	Color
Brick	East Façade, Outdoor Patio	Match existing
Glass	East Facade	Clear
Anodized Aluminum Frame	East façade	Black
Sun Shade Sail	Outdoor Patio	Gray
Steel Columns	Outdoor Patio	Black
Poured Concrete	Outdoor Patio	N/A
Limestone Cap	Outdoor Patio	N/A

The specific architecture standards of Article 4, Section 4.90 (E) apply, which include the following:

- No less than 70% of a storefront/ground floor façade between 1 and 8 feet above grade shall be clear glazing.
- The bottom of the window shall be no more than 3 feet above the adjacent exterior grade.
- Building elevations on the ground floor that do not face a frontage line but contain a public entrance shall be no less than 30% clear glazing between 1 and 8 feet above grade.

The applicant has stated that the windows will be clear glazing, however, the applicant must submit revised plans showing that the requirements of Article 4, Section 4.90, Subsection (A) (1) will be met on the East façade of the building of > 70% glazing and that the requirements of Article 4, Section 4.90, Subsection (B) will be met on the North side of the building of > 30% glazing.

Outdoor Dining

Outdoor cafes must comply with the site plan criteria as required by Article 4. Section 4.44 OD-01 Outdoor Dining Standards. Outdoor cafes are permitted immediately adjacent to the principal use, subject to site plan review and the following conditions:

1. Outdoor dining areas shall provide and service refuse containers within the outdoor dining area and maintain the area in good order.
2. All outdoor activity must cease at the close of business or as noted in subsection 3 below.
3. When an outdoor dining area is immediately adjacent to any single-family or multiple-family residential district, all outdoor activity must cease at the close of business or 10:00 p.m., whichever is earlier.
4. Outdoor dining may be permitted on the sidewalk throughout the year with a valid Outdoor Dining License, provided that all outdoor dining fixtures and furnishings must be stored indoors each night between November 16 and March 31 to allow for snow removal.
5. All tables and chairs provided in the outdoor dining area shall be constructed primarily of metal, wood, or material of comparable quality.
6. Table umbrellas shall be considered under Site Plan Review and shall not impede sight lines into a retail establishment, pedestrian flow in the outdoor dining area, or pedestrian or vehicular traffic flow outside the outdoor dining area.
7. For outdoor dining located in the public right-of-way:
 - (a) All such uses shall be subject to a license from the city, upon forms provided by the Community Development Department, contingent on compliance with all city codes, including any conditions required by the Planning Board in conjunction with Site Plan approval.

- (b) In order to safeguard the flow of pedestrians on the public sidewalk, such uses shall maintain an unobstructed sidewalk width as required by the Planning Board, but in no case less than 5 feet.
 - (c) Outdoor dining is permitted to extend in the right-of-way in front of neighboring properties, with the written permission of the property owner(s) and with Planning Board approval, if such property is vacant or the first floor storefront(s) is/are vacant. Outdoor dining areas may extend up to 50% of the width of the neighboring lot(s) storefront(s), or up to 50% of the lot(s) frontage, if such lot is vacant.
 - (d) City Commission approval is also required for outdoor dining extensions onto neighboring property if the establishment making such a request holds a bistro license.
 - (e) An elevated, ADA compliant, enclosed platform may be erected on the street in front of an eating establishment to create an outdoor dining area from April 1 through November 15 only if the Engineering Department determines there is sufficient space available for this purpose given parking and traffic conditions.
 - (f) No such facility shall erect or install permanent fixtures in the public right-of-way.
8. Outdoor dining is permitted in a B1 District at a rate of 4 seats for every 12 linear feet of store frontage, with no more than 12 seats total per building; no elevated enclosed platforms on the street are permitted in a B1 District.

The outdoor dining area is adjacent to single-family and multi-family residential. The applicant intends to serve patrons in the outdoor dining area during the same hours as the interior of the restaurant, which will cease before 10:00PM.

The applicant has provided specification sheets on all products/materials to be installed, except the specific materials and models of the tables and chairs to be purchased for the outdoor dining area, and has not included any trash receptacles within the outdoor dining area. **The applicant should revise the site plans to include trash receptacles within the outdoor dining area as well as provide material/product specifications for the tables and chairs pursuant to Article 4, Section 4.44, Subsection (A) (1) and (5).**

Signage

The applicant is not proposing any new signage at this time.

9.0 Required Attachments

	Submitted	Not Submitted	Not Required
Existing Conditions Plan	☒	☐	☐

Detailed and Scaled Site Plan	☒	☐	☐
Certified Land Survey	☒	☐	☐
Interior Floor Plans	☒	☐	☐
Landscape Plan	☐	☒	☐
Photometric Plan	☐	☐	☒
Colored Elevations	☐	☒	☐
Material Specification Sheets	☒	☒	☐
Material Samples	☐	☐	☒
Site & Aerial Photographs	☒	☐	☐

10.0 Approval Criteria

In accordance with Article 7, section 7.27 of the Zoning Ordinance, the proposed plans for development must meet the following conditions:

- (1) The location, size and height of the building, walls and fences shall be such that there is adequate landscaped open space so as to provide light, air and access to the persons occupying the structure.
- (2) The location, size and height of the building, walls and fences shall be such that there will be no interference with adequate light, air and access to adjacent lands and buildings.
- (3) The location, size and height of the building, walls and fences shall be such that they will not hinder the reasonable development of adjoining property nor diminish the value thereof.
- (4) The site plan, and its relation to streets, driveways and sidewalks, shall be such as to not interfere with or be hazardous to vehicular and pedestrian traffic.
- (5) The proposed development will be compatible with other uses and buildings in the neighborhood and will not be contrary to the spirit and purpose of this chapter.
- (6) The location, shape and size of required landscaped open space is such as to provide adequate open space for the benefit of the inhabitants of the building and the surrounding neighborhood.

Currently, the site plan does not appear to meet all of the above approval criteria due to screening, landscaping and streetscape elements.

11.0 Recommendation

Based on a review of the site plan submitted, the Planning Division recommends that the Planning Board **POSTPONE** the Final Site Plan and Design Review application for 159 N. Eton with the following conditions:

1. The applicant should revise the site plans to meet the parking lot screening standards set forth in Article 4, Section 4.54, Subsections (A) through (E) of the Zoning Ordinance along the North and East boundaries of the site;
2. The applicant should revise the site plans to meet all rooftop mechanical screening requirements of Article 4, Section 4.54, Subsection (B) (8) of the Zoning Ordinance;
3. The applicant should revise the site plans to include landscaping which meets all requirements in Article 4, Section 4.20, Subsections (D) through (H) of the Zoning Ordinance;
4. Pursuant to Article 4, Section 4.44, Subsection (A) (7) (f), the applicant should revise the site plans to clearly show that all elements of the patio will be constructed on private property within the bounds of the subject parcel;
5. The applicant should submit revised plans showing that the requirements of Article 4, Section 4.90, Subsection (A) (1) will be met on the East façade of the building and that the requirements of Article 4, Section 4.90, Subsection (B) will be met on the North side of the building;
6. The applicant should revise the site plans to include trash receptacles within the outdoor dining area as well as provide material/product specifications for the tables and chairs pursuant to Article 4, Section 4.44, Subsection (A) (1) and (5);
7. The applicant must comply with the requests of all City Departments and
8. The applicant must supply site plans that are stamped and sealed by the architect.

12.0 Sample Motion Language

Motion to **APPROVE** the Final Site Plan & Design Review for 159 N. Eton with the following conditions:

1. The applicant revise the site plans to meet the parking lot screening standards set forth in Article 4, Section 4.54, Subsections (A) through (E) of the Zoning Ordinance along the North and East boundaries of the site;
2. The applicant revise the site plans to meet all rooftop mechanical screening requirements of Article 4, Section 4.54, Subsection (B)(8) of the Zoning Ordinance;
3. The applicant revise the site plans to include landscaping which meets all requirements in Article 4, Section 4.20, Subsections (D) through (H) of the Zoning Ordinance;
4. Pursuant to Article 4, Section 4.44, Subsection (A) (7) (f), the applicant revise the site plans to clearly show that all elements of the patio will be constructed on private property within the bounds of the subject parcel;
5. The applicant submits revised plans showing that the requirements of Article 4, Section 4.90, Subsection (A)(1) will be met on the East façade of the building

and that the requirements of Article 4, Section 4.90, Subsection (B) will be met on the North side of the building;

6. The applicant revise the site plans to include trash receptacles within the outdoor dining area as well as provide material/product specifications for the tables and chairs pursuant to Article 4, Section 4.44, Subsection (A) (1) and (5);
7. The applicant must comply with the requests of all City Departments and
8. The applicant must supply site plans that are stamped and sealed by the architect.

OR

Motion to **POSTPONE** the Final Site Plan & Design Review for 159 N. Eton pending receipt of the following:

1. The applicant must submit revised site plans to meet the parking lot screening standards set forth in Article 4, Section 4.54, Subsections (A) through (E) of the Zoning Ordinance along the North and East boundaries of the site;
2. The applicant must submit revised site plans to meet all rooftop mechanical screening requirements of Article 4, Section 4.54, Subsection (B)(8) of the Zoning Ordinance;
3. The applicant must submit a landscaping plan which meets all requirements in Article 4, Section 4.20, Subsections (D) through (H) of the Zoning Ordinance;
4. Pursuant to Article 4, Section 4.44, Subsection (A) (7) (f), the applicant must submit revised site plans clearly showing that all elements of the patio will be constructed on private property within the bounds of the subject parcel;
5. The applicant must submit revised plans showing that the requirements of Article 4, Section 4.90, Subsection (A)(1) will be met on the East façade of the building and that the requirements of Article 4, Section 4.90, Subsection (B) will be met on the North side of the building;
6. The applicant must revise the site plans to include trash receptacles within the outdoor dining area as well as provide material/product specifications for the tables and chairs pursuant to Article 4, Section 4.44, Subsection (A) (1) and (5);
7. The applicant must comply with the requests of all City Departments and
8. The applicant must supply site plans that are stamped and sealed by the architect.

OR

Motion to **DENY** the Final Site Plan & Design Review for 159 N. Eton for the following reasons:

1. _____
2. _____
3. _____

**Zoning Compliance Summary Sheet
Final Site Plan Review
159 N. Eton**

Existing Site: 10,460 sq. ft.

Zoning: B-1 (Neighborhood Business)

Land Use: Commercial

Existing Land Use and Zoning of Adjacent Properties:

	North	South	East	West
Existing Land Use	Multi-Family	Railroad	Single-Family Residential	Railroad
Existing Zoning District	R7 (Multiple-Family Residential)	PP (Public Property)	R2 (Single-Family Residential)	PP (Public Property)
Overlay Zoning District	N/A	N/A	N/A	N/A

Land Area: Existing: 1.008 ac
Proposed: 1.008 ac

Dwelling Units: Existing: 0 units
Proposed: 0 units

Minimum Lot Area/Unit: Required: N/A
Proposed: N/A

Min. Floor Area /Unit: Required: N/A
Proposed: N/A

Max. Total Floor Area: Required: N/A
Proposed: N/A

Min. Open Space: Required: N/A
Proposed: N/A

Max. Lot Coverage: Required: N/A

	Proposed:	N/A	
Front Setback:	Required:	N/A	
	Proposed:	N/A	
Side Setbacks	Required:	0 ft.	
	Proposed:	0 ft.	
Rear Setback:	Required:	10 feet when the rear open space abuts a P, B1, B2, B2B, B2C, B3, B4, O1, O2 zoning district	
		20 feet when adjacent to a residential zoning district	
	Proposed:	23.5 feet	
Min. Front+Rear Setback	Required:	N/A	
	Proposed:	N/A	
Max. Bldg. Height:	Permitted:	30 feet, 2 stories	
	Proposed:	12 feet, 1 story	
Min. Eave Height:	Required:	N/A	
	Proposed:	N/A	
Floor-Ceiling Height:	Required:	N/A	
	Proposed:	N/A	
Front Entry:	Required:	N/A	
	Proposed:	N/A	
Absence of Bldg. Façade:	Required:	N/A	
	Proposed:	N/A	
Opening Width:	Required:	N/A	
	Proposed:	N/A	
Parking:	Required:	Jet's Pizza	4.5 spaces
		Cannelle	4 spaces
		Eton Salon	8 spaces
		Zack's Alterations	2.5 spaces
		Vacant (Former; Dry Cleaner)	5 spaces
		New Salon (Former; Beauty Room)	10 spaces
		Eton Market	6.25 spaces
		<u>Spa Mariana</u>	<u>10 spaces</u>
		Total Required	51 spaces
	Proposed:	Existing striped parking spaces	67
		(Excluding 2 that will be removed for hardscape patio)	
Min. Parking Space Size:	Required:	180 sq. ft.	

	Proposed:	180 sq. ft.
Parking in Frontage:	Required:	N/A
	Proposed:	N/A
Loading Area:	Required:	1 off-street loading spaces
	Proposed:	1 off-street loading spaces
Screening:		
<u>Parking:</u>	Required:	Side: Along the side or rear line of any parking facility which immediately adjoins the side line of property zoned to a residential district under the Zoning ordinance, provided that the screenwall along the side of a parking facility located in the parking district shall not extend further than the front setback area of the abutting residential district.
	Proposed:	Existing nonconforming, no changes proposed.
<u>Loading:</u>	Required:	Screened from view
	Proposed:	Screened by building
<u>Rooftop Mechanical:</u>	Required:	Screened from view
	Proposed:	Existing nonconforming, no changes proposed.
<u>Elect. Transformer:</u>	Required:	Obscured from public view
	Proposed:	N/A
<u>Dumpster:</u>	Required:	Masonry screen wall with wood gates
	Proposed:	Existing, no changes proposed.

CITY OF BIRMINGHAM
Community Development – Building Department
151 Martin Street, Birmingham, MI 48009

January 18, 2022

RE: Final Site Plan Review Comments
159 N. Eton, Cannelle Proposed Patio

As requested, the Building Department has examined the plans for the proposed project referenced above. The plans were provided to the Planning Department for site plan review purposes only and present conceptual elevations and floor plans. Although the plans lack sufficient detail to perform a code review, the following comments are offered for Planning Design Review purposes and applicant consideration:

Applicable Building Codes:

- **2015 Michigan Building Code.** Applies to all buildings other than those regulated by the *Michigan Residential Code*.
- **2015 Michigan Mechanical Code.** (Residential requirements for mechanical construction in all detached one and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories in height with a separate means of egress and their accessory structures are contained in the Michigan Residential Code)
- **2018 Michigan Plumbing Code.** (Residential requirements for plumbing construction in all detached one and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories in height with a separate means of egress and their accessory structures are contained in the Michigan Residential Code)
- **2017 National Electrical Code along with the Michigan Part 8 Rules.** (Residential requirements for electrical construction in all detached one and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories in height with a separate means of egress and their accessory structures are contained in the Michigan Residential Code)

Review Comments:

1. The stairway leading up from the City sidewalk will require handrails in accordance with Section 1011.11 of the building code.
2. The proposed pass-thru window will likely interfere with pedestrian flow on the City sidewalk.
3. The plans will need to be signed and sealed by the architect.
4. The applicant needs to verify that the minimum number of toilet room facilities will be provided when combining both the indoor and outdoor occupants.



Leah Blizinski <lblizinski@bhamgov.org>

159 N. Eton - FSP & DR - Review and Comment

Mark Clemence <Mclemence@bhamgov.org>
To: Leah Blizinski <lblizinski@bhamgov.org>

Wed, Jan 12, 2022 at 8:56 AM

Ms. Blizinski,
One comment:

1. The proposed new plaza on the east side of the building is adjacent to N. Eton. No barrier protection from the roadway. Potential safety issue.

Chief

Mark H. Clemence
Chief of Police
Birmingham Police Department
151 Martin St.
Birmingham, MI. 48009
248-530-1875



[Quoted text hidden]



Leah Blizinski <lblizinski@bhamgov.org>

159 N. Eton - FSP & DR - Review and Comment

Ryan Weingartz <rweingartz@bhamgov.org>
To: Leah Blizinski <lblizinski@bhamgov.org>

Tue, Jan 18, 2022 at 11:48 AM

No issues from Parking.

On Tue, Jan 11, 2022 at 11:14 AM Leah Blizinski <lblizinski@bhamgov.org> wrote:

[Quoted text hidden]

--

Ryan Weingartz
Parking Systems Manager
City of Birmingham
151 Martin Street
Birmingham, MI 48009
(248) 530-1257



Leah Blizinski <lblizinski@bhamgov.org>

159 N. Eton - FSP & DR - Review and Comment

Carrie Laird <Claird@bhamgov.org>
To: Leah Blizinski <lblizinski@bhamgov.org>

Tue, Jan 18, 2022 at 12:05 PM

Hi Leah,
DPS has no comments. Thank you!

On Tue, Jan 11, 2022 at 11:14 AM Leah Blizinski <lblizinski@bhamgov.org> wrote:
[Quoted text hidden]

--
Carrie A. Laird
Parks & Recreation Manager
[851 S. Eton](#)
[Birmingham, MI 48009](#)
248-530-1714

Important Note to Residents
Let's connect! Join the Citywide Email System to receive important City updates and critical information specific to your neighborhood at www.bhamgov.org/citywideemail.



Final Site Plan & Design Review Application Planning Division

Form will not be processed until it is completely filled out.

1. Applicant

Name: Connelle Polissorie - Matt Krio and Garen Demirjian

Address: 159 North Eton, Birmingham, MI 48009

Phone Number: (Mail) 313.418.0131 - (Garen) 248.891.4203

Fax Number: _____

Email address: (Mail) - mailkrio@hotmail.com - (Garen) - beykoz1980@aol.com

3. Applicant's Attorney/Contact Person

Name: Contact Person - Same as Applicant

Address: _____

Phone Number: _____

Fax Number: _____

Email address: _____

2. Property Owner

Name: David Fisher, Besch Escape, LLC

Address: 23500 Silverwood Ave., Warren, MI 48091

Phone Number: 586-530-4766

Fax Number: 586-755-8701

Email address: dfisher@wicometal.com

4. Project Designer/Developer

Name: _____

Address: _____

Phone Number: _____

Fax Number: _____

Email address: _____

5. Required Attachments

- I. Two (2) paper copies and one (1) digital copy of all project plans including:

- A detailed Existing Conditions Plan including the subject site in its entirety, including all property lines, buildings, structures, curb cuts, sidewalks, drives, ramps and all parking on site and on the street(s) adjacent to the site, and must show the same detail for all adjacent properties within 200 ft. of the subject sites property lines;
- A detailed and scaled Site Plan depicting accurately and in detail the proposed construction, alteration or repair;
- A certified Land Survey;
- Interior floor plans;

- A Landscape Plan;
- A Photometric Plan;
- Colored elevation drawings for each building elevation;

- Specification sheets for all proposed materials, light fixtures and mechanical equipment;
- Samples of all proposed materials;
- Photographs of existing conditions on the site including all structures, parking areas, landscaping and adjacent structures;
- Current aerial photographs of the site and surrounding properties;
- Warranty Deed, or Consent of Property Owner if applicant is not the owner;
- Any other data requested by the Planning Board, Planning Department, or other City Departments.

6. Project Information

Address/Location of the property: _____

159 North Eton St., Birmingham, MI 48009

Name of development: N/A

Sidwell #: 20-30-379-043

Current Use: Subject area is currently 2-surface parking spaces

Proposed Use: Outdoor Patio

Area of Site in Acres: 1.008

Current zoning: B-1 (Neighborhood Business)

Is the property located in the floodplain? No

Name of Historic District Site is Located in: N/A

Date of Historic District Commission Approval: N/A

Date of Application for Preliminary Site Plan: N/A

Date of Preliminary Site Plan Approval: N/A

Date of Application for Final Site Plan: 12/21

Date of Final Site Plan Approval: TBD

Date of Application for Revised Final Site Plan: TBD

Date of Revised Final Site Plan Approval: TBD

Date of Design Review Board Approval: N/A

Will proposed project require the division of platted lots? _____

No

Will proposed project require the combination of platted lots? _____

No

7. Details of the Proposed Development (attach separate sheet if necessary)

In the year 2013, the City of Birmingham administratively approved creating an outdoor dining area in the parking lot adjacent to Canelle Bakery (eliminating 2-parking spaces).

This application proposes to shift the currently approved outdoor dining area to the east, engaged with the pedestrian sidewalk.

The design of the patio is to make it more permanent with a concrete slab, perimeter brick piers and guardrail, fabric canopy above.

8. Buildings and Structures

Number of Buildings on Site: 2

Height of Buildings & # of Stories: 16 feet, 1-Story

Use of Buildings: Bakeries, Hair Salons, Tailor, Retail, Grocery Store

Height of Rooftop Mechanical Equipment: N/A

9. Floor Use and Area (in Square Feet)

Proposed Commercial Structures:

Total basement floor area: N/A

Number of square feet per upper floor: N/A

Total floor area: 342 SF (Patio Area)

Floor area ratio (total floor area ÷ total land area): N/A

Open space: N/A

Percent of open space: N/A

Office Space:

Retail Space:

Industrial Space:

Assembly Space:

Seating Capacity: 24 Outdoor Seating

Maximum Occupancy Load:

Proposed Residential Structures:

Total number of units: N/A

Number of one bedroom units:

Number of two bedroom units:

Number of three bedroom units:

Open space:

Percent of open space:

Rental units or condominiums?

Size of one bedroom units:

Size of two bedroom units:

Size of three bedroom units:

Seating Capacity:

Maximum Occupancy Load:

Proposed Additions:

Total basement floor area, if any, of addition: N/A

Number of floors to be added:

Square footage added per floor:

Total building floor area (including addition):

Floor area ratio (total floor area ÷ total land area):

Open Space:

Percent of open space:

Use of addition:

Height of addition:

Office space in addition:

Retail space in addition:

Industrial space in addition:

Assembly space in addition:

Maximum building occupancy load (including addition):

10. Required and Proposed Setbacks

Required front setback: N/A

Required rear setback:

Required total side setback:

Side setback:

Proposed front setback:

Proposed rear setback:

Proposed total side setback:

Second side setback:

11. Required and Proposed Parking

Required number of parking spaces: 53

Typical angle of parking spaces:

Typical width of maneuvering lanes:

Location of parking on site:

Location of parking off site:

Number of light standards in parking area:

Screenwall material:

Proposed number of parking spaces: 67 striped (more could be added)

Typical size of parking spaces:

Number of spaces <180 sq. ft.:

Number of handicap spaces:

Shared parking agreement?

Height of light standards in parking area:

Height of screenwall:

12. Landscaping

Location of landscape areas: 3-sides of the proposed patio

Proposed landscape material: Green Gem Boxwoods, Picea canadensis

13. Streetscape

Sidewalk width: N/A

Number of benches: 2

Number of planters:

Number of existing street trees:

Number of proposed street trees:

Streetscape Plan submitted?

Description of benches or planters:

Painted black, similar to City of Birmingham standards

Species of existing trees:

Species of proposed trees:

14. Loading

Required number of loading spaces: N/A

Typical angle of loading spaces:

Screenwall material:

Location of loading spaces on site:

Proposed number of loading spaces:

Typical size of loading spaces:

Height of screenwall:

Typical time loading spaces are used:

15. Exterior Waste Receptacles

Required number of waste receptacles: 1

Location of waste receptacles: 1 at street plaza, 1 at north side of building

Screenwall material:

Proposed number of waste receptacles: 2

Size of waste receptacles: 42" high

Height of screenwall:

16. Mechanical Equipment

Utilities and Transformers:

Number of ground mounted transformers: N/A

Size of transformers (L•W•H):

Number of utility easements:

Screenwall material:

Location of all utilities & easements:

Height of screenwall:

Ground Mounted Mechanical Equipment:

Number of ground mounted units: N/A

Size of ground mounted units (L•W•H):

Screenwall material:

Location of all ground mounted units:

Height of screenwall:

Rooftop Mechanical Equipment:

Number of rooftop units: N/A

Type of rooftop units:

Screenwall material:

Location of screenwall:

Location of all rooftop units:

Size of rooftop units (L•W•H):

Percentage of rooftop covered by mechanical units:

Height of screenwall:

Distance from rooftop units to all screenwalls:

17. Accessory Buildings

Number of accessory buildings: N/A

Location of accessory buildings:

Size of accessory buildings:

Height of accessory buildings:

18. Building Lighting

Number of light standards on building: N/A

Size of light fixtures (L•W•H):

Type of light standards on building:

Height from grade:

Maximum wattage per fixture: _____
Light level at each property line: _____

19. Site Lighting

Number of light fixtures: N/A
Size of light fixtures (L•W•H): _____
Maximum wattage per fixture: _____
Light level at each property line: _____

20. Adjacent Properties

Number of properties within 200 ft.: 5

Property #1

Number of buildings on site: Apartment Building
Zoning district: R-8 Multi-Family Residential
Use type: _____
Square footage of principal building: _____
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property #2

Number of buildings on site: Single-Family Residence
Zoning district: R-2 Single Family Residential
Use type: _____
Square footage of principal building: _____
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property #3

Number of buildings on site: Single-Family Residence
Zoning district: R-2 Single Family Residential
Use type: _____
Square footage of principal building: _____
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property #4

Number of buildings on site: Single-Family Residence
Zoning district: R-2 Single Family Residential
Use type: _____
Square footage of principal building: _____
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property #5

Number of buildings on site: Apartment Building
Zoning district: R-7 Multi-Family Residential
Use type: _____
Square footage of principal building: _____
Square footage of accessory buildings: _____
Number of parking spaces: _____

Property #6

Number of buildings on site: N/A
Zoning district: _____
Use type: _____
Square footage of principal building: _____
Square footage of accessory buildings: _____
Number of parking spaces: _____

Proposed wattage per fixture: _____

Type of light fixtures: _____
Height from grade: _____
Proposed wattage per fixture: _____
Holiday tree lighting receptacles: _____

Property Description: _____

North, south, east or west of property? South-East

Property Description: _____

North, south, east or west of property? East

Property Description: _____

North, south, east or west of property? East

Property Description: _____

North, south, east or west of property? East

Property Description: _____

North, south, east or west of property? North

Property Description: _____

North, south, east or west of property? _____

The undersigned states the above information is true and correct, and understands that it is the responsibility of the applicant to advise the Planning Division and / or Building Division of any additional changes made to an approved site plan. The undersigned further states that they have reviewed the procedures and guidelines for Site Plan Review in Birmingham, and have complied with same. The undersigned will be in attendance at the Planning Board meeting when this application will be discussed.

By providing your e-mail to the City, you agree to receive news notifications from the City. If you do not wish to receive these messages, you may unsubscribe at any time.

Signature of Owner: X . [Signature] Date: 12-16-2021

Print Name: X GAREN DEMIRYAN

Signature of Applicant: SAME AS APPLICANT Date: _____

Print Name: _____

Signature of Architect: N/A Date: _____

Print Name: _____

Office Use Only

Application #: _____ Date Received: _____ Fee: _____

Date of Approval: _____ Date of Denial: _____ Accepted by: _____



December 8, 2021

To Whom it May Concern,

I have been apprised of Cannelle's intentions to improve their outdoor seating at 153-159 N. Eton.

I support their request for site plan approval for the proposed outdoor Patio.

David Fisher, MBR / owner
Beach Escape, LLC

Cannelle

B I R M I N G H A M

P E M B R O K E N E I G H B O R H O O D



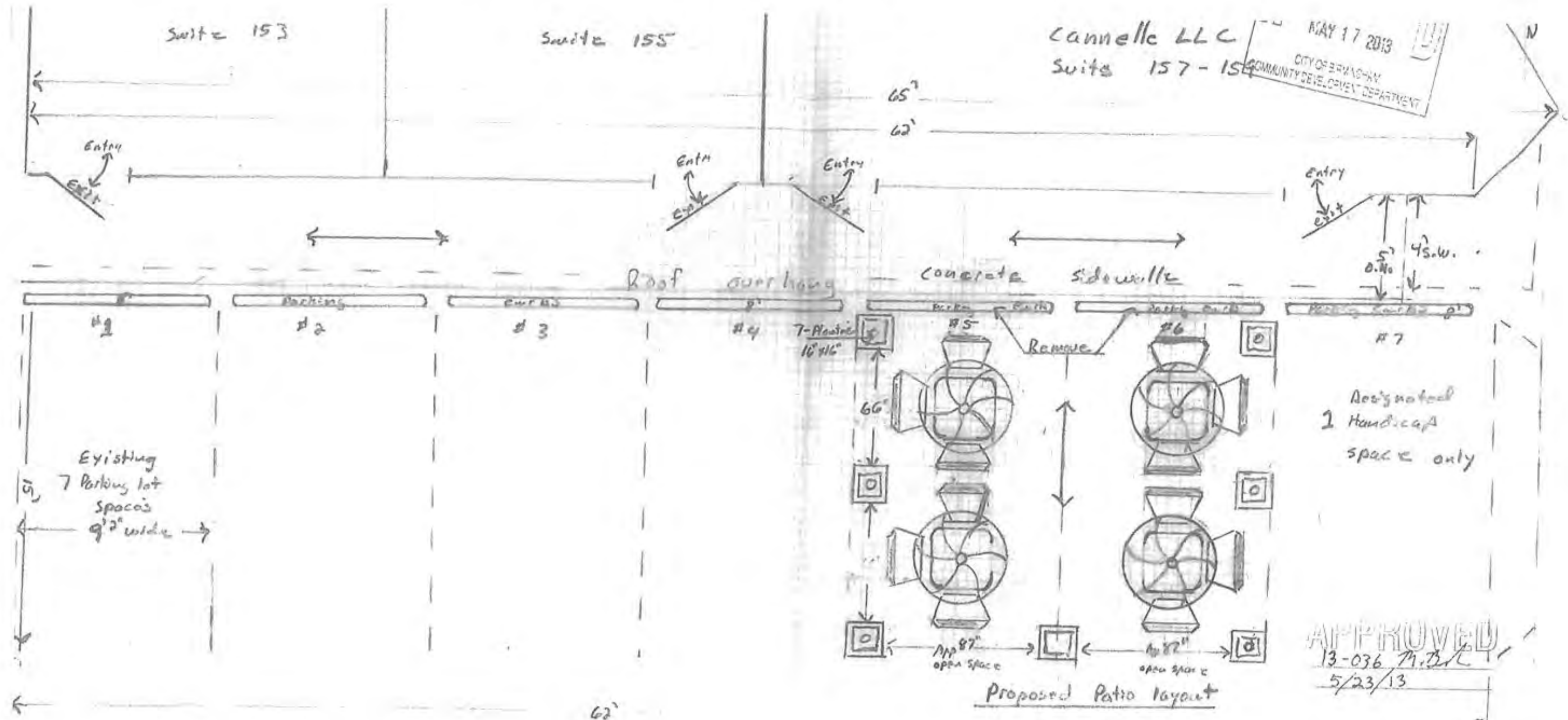
SITE PLAN APPROVAL PRESENTATION (12.15.2021)

NORTH ETON CENTER – SUBJECT SITE

Subject Area



OUTDOOR DINING PATIO – CITY OF BIRMINGHAM APPROVED (2013)



APPROVED
13-036 M.B.C.
5/23/13

- Outside Patio Space Requirements
1. 2' x 5' x 6' Parking carls
 2. Designated 2 spaces for patio. Arrange them at 18'5" x 15'0" approx.
 3. Install 7' Planters on perimeter to limit access to seating area.
 4.

Patio as lot

South Parking lot Ext only to Stone St

PATIO – SEPTEMBER, 2021



OUTDOOR DINING – PROPOSED IMPROVEMENTS

Subject Area



OUTDOOR DINING – PROPOSED IMPROVEMENTS



OUTDOOR DINING – PROPOSED IMPROVEMENTS



FURNITURE – REUSE OF EXISTING

Sun Sail Canopy
XXXXXX



Tables and Chairs
XXXXXX



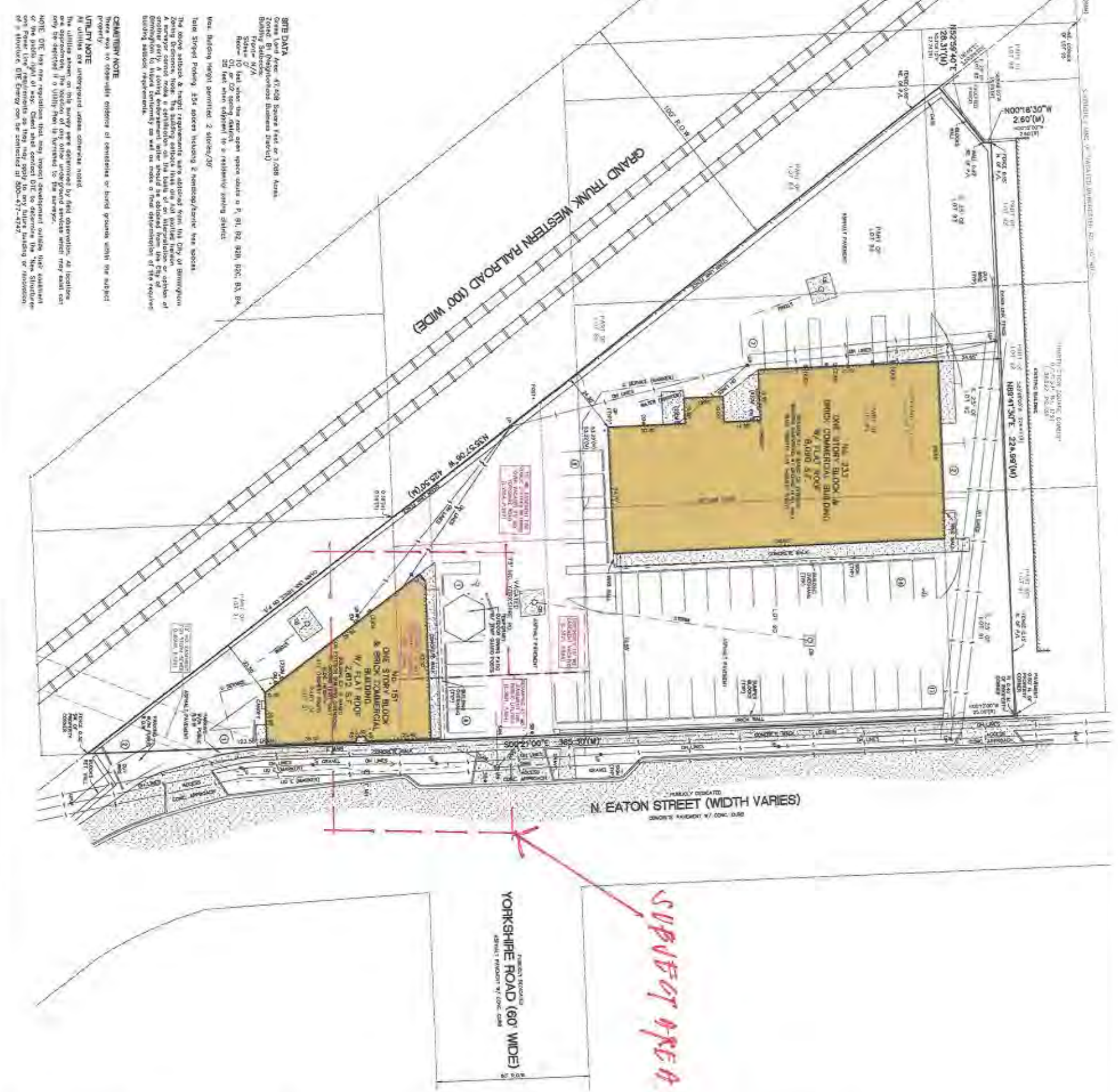
Bench
XXXXXX



Guardrail
XXXXXX

Trash Receptacle
XXXXXX





Michigan Department of Transportation
Land Division in the City of Birmingham, County of Oakland, State of Michigan.
Revised 03/07

[illegible]

BASIS OF BEARING NOTE
The basis of bearing for this survey was established by the diurnal magnetic declination (11).

TITLE NOTES
2. Rights or claims in invention are shown for the Public Record.

7. Evidence of some easements not shown by the Public Records.

Lundbeck Acton, as alleged by testimony recorded in Case 45336, page 35 [THE LOCATION OF THE FASTENING PRESETS DESCRIBED AS BEING TO ON EACH OF THE GRAYBELS TELECOMMUNICATIONS CABLE SYSTEMS] IS NOT KNOWN AND

THE DUNNITH AGENTS AND PARCEL ID NUMBER OF THE SUBJECT LAND ARE NOT LISTED WITHIN SAID DOCUMENT. CLIENT SHOULD OBTAIN A LEGAL OPINION IF SAID DOCUMENT AFFECTS THE PROPERTY AND CONTACT THE APPLICABLE UTILITY COMPANY FOR THE LOCATION OF THE UTILITY.

11. Terms and Conditions contained in Amendment to Amended Chapter with the exception of the last sentence of Paragraph 11.1, and Paragraphs 11.2 through 11.4, are hereby incorporated by reference into this Agreement, as disclosed by instrument recorded in Liber 4220, page 187.

12. Exemptions for public utilities over that portion of specified street included in the assessment are disclosed in footnotes provided in Lines 21A, 22A, 22B, 22C and 22D.

13. **Maintenance of Agreement** for storm sewer by force of the City of Birmingham and the Councils, Consistent and Restrictions contained in Instrument recorded under Alabama State 99-1680 shall remain in full force and effect until the City of Birmingham agree to pay the cost of maintenance and repair.

14. Rights of the railroad company, serving the railroad siding located on Tarran identified in and to the fees and other properties constituting the railroad in, and to the use thereof and other rights of others therein entitled to, and

15. Right of removal, if any, under any executed lease

FOOD HAZARD NOTE
This enzyme does not fit within a General Food Hazard

2012/03/23/ with an effective date of 08-28-2008.

16) There was no discernible evidence of current termite mating work, burrowing, re-colonisation, or building additions observed in the process of conducting the

17. There was no observable evidence of recent street or sidewalk construction repairs observed in the process of conducting the surveys.

THE UNIVERSITY OF CHICAGO

Decon Europe LLC
Carmelita Bona
Tilia Agency, Inc.

This is to certify that this map or plot and the survey to which it is annexed were in accordance with the 20th Meridian Standard Station Requirements for ALTA/NSIS and Title Survey, hereby constituted and certified by ALTA and NSIS, and Incumbent.

The field work was completed in (02-05-2023).

NAVALGOL
License No:
4001063503

10



50th
NF
Engineering
1969-2019

46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL: (248) 332-7934
FAX: (248) 332-8257
WWW.NOWAKFRAUDS.COM

PROJECT
JEFF'S PIZZA &
LETON MARKET
PROJECT LOCATION:
No. 151-223
N. Elton Street
Part of the SW 1/4 of
Section 30, T.2N., R.11E.,
City of Birmingham,
Oakland County, MI

NEWSKONS
02-22-2021 Item Confirmed
03-07-2025 Item per Rev. Amendment
08-10-2027 Item, Item, Phase and Civil

DRAWN BY
A.G.

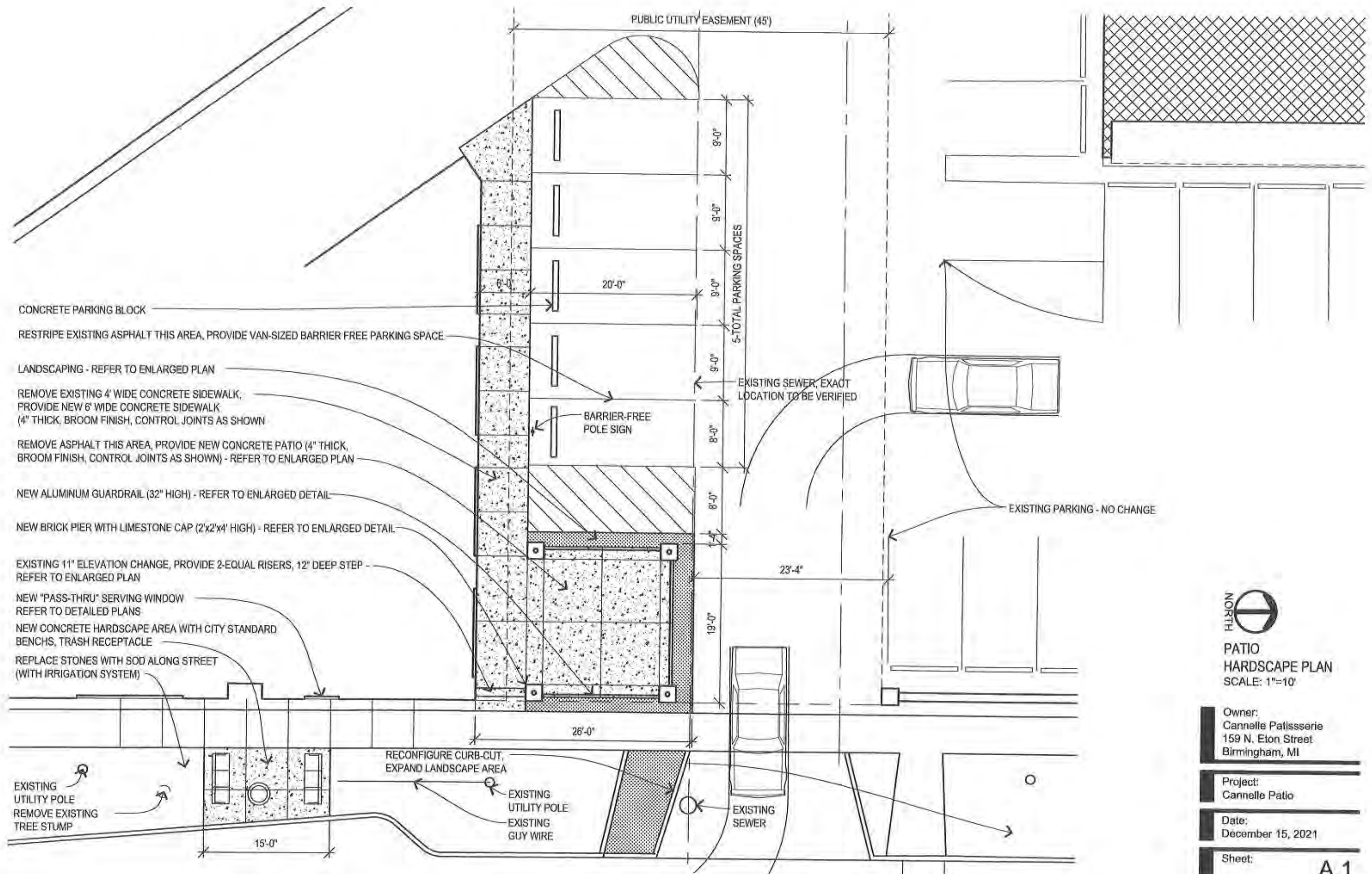
APPROVED BY
K.N.R.FRAUS

ITAMT
#16416@the-cvrg.com

DATE ISSUED
02-10-2021

SCALE
1"=20'

NAT. JOB NO. SURVEY NO.
M197 1 of 1



**PATIO
HARDSCAPE PLAN**
SCALE: 1"=10'

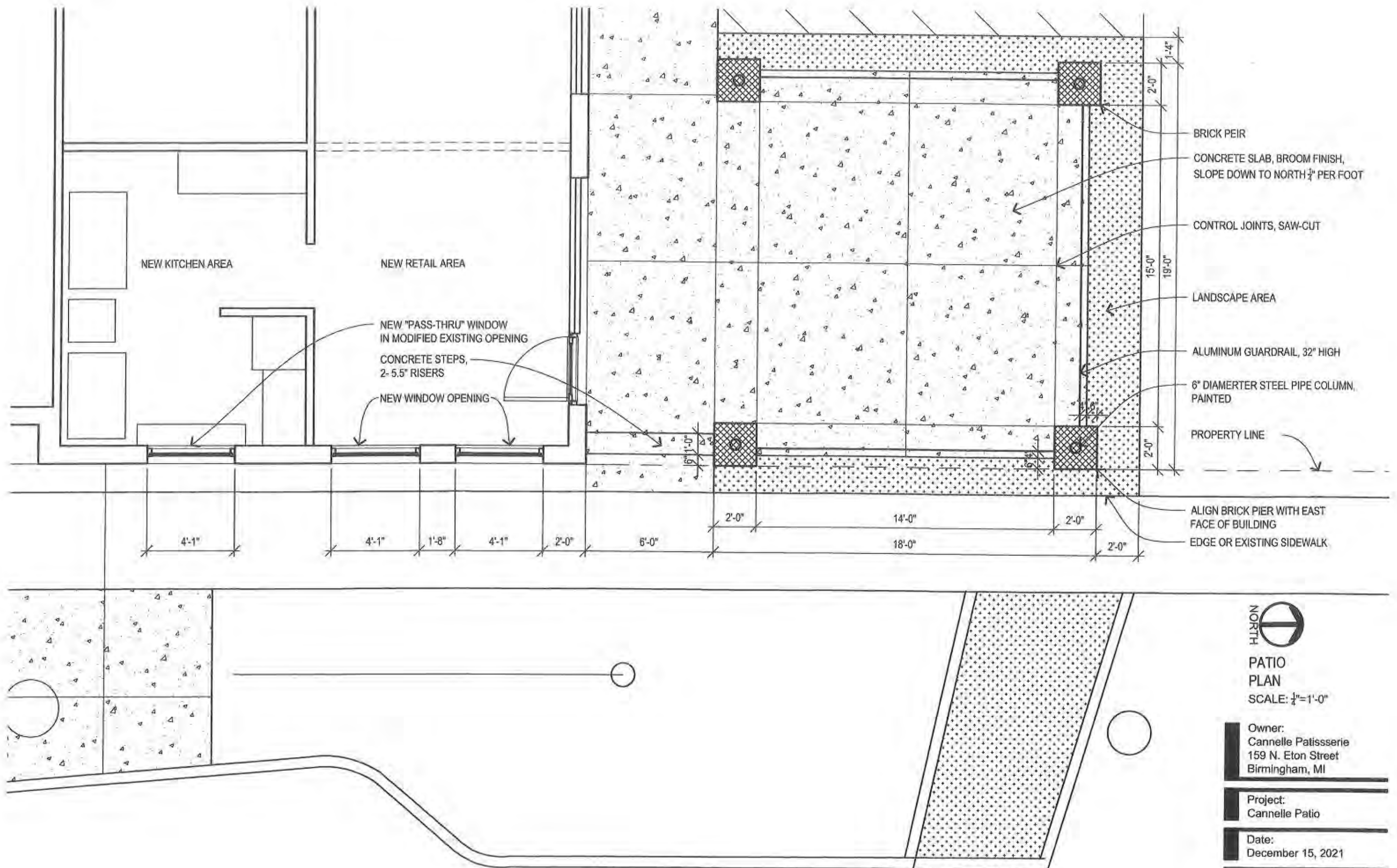
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Cannelle Patisserie
159 N. Eton Street
Birmingham, MI

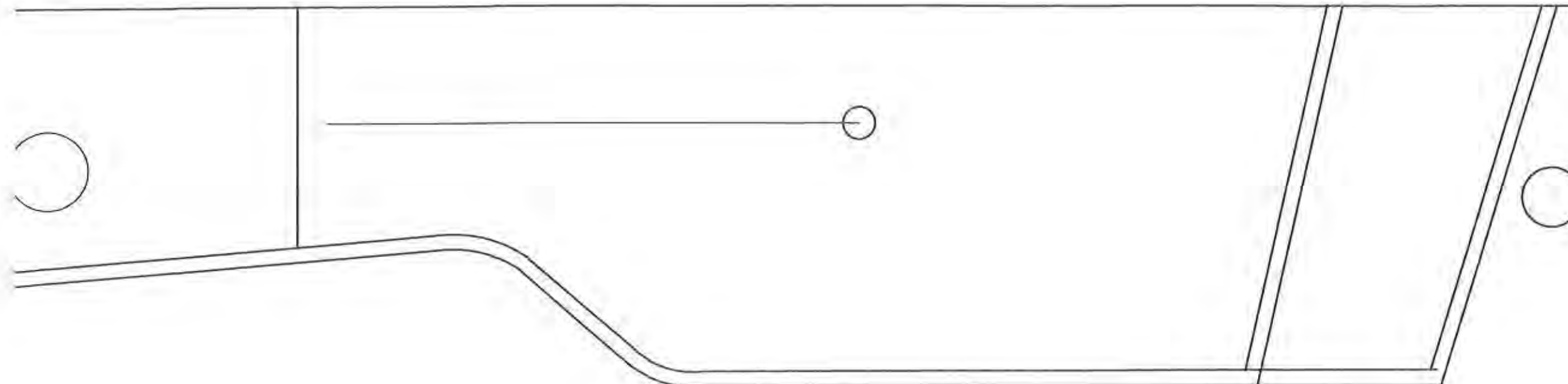
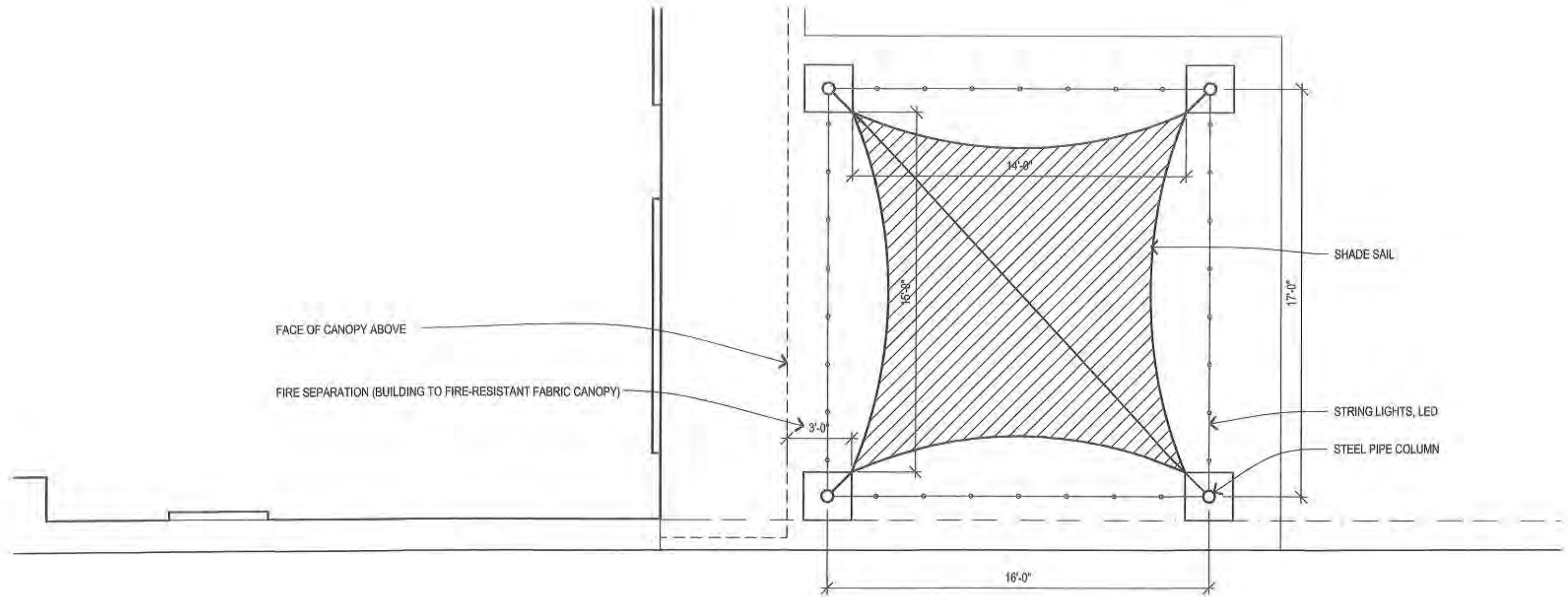
Project:
Cannelle Patio

Date:
December 15, 2021

Sheet:

A.1





PATIO CANOPY
PLAN
SCALE: $\frac{1}{4}" = 1'-0"$

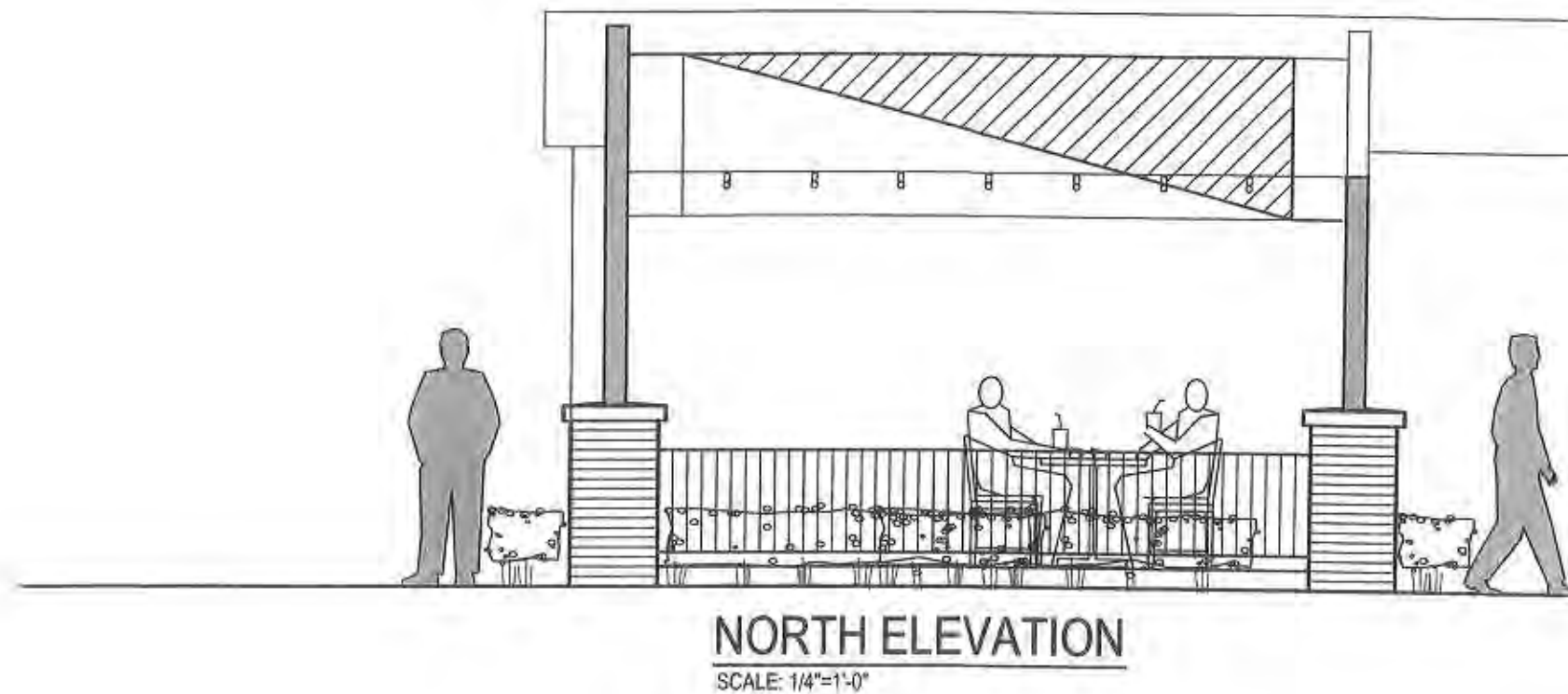
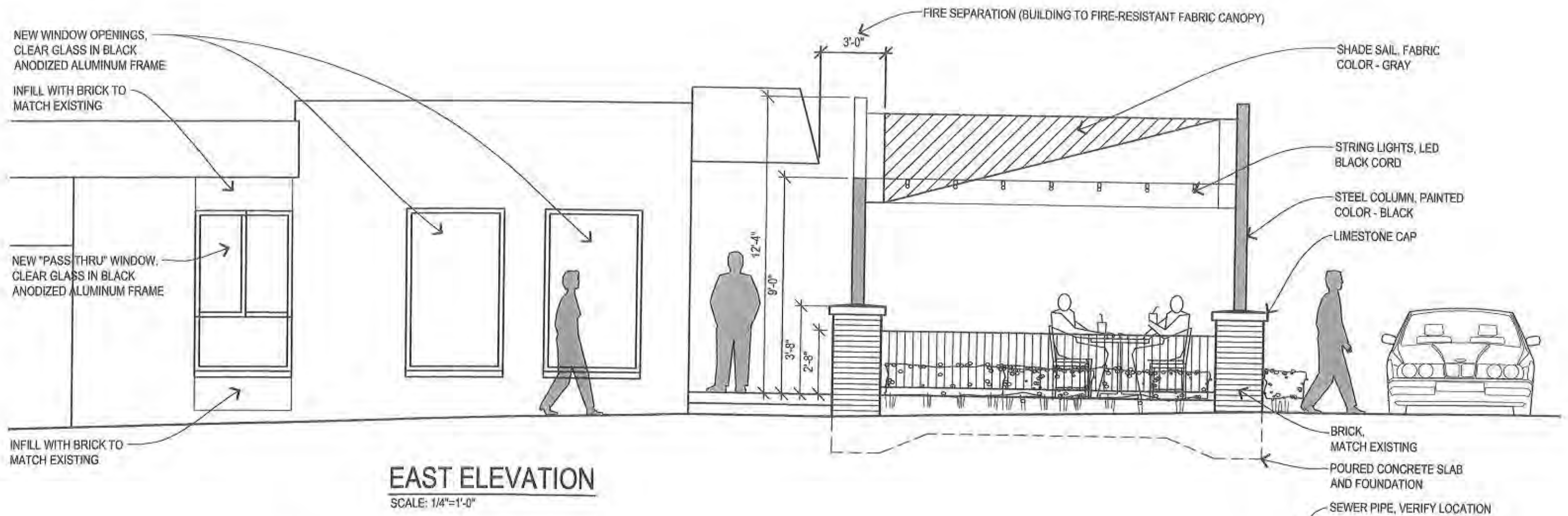
Owner:
Cannelle Patisserie
159 N. Eton Street
Birmingham, MI

Project:
Cannelle Patio

Date:
December 15, 2021

Sheet:

A.3



PATIO ELEVATION SCALE: 3/4"=1'-0"

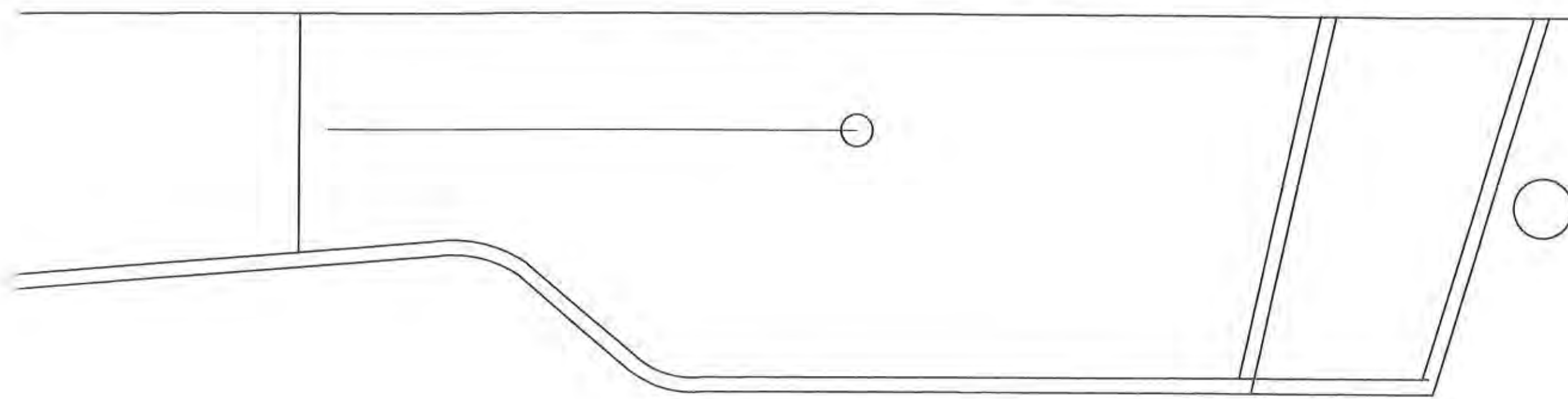
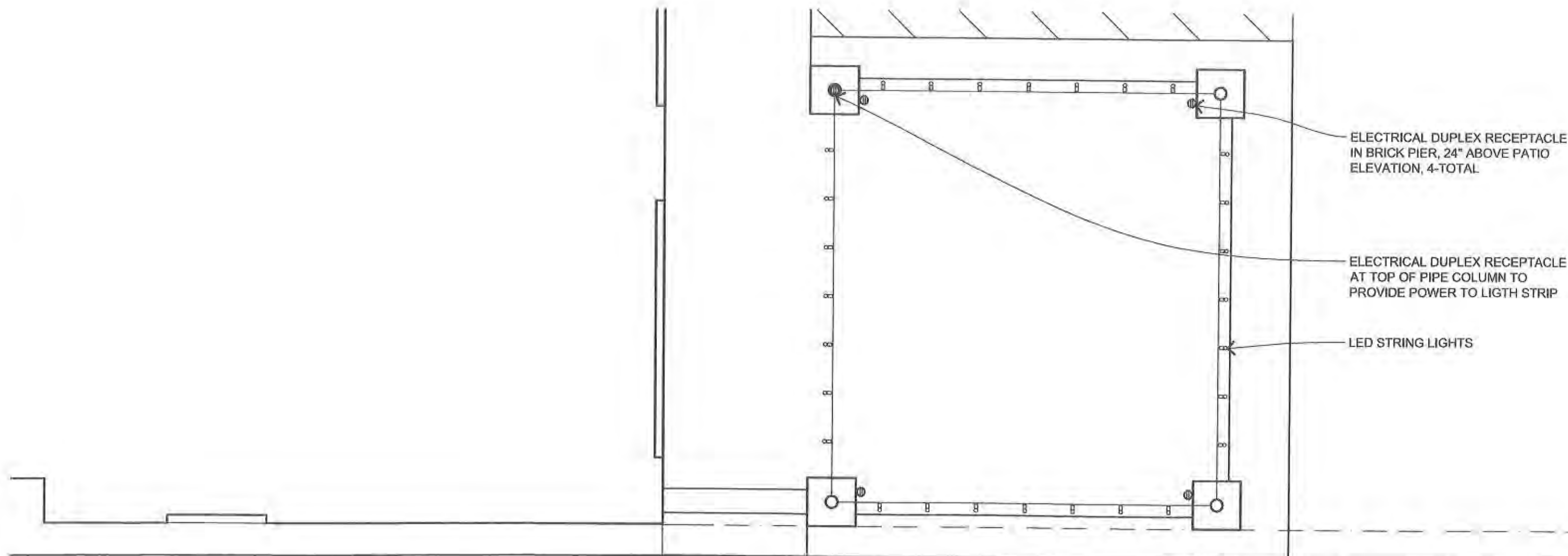
Owner:
Cannelle Patisserie
159 N. Eton Street
Birmingham, MI

Project:
Cannelle Patio

Date:
December 15, 2021

Sheet:

A.4



PATIO
ELECTRICAL PLAN
SCALE: $\frac{1}{4}"=1'-0"$

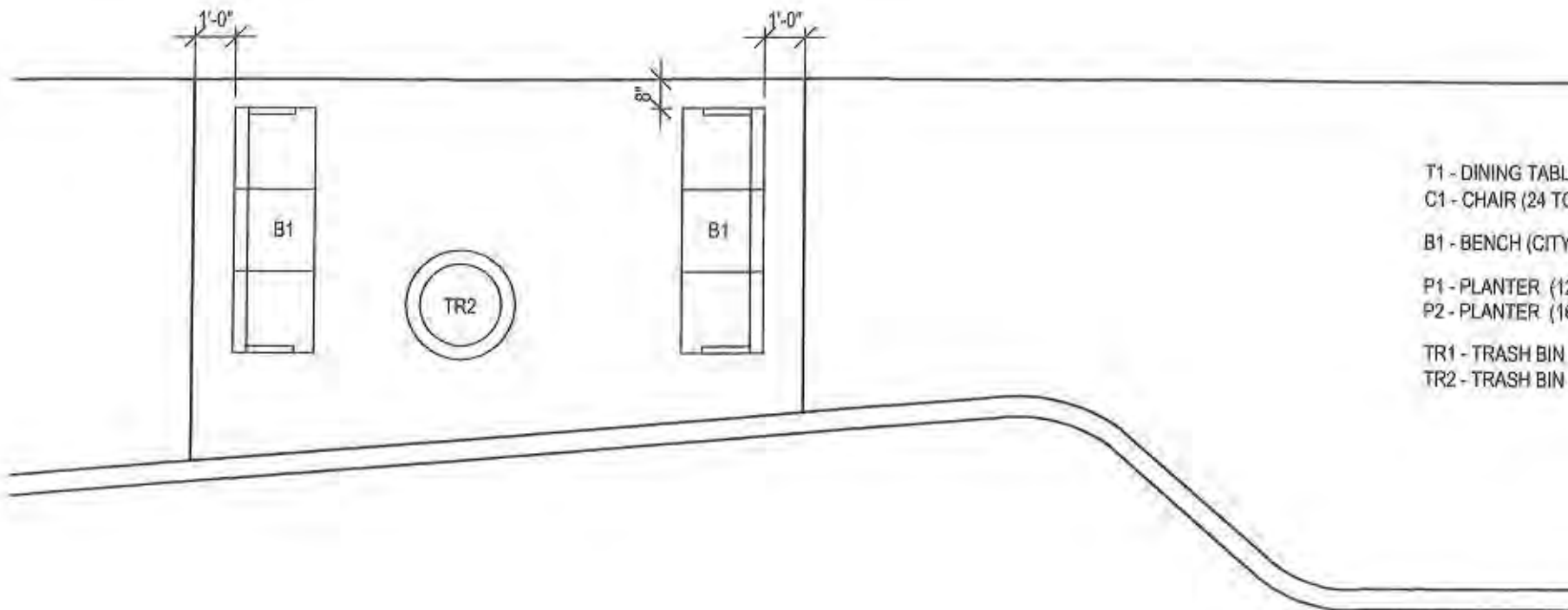
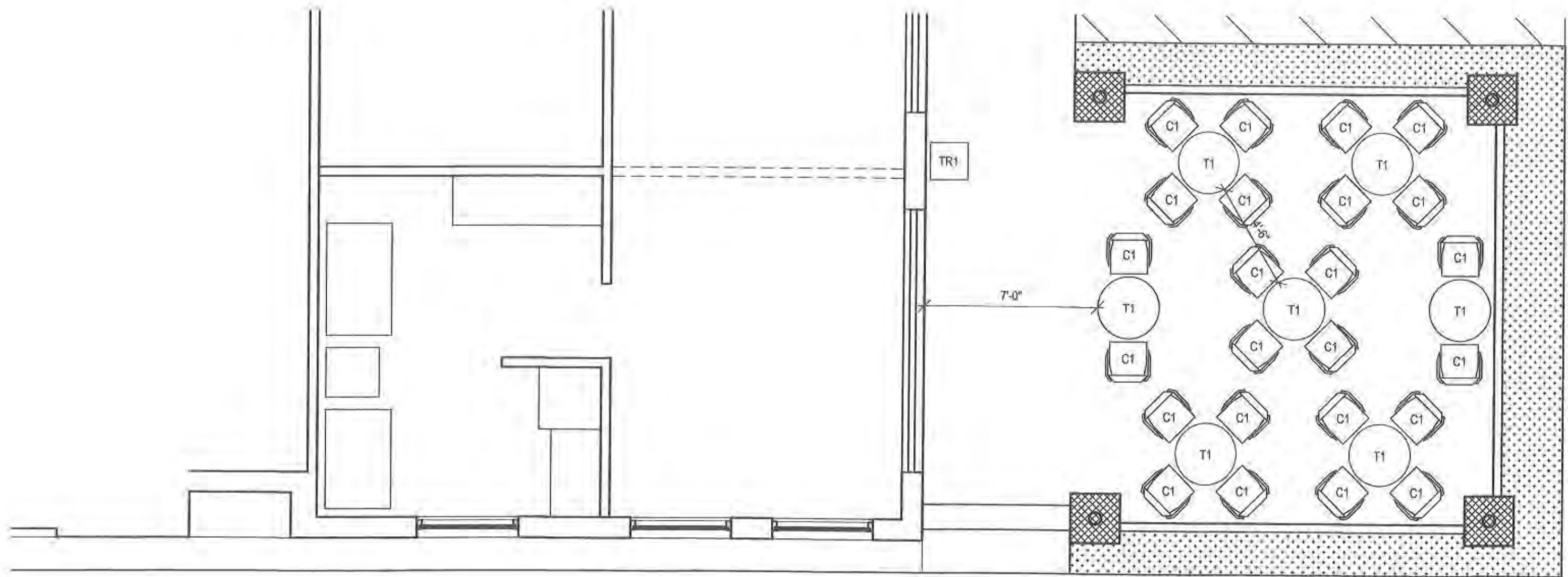
Owner:
Cannelle Patisserie
159 N. Eton Street
Birmingham, MI

Project:
Cannelle Patio

Date:
December 15, 2021

Sheet:

E.1



- T1 - DINING TABLE, 30" DIAMETER, 44" HIGH, WOOD TOP, METAL BASE (7-TOTAL)
 C1 - CHAIR (24 TOTAL)
 B1 - BENCH (CITY OF BIRMINGHAM STANDARD, COLOR BLACK)
 P1 - PLANTER (12" DIA., 10" HIGH, BLACK FIBERGLASS)
 P2 - PLANTER (16" SQUARE, 39" HIGH, BLACK FIBERGLASS)
 TR1 - TRASH BIN (18" SQUARE, 39" HIGH, BLACK FIBERGLASS)
 TR2 - TRASH BIN (BIRMINGHAM CITY STANDARD)



FURNITURE PLAN

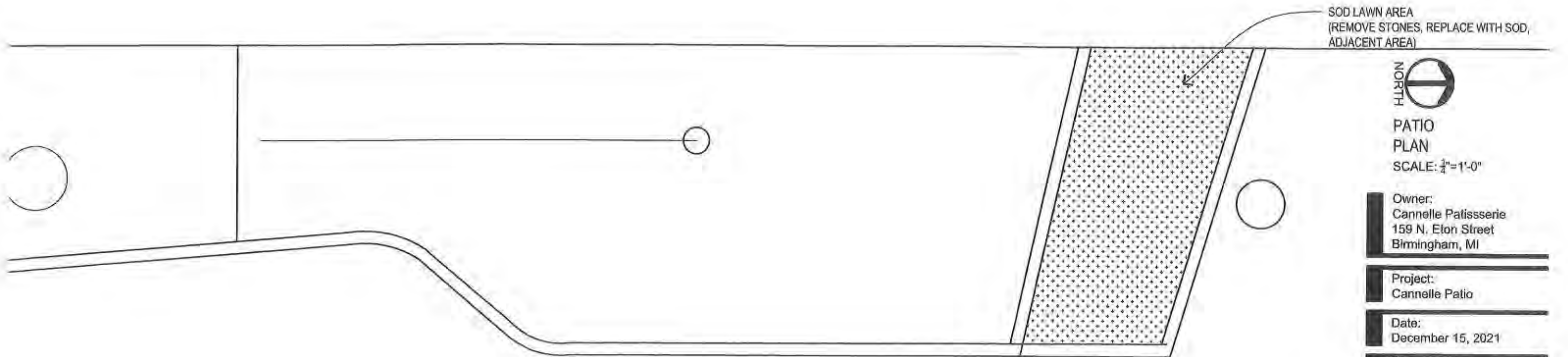
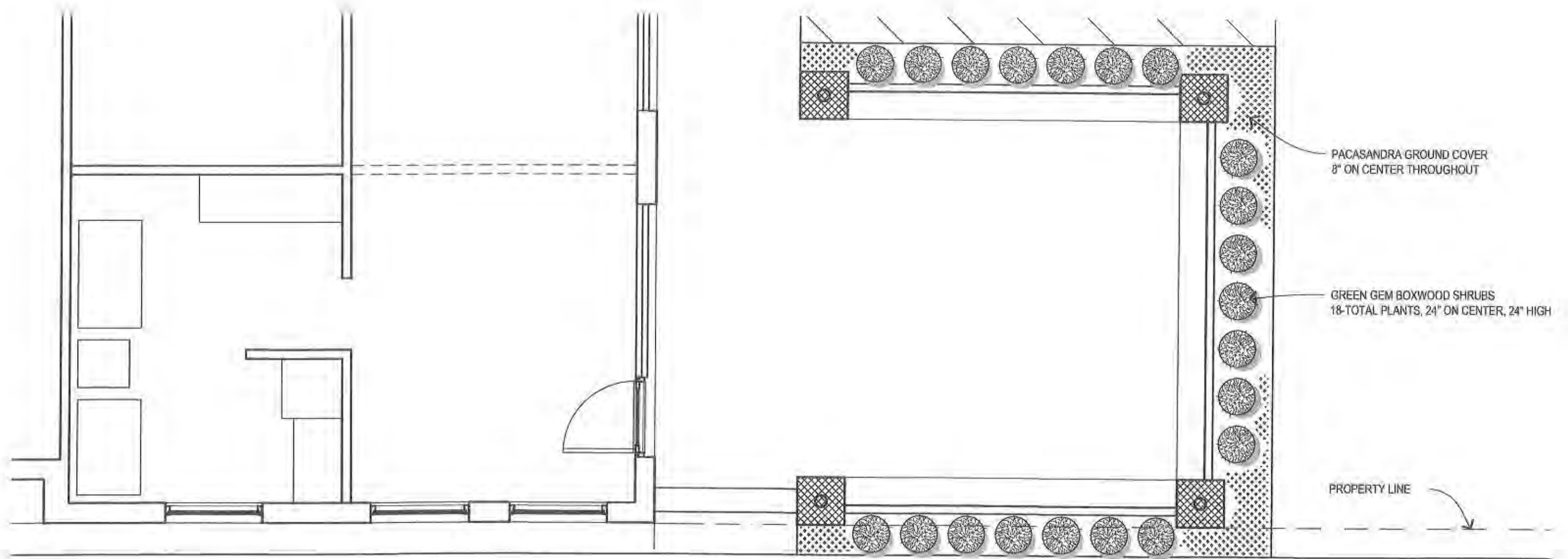
SCALE: $\frac{3}{4}$ "=1'-0"

Owner:
 Cannelle Patisserie
 159 N. Elton Street
 Birmingham, MI

Project:
 Cannelle Patio

Date:
 December 15, 2021

Sheet: **F.1**



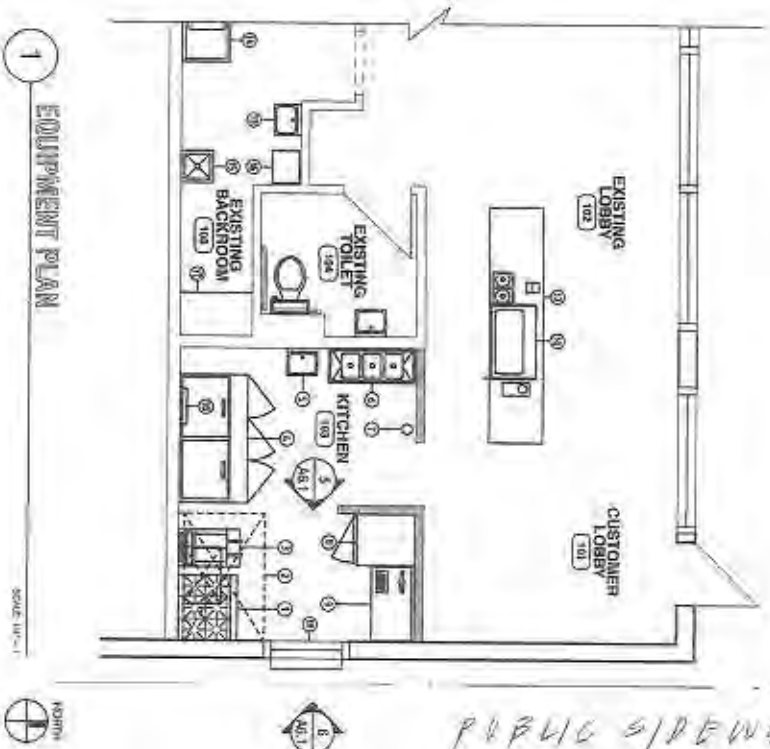
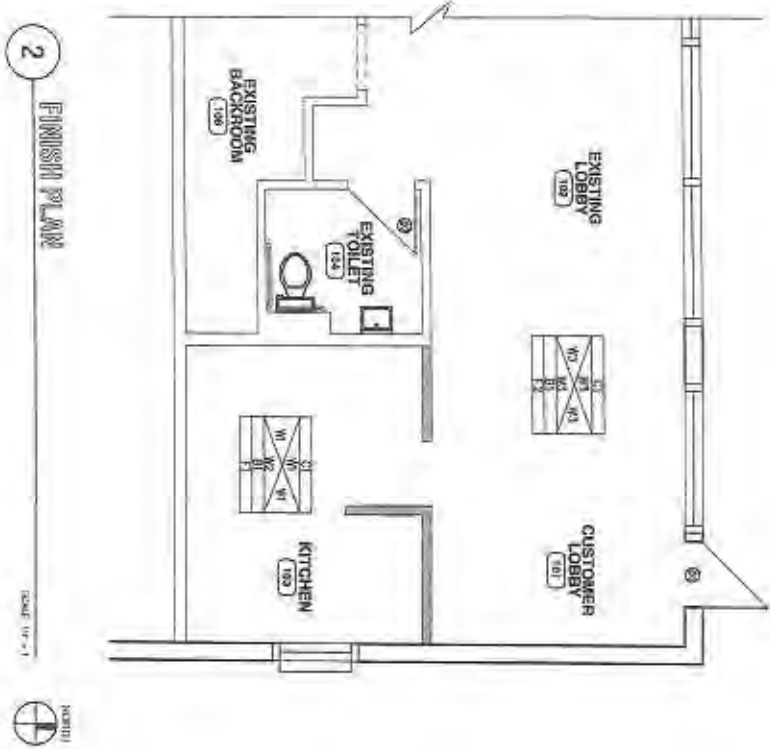
PATIO
PLAN
SCALE: $\frac{3}{4}$ "=1'-0"

Owner:
Cannelle Patisserie
159 N. Eton Street
Birmingham, MI

Project:
Cannelle Patio

Date:
December 15, 2021

Sheet: L.1



FLOOR PLAN
(EXPANDED CANNELLE
TENNIS SPACE)

PROPOSED PARTO
PROPERTY LINE
PUBLIC SIDEWALK

FINISH SCHEDULE	
EXISTING WALL - TORONIAN SET ASSEMBLY FINISH	
NEW WALL SET ASSEMBLY FINISH	
EXISTING FLOOR & FLOOR - TORONIAN SET DOOR SCHEDULE	
NEW DOOR	
SEE LOBBY SCHEDULE	

FINISH SCHEDULE	
SEE SHEET A1.1 FOR FINISH SCHEDULE	

EQUIPMENT SCHEDULE & KEY NOTES	
EXISTING EQUIPMENT / FURNITURE	
NEW EQUIPMENT / FURNITURE	
CONTRACTOR PROVIDED	
OWNER PROVIDED	
CONT. PROVIDED	
1. 1/2" X 1/2" X 1/2" KITCHEN HOOD	
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100. 1/2" X 1/2" KITCHEN HOOD	

FINISH SCHEDULE	
EXISTING WALL - TORONIAN SET ASSEMBLY FINISH	
NEW WALL SET ASSEMBLY FINISH	
EXISTING FLOOR & FLOOR - TORONIAN SET DOOR SCHEDULE	
NEW DOOR	
SEE LOBBY SCHEDULE	

3300 AUBURN RD, SUITE 300
AUBURN HILLS, MI 48326
T:248.601.4422 F:248.453.5954
WWW.DESIGNHAUS.COM
INFO@DESIGNHAUS.COM

DESIGNHAUS

ARCHITECTURE

EST 1998

Equipment & Interior Finish Plan

02/103

A1.2

Cannelle Bakery Addition

150 N. Eison St.
Birmingham, MI 48009

Project

02/103

Revised/Issued

Date



Nicholas Dupuis <ndupuis@bhamgov.org>

Planning Board Comment

Patti Shayne <pattishayne@gmail.com>

Fri, Jan 14, 2022 at 2:27 PM

To: Nick Dupuis City Bham <ndupuis@bhamgov.org>

Nick,
Again, thank you for taking my call.

Here are a few suggestions for the planning board.

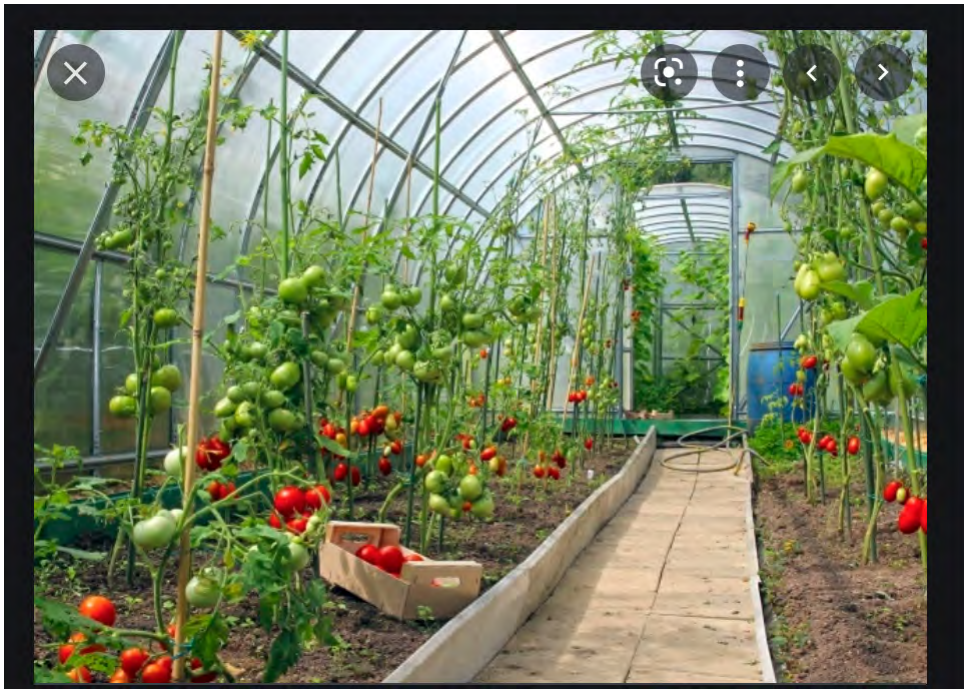
1. To add vines or greenery to the new [Schechter building](#).

The massive brick exterior does not match or enhance the beauty of the surrounding buildings such as the Schechter wealth building, and our City Hall.

The building is a detractor from the beauty of our downtown and city.

2. In the winter, add a temporary structure to a few parks, that allows residents to go inside a facility to relax in the Winter. The structure could be a similar set up as the outdoor ice skating rink. Put up in January and taken down in April.

I've attached a few photos as ideas that can be modified. Basically, it could be similar to the "igloo" idea, with a few benches. Similar to a "warming hut" but we could get creative with the space to make us feel we are enjoying the outdoors while we have a bit of shelter. Patti Shayne, 662 Purdy.





[Quoted text hidden]



APPROVED

12/7/21

PAA21-0134

conditions:

• only perm. Heal 11/15-3/31 each year

• subject to Fire Dept. Request

Administrative Approval Application Planning Division

Form will not be processed until it is completely filled out.

1. Applicant

Name: Adachi Restaurant Group, LLC
Address: 325 S. Old Woodward

Phone Number: 248 540-5900

Email: Clint@marrowcompanies.com

2. Property Owner

Name: 325 S. Old Woodward, LLC / Clint Marrow
Address: 330 Hamilton Road Ste 300

Birmingham, AL 35209

Phone Number: 248 882-7777

Email: Clint@marrowcompanies.com

3. Project Contact Person

Name: Blake George
Address: 925 Maple Rd

Birmingham, AL 35209

Phone Number: 248 763-5700

Email: Blake@bmbmedia.co.com

4. Project Designer/Developer

Name: Blake George
Address: -- --

Phone Number: -- --

Email: -- --

5. Required Attachments

- Two (2) folded copies of project plans including an itemized list of all changes for which Administrative Approval is requested, with the changes marked in color on all elevations
- One (1) digital copy of project plans
- Warranty Deed with legal description of property

- Photographs of existing conditions on the site where changes are proposed
- Material samples
- Specification sheets for all proposed materials, fixtures, and/or mechanical equipment
- Completed Administrative Approval checklist

6. Project Information

Address/Location of Property: 325 S. Old Woodward

Name of Development: Peribody Mansion

Parcel ID#: 08-19-36-208-1015

Current Use: Restaurant & Bar

Proposed Use: Restaurant

Area of Site in Acres: .10

Current Zoning: -- --

Is the property located in a floodplain? -----

Yes No

☐ ☒

Is the property within a Historic District? ---

☐ ☒

→ If so, which? -- --

Will the project require a variance? -----

☐ ☒

→ If so, how many? -- --

Has the project been reviewed by a Board? ☒ ☐

→ If so, which? Planning Department

7. Details of the Request for Administrative Approval

The undersigned states the above information is true and correct, and understands that it is the responsibility of the applicant to advise the Planning Division and/or Building Division of any additional changes to the approved site plan. By providing your e-mail to the City, you agree to receive news notifications from the City. If you do not wish to receive these messages, you may unsubscribe at any time.

Signature of Applicant: [Signature] Date: 11-29-21

Application #: PAA21-0134 Office Use Only
Date Received: 12/2/21 Fee: \$ 100.00
Date of Approval: 12/7/21 Date of Denial: N/A Reviewed By: [Signature]



CONSENT OF PROPERTY OWNER

I, Clint MANSOUR OF THE STATE OF Michigan AND
(Name of Property Owner)

COUNTY OF Oakland STATE THE FOLLOWING:

1. That I am the owner of real estate located at 325 S. Old Woodward Ave;
(Address of Affected Property)

2. That I have read and examined the Application for Administrative Approval made to the City of

Birmingham by: Adachi Restaurant Group, LLC
(Name of Applicant)

3. That I have no objections to, and consent to the request(s) described in the Application made to the
City of Birmingham.

Name of Owner (Printed): CLINT MANSOUR

Signature of Owner: [Signature] Date: 11-29-21

Adachi Fire Pits

2 messages

Jack Pesha <jpesha@bhamgov.org>
To: Nicholas Dupuis <ndupuis@bhamgov.org>

Tue, Dec 7, 2021 at 8:43 AM

Nick,
Sorry to get back with you so late on this.

As long as the fire pits are using LP or natural gas and not solid fuel such as wood or coal I am good with that.

I told Blake he needs to meet the proper clearances from his building (listed on Outdoor Dining doc.)

Informed that the fire tables, pits would have to be of proper size and the flame area needs to be fully covered with a screen (not just sides only).

Cannot have on combustible material such as wood or composite decking, tents, ect. Cannot be covered by tent or membrane structure.

Fire extinguisher shall be mounted outside in the general use area.

Everything should be listed in the current Outdoor Dining doc.

Final inspection will be required.

Jack D. Pesha
Fire Marshal
Birmingham Fire Department
248-530-1903



Important Note to Residents

Let's connect! Join the Citywide Email System to receive important City updates and critical information specific to your neighborhood at www.bhamgov.org/citywideemail.

Nicholas Dupuis <ndupuis@bhamgov.org>
To: Jack Pesha <jpesha@bhamgov.org>

Tue, Dec 7, 2021 at 8:55 AM

Thank you Jack!!
[Quoted text hidden]

Nicholas J. Dupuis
Planning Director





Description

Add just the right amount of warmth to your patio with this fire pit. It has a clean-lined circular silhouette that's made from fiber-reinforced concrete that can withstand the elements out on outdoor space. We love how it has a built-in control panel with an electric ignition and an adjustable flame. This fire pit arrives with lava rocks to help disperse the flame. Plus, it can turn into a coffee table thanks to the included cover.

What's Included?

- ✓ Filler
- ✓ Cover

Features

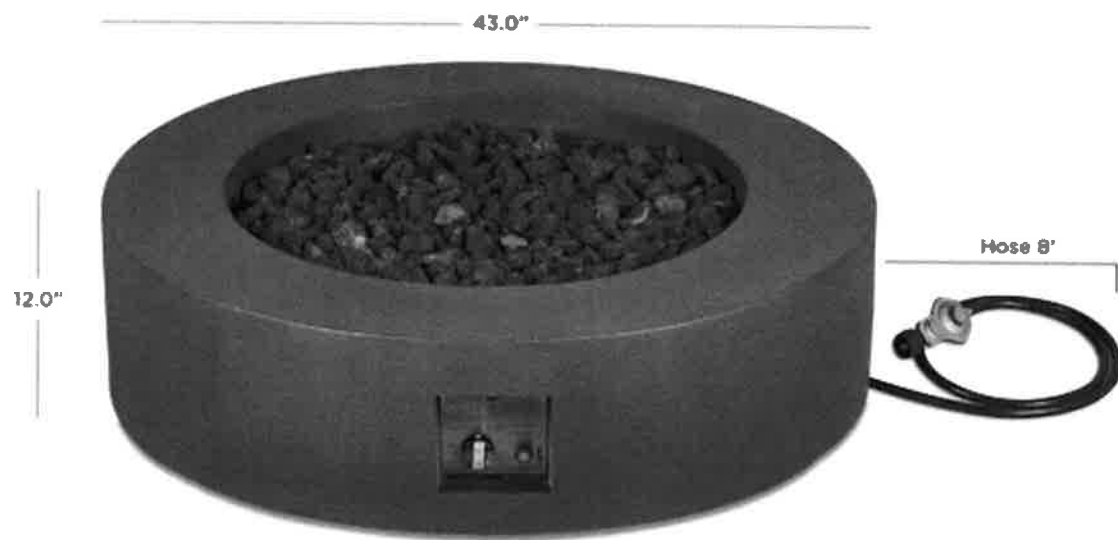
- Made from ultra-durable glass fiber reinforced concrete (GFRC)
- Heat, weather, and rust resistant
- Battery operated electric ignition
- Propane with natural gas option, sold separately
- Includes protective cover, lava rock, and 8' propane hose with regulator
- 5 year limited warranty on concrete body, 2 year limited warranty on internal components and burner system

Product Details

- Product Type: Fire pit table
- Exterior Material: Concrete
- Is this Product Safe for Use on Wooden Deck?: Can be placed on wooden deck with heat resistant barrier
- Fuel Type: Propane
- BTU Output: 100000 BTU

Gas Conversion Feature

- Gas Conversion Kit Included: No





Description

When you're buying our furniture, you're buying quality. Our FACTORY unique HDPE lumber is superior to both wood and plastic materials, and it's perfect for your outdoor furniture. Our lumber is completely weather-resistant, and unlike wood, it won't crack or rot. Its density and Color-Stay Technology also makes it superior to plastic as it won't fade or split in the sun. spending time with your family & friends, This Adirondack chair offers comfort and style for any experience. The poly material is perfectly complemented with a painted wood-inspired finish for a simple yet chic touch.

Product Details

- Weight Capacity: 250 lb.
- Adult Assembly Required: Yes
- Frame Material: Plastic/Resin

[See Less](#)

Weights & Dimensions

Overall	34.65" H x 29.53" W x 34.25" D
Seat	20.5" W x 21.25" D
Arms	22.50" H x 29.5" W
Seat Height - Floor to Seat	14"
Fully Reclined Depth - Front to Back	34.25"
Overall Product Weight	38.5 lb.
Seat Back Height	29.53"

- Folded Chair Dimensions: 45.67" L x 29.92 W" x 10.04" H.



Product Overview

Description

This tank cover pairs with our Lemaire, Daisley, Claringbold, and La Valle Propane Fire Tables to attractively conceal a 20-pound propane tank. The tank cover also functions as a side table for a convenient and unique addition to any outdoor space. The finish has a rustic quality and is available in flint or carbon color.

Features

- Handcrafted in the USA by our skilled team of artisans
- Made of ultra-durable glass fiber reinforced concrete (GFRD)
- Removable lid for easy access
- Built-in adjustable levelers
- Coordinates with all propane fire tables in the Lemaire, Daisley, Claringbold, and La Valle collections

Product Details

- Primary Material: Concrete
- Rust Resistant: Yes
- Product Care: Wipe exterior surfaces with a mild dish washing soap, then rinse with water.

[See Less](#)

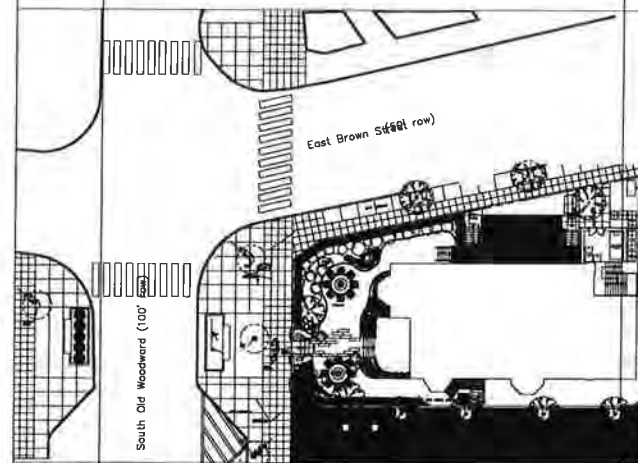
Weights & Dimensions

Specifications

Features

Product Type	Propane Tank Cover
Primary Material	Concrete

Location Plan



Site Plan

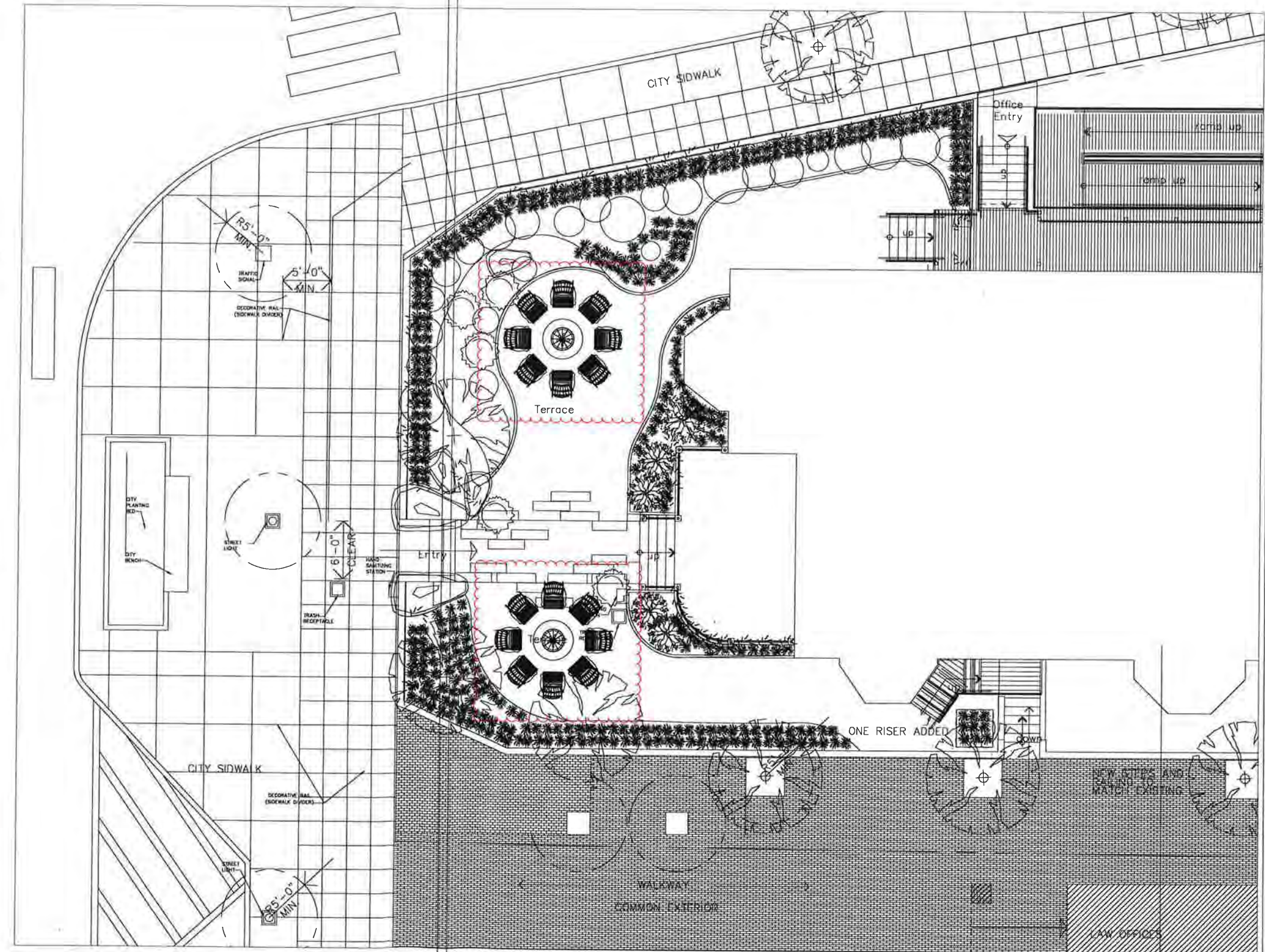
APPROVED

12/17/21

PAA 21-0134

Conditions:

- only permitted 11/15 - 3/31 each year.
- Subject to Fire Dept. request



Administrative Approval Application Planning Division

Form will not be processed until it is completely filled out.

1. Applicant

Name: Robert Rochon, PE - PEA Group
Address: 2430 Rochester Ct.
Troy, MI 48083
Phone Number: 248-689-9090
Fax Number:
Email Address: rrochon@peagroup.com

2. Property Owner

Name: Hearthside Condominium Association
Address:
City of Birmingham, MI
Phone Number:
Fax Number:
Email Address:

3. Applicant's Attorney/Contact Person

Name:
Address:
Phone Number:
Fax Number:
Email Address:

4. Project Designer/Developer

Name: Robert Rochon, PE - PEA Group
Address: 2430 Rochester Ct.
Troy, MI 48083
Phone Number: 248-689-9090
Fax Number:
Email Address: rrochon@peagroup.com

5. Project Information

Address/Location of Property: 609 Southfield
#619, #625, #633 Southfield Road
Name of Development: Hearthside Condominiums
Parcel ID#: 08-19-36-151-022, -023
Current Use: Single Family Cluster
Area in Acres: 0.84 ac, 36,566 sq ft
Current Zoning: R2, Oakland Co Condo No. 424 L, 9137, pg. 67 10/08/85

Name of Historic District if any:
Date of HDC Approval, if any:
Date of Application for Preliminary Site Plan:
Date of Preliminary Site Plan Approval:
Date of Application for Final Site Plan:
Date of Final Site Plan Approval:
Date of Revised Final Site Plan Approval:

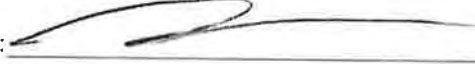
6. Required Attachments

- Warranty Deed with legal description of property
- Authorization from Owner(s) (if applicant is not owner)
- Completed Checklist
- Material Samples
- Specification sheets for all proposed materials, fixtures, and/or mechanical equipment
- One (1) digital copy of plans
- Two (2) folded copies of plans including an itemized list of all changes for which administrative approval is requested, with the changes marked in color on all elevations
- Photographs of existing conditions on the site where changes are proposed

7. Details of the Request for Administrative Approval

Drainage Improvements to reduce surface flooding during rain events, proposed improvements include tree removal, proposed storm sewer, and paving improvements

The undersigned states the above information is true and correct, and understands that it is the responsibility of the applicant to advise the Planning Division and/or Building Division of any additional changes to the approved site plan.

Signature of Applicant:  Date: 11-9-21

Office Use Only		
Application #: <u>PAA 21-0141</u>	Date Received: <u>11/9/21</u>	Fee: <u>\$100.00</u>
Date of Approval: <u>12/17/21</u>	Date of Denial: <u>N/A</u>	Reviewed By: 

CONSENT OF PROPERTY OWNER

Anne Hanna
(Name of Property Owner), OF THE STATE OF Michigan AND
COUNTY OF Oakland STATE THE FOLLOWING:

1. That I am the owner of real estate located at Hearthside Condominiums
(Address of Affected Property) 633 Southfield
Birmingham
2. That I have read and examined the Application for Administrative Approval made to the City of
Birmingham by: Robert Lockon
(Name of Applicant);
3. That I have no objections to, and consent to the request(s) described in the Application made to the City of
Birmingham.

By providing your e-mail to the City, you agree to receive news notifications from the City. If you do not wish to receive these messages, you may unsubscribe at any time.

Name of Owner (Printed): Anne Hanna

Signature of Owner: Anne R. Hanna Date: 11/5/2021

CONSTRUCTION PLANS

HEARTHSIDE CONDOMINIUMS

633 SOUTHFIELD ROAD

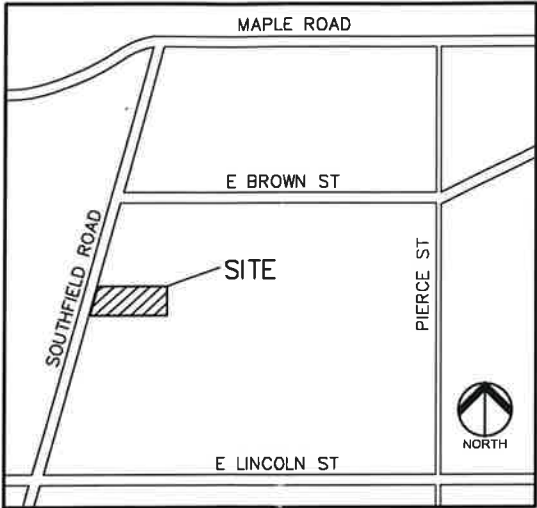
BIRMINGHAM, MICHIGAN 48009

APPROVED

12/17/21

PAA01-0141

INDEX OF DRAWINGS	
NUMBER	TITLE
	COVER SHEET
C-1.0	TOPOGRAPHIC SURVEY
C-2.0	ENGINEERING PLAN
C-3.0	DETAILS AND NOTES



LOCATION MAP
NO SCALE

DESIGN TEAM

CLIENT

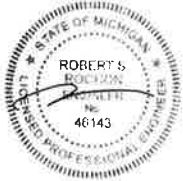
HEARTHSIDE CONDOMINIUM ASSOC.
633 SOUTHFIELD ROAD
BIRMINGHAM, MICHIGAN 48009
CONTACT: PETE PETRELLA
EMAIL: PETE@LLPSERVICESINC.COM

CIVIL ENGINEER

PEA GROUP
2430 ROCHESTER COURT, STE. 100
TROY, MI 48063-1872
CONTACT: ROB ROCHON
PHONE: 248.509.7255
EMAIL: RROCHON@PEAGROUP.COM



REVISIONS	
DESCRIPTION	DATE
ORIGINAL ISSUE DATE	9/15/2021



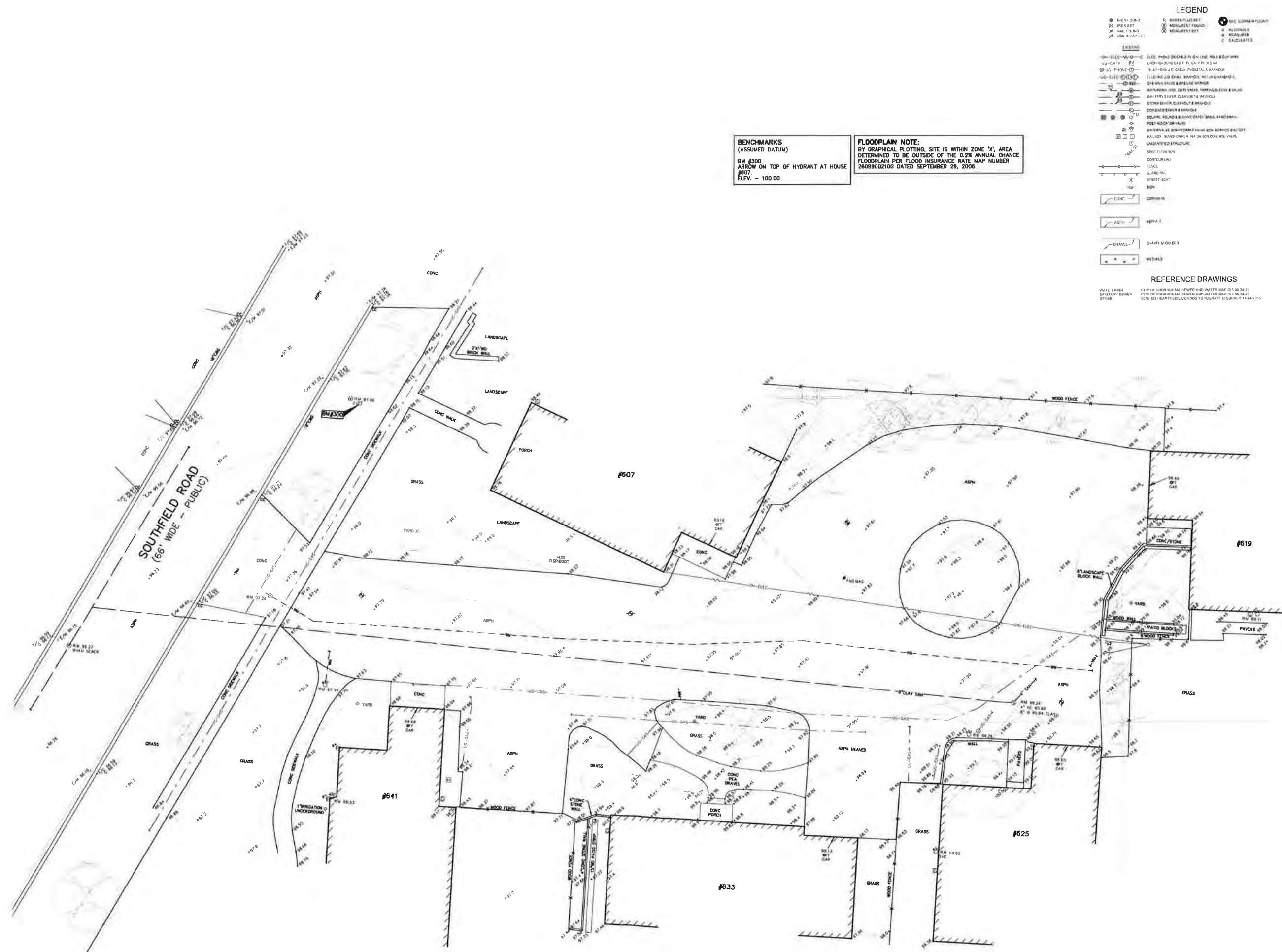
CLIENT
**HEARTHSIDE
CONDOMINIUM
ASSOC.**
632 SOUTHFIELD ROAD
ANN ARBOR, MI 48106

PROJECT TITLE
**HEARTHSIDE
CONDOMINIUMS**
633 SOUTHFIELD ROAD
BIRMINGHAM, AL 35206

[illegible]

PEA JOB NO.	2021-0288
P.M	R
DN	B
DES	M
DRAWING NUMBER:	

C-1.0



Heartside Condo Storm Calc for Paving Repairs 9/9/2012

<u>Contribution</u>	<u>cfs</u>
Storm	0.750 (from hyd conveyance calcs - 64'-6" pipe)
Sanitary	<u>0.040</u> (from san basis of design)
	0.798
<u>Less Infiltration</u>	<u>0.008</u> "assumes a 5' square - 5 foot deep french drain"
Total Contribution:	0.791 cfs

6" Pipe at Min. 0.40%
= 0.906

Existing 8" Clay pipe will adequately convey additional surface runoff.

PREMIUM TRENCH BACKFILL NOTE:
ALL UTILITIES UNDER PAVEMENT OR WITHIN 3' OF THE
EDGE OF PAVEMENT (OR WITHIN THE 45° LINE OF
INFLUENCE OF PAVEMENT) SHALL HAVE M.D.O.T. CLASS
II GRANULAR BACKFILL COMPACTED TO 95% MAX. DRY
DENSITY (ASTM D-1557).

EROSION CONTROL QUANTITIES:	
LOW POINT INLET FILTER	1 EA.

UTILITY CROSSING INFORMATION:

① BOTTOM OF 8" STM = 93.18
TOP OF EX. WATER MAIN = 92.00
(ASSUMES 8' BURY)
CONCRETE CRADLE
SEE DETAIL SHEET C-30

② EX. GAS CROSSING!
TOP OF 8" STM = 93.70
BOTTOM OF PIPE = 95.00

SYMBOLS: GRADING

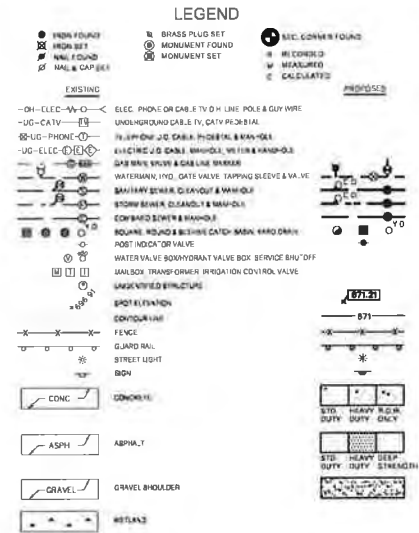
PROPOSED SPOT ELEVATION:
TYPICALLY 4" TO 6" DEPTH IN PAVED
AREAS, GUTTER GRADE IN CURB LINES.

PROPOSED CONTOUR LINE

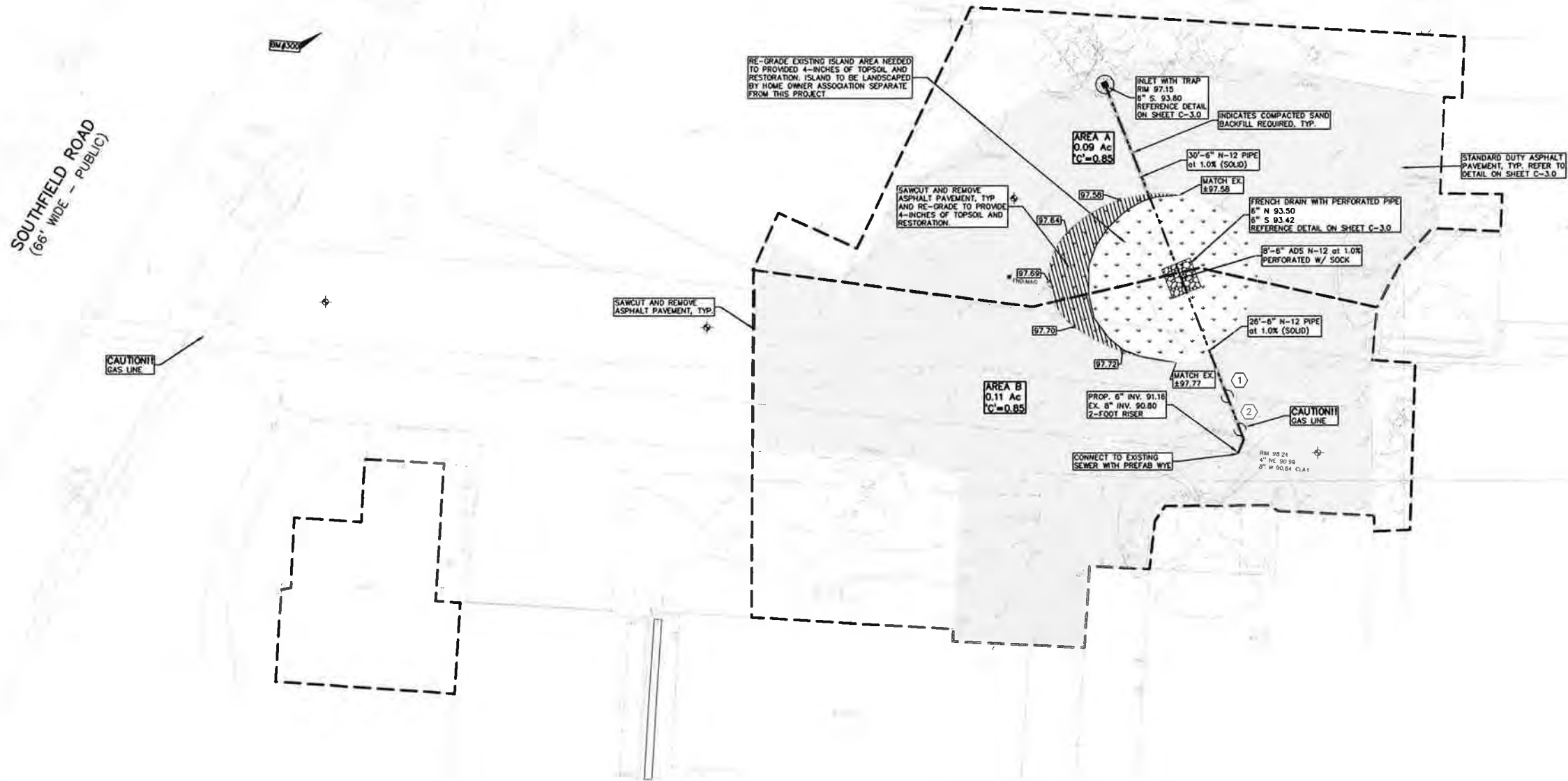
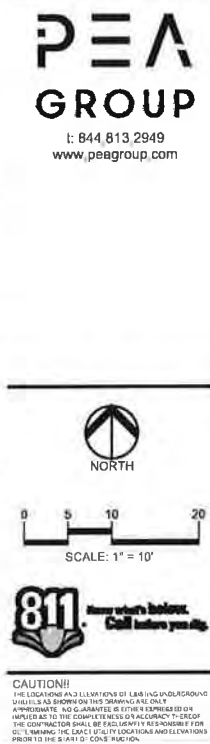
ABBREVIATIONS:

- T/C = TOP OF CURB
- C = GUTTER GRADE
- T/P = TOP OF PAVEMENT
- T/S = TOP OF SIDEWALK
- 1/8" = TOP OF WALL
- B/W = BOTTOM OF WALL
- F.G. = FINISH GRADE
- RIM = RIM ELEVATION

STORM SEWER QUANTITIES:	
6" ADS N-12 PERFORATED W/ SOCK	8 LF
6" PVC N-12 SOLID PIPE	56 LF
2' DIA. INLET	1 EA.
CONNECT TO EXISTING SEWER	1 EA.



REFERENCE DRAWINGS



CLIENT

**HEARTHESIDE
CONDOMINIUM
ASSOC.**
633 SOUTHFIELD ROAD
BIRMINGHAM, AL 35209

PROJECT TITLE

**HEARTHESIDE
CONDOMINIUMS**
633 SOUTHFIELD ROAD
BIRMINGHAM, AL 35209

[illegible]

ORIGINAL ISSUE DATE:
SEPTEMBER 16, 2021

DRAWING TITLE
**ENGINEERING
PLAN**

PEA JOB NO.	2021-0286
P.M.	RF
DN	BV
DES	MS
DRAWING NUMBER:	

C-2.0

GENERAL NOTES:

- THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT.
- ALL CONSTRUCTION, WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT OSHA, MDOT AND CITY OF BIRMINGHAM STANDARDS AND REGULATIONS.
 - THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER AND/OR THE AUTHORITY HAVING JURISDICTION 3 BUSINESS DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
 - THE CONTRACTOR MUST CONTACT THE ENGINEER SHOULD THEY ENCOUNTER ANY DESIGN ISSUES DURING CONSTRUCTION. IF THE CONTRACTOR MAKES DESIGN MODIFICATIONS WITHOUT THE WRITTEN DIRECTION OF THE DESIGN ENGINEER, THE CONTRACTOR DOES SO AT HIS OWN RISK.
 - ALL NECESSARY PERMITS, TESTING, BONDS AND INSURANCES ETC., SHALL BE PAID FOR BY THE CONTRACTOR. THE OWNER SHALL PAY FOR ALL BIRMINGHAM INSPECTION FEES.
 - THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE 811/ONE CALL UTILITY LOCATING CENTER, THE CITY ENGINEER AND/OR THE AUTHORITY HAVING JURISDICTION 3 BUSINESS DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF NO NOTIFICATION IS GIVEN AND DAMAGE RESULTS, SAID DAMAGE WILL BE REPAIRED AT SOLE EXPENSE OF THE CONTRACTOR. IF EXISTING UTILITIES ARE LOCATED THAT CONFLICT IN LOCATION WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER SO THAT THE CONFLICT MAY BE RESOLVED.
 - CONTRACTOR TO VERIFY THAT THE PLANS AND SPECIFICATIONS ARE THE VERY LATEST PLANS AND SPECIFICATIONS AND FURTHERMORE, VERIFY THAT THESE PLANS AND SPECIFICATIONS HAVE BEEN APPROVED. ALL ITEMS CONSTRUCTED BY THE CONTRACTOR PRIOR TO RECEIVING FINAL APPROVAL, HAVING TO BE ADJUSTED OR RE-DONE, SHALL BE AT THE CONTRACTORS EXPENSE. SHOULD THE CONTRACTOR ENCOUNTER A CONFLICT BETWEEN THESE PLANS AND/OR SPECIFICATIONS, THEY SHALL SEEK CLARIFICATION IN WRITING FROM THE ENGINEER BEFORE COMMENCEMENT OF CONSTRUCTION. FAILURE TO DO SO SHALL BE AT SOLE EXPENSE TO THE CONTRACTOR.
 - ANY WORK WITHIN THE STREET OR HIGHWAY RIGHTS-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AGENCIES HAVING JURISDICTION AND SHALL NOT BEGIN UNTIL ALL NECESSARY PERMITS HAVE BEEN ISSUED FOR THE WORK.
 - ALL PROPERTIES OR FACILITIES IN THE SURROUNDING AREAS, PUBLIC OR PRIVATE, DESTROYED OR OTHERWISE DISTURBED DUE TO CONSTRUCTION, SHALL BE REPLACED AND/OR RESTORED TO THE ORIGINAL CONDITION BY THE CONTRACTOR.
 - THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BARRICADING, SIGNAGE, LIGHTS AND TRAFFIC CONTROL DEVICES TO PROTECT THE WORK AND SAFELY MAINTAIN TRAFFIC IN ACCORDANCE WITH LOCAL REQUIREMENTS AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION). THE DESIGN ENGINEER, OWNER, CITY AND STATE SHALL NOT BE HELD LIABLE FOR ANY CLAIMS RESULTING FROM ACCIDENTS OR DAMAGES CAUSED BY THE CONTRACTOR'S FAILURE TO COMPLY WITH TRAFFIC AND PUBLIC SAFETY REGULATIONS DURING THE CONSTRUCTION PERIOD.
 - IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ADJUST THE TOP OF ALL EXISTING AND PROPOSED STRUCTURES (MANHOLES, CATCH BASINS, INLETS, GATE WELLS ETC.) WITHIN GRADED AND/OR PAVED AREAS TO FINAL GRADE SHOWN ON THE PLANS. ALL SUCH ADJUSTMENTS SHALL BE INCIDENTAL TO THE JOB AND WILL NOT BE PAID FOR SEPARATELY.

PAVING NOTES:

- IN AREAS WHERE NEW PAVEMENTS ARE BEING CONSTRUCTED, THE TOPSOIL AND SOIL CONTAINING ORGANIC MATTER SHALL BE REMOVED PRIOR TO PAVEMENT CONSTRUCTION.
- PROVIDE EXPANSION JOINTS AND JOINT SEALANT AT TWO "END-OF-RADIUS" LOCATIONS (OPPOSITE SIDES AT EACH LONG END) OF CONCRETE CURB ISLANDS.
- REFER TO ARCHITECTURAL PLANS FOR DETAILS OF FROST SLAB AT EXTERIOR BUILDING DOORS.
- CONSTRUCTION TRAFFIC SHOULD BE MINIMIZED ON THE NEW PAVEMENT. IF CONSTRUCTION TRAFFIC IS ANTICIPATED ON THE PAVEMENT STRUCTURE, THE INITIAL LIFT THICKNESS COULD BE INCREASED AND PLACEMENT OF THE FINAL LIFT COULD BE DELAYED UNTIL THE MAJORITY OF THE CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED. THIS ACTION WILL ALLOW REPAIR OF LOCALIZED FAILURE, IF ANY DOES OCCUR, AS WELL AS REDUCE LOAD DAMAGE ON THE PAVEMENT SYSTEM.
- CONCRETE PAVEMENT JOINTING - UNLESS SHOWN OTHERWISE IN THE PLANS OR REQUIRED BY THE AUTHORITY HAVING JURISDICTION:
 - WHERE PROPOSED CONCRETE ABUTS A STRUCTURE PROVIDE A MINIMUM 1/2" EXPANSION JOINT WITH SEALANT. THE JOINT FILLER BOARD MUST BE AT LEAST THE FULL DEPTH OF THE CONCRETE AND HELD DOWN A 1/2" INCH TO ALLOW FOR SEALING.
 - WHERE PROPOSED CONCRETE ABUTS EXISTING CONCRETE OR IN BETWEEN POIRS OF PROPOSED CONCRETE (CONSTRUCTION JOINT) PROVIDE 5/8" DOWELS EVERY 30' CENTER TO CENTER. HALF WAY ALONG THE THICKNESS OF THE PROPOSED PAVEMENT, ALTERNATE DOWELS SIZES AND SPACING MUST BE APPROVED THE ENGINEER PRIOR TO COMMENCING WORK AND VIA THE SUBMITTAL PROCESS.
 - WHERE PROPOSED CONCRETE ABUTS EXISTING OR PROPOSED SIDEWALK PROVIDE A MINIMUM 1/2" EXPANSION JOINT WITH SEALANT.
 - WHERE PROPOSED CONCRETE ABUTS EXISTING OR PROPOSED CURBS PROVIDE A MINIMUM 1/2" EXPANSION JOINT WITH SEALANT.
 - CONTROL LONGITUDINAL AND/OR TRANSVERSE JOINTS SHALL BE PLACED TO PROVIDE PANELS WITHIN THE PAVEMENT AS SQUARE AS POSSIBLE WITH THE FOLLOWING MAXIMUM SPACING PARAMETERS:
 - 8-INCH THICK CONCRETE PAVEMENT: 12' X 12'
 - 6-INCH THICK CONCRETE PAVEMENT: 15' X 15'
 - IRREGULAR-SHAPED PANELS MAY REQUIRE THE USE OF REINFORCING MESH OR FIBER MESH AS DETERMINED BY THE ENGINEER. THE USE OF MESH MUST BE APPROVED THE ENGINEER PRIOR TO COMMENCING WORK AND VIA THE SUBMITTAL PROCESS.
 - IF A JOINT PLAN IS NOT PROVIDED IN THE PLANS, THE CONTRACTOR SHALL SUBMIT ONE TO THE ENGINEER FOR REVIEW PRIOR TO COMMENCING WORK AND VIA THE SUBMITTAL PROCESS.
- CONCRETE CURBING JOINTING - UNLESS SHOWN OTHERWISE IN THE PLANS OR REQUIRED BY THE AUTHORITY HAVING JURISDICTION:
 - WHERE PROPOSED CONCRETE CURBING ABUTS A STRUCTURE PROVIDE A MINIMUM 1/2" EXPANSION JOINT WITH SEALANT.
 - WHERE PROPOSED CONCRETE ABUTS EXISTING OR PROPOSED SIDEWALK PROVIDE A MINIMUM 1/2" EXPANSION JOINT WITH SEALANT.
 - WHERE PROPOSED CONCRETE ABUTS EXISTING CURBING PROVIDE A MINIMUM 1/2" EXPANSION JOINT WITH SEALANT.
 - IN BETWEEN POIRS OF PROPOSED CONCRETE CURBING (CONSTRUCTION JOINT)
 - CARRY THE REBAR CONTINUOUSLY BETWEEN POIRS
 - IF THE REBAR IS NOT LONG ENOUGH TO CARRY CONTINUOUSLY THEN TIE TWO PIECES OF REBAR PER THE LATEST MDOT SPECIFICATIONS.
 - CONTROL JOINTS SHALL BE PLACED A MAXIMUM 10' CENTER TO CENTER AND AT ALL RADIUS RETURNS.

GENERAL GRADING AND EARTHWORK NOTES:

- THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT.
- CONTRACTOR TO FIELD VERIFY ALL EXISTING TREES AND BRUSH AND REMOVE ALL THAT ARE NECESSARY TO GRADE SITE.
 - ALL GRADES ARE TO TOP OF PAVEMENT UNLESS OTHERWISE NOTED.
 - THE STAGING OF CONSTRUCTION ACTIVITIES SHALL OCCUR ONLY WITHIN THE SITE BOUNDARIES. ANY CONSTRUCTION ACTIVITIES OUTSIDE OF THE SITE BOUNDARIES SHALL BE AT THE SOLE RESPONSIBILITY AND RISK OF THE CONTRACTOR.
 - ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL MEET THE REQUIREMENTS OF THE AUTHORIZED PUBLIC AGENCY OF JURISDICTION. AN EROSION CONTROL PERMIT MUST BE SECURED FROM THE CITY PRIOR TO CONSTRUCTION.
 - ALL EARTHWORK AND GRADING OPERATIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE SOILS INVESTIGATION AND REPORT.
 - REFER TO SOIL EROSION CONTROL PLAN FOR ADDITIONAL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AND NOTES.
 - THE DETENTION BASIN SIDE SLOPES AND ALL SLOPE EXCEEDING 1:8 MUST BE STABILIZED BY SODDING OR BY PLACING A MULCH BLANKET PEGGED IN PLACE OVER SEED.
 - ALL DISTURBED AREAS SHALL BE SEEDDED AND MULCHED OR SODDED IN ACCORDANCE WITH THE LANDSCAPE PLANS PROVIDE A MINIMUM OF 3" OF TOPSOIL IN THESE AREAS UNLESS OTHERWISE NOTED.
 - THE CONTRACTOR SHALL NOTE EXISTING UNDERGROUND UTILITIES WITHIN AND ADJACENT TO THE SITE. BACKFILL FOR EXISTING UTILITY TRENCHES SHALL BE EXAMINED CRITICALLY. ANY TRENCHES FOUND TO HAVE SOFT, UNSTABLE OR UNSUITABLE BACKFILL MATERIAL, IN THE OPINION OF THE THIRD PARTY TESTING COMPANY, THAT ARE TO BE WITHIN THE ZONE OF INFLUENCE OF PROPOSED BUILDINGS OR PAVEMENT SHALL BE COMPLETELY EXCAVATED AND BACKFILLED WITH SUITABLE MATERIAL.
 - ON-SITE FILL CAN BE USED IF THE SPECIFIED COMPACTION REQUIREMENTS CAN BE ACHIEVED. IF ON-SITE SOIL IS USED, IT SHOULD BE CLEAN AND FREE OF FROZEN SOIL, ORGANICS, OR OTHER DELETERIOUS MATERIALS.
 - THE FINAL SUBGRADE/EXISTING AGGREGATE BASE SHOULD BE THOROUGHLY PROOFROLLED USING A FULLY LOADED TANDEM AXLE TRUCK OR FRONT END LOADER UNDER THE OBSERVATION OF A GEOTECHNICAL/PAVEMENT ENGINEER. LOOSE OR YIELDING AREAS THAT CANNOT BE MECHANICALLY STABILIZED SHOULD BE REINFORCED USING GEORIGIDS OR REMOVED AND REPLACED WITH ENGINEERED FILL OR AS DICTATED BY FIELD CONDITIONS.
 - SUBGRADE UNDERCUTTING, INCLUDING BACKFILLING SHALL BE PERFORMED TO REPLACE MATERIALS SUSCEPTIBLE TO FROST HEAVING AND UNSTABLE SOIL CONDITIONS. ANY EXCAVATIONS THAT MAY BE REQUIRED BELOW THE TOPSOIL IN FILL AREAS OR BELOW SUBGRADE IN CUT AREAS WILL BE CLASSIFIED AS SUBGRADE UNDERCUTTING.
 - SUBGRADE UNDERCUTTING SHALL BE PERFORMED WHERE NECESSARY AND THE EXCAVATED MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR. ANY SUBGRADE UNDERCUTTING SHALL BE BACKFILLED AS RECOMMENDED IN THE GEOTECHNICAL ENGINEERING REPORT FOR THE PROJECT.
 - ANY SUB-GRADE WATERING REQUIRED TO ACHIEVE REQUIRED DENSITY SHALL BE CONSIDERED INCIDENTAL TO THE JOB.

GENERAL UTILITY NOTES:

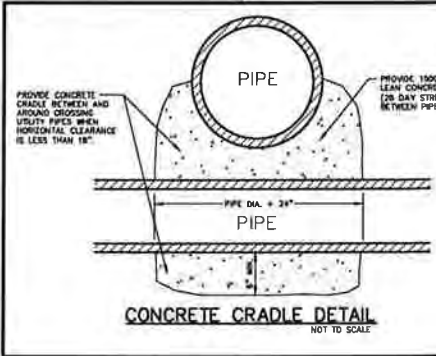
- ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE CITY OF BIRMINGHAM.
 - ALL TRENCHES UNDER OR WITHIN THREE (3) FEET OR THE FORTY-FIVE (45) DEGREE ZONE OF INFLUENCE LINE OF EXISTING AND/OR PROPOSED PAVEMENT, BUILDING PAD OR DRIVE APPROACH SHALL BE BACKFILLED WITH SAND COMPACTED TO AT LEAST NINETY-FIVE (95) PERCENT OF MAXIMUM UNIT WEIGHT (ASTM D-1557). ALL OTHER TRENCHES TO BE COMPACTED TO 90% OR BETTER.
 - WHENEVER EXISTING MANHOLES OR SEWER PIPE ARE TO BE TAPPED, DRILL HOLES 4" CENTER TO CENTER, AROUND PERIPHERY OF OPENING TO CREATE A PLANE OF WEAKNESS JOINT BEFORE BREAKING SECTION OUT.
 - THE LOCATIONS AND DIMENSIONS SHOWN ON THE PLANS FOR EXISTING UTILITIES ARE IN ACCORDANCE WITH AVAILABLE INFORMATION WITHOUT UNCOVERING AND MEASURING. THE DESIGN ENGINEER DOES NOT GUARANTEE THE ACCURACY OF THIS INFORMATION OR THAT ALL EXISTING UNDERGROUND FACILITIES ARE SHOWN. CONTRACTOR TO FIELD VERIFY UTILITIES.
 - THE CONTRACTOR MUST COORDINATE TO ENSURE ALL REQUIRED PIPES, CONDUITS, CABLES AND SLEEVES ARE PROPERLY PLACED FOR THE INSTALLATION OF GAS, ELECTRIC, PHONE, CABLE, IRRIGATION, ETC. IN SUCH A MANNER THAT WILL FACILITATE THEIR PROPER INSTALLATION PRIOR TO THE PLACEMENT OF THE PROPOSED PAVEMENT AND LANDSCAPING.
 - PIPE LENGTHS INDICATED ARE FROM CENTER OF STRUCTURE AND TO END OF FLARED END SECTION UNLESS NOTED OTHERWISE.
 - CONTRACTOR TO INSPECT ALL EXISTING PUBLIC STORM SEWER, SANITARY SEWER AND WATER MAIN STRUCTURES WITHIN THE LIMITS OF CONSTRUCTION AND WITH THE GOVERNING AGENCY INSPECTOR PRIOR TO ESTABLISHING FINAL GRADE. NOTIFY THE ENGINEER, OWNER/DEVELOPER, AND GOVERNING AGENCY IF STRUCTURE IS DEEMED TO BE STRUCTURALLY UNSOUND AND/OR IN NEED OF REPAIR.
- STORM SEWER NOTES:**
- ALL STORM SEWER 12" DIAMETER OR LARGER SHALL BE REINFORCED CONCRETE PIPE (RCP C-76) CLASS IV WITH MODIFIED TONGUE AND GROOVE JOINT WITH RUBBER GASKETS UNLESS SPECIFIED OTHERWISE (ASTM C-443).
 - ALL STORM SEWER LEADS SHALL BE CONSTRUCTED AT 1.00% MINIMUM SLOPE.
 - ALL STORM SEWER 10" OR LESS AND/OR LEADS SHALL BE ADS N-12.
 - JOINTS FOR P.V.C PIPE SHALL BE ELASTOMERIC (RUBBER GASKET) AS SPECIFIED IN A S.T.M DESIGNATION D-3212.
- SANITARY SEWER NOTES:**
- ALL SANITARY LEADS SHALL BE CONSTRUCTED AT 1.00% MINIMUM SLOPE.
 - ALL SANITARY SEWER 10" OR LARGER SHALL BE P.V.C TRUSS PIPE (ASTM D2880) AND FITTINGS, WITH ELASTOMERIC GASKET JOINTS PER ASTM D3212 UNLESS OTHERWISE NOTED.
 - ALL SANITARY SEWER LEADS SHALL BE POLYVINYL CHLORIDE (PVC) SDR 23.5 PIPE AND FITTINGS. ALL JOINTS TO BE ELASTOMERIC GASKET JOINTS PER ASTM D3212 UNLESS OTHERWISE NOTED.
 - SANITARY LEADS SHALL BE PROVIDED WITH CLEANOUTS EVERY 100 FEET AND AT EVERY BEND AS SHOWN. ALL CLEANOUTS TO BE PROVIDED WITH E.J.I.W. #1565 BOX OR EQUAL.

CONSTRUCTION MATERIAL SUBMITTALS

- UNLESS REQUIRED OTHERWISE IN THE PROJECT SPECIFICATIONS, THE CONTRACTOR SHALL ONLY SUBMIT THE FOLLOWING CONSTRUCTION MATERIAL SUBMITTALS, AS APPLICABLE TO THE PLANS, FOR REVIEW BY THE ENGINEER. UNLESS APPROVED IN ADVANCE AND IN WRITING BY THE ENGINEER, ANY MATERIAL SUBMITTALS PROVIDED TO THE ENGINEER FOR REVIEW IN ADDITION TO THIS LIST SHALL BE RETURNED TO THE CONTRACTOR WITHOUT A REVIEW BEING PERFORMED.
- SOIL EROSION AND SEDIMENTATION CONTROL MEASURES
 - UTILITY TRENCH BACKFILL MATERIAL WITH ALL MATERIAL DATA INCLUDED IN THE SUBMITTAL BEING DATED WITHIN 60 DAYS OF THE SUBMITTAL UNLESS APPROVED OTHERWISE BY THE ENGINEER
 - RIP RAP MATERIAL WITH ALL MATERIAL DATA INCLUDED IN THE SUBMITTAL BEING DATED WITHIN 60 DAYS OF THE SUBMITTAL UNLESS APPROVED OTHERWISE BY THE ENGINEER
 - STORM AND SANITARY SEWER PIPING INCLUDING JOINTS
 - STORM AND SANITARY SEWER STRUCTURES
 - STORM AND SANITARY SEWER STRUCTURE FRAME AND COVERS INCLUDING CLEAN OUTS
 - PAVEMENT AGGREGATE BASE MATERIAL WITH ALL MATERIAL DATA INCLUDED IN THE SUBMITTAL BEING DATED WITHIN 60 DAYS OF THE SUBMITTAL UNLESS APPROVED OTHERWISE BY THE ENGINEER
 - PAVEMENT UNDERDRAIN MATERIAL AND BACKFILL WITH ALL BACKFILL MATERIAL DATA INCLUDED IN THE SUBMITTAL BEING DATED WITHIN 60 DAYS OF THE SUBMITTAL UNLESS APPROVED OTHERWISE BY THE ENGINEER
 - PAVEMENT MIX DESIGNS SUBMITTED FOR REVIEW BY THE ENGINEER MUST FOLLOW THE CURRENT MDOT REVIEW CHECKLISTS AS SUMMARIZED BELOW AND ALL MATERIAL DATA INCLUDED IN THE SUBMITTAL BEING DATED WITHIN 60 DAYS OF THE SUBMITTAL UNLESS APPROVED OTHERWISE BY THE ENGINEER:
 - 8.1 CONCRETE MIX DESIGN REVIEW CHECKLIST (FORM 2000)
 - 8.2 SUPERPAVE MIX DESIGN CHECKLIST (FORM 1862)
 - 8.3 MARSHALL MIX DESIGN CHECKLIST (FORM 1849)
 - ANY ITEMS SHOWN IN THE PLANS OR DETAIL SHEETS THAT SPECIFICALLY STATE FOR THE CONTRACTOR TO SUBMIT A SHOP DRAWING TO THE ENGINEER FOR REVIEW. THESE ITEMS INCLUDE, BUT ARE NOT LIMITED TO;
 23. FRENCH DRAIN MATERIAL AND SHOP DRAWING DEPICTING THE LAYOUT OF THE SYSTEM
 - ANY SPECIALTY ITEMS SHOWN IN THE PLANS OR DETAIL SHEETS THAT SPECIFICALLY DO NOT STATE FOR THE CONTRACTOR TO SUBMIT A SHOP DRAWING TO THE ENGINEER FOR REVIEW BUT THE CONTRACTOR REQUESTS TO BE REVIEWED. THE CONTRACTOR'S REQUEST FOR REVIEW MUST BE IN WRITING AND APPROVED BY THE ENGINEER PRIOR TO SUBMITTING THE INFORMATION.

GENERAL NOTES:

- THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT.
- ALL DIMENSIONS SHOWN ARE TO BACK OF CURB, FACE OF SIDEWALK, OUTSIDE FACE OF BUILDING, PROPERTY LINE, CENTER OF MANHOLE/CATCH BASIN OR CENTERLINE OF PIPE UNLESS OTHERWISE NOTED.



STORM SEWER SYSTEM DESIGN

$$I = \frac{B}{(T+D)^{0.5}} \cdot E$$
$$C = \text{varies}$$
$$T = 15 \text{ (min.)}$$
$$B = 175.0$$
$$D = 25.0$$
$$E = 1$$
$$\text{Pipe "n" Value} = 0.013$$

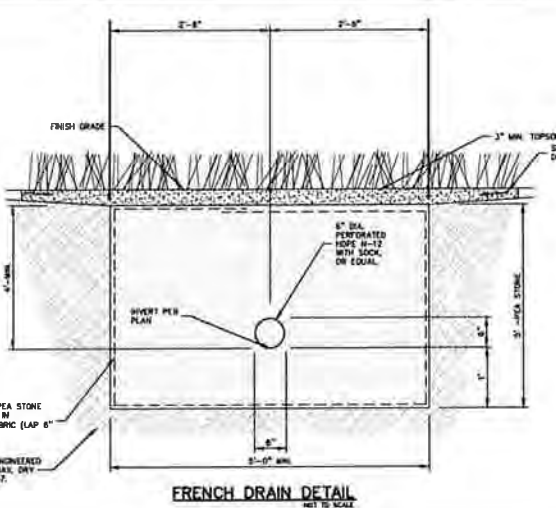
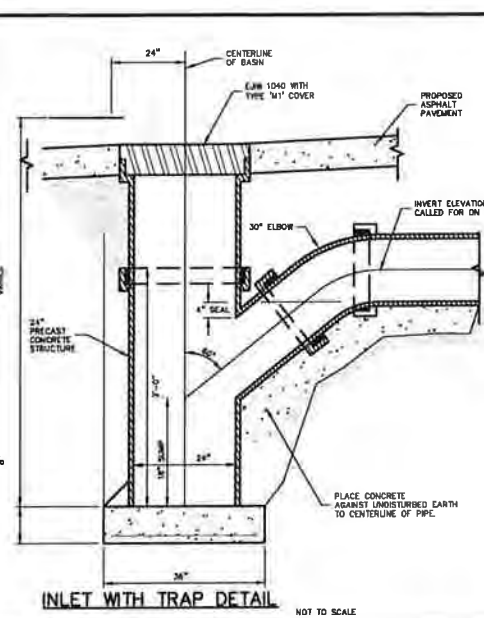
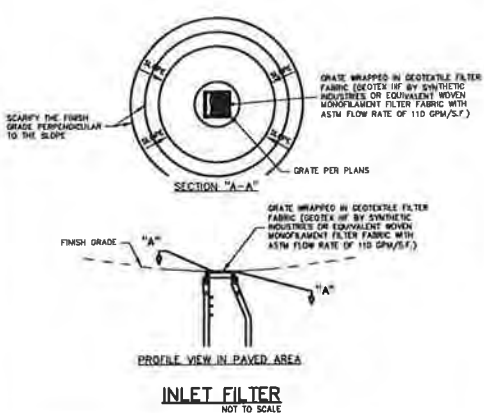
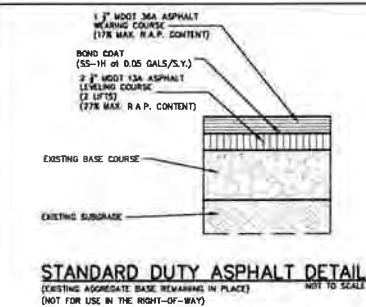
FROM STR	TO STR	AREA (A) (Acres)	COEF. C	A x C	TOTAL AREA (AxC) (Acres)	TOTAL AREA (Acres)	TIME T (min)	INT. I (in/hr)	FLOW Q (cfs)	PIPE CAP (cfs)	PIPE DIA. (in)	PIPE LENGTH (ft.)	PIPE SLOPE (%)	MN HG PER "Q"	VEL. FULL (ft./sec)	TIME FLOW (min)	H.G.L. ELEV.		RIM ELEV.		INVERT ELEV.		PIPE COVER		HGL COVER	
																	UP STREAM	DOWN STREAM	UP STREAM	DOWN STREAM	UP STREAM	DOWN STREAM	UP STREAM	DOWN STREAM	UP STREAM	DOWN STREAM
A	B	0.09	0.85	0.08	0.08	0.09	15.00	4.38	0.33	0.56	6	34	1.00	0.365	2.9	0.2	94.20	93.86	97.15	97.50	93.80	93.46	2.73	3.42	2.95	3.84
B	WYE	0.11	0.85	0.10	0.17	0.20	15.20	4.35	0.75	0.56	6	30	1.00	1.811	2.9	0.2	93.66	91.00	97.50	98.24	93.46	93.16	3.42	4.46	3.64	7.24
EX MH					0.00	15.40	4.33	0.75	0.76	8	213	0.49	0.395	2.7	1.6	91.38	90.52	98.24	98.20	90.84	89.99	6.59	5.40	91.00	5.68	

GENERAL DEMOLITION NOTES:

- THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT.
- ALL MATERIAL TO BE REMOVED, WHETHER SPECIFICALLY NOTED IN THE PLANS OR NOT, SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR AND DISPOSED OF OFF-SITE IN A LEGAL MANNER. NO ON-SITE BURY OR BURN PITS SHALL BE ALLOWED.
 - ALL DEMOLITION WORK SHALL CONFORM TO ALL LOCAL CODES AND ORDINANCES.
 - STAGING/PHASING OF DEMOLITION AND CONSTRUCTION IS TO BE COORDINATED WITH THE OWNER AND THE CONTRACTOR PRIOR TO CONSTRUCTION.
 - SPECIFIC DEMOLITION ITEMS HAVE BEEN INDICATED ON THE PLANS AS A GUIDE TO THE GENERAL SCOPE OF THE WORK. IT IS THE INTENT THAT THESE ITEMS SHALL BE COMPLETELY REMOVED BY THE CONTRACTOR ABOVE AND BELOW GROUND, UNLESS SPECIFICALLY NOTED OTHERWISE. AND THAT DEMOLITION WILL INCLUDE BUT WILL NOT NECESSARILY BE LIMITED TO THESE ITEMS. CONTRACTOR SHALL VISIT SITE TO VERIFY EXISTING CONDITIONS AND EXTENTS OF THE DEMOLITION THAT WILL BE REQUIRED PRIOR TO SUBMITTING A BID.
 - REFER TO SHEET C-3.0 FOR TREE PROTECTION DETAILS.
 - THE CONTRACTOR SHALL, AS A MINIMUM, PROVIDE TREE PROTECTION FENCING AROUND EXISTING TREES TO BE SAVED THAT ARE WITHIN 15 FEET OF CONSTRUCTION ACTIVITIES AND AS INDICATED IN THE PLANS OR PER LOCAL AGENCY REQUIREMENTS.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEAN UP, NOISE, DUST CONTROL, STREET SWEEPING AND HOURS OF OPERATION IN ACCORDANCE WITH THE LOCAL CODES.
 - THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BARRICADES, SIGNAGE, MARKINGS, LIGHTS AND OTHER TRAFFIC CONTROL DEVICES TO PROTECT THE WORK ZONE AND SAFELY MAINTAIN TRAFFIC PER AGENCY REQUIREMENTS AND IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
 - THE CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY COMPANIES TO CONFIRM THAT UTILITY LEADS HAVE BEEN TAKEN OUT OF SERVICE PRIOR TO DEMOLITION.
 - THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF SIGNS AND SUPPORTS WITHIN THE WORK AREA, AS NECESSARY TO FACILITATE CONSTRUCTION. SIGNS SHALL BE PROTECTED OR STOCKPILED FOR REUSE AS SPECIFIED IN THE PLANS OR AS REQUIRED BY THE AGENCY OF JURISDICTION. THE CONTRACTOR SHALL REPLACE ANY DAMAGED SIGNS AND SUPPORTS AT NO ADDITIONAL COST TO THE OWNER.
 - THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE 811/ONE CALL UTILITY LOCATING CENTER, THE CITY ENGINEER AND/OR THE AUTHORITY HAVING JURISDICTION 3 BUSINESS DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

SOIL EROSION AND SEDIMENTATION CONTROL SEQUENCE OF CONSTRUCTION

- SEE OAKLAND COUNTY W.R.C. SOIL EROSION AND SEDIMENTATION CONTROL DETAILS SHEET FOR ALL SOIL EROSION CONTROL RELATED DETAILS.
- PLACE SILT FENCE & INSTALL INLET FILTERS ON EXISTING STORM SEWER STRUCTURES, ACCORDING TO PLANS.
- INSTALL TEMPORARY CRUSHED CONCRETE ACCESS DRIVE AT ALL CONSTRUCTION ENTRANCES (80"x24"x8" W/MINIMUM OF 1"-3" CRUSHED CONCRETE - NO FINES).
- REMOVE CURB, PAVEMENT, TREES, ETC AS DIRECTED ON THE DEMOLITION PLAN.
- STRIP AND STOCKPILE TOPSOIL FOR RESTORATION REQUIREMENTS.
- DISPOSE OF ALL EXCESS, UNSUITABLE MATERIALS OFF SITE IN A LEGAL MANNER. NO BURN OR BURY PITS ALLOWED.
- UNSUITABLE MATERIALS CONSIST OF, BUT ARE NOT NECESSARILY LIMITED TO THE FOLLOWING: CONCRETE, ASPHALT, TREES, BRUSH, STUMPS, ROOTS, OR OTHER MISCELLANEOUS DEBRIS OR TRASH.
- MASS GRADE THE SITE IN ACCORDANCE WITH THE PLANS.
- INSTALL SEED, MULCH AND EROSION CONTROL BLANKETS AS SHOWN ON THE PLAN WITHIN 5 DAYS OF COMPLETION OF MASS GRADING OR WHENEVER DISTURBED AREAS WILL REMAIN UNCHANGED FOR 30 DAYS OR GREATER 3'-4" TOPSOIL WILL BE USED WHERE VEGETATION IS REQUIRED.
- COMPLETE ROUGH GRADING OF SITE AND INSTALL UTILITIES. PLACE INLET FILTERS AT ALL INLETS AND CATCH BASINS, AS SHOWN.
- FINISH GRADE AND PAVE SITE AS PROPOSED TO DRAIN TO STORM SEWER SYSTEM. REPAIR INLET FILTERS AS REQUIRED.
- APPLY TOPSOIL, SEED AND MULCH/SOD TO ALL DISTURBED AREAS UPON COMPLETION OF GRADING. THE CONTRACTOR SHALL STAGE CONSTRUCTION ACTIVITIES IN ORDER TO MINIMIZE THE EXPOSURE OF UNSTABILIZED AREAS.
- CLEAN PAVEMENT AND STORM SEWERS. REMOVE SILT FENCE, AND INLET FILTERS ONCE VEGETATION HAS BEEN ESTABLISHED.
- ALL DIRT AND MUD TRACKED ONTO PUBLIC ROADS SHALL BE REMOVED DAILY.
- STREET CATCH BASINS TO BE PERIODICALLY CLEANED AND FILTER CLOTH CHANGED AND MAINTAINED.



XX XX Denotes estimated value contractor to verify

PEA GROUP
I: 844 813 2949
www.peagroup.com

811
Call before you dig.
SCALE: 1" = 10'

CAUTION!
DO NOT REMOVE OR ALTER ANY INFORMATION ON THESE PLANS. ANY CHANGES TO THE PLANS SHALL BE MADE BY THE ENGINEER. NO GUARANTEE IS GIVEN FOR THE ACCURACY OF THE INFORMATION ON THESE PLANS. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR OBTAINING THE NECESSARY PERMITS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

CLIENT
HEARTHSIDE CONDOMINIUM ASSOC.
633 SOUTHWILD ROAD
BIRMINGHAM AL 35209

PROJECT TITLE
HEARTHSIDE CONDOMINIUMS
633 SOUTHWILD ROAD
BIRMINGHAM AL 35209

REVISIONS

ORIGINAL ISSUE DATE:
SEPTEMBER 16, 2021

DRAWING TITLE

NOTES AND DETAILS

PEA JOB NO	2021-0288
P M	RR
DN	BV
DES	MS
DRAWING NUMBER:	

C-3.0

Administrative Approval Application

Planning Division

Form will not be processed until it is completely filled out

APPROVED
12/13/21
PAA21-0133

1. Applicant

Name: Frank Dalio, Black & Veatch agent for AT&T
Address: 900 Oakmont Lane Ste. 100
Westmont, IL 60559
Phone Number: 630-686-3402
Fax Number: _____
Email: DalioF@bv.com

Property Owner

Name: Verizon Wireless
Address: _____
24242 Northwestern Hwy. Southfield, MI 48075
Phone Number: _____
Fax Number: _____
Email: _____

2. Applicant's Attorney/Contact Person

Name: _____
Address: _____
Phone Number: _____
Fax Number: _____
Email: _____

Project Designer

Name: Black & Veatch, Ping Jiang
Address: 900 Oakmont Lane Ste. 100
Westmont, IL 60559
Phone Number: 630-686-3402
Fax Number: _____
Email: DalioF@bv.com

3. Project Information

Address/Location of Property: 2080 E. Maple Rd.
Birmingham, MI 48009
Name of Development: _____
Parcel ID #: 08-20-31-602-001
Current Use: _____
Area in Acres: _____
Current Zoning: _____

Name of Historic District site is in, if any: _____
Date of HDC Approval, if any: _____
Date of Application for Preliminary Site Plan: _____
Date of Preliminary Site Plan Approval: _____
Date of Application for Final Site Plan: _____
Date of Final Site Plan Approval: _____
Date of Revised Final Site Plan Approval: _____

4. Attachments

- Warranty Deed with legal description of property
- Authorization from Owner(s) (if applicant is not owner)
- Completed Checklist
- Material Samples
- Digital Copy of plans
- Two (2) folded copies of plans including an itemized list of all changes for which administrative approval is requested, with the changes marked in color on all elevations

5. Details of the Request for Administrative Approval

Minor modification to an existing wireless communication facility. See attached drawings, pages C-1 & T-1.

The undersigned states the above information is true and correct, and understands that it is the responsibility of the applicant to advise the Planning Division and / or Building Division of any additional changes to the approved site plan.

Signature of Applicant: Frank Dalio

Digitally signed by Frank Dalio
DN: C=US, E=daliof@bv.com,
O="Black & Veatch", OU="Telecom,
Site Acquisition", CN="Frank Dalio"
Date: 2019.12.03 10:59:13 -0500

Date: 11/19/2021

Office Use Only			
Application #:	<u>PAA21-0133</u>	Date Received:	<u>11/19/21</u>
		Fee:	<u>\$100.00</u>
Date of Approval:	<u>12/10/21</u>	Date of Denial:	<u>N/A</u>
		Reviewed by:	



BLACK & VEATCH
Building a **world** of difference.

BLACK & VEATCH CORPORATION
900 OAKMONT LANE SUITE 100
WESTMONT, IL 60559
+1 630-686-3402 | DALIOF@BV.COM

November 19, 2021

VIA FEDERAL EXPRESS DELIVERY

City of Birmingham, MI
151 Martin Street
Birmingham, MI 48009
Attn: Building Official
(248) 530-1850

**RE: AT&T Application for Building Permit & Administrative Approval
at Existing Wireless Communication Facility Modification
Site ID: MI3820 / 2080 EAST MAPLE RD. BIRMINGHAM, MI 48009
FA# 10076512 / PACE ID: MRIND049652**

Building Official:

Enclosed please find AT&T's completed Application for Building Permit; Administrative Approval Application; Three (3) sets of 11"x 17" signed and sealed construction drawings. Two (2) copies of the passing Structural Analysis Report.

This modification has a project valuation of \$20,000. Please provide all fees to DalioF@bv.com and I will pay online or with a check.

AT&T is proposing to upgrade its existing wireless facility at the above referenced address. The scope of work being performed is very minor, specifically swapping/adding antennas and related equipment on the tower. **Please reference pages C-1 & T-1 of construction drawing for specific scope of work.**

Once your review is complete, please issue the BP & Admin Approval to me via email at DalioF@bv.com. Our office is moving, so email issuance is preferred.

Please contact me at daliof@bv.com and or 630-686-3402 if you have any questions, concerns, or require any additional information.

Sincerely,
Black & Veatch Corporation

Frank Dalio

Frank Dalio, Sr. Site Acquisition Associate



Tower Engineering Solutions

Phone (972) 483-0607, Fax (972) 975-9615
1320 Greenway Drive, Suite 600, Irving, Texas 75038

Structural Analysis Report

Existing 120 ft Andrew Self Supporting Tower

Customer Name: KGI Wireless, Inc.

Customer Site Number: 27739

Customer Site Name: Birmingham

Carrier Name: AT&T

Carrier Site ID / Name: 27739

Site Location: 2080 East Maple Road

Birmingham, Michigan

OAKLAND County

Latitude: 42.545200

Longitude: -83.193600

Analysis Result:

Max Structural Usage: 93.1% [Pass]

Max Foundation Usage: 71.0% [Pass]



Report Prepared By: Mohammed Al Rubaye



Tower Engineering Solutions

Phone (972) 483-0607, Fax (972) 975-9615
1320 Greenway Drive, Suite 600, Irving, Texas 75038

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Report Prepared By: Mohammed Al Rubaye

Introduction

The purpose of this report is to summarize the analysis results on the 120 ft Andrew Self Supporting Tower to support the proposed antennas and transmission lines in addition to those currently installed. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

Sources of Information

Tower Drawings	Andrew Dwg #LI-7033-01, dated August 30, 1987Semaan Engineering Soltions analysis Dated 03/08/2018
Foundation Drawing	Andrew Drawing #7033-01, dated August 6, 1987
Geotechnical Report	SME Project # E10611 Dated 06/23/1987
Modification Drawings	N/A
Mount Analysis	Black & Veatch Project Name: 5G NR 1SR CBAND, dated 08/12/2021

Analysis Criteria

The rigorous analysis was performed in accordance with the requirements and stipulations of the TIA-222-G-2. In accordance with this standard, the structure was analyzed using **TESTowers**, a proprietary analysis software. The program considers the structure as an elastic 3-D model with second-order effects and temperature effects incorporated in the analysis. The analysis was performed using multiple wind directions.

Wind Speed Used in the Analysis:	Ultimate Design Wind Speed $V_{ult} = 115.0$ mph (3-Sec. Gust)/ Nominal Design Wind Speed $V_{asd} = 89.0$ mph (3-Sec. Gust)
Wind Speed with Ice:	40 mph (3-Sec. Gust) with 1" radial ice concurrent
Operational Wind Speed:	60 mph + 0" Radial ice
Standard/Codes:	TIA-222-G-2 / 2015 Michigan Building Code
Exposure Category:	C
Structure Class:	II
Topographic Category:	1
Crest Height:	0 ft
Seismic Parameters:	$S_s = 0.089$, $S_1 = 0.045$

This structural analysis is based upon the tower being classified as a Structure Class II; however, if a different classification is required subsequent to the date hereof, the tower classification will be changed to meet such requirement and a new structural analysis will be run.

Existing Antennas, Mounts and Transmission Lines

The table below summarizes the antennas, mounts and transmission lines that were considered in the analysis as existing on the tower.

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
1	120.0	12	Amphenol BXA-70080/8 Ft. Panel	Platform w/ Handrails	(12) 1 5/8" (3) Hybrid	Verizon
2		12	Ericsson RRUS A2 Modules			
3		6	RRH 3JR52709AA 2X60 (AWS 60W)			
4		3	RRH 4X30-4T4R-B13 (700 60W)			
5		3	RRH 4X30-4T4R-BAND 25 (PCS 60W RRH)			
6		12	10"x7"x2" TMAs			
7		3	OVP Junction Boxes			
8	110.0	9	Decibel DB848H80E-XY Panel	(3) T-Frames	(9) 7/8"	Sprint Nextel
9	100.0	3	Andrew HBXX-6517DS-A2M - Panel	(3) Sector Frames (Commscope SFG22HDX14-5)	(2) 1.55" Hybrid (16) 7/8"	T-Mobile
10		3	Nokia AEHC Panel			
11		3	Nokia AHFIG RRU			
-	90.0	3	Allgon 7184 Panel	(3) T-Frames	(1) 0.39" Fiber (2) 0.78" 8 AWG 6 (1) 3/8" RET (12) 7/8"	AT&T
-		3	Andrew SBNHH-1D65C Panel			
-		3	Powerwave RA21.7772.00 Panel			
-		6	Powerwave LGP21401 TMA			
-		3	Alcatel Lucent RRH2x40-07-L RRU			
-		3	Alcatel Lucent RRH2x60-1900A-4R RRU			
-		1	Raycap DC6-48-60-18-8C OVP			
-		1	Squid Box			
24	80.0	1	Andrew VHLP2.5-180 Dish	(1) Dish Mount	(2) 7/8"	Fibertower
25	75.0	3	Argus LLPX310R Panel	(3) T-Frames	(6) 1/2" (2) 2" (6) 5/16"	Clearwire
26		3	Andrew VHLP2-23-1GR Dish			
27		3	DragonWave Horizon DUO			
28		6	Motorola WAP 450			
29	65.0	3	Andrew SBH-2D6516 Panel	(3) T-Frames	(12) 7/8"	Metro PCS
30		3	EMS RR65-19-VDP/-R Panel			

Proposed Carrier's Final Configuration of Antennas, Mounts and Transmission Lines

Information pertaining to the proposed carrier's final configuration of antennas and transmission lines was provided by KGI Wireless, Inc.. The proposed antennas and lines are listed below.

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
12	90.0	3	Commscope NNH4-65C-R6-V3 - Panel	(3) Sector Frames	(6) 7/8" (2) 7/16" DC (3) .96" DC (1) 3/8" RET (1) 3/8" Fiber (1) 10mm Fiber	AT&T
13		3	ACE XXQLH-654L8H80iVT - Panel			
14		3	Powerwave - RA21.7772.00 - Panel			
15		3	Nokia AEQK - Panel			
16		3	Nokia AHLBA - RRU			
17		3	Nokia AHFIB - RRU			
18		3	Nokia AHCA - RRU			
19		3	Alcatel-Lucent RRH4X25-B30 - RRU			
20		1	Raycap DC6-48-60-18-8C OVP - OVP			
21		1	Raycap DC9-48-60-24-8C-EV - OVP			
22		3	Powerwave TT19-08BP111-001 - TMA			
23		1	Squid Box - OVP			

See the attached coax layout for the line placement considered in the analysis.

Analysis Results

The results of the structural analysis, performed for the wind and ice loading and antenna equipment as defined above, are summarized as the following:

Tower Component	Legs	Diagonals	Horizontals
Max. Usage:	87.6%	93.1%	18.0%
Pass/Fail	Pass	Pass	Pass

Foundations

	Compression (Kips)	Uplift (Kips)	Shear (Kips)
Analysis Reactions	229.5	200.3	26.3

The foundation has been investigated using the supplied documents and soils report and was found adequate. Therefore, no modification to the foundation will be required.

Operational Condition (Rigidity):

Operational characteristics of the tower are found to be within the limits prescribed by TIA-222 for the installed antennas. The maximum twist/sway at the elevation of the proposed equipment is 0.2051 degrees under the operational wind speed as specified in the Analysis Criteria.

Conclusions

Based on the analysis results, the existing structure and its foundation were found to be adequate to safely support the existing and proposed equipment and meet the minimum requirements per the TIA-222 Standard under the design basic wind speed as specified in the Analysis Criteria.

Standard Conditions

1. This analysis was performed based on the information supplied to **(TES) Tower Engineering Solutions, LLC**. Verification of the information provided was not included in the Scope of Work for **TES**. The accuracy of the analysis is dependent on the accuracy of the information provided.
2. The structural analysis was performance based upon the evidence available at the time of this report. All information provided by the client is considered to be accurate.
3. The analyses will be performed based on the codes as specified by the client or based on the best knowledge of the engineering staff of **TES**. In the absence of information to the contrary, all work will be performed in accordance with the latest relevant revision of ANSI/TIA-222. If wind speed and/or ice loads are different from the minimum values recommended by the ANSI/TIA-222 standard or other codes, **TES** should be notified in writing and the applicable minimum values provided by the client.
4. The configuration of the existing mounts, antennas, coax and other appurtenances were supplied by the customer for the current structural analysis. **TES** has not visited the tower site to verify the adequacy of the information provided. If there is any discrepancy found in the report regarding the existing conditions, **TES** should be notified immediately to evaluate the effect of the discrepancy on the analysis results.
5. The client will assume responsibility for rework associated with the differences in initially provided information, including tower and foundation information, existing and/or proposed equipment and transmission lines.
6. If a feasibility analysis was performed, final acceptance of changed conditions shall be based upon a rigorous structural analysis.

Structure: 27739-KGI

Site Name: Birmingham

Type: Self Support

Height: 120.00 (ft)

Base Elev: 0.00 (ft)

Base Shape: Triangle

Base Width: 16.83

Top Width: 5.84

Code: EIA/TIA-222-G

Basic WS: 89.00

Basic Ice WS: 40.00

Operational WS: 60.00

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Section Properties

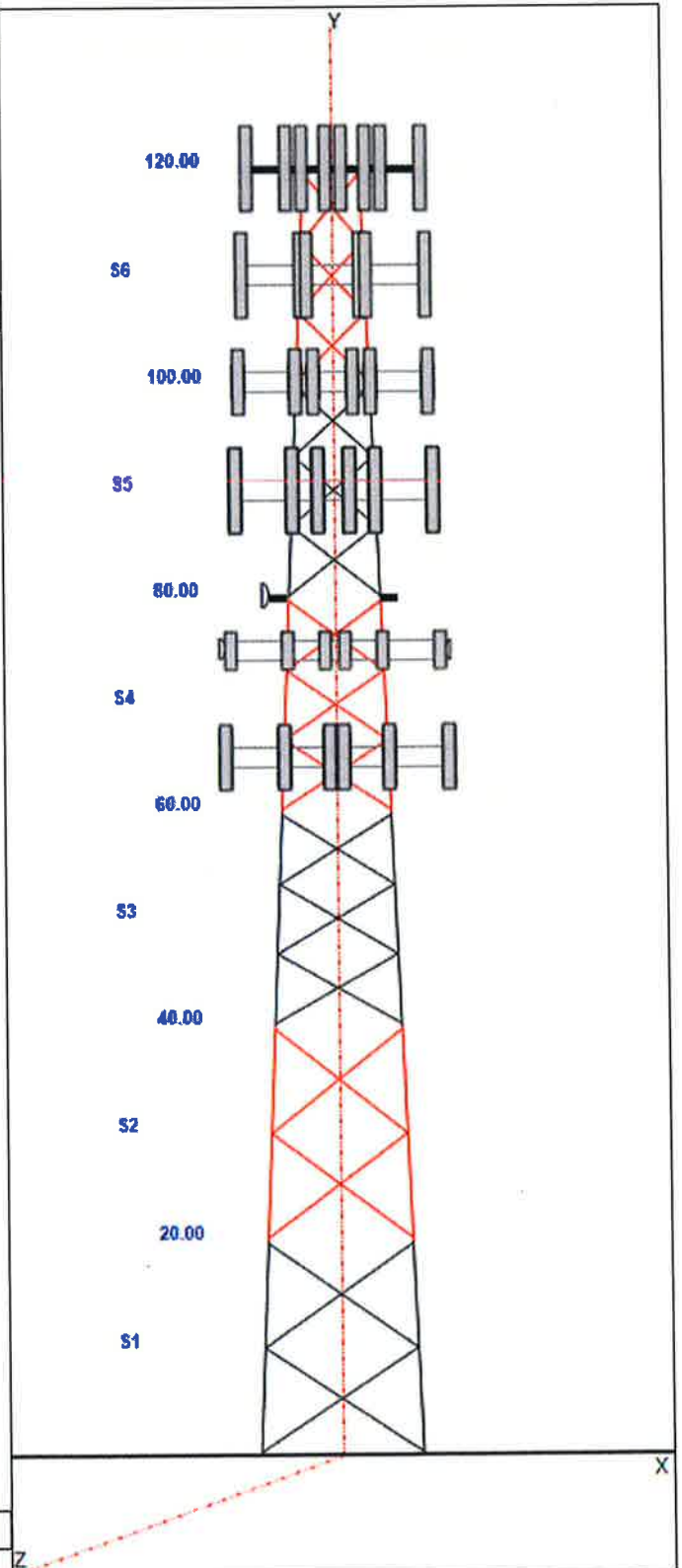
Sect	Leg Members	Diagonal Members	Horizontal Members
1	PST 8" DIA PIPE	SAE 3.5X3.5X0.25	
2	PST 6" DIA PIPE	SAE 3X3X0.25	
3	PST 5" DIA PIPE	SAU 3X2.5X0.1875	
4	PST 5" DIA PIPE	SAE 2.5X2.5X0.1875	
5	PST 4" DIA PIPE	SAU 2.5X2X0.1875	
6	PST 3" DIA PIPE	SAE 2X2X0.1875	SAE 2X2X0.1875

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description
120.00	120.00	1	6' Lightning rod
120.00	120.00	1	Beacon
120.00	120.00	12	BXA-70080/8CF (94.7")
120.00	120.00	12	RRUS A2 Module
120.00	120.00	6	3JR52709AA 2X60
120.00	120.00	3	4X30-4T4R-B13
120.00	120.00	3	4X30-4T4R-BAND 25
120.00	120.00	12	10"x7"x2" TMAs
120.00	120.00	3	OVP Junction Box
120.00	120.00	1	Platform w/ Hand Rails (flat)
110.00	110.00	9	DB848H80E-XY
110.00	110.00	3	T-Frames
100.00	100.00	3	HBXX-6517DS-A2M
100.00	100.00	3	AEHC
100.00	100.00	3	AHFIG
100.00	100.00	1	(3) SFG22HDX
90.00	90.00	3	NNH4-65C-R6-V3
90.00	90.00	3	XXQLH-654L8H80iVT
90.00	90.00	3	AEQK
90.00	90.00	3	AHLBA
90.00	90.00	3	AHFIB
90.00	90.00	3	AHCA
90.00	90.00	3	RRH4X25-B30
90.00	90.00	1	DC9-48-60-24-8C-EV
90.00	90.00	3	TT19-08BP111-001
90.00	90.00	3	RA21.7772.00
90.00	90.00	1	DC6-48-60-18-8C
90.00	90.00	1	Squid Box
90.00	90.00	3	T-Frames
80.00	80.00	1	VHLP2.5-180
80.00	80.00	1	Dish Mount
75.00	75.00	3	LLPX310R
75.00	75.00	3	VHLP2-23-1GR
75.00	75.00	3	Horizon DUO
75.00	75.00	6	WAP 450
75.00	75.00	3	T-Frames
65.00	65.00	3	SBH-2D6516
65.00	65.00	3	RR65-19-VDP/ R
65.00	65.00	3	T-Frames

Linear Appurtenances

Elev From (ft)	Elev To (ft)	Qty	Description
0.00	120.00	2	1 5/8" Coax



Site Name: Birmingham

Code: EIA/TIA-222-G

10/18/2021

Type: Self Support

Base Shape: Triangle

Basic WS: 89.00

Height: 120.00 (ft)

Base Width: 16.83

Basic Ice WS: 40.00

Base Elev: 0.00 (ft)

Top Width: 5.84

Operational WS: 60.00

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0.00	120.00	10	1 5/8" Coax
0.00	120.00	3	Hybrid
0.00	120.00	1	W/G Ladder
0.00	110.00	9	7/8" Coax
0.00	110.00	1	W/G Ladder
0.00	104.00	2	1.55" Hybrid
0.00	104.00	16	7/8" Coax
0.00	104.00	1	W/G Ladder
0.00	90.00	1	0.39" Fiber
0.00	90.00	2	0.78" 8 AWG 6
0.00	90.00	3	0.96" DC
0.00	90.00	1	3/8" Fiber
0.00	90.00	1	3/8" RET
0.00	90.00	6	7/8" Coax
0.00	90.00	1	W/G Ladder
0.00	80.00	2	7/8" Coax
0.00	75.00	6	1/2" Coax
0.00	75.00	2	2" Coax
0.00	75.00	6	5/16" Coax
0.00	75.00	1	W/G Ladder
0.00	65.00	12	7/8" Coax
0.00	65.00	1	W/G Ladder

Base Reactions

Leg	Overturning
Max Uplift: -200.30 (kips)	Moment: 3148.51 (ft-kips)
Max Down: 229.53 (kips)	Total Down: 40.55 (kips)
Max Shear: 26.34 (kips)	Total Shear: 44.06 (kips)

Structure: 27739-KGI

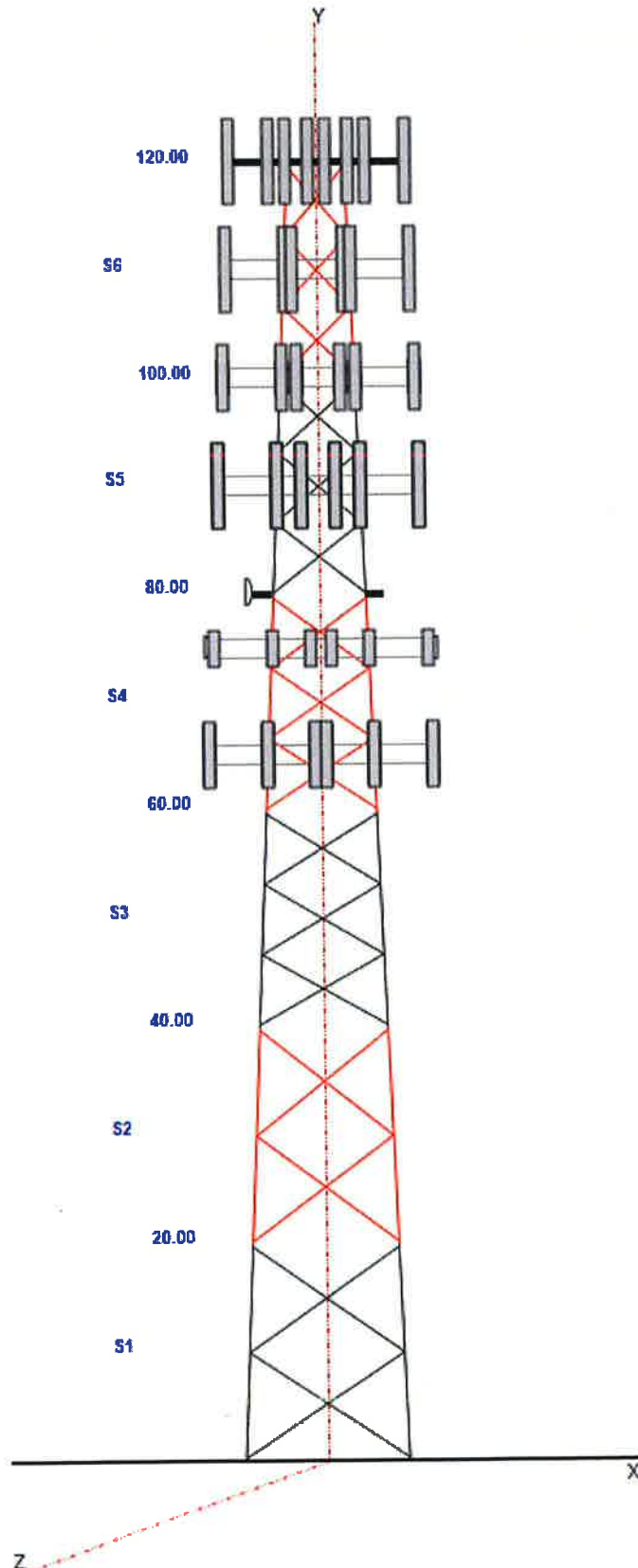
Site Name: Birmingham
Type: Self Support
Height: 120.00 (ft)
Base Elev: 0.00 (ft)

Base Shape: Triangle
Base Width: 16.83
Top Width: 5.84

Code: EIA/TIA-222-G
Basic WS: 89.00
Basic Ice WS: 40.00
Operational WS: 60.00

10/18/2021

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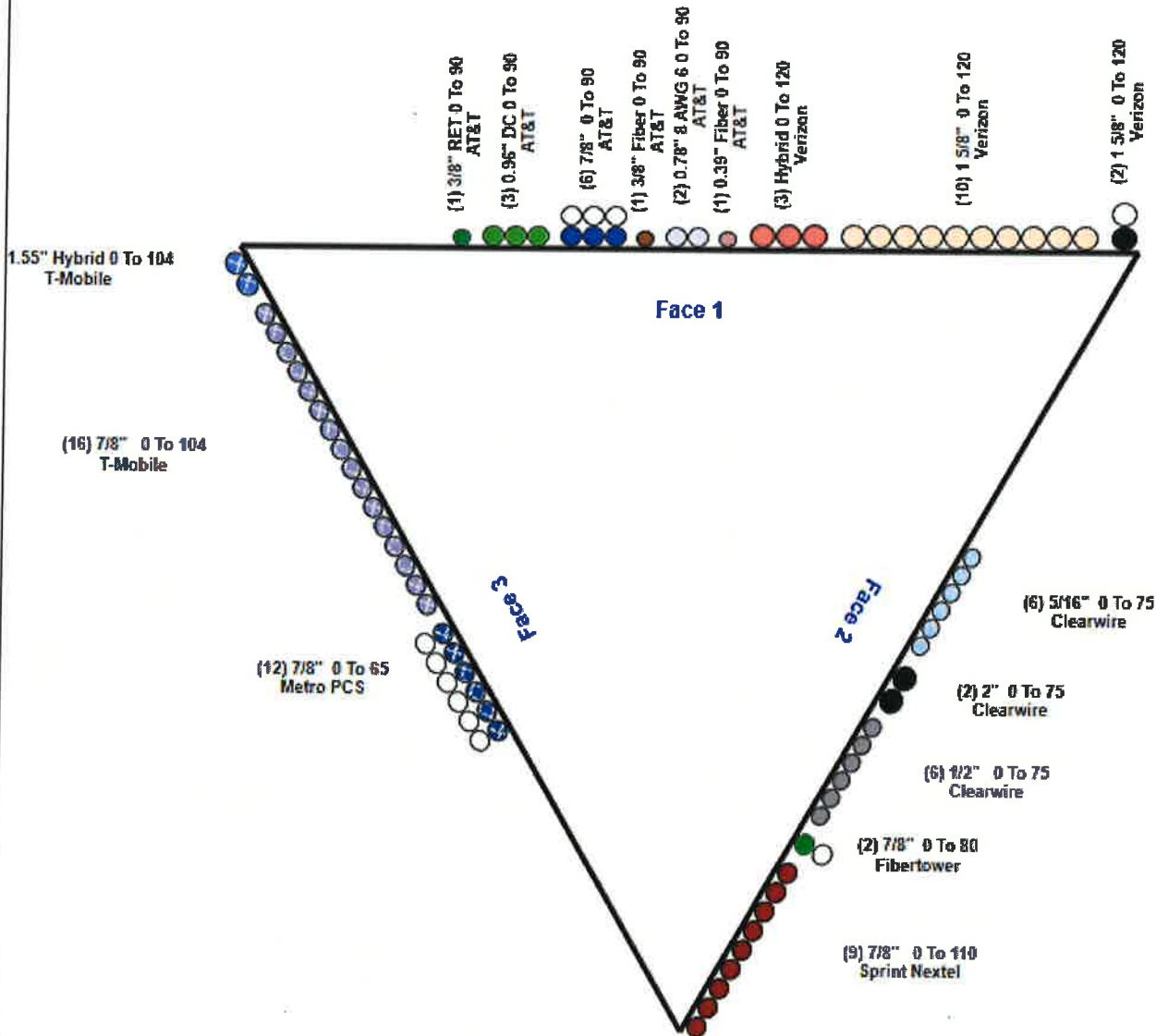
Structure: 27739-KGI - Coax Line Placement

Type: Self Support
 Site Name: Birmingham
 Height: 120.00 (ft)

10/18/2021



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Loading Summary

Structure: 27739-KGI	Code: EIA/TIA-222-G	10/18/2021
Site Name: Birmingham	Exposure: C	
Height: 120.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 0.85	Topography: 1	Struct Class: II



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Discrete Appurtenances Properties

Attach Elev (ft)	Description	Qty	No Ice		Ice		Len (in)	Width (in)	Depth (in)	Ka	Orientation Factor	Vert Ecc (ft)	
			Weight (lb)	CaAa (sf)	Weight (lb)	CaAa (sf)							
120.00	6' Lightning rod	1	6.50	0.380	53.42	1.786	72.000	0.600	0.600	1.00	1.00	0.000	
120.00	Beacon	1	36.00	2.720	208.17	3.947	28.000	17.500	17.500	1.00	1.00	0.000	
120.00	BXA-70080/8CF (94.7")	12	23.00	8.310	236.85	12.314	94.700	8.100	5.700	0.75	0.85	0.000	
120.00	RRUS A2 Module	12	21.20	1.860	67.88	3.119	12.800	15.000	3.400	0.75	0.67	0.000	
120.00	3JR52709AA 2X60	6	55.00	3.500	158.43	4.520	37.000	11.000	6.000	0.75	0.67	0.000	
120.00	4X30-4T4R-B13	3	57.20	2.160	137.72	2.949	21.600	12.000	9.000	0.75	0.67	0.000	
120.00	4X30-4T4R-BAND 25	3	51.00	2.140	125.64	2.926	21.400	12.000	7.200	0.75	0.67	0.000	
120.00	10"x7"x2" TMAs	12	11.00	0.000	44.79	1.160	10.000	8.000	2.200	0.75	0.75	0.000	
120.00	OVP Junction Box	3	30.00	0.970	66.11	1.889	10.000	10.000	6.000	0.75	0.67	0.000	
120.00	Platform w/ Hand Rails (flat)	1	2000.0	40.000	4707.07	67.071	0.000	0.000	0.000	1.00	1.00	0.000	
110.00	DB848H80E-XY	9	28.00	7.190	315.01	9.215	96.000	6.500	8.000	0.80	1.00	0.000	
110.00	T-Frames	3	500.00	15.000	1176.77	40.266	0.000	0.000	0.000	0.75	0.75	0.000	
100.00	HBXX-6517DS-A2M	3	40.80	8.550	264.09	12.248	74.900	12.000	6.500	0.80	0.77	0.000	
100.00	AEHC	3	99.00	6.800	309.05	8.135	35.500	23.000	8.500	0.80	0.70	0.000	
100.00	AHFIG	3	79.40	3.080	173.15	3.984	27.600	13.400	5.600	0.80	0.67	0.000	
100.00	(3) SFG22HDX	1	1983.0	41.500	4438.35	107.56	0.000	0.000	0.000	0.75	1.00	0.000	
90.00	NNH4-65C-R6-V3	3	102.10	17.070	581.98	19.374	96.000	19.600	7.800	0.80	0.74	0.000	
90.00	XXQLH-654L8H80iVT	3	99.20	17.150	575.46	19.449	96.000	19.700	7.500	0.80	0.72	0.000	
90.00	AEQK	3	99.00	6.800	309.05	8.135	35.500	23.000	8.500	0.80	0.70	0.000	
90.00	AHLBA	3	101.00	3.660	224.90	4.660	28.700	15.300	9.400	0.80	0.67	0.000	
90.00	AHFIB	3	88.20	3.680	248.35	4.726	28.700	15.400	9.500	0.80	0.67	0.000	
90.00	AHCA	3	36.80	1.280	104.81	1.916	13.300	11.600	6.500	0.80	0.67	0.000	
90.00	RRH4X25-B30	3	70.00	2.900	172.15	3.849	29.500	11.800	7.900	0.80	0.67	0.000	
90.00	DC9-48-60-24-8C-EV	1	26.20	1.140	160.48	3.150	31.400	10.200	18.200	0.80	1.00	0.000	
90.00	TT19-08BP111-001	3	16.00	0.640	41.64	1.391	9.900	6.700	5.400	0.80	0.90	0.000	
90.00	RA21.7772.00	3	46.20	9.670	326.04	11.656	88.500	11.000	5.000	0.80	0.30	0.000	
90.00	DC6-48-60-18-8C	1	20.00	1.260	86.85	2.096	23.500	9.700	9.700	0.80	1.00	0.000	
90.00	Squid Box	1	31.80	0.920	110.13	1.475	24.000	11.000	11.000	0.80	1.00	0.000	
90.00	T-Frames	3	500.00	15.000	1163.32	39.764	0.000	0.000	0.000	0.75	0.75	0.000	
80.00	VHLP2.5-180	1	69.00	6.190	227.24	8.000	30.000	30.000	0.000	1.00	1.00	0.000	
80.00	Dish Mount	1	40.00	2.630	139.19	10.004	0.000	0.000	0.000	1.00	1.00	0.000	
75.00	LLPX310R	3	28.60	4.300	140.17	6.351	42.000	11.800	4.500	0.80	0.69	0.000	
75.00	VHLP2-23-1GR	3	31.00	4.690	151.90	6.268	26.100	26.100	0.000	1.00	1.00	0.000	
75.00	Horizon DUO	3	10.60	0.430	38.44	1.062	4.700	9.300	9.300	0.80	0.75	0.000	
75.00	WAP 450	6	26.00	1.850	83.07	3.260	25.000	7.600	5.500	0.80	0.75	0.000	
75.00	T-Frames	3	500.00	15.000	1146.86	39.149	0.000	0.000	0.000	0.75	0.75	0.000	
65.00	SBH-2D6516	3	26.00	5.040	153.19	7.626	63.400	8.000	8.000	0.80	1.00	0.000	
65.00	RR65-19-VDP/-R	3	16.00	5.880	180.30	7.432	72.000	8.000	2.800	0.80	0.80	0.000	
65.00	T-Frames	3	500.00	15.000	1146.86	39.149	0.000	0.000	0.000	0.75	0.75	0.000	
Totals:		138	14,997.20		45,483.04		Number of Appurtenances :						39

Loading Summary

Structure: 27739-KGI	Code: EIA/TIA-222-G	10/18/2021
Site Name: Birmingham	Exposure: C	
Height: 120.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 0.85	Topography: 1	Struct Class: II



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Linear Appurtenances Properties

Elev. From (ft)	Elev. To (ft)	Description	Qty	Width (in)	Weight (lb/ft)	Pct In Block	Spread On Faces	Bundling Arrangement	Cluster Dia (in)	Out of Zone	Spacing (in)	Orientation Factor	Ka Override
0.00	120.00	1 5/8" Coax	2	1.98	1.04	50.00	1	Block		N	0.50	1.00	
0.00	120.00	1 5/8" Coax	10	1.98	1.04	100.00	1	Individual NR		N	1.00	1.00	
0.00	120.00	Hybrid	3	2.00	1.10	100.00	1	Individual NR		N	1.00	1.00	
0.00	120.00	W/G Ladder	1	3.00	6.00	100.00	1	Individual NR		N	1.00	1.00	
0.00	110.00	7/8" Coax	9	1.11	0.52	100.00	2	Individual NR		N	1.00	0.43	
0.00	110.00	W/G Ladder	1	3.00	6.00	100.00	2	Individual NR		N	1.00	1.00	
0.00	104.00	1.55" Hybrid	2	1.55	1.15	100.00	3	Individual NR		N	1.00	1.00	
0.00	104.00	7/8" Coax	16	1.11	0.52	100.00	3	Individual NR		N	1.00	1.00	
0.00	104.00	W/G Ladder	1	3.00	6.00	100.00	3	Individual NR		N	1.00	1.00	
0.00	90.00	0.39" Fiber	1	0.39	0.05	100.00	1	Individual NR		N	1.00	1.00	
0.00	90.00	0.78" 8 AWG 6	2	0.88	0.65	100.00	1	Individual NR		N	1.00	1.00	
0.00	90.00	0.96" DC	3	0.96	0.40	100.00	1	Individual NR		N	1.00	1.00	
0.00	90.00	3/8" Fiber	1	0.38	0.06	100.00	1	Individual NR		N	1.00	1.00	
0.00	90.00	3/8" RET	1	0.38	0.06	100.00	1	Individual NR		N	1.00	1.00	
0.00	90.00	7/8" Coax	6	1.11	0.52	50.00	1	Block		N	0.50	1.00	
0.00	90.00	W/G Ladder	1	3.00	6.00	100.00	1	Individual NR		N	1.00	1.00	
0.00	80.00	7/8" Coax	2	1.11	0.52	50.00	2	Block		N	0.50	1.00	
0.00	75.00	1/2" Coax	6	0.65	0.16	100.00	2	Individual NR		N	1.00	0.52	
0.00	75.00	2" Coax	2	2.00	1.61	100.00	2	Individual NR		N	1.00	0.75	
0.00	75.00	5/16" Coax	6	0.44	0.08	100.00	2	Individual NR		N	1.00	0.54	
0.00	75.00	W/G Ladder	1	3.00	6.00	100.00	2	Individual NR		N	1.00	1.00	
0.00	65.00	7/8" Coax	12	1.11	0.52	50.00	3	Block		N	0.50	1.00	
0.00	65.00	W/G Ladder	1	3.00	6.00	100.00	3	Individual NR		N	1.00	1.00	

Section Forces

Structure: 27739-KGI
Site Name: Birmingham
Height: 120.00 (ft)
Base Elev: 0.000 (ft)
Gh: 0.85

Topography: 1

Code: EIA/TIA-222-G
Exposure: C
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

10/18/2021



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Load Case: 1.2D + 1.6W Normal Wind

1.2D + 1.6W 89 mph Wind at Normal To Face

Wind Load Factor: 1.60
Dead Load Factor: 1.20
Ice Dead Load Factor: 0.00

Wind Importance Factor: 1.00
Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Ice			Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
												Linear Area (sqft)	Linear Area (sqft)	Total Weight (lb)				
1	10.0	14.65	20.939	28.79	0.00	0.15	2.77	1.00	1.00	0.00	33.66	179.26	0.00	5,653.0	0.0	1860.02	2957.66	4,817.68
2	30.0	16.93	16.580	22.11	0.00	0.13	2.84	1.00	1.00	0.00	27.29	179.26	0.00	4,612.0	0.0	1783.62	3417.84	5,201.47
3	50.0	18.85	20.112	18.57	0.00	0.15	2.76	1.00	1.00	0.00	29.70	179.26	0.00	4,105.3	0.0	2104.33	3805.90	5,910.22
4	70.0	20.24	14.776	18.57	0.00	0.15	2.76	1.00	1.00	0.00	24.23	158.42	0.00	3,619.9	0.0	1840.55	3549.51	5,390.06
5	90.0	21.34	13.000	15.02	0.00	0.16	2.75	1.00	1.00	0.00	21.18	123.65	0.00	2,737.4	0.0	1689.31	2863.03	4,552.35
6	110.0	22.26	10.016	11.68	0.00	0.15	2.76	1.00	1.00	0.00	16.65	70.08	0.00	1,823.0	0.0	1389.55	1668.73	3,058.28
														22,550.5	0.0			

Load Case: 1.2D + 1.6W 60° Wind

1.2D + 1.6W 89 mph Wind at 60° From Face

Wind Load Factor: 1.60
Dead Load Factor: 1.20
Ice Dead Load Factor: 0.00

Wind Importance Factor: 1.00
Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	
1	10.0	14.65	20.939	28.79	0.00	0.15	2.77	0.80	1.00	0.00	29.47	179.26	0.00	5,653.0	0.0	1628.60	2957.66	4,586.26	
2	30.0	16.93	16.580	22.11	0.00	0.13	2.84	0.80	1.00	0.00	23.98	179.26	0.00	4,612.0	0.0	1566.93	3417.84	4,984.78	
3	50.0	18.85	20.112	18.57	0.00	0.15	2.76	0.80	1.00	0.00	25.67	179.26	0.00	4,105.3	0.0	1819.31	3805.90	5,625.20	
4	70.0	20.24	14.776	18.57	0.00	0.15	2.76	0.80	1.00	0.00	21.28	158.42	0.00	3,619.9	0.0	1616.09	3549.51	5,165.61	
5	90.0	21.34	13.000	15.02	0.00	0.16	2.75	0.80	1.00	0.00	18.58	123.65	0.00	2,737.4	0.0	1481.96	2863.03	4,344.99	
6	110.0	22.26	10.016	11.68	0.00	0.15	2.76	0.80	1.00	0.00	14.65	70.08	0.00	1,823.0	0.0	1222.39	1668.73	2,891.12	
														22,550.5	0.0				27,597.95

Load Case: 1.2D + 1.6W 90° Wind

1.2D + 1.6W 89 mph Wind at 90° From Face

Wind Load Factor: 1.60
Dead Load Factor: 1.20
Ice Dead Load Factor: 0.00

Wind Importance Factor: 1.00
Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	
1	10.0	14.65	20.939	28.79	0.00	0.15	2.77	0.85	1.00	0.00	30.52	179.26	0.00	5,653.0	0.0	1686.46	2957.66	4,644.11	
2	30.0	16.93	16.580	22.11	0.00	0.13	2.84	0.85	1.00	0.00	24.81	179.26	0.00	4,612.0	0.0	1621.11	3417.84	5,038.95	
3	50.0	18.85	20.112	18.57	0.00	0.15	2.76	0.85	1.00	0.00	26.68	179.26	0.00	4,105.3	0.0	1890.56	3805.90	5,696.46	
4	70.0	20.24	14.776	18.57	0.00	0.15	2.76	0.85	1.00	0.00	22.02	158.42	0.00	3,619.9	0.0	1672.21	3549.51	5,221.72	
5	90.0	21.34	13.000	15.02	0.00	0.16	2.75	0.85	1.00	0.00	19.23	123.65	0.00	2,737.4	0.0	1533.80	2863.03	4,396.83	
6	110.0	22.26	10.016	11.68	0.00	0.15	2.76	0.85	1.00	0.00	15.15	70.08	0.00	1,823.0	0.0	1264.18	1668.73	2,932.91	
														22,550.5	0.0				27,930.98

Section Forces

Structure: 27739-KGI
Site Name: Birmingham
Height: 120.00 (ft)
Base Elev: 0.000 (ft)
Gh: 0.85

Topography: 1

Code: EIA/TIA-222-G
Exposure: C
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

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Load Case: 0.9D + 1.6W Normal Wind

0.9D + 1.6W 89 mph Wind at Normal To Face

Wind Load Factor: 1.60
Dead Load Factor: 0.90
Ice Dead Load Factor: 0.00

Wind Importance Factor: 1.00
Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	10.0	14.65	20.939	28.79	0.00	0.15	2.77	1.00	1.00	0.00	33.66	179.26	0.00	4,239.7	0.0	1860.02	2957.66	4,817.68
2	30.0	16.93	16.580	22.11	0.00	0.13	2.84	1.00	1.00	0.00	27.29	179.26	0.00	3,459.0	0.0	1783.62	3417.84	5,201.47
3	50.0	18.85	20.112	18.57	0.00	0.15	2.76	1.00	1.00	0.00	29.70	179.26	0.00	3,078.9	0.0	2104.33	3805.90	5,910.22
4	70.0	20.24	14.776	18.57	0.00	0.15	2.76	1.00	1.00	0.00	24.23	158.42	0.00	2,714.9	0.0	1840.55	3549.51	5,390.06
5	90.0	21.34	13.000	15.02	0.00	0.16	2.75	1.00	1.00	0.00	21.18	123.65	0.00	2,053.1	0.0	1689.31	2863.03	4,552.35
6	110.0	22.26	10.016	11.68	0.00	0.15	2.76	1.00	1.00	0.00	16.65	70.08	0.00	1,367.2	0.0	1389.55	1668.73	3,058.28
														16,912.9	0.0			28,930.05

Load Case: 0.9D + 1.6W 60° Wind

0.9D + 1.6W 89 mph Wind at 60° From Face

Wind Load Factor: 1.60
Dead Load Factor: 0.90
Ice Dead Load Factor: 0.00

Wind Importance Factor: 1.00
Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	10.0	14.65	20.939	28.79	0.00	0.15	2.77	0.80	1.00	0.00	29.47	179.26	0.00	4,239.7	0.0	1628.60	2957.66	4,586.26
2	30.0	16.93	16.580	22.11	0.00	0.13	2.84	0.80	1.00	0.00	23.98	179.26	0.00	3,459.0	0.0	1566.93	3417.84	4,984.78
3	50.0	18.85	20.112	18.57	0.00	0.15	2.76	0.80	1.00	0.00	25.67	179.26	0.00	3,078.9	0.0	1819.31	3805.90	5,625.20
4	70.0	20.24	14.776	18.57	0.00	0.15	2.76	0.80	1.00	0.00	21.28	158.42	0.00	2,714.9	0.0	1616.09	3549.51	5,165.61
5	90.0	21.34	13.000	15.02	0.00	0.16	2.75	0.80	1.00	0.00	18.58	123.65	0.00	2,053.1	0.0	1481.96	2863.03	4,344.99
6	110.0	22.26	10.016	11.68	0.00	0.15	2.76	0.80	1.00	0.00	14.65	70.08	0.00	1,367.2	0.0	1222.39	1668.73	2,891.12
														16,912.9	0.0			27,597.95

Load Case: 0.9D + 1.6W 90° Wind

0.9D + 1.6W 89 mph Wind at 90° From Face

Wind Load Factor: 1.60
Dead Load Factor: 0.90
Ice Dead Load Factor: 0.00

Wind Importance Factor: 1.00
Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	10.0	14.65	20.939	28.79	0.00	0.15	2.77	0.85	1.00	0.00	30.52	179.26	0.00	4,239.7	0.0	1686.46	2957.66	4,644.11
2	30.0	16.93	16.580	22.11	0.00	0.13	2.84	0.85	1.00	0.00	24.81	179.26	0.00	3,459.0	0.0	1621.11	3417.84	5,038.95
3	50.0	18.85	20.112	18.57	0.00	0.15	2.76	0.85	1.00	0.00	26.68	179.26	0.00	3,078.9	0.0	1890.56	3805.90	5,696.46
4	70.0	20.24	14.776	18.57	0.00	0.15	2.76	0.85	1.00	0.00	22.02	158.42	0.00	2,714.9	0.0	1672.21	3549.51	5,221.72
5	90.0	21.34	13.000	15.02	0.00	0.16	2.75	0.85	1.00	0.00	19.23	123.65	0.00	2,053.1	0.0	1533.80	2863.03	4,396.83
6	110.0	22.26	10.016	11.68	0.00	0.15	2.76	0.85	1.00	0.00	15.15	70.08	0.00	1,367.2	0.0	1264.18	1668.73	2,932.91
														16,912.9	0.0			27,930.98

Section Forces

Structure: 27739-KGI
Site Name: Birmingham
Height: 120.00 (ft)
Base Elev: 0.000 (ft)
Gh: 0.85

Topography: 1

Code: EIA/TIA-222-G
Exposure: C
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

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Load Case: 1.2D + 1.0Di + 1.0Wi Normal Wind

1.2D + 1.0Di + 1.0Wi 40 mph Wind at Normal From Face

Wind Load Factor: 1.00
Dead Load Factor: 1.20
Ice Dead Load Factor: 1.00

Wind Importance Factor: 1.00
Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat	Total Round	Ice Round	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	
			Area (sqft)	Area (sqft)	Area (sqft)								Area (sqft)						
1	10.0	2.96	20.939	62.73	33.94	0.25	2.45	1.00	1.00	1.77	57.59	238.42	366.8	20,159.	14506.2	354.37	1423.89	1,778.26	
2	30.0	3.42	16.580	57.97	35.85	0.25	2.44	1.00	1.00	1.98	50.48	245.29	409.4	20,757.	16145.3	358.06	1775.24	1,827.00	
3	50.0	3.81	20.112	61.41	42.84	0.31	2.26	1.00	1.00	2.08	57.13	248.75	430.8	21,740.	17635.7	418.71	1916.33	2,335.05	
4	70.0	4.09	14.776	59.45	40.88	0.33	2.22	1.00	1.00	2.16	50.97	217.71	420.4	20,365.	16745.2	392.99	1879.45	2,272.45	
5	90.0	4.31	13.000	53.61	38.59	0.36	2.16	1.00	1.00	2.21	46.17	160.50	324.2	16,096.	13359.1	364.55	1446.83	1,811.38	
6	110.0	4.50	10.016	50.10	38.42	0.40	2.05	1.00	1.00	2.26	42.00	90.38	158.6	10,245.	8422.8	329.72	725.67	1,055.39	
														109,364.7	86814.2				11,079.52

Load Case: 1.2D + 1.0Di + 1.0Wi 60° Wind

1.2D + 1.0Di + 1.0Wi 40 mph Wind at 60° From Face

Wind Load Factor: 1.00
Dead Load Factor: 1.20
Ice Dead Load Factor: 1.00

Wind Importance Factor: 1.00
Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat	Total Round	Ice Round	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	
			Area (sqft)	Area (sqft)	Area (sqft)														
1	10.0	2.96	20.939	62.73	33.94	0.25	2.45	0.80	1.00	1.77	53.40	238.42	366.8	20,159.	14506.2	328.60	1423.89	1,752.49	
2	30.0	3.42	16.580	57.97	35.85	0.25	2.44	0.80	1.00	1.98	47.16	245.29	409.4	20,757.	16145.3	334.54	1775.24	2,109.78	
3	50.0	3.81	20.112	61.41	42.84	0.31	2.26	0.80	1.00	2.08	53.10	248.75	430.8	21,740.	17635.7	389.23	1916.33	2,305.56	
4	70.0	4.09	14.776	59.45	40.88	0.33	2.22	0.80	1.00	2.16	48.02	217.71	420.4	20,365.	16745.2	370.21	1879.45	2,249.66	
5	90.0	4.31	13.000	53.61	38.59	0.36	2.16	0.80	1.00	2.21	43.57	160.50	324.2	16,096.	13359.1	344.02	1446.83	1,790.85	
6	110.0	4.50	10.016	50.10	38.42	0.40	2.05	0.80	1.00	2.26	40.00	90.38	158.6	10,245.	8422.8	314.00	725.67	1,039.66	
														109,364.7	86814.2				11,248.01

Load Case: 1.2D + 1.0Di + 1.0Wi 90° Wind

1.2D + 1.0Di + 1.0Wi 40 mph Wind at 90° From Face

Wind Load Factor: 1.00
Dead Load Factor: 1.20
Ice Dead Load Factor: 1.00

Wind Importance Factor: 1.00
Ice Importance Factor: 1.00

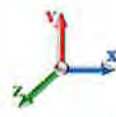
Sect Seq	Wind Height (ft)	qz (psf)	Total	Total	Ice	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	
			Flat Area (sqft)	Round Area (sqft)	Round Area (sqft)														
1	10.0	2.96	20.939	62.73	33.94	0.25	2.45	0.85	1.00	1.77	54.45	238.42	366.8	20,159.	14506.2	335.04	1423.89	1,758.93	
2	30.0	3.42	16.580	57.97	35.85	0.25	2.44	0.85	1.00	1.98	47.99	245.29	409.4	20,757.	16145.3	340.42	1775.24	2,115.66	
3	50.0	3.81	20.112	61.41	42.84	0.31	2.26	0.85	1.00	2.08	54.11	248.75	430.8	21,740.	17635.7	396.60	1916.33	2,312.93	
4	70.0	4.09	14.776	59.45	40.88	0.33	2.22	0.85	1.00	2.16	48.76	217.71	420.4	20,365.	16745.2	375.91	1879.45	2,255.36	
5	90.0	4.31	13.000	53.61	38.59	0.36	2.16	0.85	1.00	2.21	44.22	160.50	324.2	16,096.	13359.1	349.15	1446.83	1,795.98	
6	110.0	4.50	10.016	50.10	38.42	0.40	2.05	0.85	1.00	2.26	40.50	90.38	158.6	10,245.	8422.8	317.93	725.67	1,043.60	
														109,364.7	86814.2				11,282.46

Section Forces

Structure: 27739-KGI
Site Name: Birmingham
Height: 120.00 (ft)
Base Elev: 0.000 (ft)
Gh: 0.85

Topography: 1

Code: EIA/TIA-222-G
Exposure: C
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

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Load Case: 1.0D + 1.0W Normal Wind

1.0D + 1.0W 60 mph Wind at Normal To Face

Wind Load Factor: 1.00
Dead Load Factor: 1.00
Ice Dead Load Factor: 0.00

Wind Importance Factor: 1.00
Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	10.0	6.66	20.939	28.79	0.00	0.15	2.77	1.00	1.00	0.00	36.24	179.26	0.00	4,710.8	0.0	568.80	840.14	1,408.93
2	30.0	7.69	16.580	22.11	0.00	0.13	2.84	1.00	1.00	0.00	29.01	179.26	0.00	3,843.4	0.0	538.42	970.86	1,509.28
3	50.0	8.57	20.112	18.57	0.00	0.15	2.76	1.00	1.00	0.00	30.65	179.26	0.00	3,421.1	0.0	617.02	1081.08	1,698.10
4	70.0	9.20	14.776	18.57	0.00	0.15	2.76	1.00	1.00	0.00	25.32	158.42	0.00	3,016.6	0.0	546.29	1008.26	1,554.54
5	90.0	9.70	13.000	15.02	0.00	0.16	2.75	1.00	1.00	0.00	21.54	123.65	0.00	2,281.2	0.0	487.84	813.26	1,301.10
6	110.0	10.12	10.016	11.68	0.00	0.15	2.76	1.00	1.00	0.00	16.65	70.08	0.00	1,519.1	0.0	394.71	474.01	868.72
														18,792.1	0.0	8,340.67		

Load Case: 1.0D + 1.0W 60° Wind

1.0D + 1.0W 60 mph Wind at 60° From Face

Wind Load Factor: 1.00
Dead Load Factor: 1.00
Ice Dead Load Factor: 0.00

Wind Importance Factor: 1.00
Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	10.0	6.66	20.939	28.79	0.00	0.15	2.77	0.80	1.00	0.00	32.05	179.26	0.00	4,710.8	0.0	503.06	840.14	1,343.20
2	30.0	7.69	16.580	22.11	0.00	0.13	2.84	0.80	1.00	0.00	25.69	179.26	0.00	3,843.4	0.0	476.87	970.86	1,447.72
3	50.0	8.57	20.112	18.57	0.00	0.15	2.76	0.80	1.00	0.00	26.63	179.26	0.00	3,421.1	0.0	536.06	1081.08	1,617.14
4	70.0	9.20	14.776	18.57	0.00	0.15	2.76	0.80	1.00	0.00	22.37	158.42	0.00	3,016.6	0.0	482.53	1008.26	1,490.79
5	90.0	9.70	13.000	15.02	0.00	0.16	2.75	0.80	1.00	0.00	18.94	123.65	0.00	2,281.2	0.0	428.94	813.26	1,242.20
6	110.0	10.12	10.016	11.68	0.00	0.15	2.76	0.80	1.00	0.00	14.65	70.08	0.00	1,519.1	0.0	347.23	474.01	821.24
														18,792.1	0.0	7,962.29		

Load Case: 1.0D + 1.0W 90° Wind

1.0D + 1.0W 60 mph Wind at 90° From Face

Wind Load Factor: 1.00
Dead Load Factor: 1.00
Ice Dead Load Factor: 0.00

Wind Importance Factor: 1.00
Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	10.0	6.66	20.939	28.79	0.00	0.15	2.77	0.85	1.00	0.00	33.10	179.26	0.00	4,710.8	0.0	519.50	840.14	1,359.63
2	30.0	7.69	16.580	22.11	0.00	0.13	2.84	0.85	1.00	0.00	26.52	179.26	0.00	3,843.4	0.0	492.26	970.86	1,463.11
3	50.0	8.57	20.112	18.57	0.00	0.15	2.76	0.85	1.00	0.00	27.64	179.26	0.00	3,421.1	0.0	556.30	1081.08	1,637.38
4	70.0	9.20	14.776	18.57	0.00	0.15	2.76	0.85	1.00	0.00	23.10	158.42	0.00	3,016.6	0.0	498.47	1008.26	1,506.72
5	90.0	9.70	13.000	15.02	0.00	0.16	2.75	0.85	1.00	0.00	19.59	123.65	0.00	2,281.2	0.0	443.67	813.26	1,256.93
6	110.0	10.12	10.016	11.68	0.00	0.15	2.76	0.85	1.00	0.00	15.15	70.08	0.00	1,519.1	0.0	359.10	474.01	833.11
														18,792.1	0.0	8,056.88		

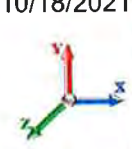
Force/Stress Compression Summary

Structure: 27739-KGI
 Site Name: Birmingham
 Height: 120.00 (ft)
 Base Elev: 0.000 (ft)
 Gh: 0.85

Topography: 1

Code: EIA/TIA-222-G
 Exposure: C
 Crest Height: 0.00
 Site Class: D - Stiff Soil
 Struct Class: II

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LEG MEMBERS

Sect	Top Elev	Member	Force (kips)		Load Case	Len (ft)	Bracing %			KL/R	Fy (ksi)	Mem	Leg Use %	Controls
							X	Y	Z			Cap (kips)		
1	20	PST - 8" DIA PIPE	-219.74	1.2D + 1.6W	Normal Wind	9.76	100	100	100	39.85	50.00	336.56	65.3	Member X
2	40	PST - 6" DIA PIPE	-180.44	1.2D + 1.6W	Normal Wind	9.76	100	100	100	52.07	50.00	205.94	87.6	Member X
3	60	PST - 5" DIA PIPE	-141.35	1.2D + 1.6W	Normal Wind	6.51	100	100	100	41.55	50.00	170.56	82.9	Member X
4	80	PST - 5" DIA PIPE	-97.27	1.2D + 1.6W	Normal Wind	6.51	100	100	100	41.55	50.00	170.56	57.0	Member X
5	100	PST - 4" DIA PIPE	-53.38	1.2D + 1.6W	Normal Wind	6.51	100	100	100	51.73	50.00	117.30	45.5	Member X
6	120	PST - 3" DIA PIPE	-18.50	1.2D + 1.6W	Normal Wind	6.51	100	100	100	67.34	50.00	72.03	25.7	Member X

Splices

Top Splice								Bottom Splice					
Sect	Top Elev	Load Case	Force (kips)	Cap (kips)	Use %	Bolt Type	Num Bolts	Load Case	Force (kips)	Cap (kips)	Use %	Bolt Type	Num Bolts
1	20	1.2D + 1.6W Normal Wind	191.86	0.00	0.0			1.2D + 1.0W Normal Wind	230.21	0.00			
2	40	1.2D + 1.6W Normal Wind	149.74	0.00	0.0			1.2D + 1.6W Normal Wind	191.86	0.00		1/8 A325	6
3	60	1.2D + 1.6W Normal Wind	105.74	0.00	0.0			1.2D + 1.6W Normal Wind	149.74	0.00		1 A325	6
4	80	1.2D + 1.6W Normal Wind	61.12	0.00	0.0			1.2D + 1.6W Normal Wind	105.74	0.00		1 A325	5
5	100	1.2D + 1.6W Normal Wind	24.82	0.00	0.0			1.2D + 1.6W Normal Wind	61.12	0.00		7/8 A325	5
6	120	1.2D + 1.0Di + 1.0Wi Normal Wi	4.13	0.00	0.0			1.2D + 1.6W Normal Wind	24.82	0.00		7/8 A325	4

HORIZONTAL MEMBERS

Sect	Top Elev	Member	Force (kips)		Load Case	Len (ft)	Bracing %			KL/R	Fy (ksi)	Mem	Shear		Bear	Use %	Controls
							Cap (kips)	Num Bolts	Num Holes			Cap (kips)	Cap (kips)				
1	20											0.00	0	0			
2	40											0.00	0	0			
3	60											0.00	0	0			
4	80											0.00	0	0			
5	100											0.00	0	0			
6	120	SAE - 2X2X0.1875	-0.91	1.2D + 1.6W 60° Wind		5.84	100	100	100	177.86	36.00	5.07	1	1	12.43	9.79	18 Member Z

DIAGONAL MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Len (ft)	Bracing %			KL/R	Fy (ksi)	Mem		Shear		Bear		Controls
						X	Y	Z			Cap (kips)	Num Bolts	Num Holes	Cap (kips)	Cap (kips)	Use %	
1	20	SAE - 3.5X3.5X0.25	-10.5	0.9D + 1.6W 90° Wind	18.29	48	48	48	151.77	36.00	16.58	1	1	17.89	14.3	73	Bolt Bear
2	40	SAE - 3X3X0.25	-9.91	1.2D + 1.6W 90° Wind	17.50	49	49	49	173.81	36.00	10.77	1	1	12.43	13.0	92	Member Z
3	60	SAU - 3X2.5X0.1875	-8.69	1.2D + 1.6W 90° Wind	14.40	48	48	48	155.60	36.00	9.33	1	1	12.43	9.79	93	Member Z
4	80	SAE - 2.5X2.5X0.1875	-8.12	1.2D + 1.6W 90° Wind	12.79	48	48	48	148.83	36.00	9.20	1	1	12.43	9.79	88	Member Z
5	100	SAU - 2.5X2X0.1875	-6.32	1.2D + 1.6W 90° Wind	11.25	48	48	48	151.78	36.00	7.94	1	1	12.43	9.79	80	Member Z
6	120	SAE - 2X2X0.1875	-3.59	1.2D + 1.6W 90° Wind	9.81	48	48	48	143.47	36.00	7.79	1	1	12.43	9.79	46	Member Z

Force/Stress Tension Summary

Structure: 27739-KGI
Site Name: Birmingham
Height: 120.00 (ft)
Base Elev: 0.000 (ft)
Gh: 0.85

Topography: 1

Code: EIA/TIA-222-G
Exposure: C
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

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LEG MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Fy (ksi)	Mem Cap (kips)	Leg Use %	Controls
1	20	PST - 8" DIA PIPE	201.57	0.9D + 1.6W 60° Wind	50	378.00	53.3	Member
2	40	PST - 6" DIA PIPE	166.78	0.9D + 1.6W 60° Wind	50	251.10	66.4	Member
3	60	PST - 5" DIA PIPE	128.62	0.9D + 1.6W 60° Wind	50	193.50	66.5	Member
4	80	PST - 5" DIA PIPE	88.30	0.9D + 1.6W 60° Wind	50	193.50	45.6	Member
5	100	PST - 4" DIA PIPE	49.24	0.9D + 1.6W 60° Wind	50	142.65	34.5	Member
6	120	PST - 3" DIA PIPE	18.56	0.9D + 1.6W 60° Wind	50	100.35	18.5	Member

Splices

Top Splice

Bottom Splice

Sect	Top Elev	Load Case	Force (kips)	Cap (kips)	Use %	Bolt Type	Num Bolts	Load Case	Force (kips)	Cap (kips)	Use %	Bolt Type	Num Bolts
1	20	0.9D + 1.6W 60° Wind	166.52	0.00	0.0			0.9D + 1.6W 60° Wind	201.5	0.00			
2	40	0.9D + 1.6W 60° Wind	128.36	0.00	0.0			0.9D + 1.6W 60° Wind	166.5	360.65	46.2	1 1/8 A325	6
3	60	0.9D + 1.6W 60° Wind	88.12	0.00	0.0			0.9D + 1.6W 60° Wind	128.3	318.06	40.4	1 A325	6
4	80	0.9D + 1.6W 60° Wind	49.06	0.00	0.0			0.9D + 1.6W 60° Wind	88.12	265.05	33.2	1 A325	5
5	100	0.9D + 1.6W 60° Wind	17.69	0.00	0.0			0.9D + 1.6W 60° Wind	49.06	207.80	23.6	7/8 A325	5
6	120		0.00	0.00	0.0			0.9D + 1.6W 60° Wind	17.69	166.24	10.6	7/8 A325	4

HORIZONTAL MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Fy (ksi)	Mem Cap (kips)	Num Bolts	Num Holes	Shear Cap (kips)	Bear Cap (kips)	B.S. Cap (kips)	Use %	Controls
1	20	-			36	0.00	0	0					
2	40	-			36	0.00	0	0					
3	60	-			36	0.00	0	0					
4	80	-			36	0.00	0	0					
5	100	-			36	0.00	0	0					
6	120	SAE - 2X2X0.1875	0.89	0.9D + 1.6W Normal Wi	36	23.00	1	1	12.43	9.79	8.51	10.5	Blck Shear

DIAGONAL MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Fy (ksi)	Mem Cap (kips)	Num Bolts	Num Holes	Shear Cap (kips)	Bear Cap (kips)	B.S. Cap (kips)	Use %	Controls
1	20	SAE - 3.5X3.5X0.25	10.39	1.2D + 1.6W 90° Wind	36	54.76	1	1	17.89	14.35	16.62	72.4	Bolt Bear
2	40	SAE - 3X3X0.25	10.12	1.2D + 1.6W 90° Wind	36	46.66	1	1	12.43	13.05	14.07	81.4	Bolt Shear
3	60	SAU - 3X2.5X0.1875	8.72	1.2D + 1.6W 90° Wind	36	32.40	1	1	12.43	9.79	10.55	89.1	Bolt Bear
4	80	SAE - 2.5X2.5X0.1875	8.09	1.2D + 1.6W 90° Wind	36	29.22	1	1	12.43	9.79	9.53	84.8	Blck Shear
5	100	SAU - 2.5X2X0.1875	6.22	1.2D + 1.6W 90° Wind	36	26.24	1	1	12.43	9.79	9.53	65.3	Blck Shear
6	120	SAE - 2X2X0.1875	3.49	0.9D + 1.6W 90° Wind	36	23.00	1	1	12.43	9.79	7.50	46.6	Blck Shear

Seismic Section Forces

Structure: 27739-KGI	Code: EIA/TIA-222-G	10/18/2021
Site Name: Birmingham	Exposure: C	
Height: 120.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 0.85	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0E

Dead Load Factor	1.20	Sds 0.095	Ss 0.0890	Fa 1.6000	Ke 0.0000
Seismic Load Factor	1.00	Sd1 0.072	S1 0.0450	Fv 2.4000	Kg 0.0000
Seismic Importance Factor	1.00	SA 0.095	R 3.0000	Vs 1.2837	f1 3.2926

Sect #	Elev (ft)	Wz (lb)	a	b	c	Lateral Fsz (lb)
1	10.00	4710.7	0.01	0.06	0.03	10.54
2	30.00	3843.3	0.12	0.07	0.03	22.51
3	50.00	3421.0	0.33	0.04	0.01	39.52
4	70.00	6618.1	0.64	-0.07	0.02	119.25
5	90.00	8475.2	1.06	-0.09	0.17	242.33
6	110.00	6720.6	1.59	0.74	0.65	385.54

Load Case: 0.9D + 1.0E

Dead Load Factor	0.90	Sds 0.095	Ss 0.0890	Fa 1.6000	Ke 0.0000
Seismic Load Factor	1.00	Sd1 0.072	S1 0.0450	Fv 2.4000	Kg 0.0000
Seismic Importance Factor	1.00	SA 0.095	R 3.0000	Vs 1.2837	f1 3.2926

Sect #	Elev (ft)	Wz (lb)	a	b	c	Lateral Fsz (lb)
1	10.00	4710.7	0.01	0.06	0.03	10.54
2	30.00	3843.3	0.12	0.07	0.03	22.51
3	50.00	3421.0	0.33	0.04	0.01	39.52
4	70.00	6618.1	0.64	-0.07	0.02	119.25
5	90.00	8475.2	1.06	-0.09	0.17	242.33
6	110.00	6720.6	1.59	0.74	0.65	385.54

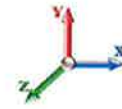
Support Forces Summary

Structure: 27739-KGI
Site Name: Birmingham
Height: 120.00 (ft)
Base Elev: 0.000 (ft)
Gh: 0.85

Topography: 1

Code: EIA/TIA-222-G
Exposure: C
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

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Load Case	Node	FX (kips)	FY (kips)	FZ (kips)	(-) = Uplift (+) = Down
1.2D + 1.6W Normal Wind	1	0.00	229.53	-26.34	
	1a	8.79	-94.49	-8.86	
	1b	-8.79	-94.49	-8.86	
1.2D + 1.6W 60° Wind	1	-3.12	118.86	-13.19	
	1a	-12.99	118.86	3.89	
	1b	-20.89	-197.17	-12.06	
1.2D + 1.6W 90° Wind	1	-3.66	13.52	-0.77	
	1a	-20.34	197.12	9.65	
	1b	-19.06	-170.10	-8.88	
0.9D + 1.6W Normal Wind	1	0.00	225.91	-26.13	
	1a	8.97	-97.75	-8.96	
	1b	-8.97	-97.75	-8.96	
0.9D + 1.6W 60° Wind	1	-3.13	115.36	-12.98	
	1a	-12.80	115.36	3.78	
	1b	-21.07	-200.30	-12.16	
0.9D + 1.6W 90° Wind	1	-3.66	10.14	-0.56	
	1a	-20.16	193.53	9.54	
	1b	-19.24	-173.26	-8.98	
1.2D + 1.0Di + 1.0Wi Normal Wind	1	0.00	117.80	-9.59	
	1a	1.86	17.54	-2.39	
	1b	-1.86	17.54	-2.39	
1.2D + 1.0Di + 1.0Wi 60° Wind	1	-1.16	84.45	-5.50	
	1a	-5.35	84.45	1.75	
	1b	-6.08	-16.01	-3.51	
1.2D + 1.0Di + 1.0Wi 90° Wind	1	-1.34	50.96	-1.33	
	1a	-7.76	109.08	3.71	
	1b	-5.46	-7.16	-2.38	
1.2D + 1.0E	1	0.00	18.72	2.65	
	1a	2.93	10.91	-1.73	
	1b	-2.93	10.91	-1.73	
0.9D + 1.0E	1	0.00	15.33	2.87	
	1a	3.12	7.54	-1.84	
	1b	-3.12	7.54	-1.84	
1.0D + 1.0W Normal Wind	1	0.00	72.82	-8.02	
	1a	2.10	-19.51	-2.30	
	1b	-2.10	-19.51	-2.30	
1.0D + 1.0W 60° Wind	1	-0.90	41.28	-4.26	
	1a	-4.14	41.28	1.34	
	1b	-5.56	-48.78	-3.21	
1.0D + 1.0W 90° Wind	1	-1.06	11.26	-0.70	
	1a	-6.24	63.59	3.00	
	1b	-5.04	-41.06	-2.30	

Max Reactions

Leg**Overturning**

Max Uplift: -200.30 (kips)
Max Down: 229.53 (kips)
Max Shear: 26.34 (kips)

Moment: 3148.51 (ft-kips)
Total Down: 40.55 (kips)
Total Shear: 44.06 (kips)

Analysis Summary

Structure: 27739-KGI	Code: EIA/TIA-222-G	10/18/2021
Site Name: Birmingham	Exposure: C	
Height: 120.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 0.85	Topography: 1	Struct Class: II
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Max Reactions

Leg		Overturning	
Max Uplift:	-200.30 (kips)	Moment:	3148.51 (ft-kips)
Max Down:	229.53 (kips)	Total Down:	40.55 (kips)
Max Shear:	26.34 (kips)	Total Shear:	44.06 (kips)

Anchor Bolts

Bolt Size (in.): 1.13	Number Bolts: 6
Yield Strength (Ksi): 105.00	Tensile Strength (Ksi): 125.00
Detail Type: D	Length: 1.00
Interaction Ratio: 0.62	

Max Usages

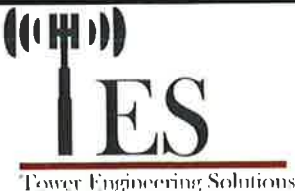
Max Leg: 87.6% (1.2D + 1.6W Normal Wind - Sect 2)
 Max Diag: 93.1% (1.2D + 1.6W 90° Wind - Sect 3)
 Max Horiz: 18.0% (1.2D + 1.6W 60° Wind - Sect 6)

Max Deflection, Twist and Sway

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)
0.9D + 1.0E - Normal To Face	66.75	0.0082	0.0006	0.0132
	73.25	0.0097	0.0006	0.0141
	80.00	0.0113	0.0007	0.0183
	86.75	0.0130	0.0007	0.0158
	100.00	0.0168	0.0009	0.0216
	106.75	0.0188	0.0008	0.0173
	120.00	0.0230	0.0009	0.0200
0.9D + 1.6W 89 mph Wind at 60° From Face	66.75	0.2651	0.0205	0.4383
	73.25	0.3176	0.0219	0.4691
	80.00	0.3764	0.0255	0.6038
	86.75	0.4385	0.0245	0.5268
	100.00	0.5688	0.0298	0.7048
	106.75	0.6391	0.0267	0.5774
	120.00	0.7794	0.0306	0.7207
0.9D + 1.6W 89 mph Wind at 90° From Face	66.75	0.2662	-0.0234	0.4441
	73.25	0.3190	-0.0250	0.4747
	80.00	0.3780	-0.0287	0.5945
	86.75	0.4407	-0.0280	0.5321
	100.00	0.5718	-0.0338	0.6939
	106.75	0.6422	-0.0307	0.5825
	120.00	0.7834	-0.0349	0.7093

0.9D + 1.6W 89 mph Wind at Normal To Face	66.75	0.2710	0.0206	0.4478
	73.25	0.3245	0.0220	0.4793
	80.00	0.3846	0.0250	0.6195
	86.75	0.4480	0.0247	0.5381
	100.00	0.5811	0.0293	0.7211
	106.75	0.6523	0.0271	0.5893
	120.00	0.7958	0.0306	0.7270
1.0D + 1.0W 60 mph Wind at 60° From Face	66.75	0.0754	0.0058	0.1246
	73.25	0.0904	0.0062	0.1334
	80.00	0.1071	0.0072	0.1714
	86.75	0.1249	0.0070	0.1496
	100.00	0.1620	0.0084	0.2003
	106.75	0.1818	0.0076	0.1641
	120.00	0.2218	0.0086	0.2075
1.0D + 1.0W 60 mph Wind at 90° From Face	66.75	0.0760	-0.0067	0.1264
	73.25	0.0909	-0.0071	0.1351
	80.00	0.1078	-0.0082	0.1695
	86.75	0.1256	-0.0080	0.1514
	100.00	0.1629	-0.0096	0.1974
	106.75	0.1829	-0.0087	0.1657
	120.00	0.2230	-0.0099	0.2040
1.0D + 1.0W 60 mph Wind at Normal To Face	66.75	0.0774	-0.0059	0.1276
	73.25	0.0926	0.0063	0.1366
	80.00	0.1098	0.0072	0.1767
	86.75	0.1277	0.0070	0.1533
	100.00	0.1656	-0.0084	0.2051
	106.75	0.1859	0.0077	0.1677
	120.00	0.2266	0.0088	0.2041
1.2D + 1.0Di + 1.0Wi 40 mph Wind at 60° From Face	66.75	0.0831	0.0061	0.1313
	73.25	0.0990	0.0066	0.1405
	80.00	0.1163	0.0075	0.1770
	86.75	0.1347	0.0072	0.1557
	100.00	0.1729	0.0086	0.2017
	106.75	0.1934	0.0078	0.1674
	120.00	0.2341	0.0086	0.2124
1.2D + 1.0Di + 1.0Wi 40 mph Wind at 90° From Face	66.75	0.0830	-0.0070	0.1327
	73.25	0.0990	-0.0075	0.1426
	80.00	0.1164	-0.0085	0.1773
	86.75	0.1349	-0.0082	0.1562
	100.00	0.1731	-0.0098	0.2005
	106.75	0.1936	-0.0089	0.1685
	120.00	0.2344	-0.0098	0.2080
1.2D + 1.0Di + 1.0Wi 40 mph Wind at Normal From Face	66.75	0.0827	0.0061	0.1324
	73.25	0.0986	0.0065	0.1428
	80.00	0.1162	0.0074	0.1825
	86.75	0.1348	0.0071	0.1569
	100.00	0.1734	0.0085	0.2058
	106.75	0.1937	0.0078	0.1691
	120.00	0.2347	0.0086	0.1977
1.2D + 1.0E - Normal To Face	66.75	0.0082	0.0006	0.0132
	73.25	0.0097	0.0006	0.0142
	80.00	0.0113	0.0007	0.0183
	86.75	0.0130	0.0007	0.0158
	100.00	0.0168	0.0009	0.0215
	106.75	0.0189	-0.0008	0.0173
	120.00	0.0230	0.0009	0.0203
1.2D + 1.6W 89 mph Wind at 60° From Face	66.75	0.2654	0.0205	0.4390
	73.25	0.3180	0.0220	0.4699
	80.00	0.3769	0.0255	0.6047
	86.75	0.4391	0.0245	0.5277
	100.00	0.5697	0.0298	0.7061
	106.75	0.6401	0.0268	0.5784
	120.00	0.7807	0.0307	0.7232

1.2D + 1.6W 89 mph Wind at 90° From Face	66.75	0.2665	-0.0234	0.4448
	73.25	0.3195	-0.0250	0.4756
	80.00	0.3786	-0.0288	0.5958
	86.75	0.4414	-0.0281	0.5330
	100.00	0.5727	-0.0338	0.6954
	106.75	0.6433	-0.0308	0.5836
	120.00	0.7847	-0.0349	0.7117
1.2D + 1.6W 89 mph Wind at Normal To Face	66.75	0.2715	0.0206	0.4486
	73.25	0.3250	0.0221	0.4801
	80.00	0.3853	0.0250	0.6209
	86.75	0.4487	0.0247	0.5391
	100.00	0.5821	0.0294	0.7227
	106.75	0.6534	0.0272	0.5904
	120.00	0.7972	0.0306	0.7274

	Belled Pier Foundation Analysis and Design			Date
				10/18/2021
	Customer Name:	KGI Wireless, Inc.	EIA/TIA Standard:	EIA-222-G
	Site Name:		Structure Height (Ft.):	120
	Site Number:	27739-KGI	Engineer Name:	J. Tibbetts
	Engr. Number:	117561	Engineer Login ID:	

Foundation Info Obtained from:

Structure Type:

Analysis or Design?

Base Reactions (Factored):

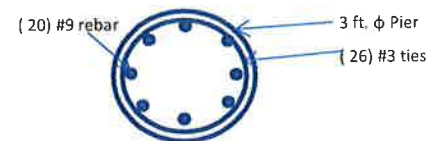
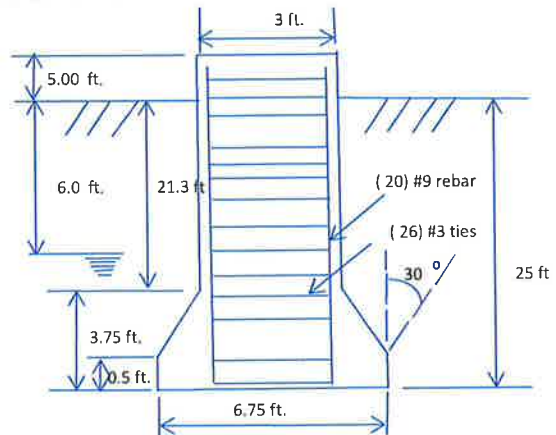
Axial Load (Kips):	229.5	Shear Force (Kips):	26.3
Uplift Force (Kips):	200.3	Moment (Kips-ft):	0.0

Foundation Geometries:

Diameter of Pier (ft.):	3.0	Depth of Base B. G. S.:	25.0 ft.
Pier Height A. G. (ft.):	5.00	Bell Height:	3.8 ft.
Bell Base Thickness (ft.):	0.50	Bell Base Diameter:	6.8 ft.

Material Properties and Rebar Info:

Concrete Strength (psi):	3000	Steel Elastic Modulus:	29000 ksi
Vertical bar yield (ksi):	60	Tie steel yield strength:	60 ksi
Vertical Rebar Size #:	9	Tie / Stirrup Size #:	3
Qty. of Vertical Rebars:	20	Tie Spacing:	12.0 in.
Concrete Cover (in.):	3	Concrete unit weight:	150.0 pcf



Belled Pier Foundation

Soil Design Parameters:

Water Table B.G.S. (ft):	6.0	Unit weight of water:	62.4 psf	Consider Skin Friction on Uplift Calculation ?	Yes
Ratio of Uplift/Axial Skin Friction:	1.0	Pullout failure Angle:	30 (°)		Sand
Skin Frictions are to be obtained from:	Calculations	Please Enter Ultimate End Bearing Pressure (psf):	8000		
Kc = 1.15 For Sand		Kt = 0.7 For Sand and Silt	Friction δ Between Pier & Soil = 0.95		
Kc = 1.0 Silt/Clay		Kt = 0.85 For Clay			

Depth of Layers (ft)	γ _{soil}	φ	Cohesion			Soil Types	Ultimate Uplift Skin Friction (psf)	Ultimate Axial Skin Friction (psf)	Kc	Kt	α
Top	Bottom	(pcf)	(°)	(psf)							
0.0	3.0	110	0	0	0	Sand			1.15	0.70	
3.0	6.0	110	0	2000		Clay	1000.0	1000.0	1.00	0.85	0.50
6.0	11.0	110	0	2000		Clay	1000.0	1000.0	1.00	0.85	0.50
11.0	35.0	110	0	2000	8000	Clay	1000.0	1000.0	1.00	0.85	0.50
35.0	40.0					Clay			1.00	0.85	0.00

Soil weight Increase Factor for bouyant soils (1.0 to 1.15): 1.1

TES Engr. Number: 117561

Page 2/2

Date:

10/18/2021

Check Soil Capacities:

Calculated Foundation Allowable Axial Capacity (Kips):	347.0	>	Design Factored Axial Load (Kips):	247	0.71	OK!
Calculated Foundation Uplift Capacity (Kips):	409.95	>	Design Factored Uplift Load (Kips):	200	0.49	OK!

Check the capacities of Reinforcing Concrete:

Strength reduction factor (Flexure and axial tension):	0.90	Strength reduction factor (Shear):	0.75
Strength reduction factor (Axial compression):	0.65	Wind Load Factor on Concrete Design:	1.00

Reinforcing Concrete Pier:

Vertical Steel Rebar Area (sq. in./each):	1.00	Tie / Stirrup Area (sq. in./each):	0.11	Usage
Calculated Moment Capacity (Mn, Kips-Ft):	1024	> Design Factored Moment (Mu, K-Ft):	267.9	0.26 OK!
Calculated Shear Capacity (Kips):	72.6	> Design Factored Shear (Kips):	35.6	0.49 OK!
Calculated Tension Capacity (Tn, Kips):	1080.0	> Design Factored Tension (Tu Kips):	200.3	0.19 OK!
Calculated Compression Capacity (Pn, Kips):	1323	> Design Factored Axial Load (Pu Kips):	229.5	0.17 OK!
Moment & Tension Strength Combination:	0.22	OK! Max. Allowable Tie/Stirrup Spacing:	12.00	in.
Pier Reinforcement Ratio:	0.020	Reinforcement Ratio is satisfied per ACI		

SITE ADDRESS:	2080 EAST MAPLE ROAD BIRMINGHAM, MI 48009
COUNTY:	OAKLAND
SITE NAME:	MAPLE AND ADAMS
SITE NUMBER:	M13820
FA NUMBER:	10076512
USID NUMBER:	42108
LATITUDE:	42° 32' 43.00" N
LONGITUDE:	83° 11' 36.99" W
GROUND ELEVATION:	745' AMSL
TOWER OWNER:	VERIZON WIRELESS 24242 NORTHWESTERN HWY SOUTHFIELD, MI 48075
SITE ACQUISITION MANAGER:	KRISTEN CHASE 412.269.5950
CONSTRUCTION MANAGER:	FRANK VITTO 913.458.6194
LEAD ENGINEER:	JORDAN HENRY 913.458.4293

PROJECT MANAGER: STEPHANIE HARDWICK
PHONE: 317.462.2269
APPLICANT: AT&T MOBILITY
CONTACT: -
PHONE: -

APPROVED
12/13/0
PAA21-0133

AT&T MOBILITY

PROJECT: 5G NR 1SR CBAND
AT&T SITE ID: MI3820
AT&T FA#: 10076512

MAPLE AND ADAMS
BIRMINGHAM, MI 48009

AREA MAP



2015 MICHIGAN BUILDING CODE
2017 MICHIGAN ELECTRICAL CODE
TIA-222-G OR LATEST EDITION

DRAWING INDEX

[illegible]

REFERENCE MATERIALS

THESE LTE DRAWINGS ARE BASED ON THE AT&T RFDS DATED 02/01/2021

11"x17" PLOT WILL BE HALF SCALE UNLESS OTHERWISE NOTED

CONTRACTOR SHALL VERIFY ALL PLANS & EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME



**TO OBTAIN LOCATION OF PARTICIPANTS UNDERGROUND FACILITIES
BEFORE YOU DIG IN MICHIGAN, CALL MISS DIG**

811 OR (800) 482-7171
www.missdlig.org

48 HOURS BEFORE YOU DIG

-THESE PLANS ADHERE TO ALL OF THE REQUIREMENTS CALLED OUT IN THE JURISDICTION
PLANNING AND ZONING FOR ANTENNAS AND SUPPORT STRUCTURES WHERE SITE IS LOCATED.
-SUBCONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING CONDITIONS ON SITE. IMMEDIATELY
NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO PERFORMING ANY WORK OR BE RESPONSIBLE
FOR THE SAME

APPLICANT/OWNER:

**AT&T
MOBILITY**

16025 NORTHLAND DR
SOUTHFIELD, MI 48075

PREPARED BY:



BLACK & VEATCH

6800 W. 115TH ST, SUITE 2292
OVERLAND PARK, KANSAS 66211
(913) 458-2000

PROJECT NUMBER: 129391



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MAPLE AND ADAMS

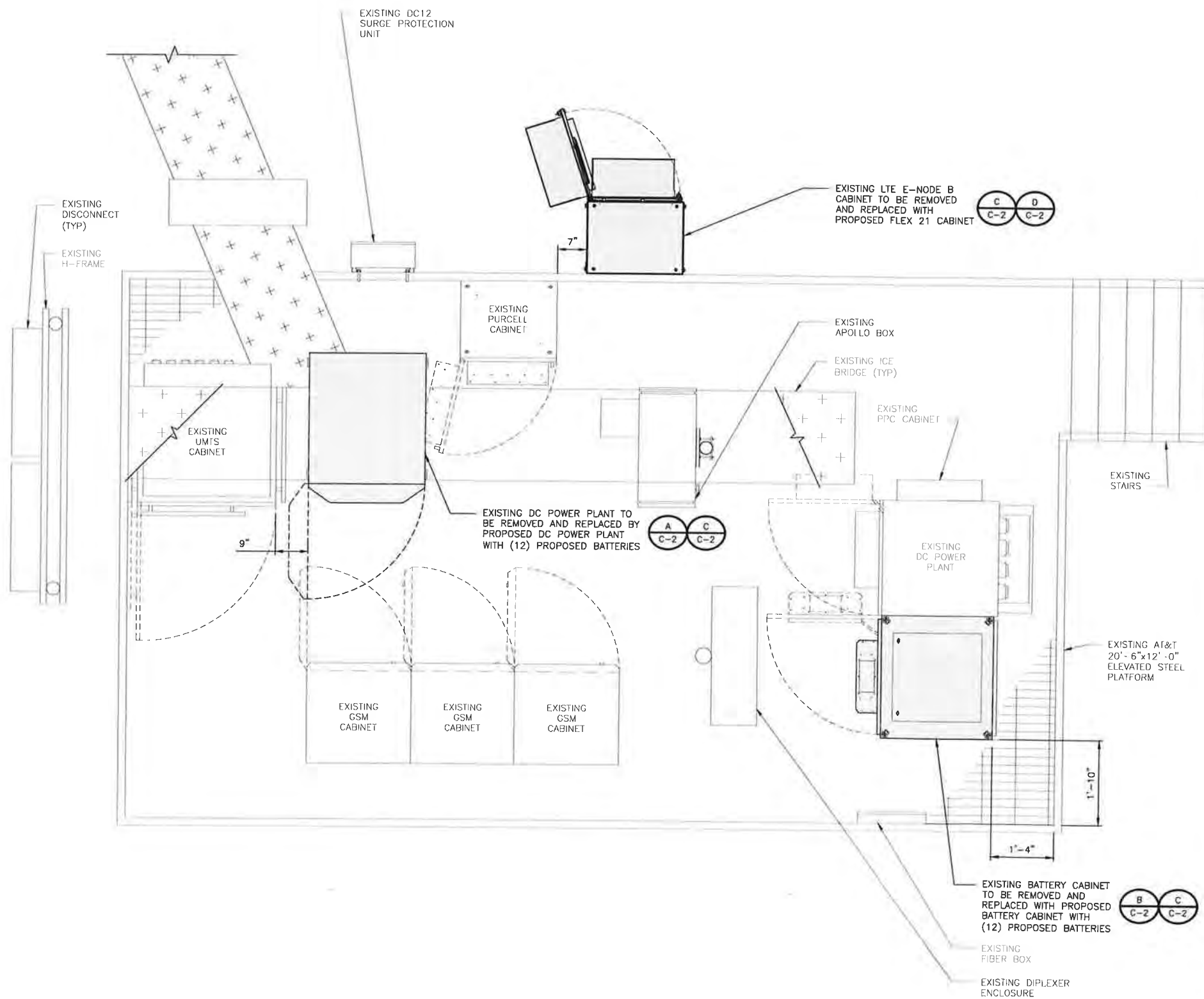
2080 EAST MAPLE ROAD
BIRMINGHAM, MI 48009

DRAWING DESCRIPTION:

TITLE PAGE

DRAWING NUMBER:

TITLE PAGE



1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. CONTRACTOR SHALL MAINTAIN A 10'-0" MINIMUM SEPARATION BETWEEN THE EXISTING/PROPOSED LTE GPS ANTENNA AND TRANSMITTING ANTENNAS.
3. DC POWER WIRING SHALL BE COLOR CODED AT EACH END FOR IDENTIFYING +24V AND -48V CONDUCTORS. RED MARKINGS SHALL IDENTIFY +24V AND BLUE MARKINGS SHALL IDENTIFY -48V. REFER TO ATT-002-290-701.
4. NON-LTE DC POWER WIRING SIZE 14 AWG TO 10 AWG SHALL BE TELCOFLEX III. DC POWER WIRING 8 AWG AND LARGER SHALL BE TELCOFLEX IV.
5. LTE POWER WIRING SHALL BE IN ACCORDANCE WITH ATT-002-290-531.
6. THE PROPOSED ELECTRICAL WORK FOR THE SCOPE OF THIS PROJECT IS LOW VOLTAGE DC POWER ONLY.
7. PROPOSED LTE BBU TO BE INSTALLED AND GROUNDED BY OTHERS, PER AT&T INSTALLATION STANDARDS.
8. EXISTING RACK MOUNTED DC SURGE PROTECTION UNIT SHALL BE SWAPPED OUT WITH PROPOSED RACK MOUNTED DC SURGE PROTECTION UNIT, WHEN REQUIRED FOR UPGRADE.

NOTES

NO	FROM	TO	CONFIGURATION
①	24VDC/48VDC DISTRIBUTION PANEL	RAYCAP SURGE PROTECTION DC12 (OUTDOOR)	(2) 1-#6 TELCOFLEX IV DC CABLE (FOR RPPS REQUIRING NO AMP BREAKERS)
②	RAYCAP SURGE PROTECTION DC12 (OUTDOOR)	RAYCAP SURGE PROTECTION DC9 (TOWER)	6-#6 THHN/THWN/VW-1 TYPE TC-ER DC CABLE

DC CIRCUIT SCHEDULE

INSTALL:

- (1) PROPOSED POWER PLANT WITH (12) BATTERIES
- (1) PROPOSED BATTERY CABINET WITH (12) BATTERIES
- (1) PROPOSED FLEX-21 CABINET
- (1) PROPOSED #6 DC POWER TRUNK

REMOVE:

- (1) EXISTING BATTERY CABINET
- (1) EXISTING DC POWER PLANT
- (1) EXISTING LTE E-NODE B CABINET

APPLICANT/OWNER:

**AT&T
MOBILITY**

16025 NORTHLAND DR
SOUTHFIELD, MI 48075

PREPARED BY:



BLACK & VEATCH

6800 W. 115TH ST, SUITE 2292
OVERLAND PARK, KANSAS 66211
(913) 458-2000

PROJECT NUMBER: 129391



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BIRMINGHAM, MI 48009

DRAWING DESCRIPTION:

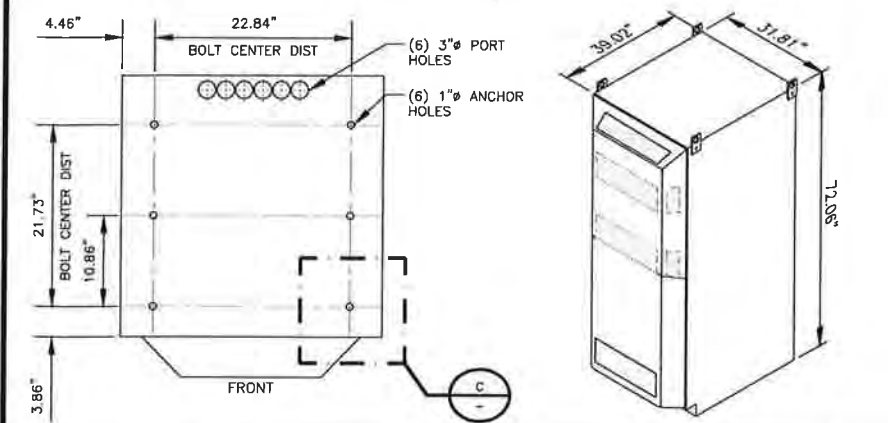
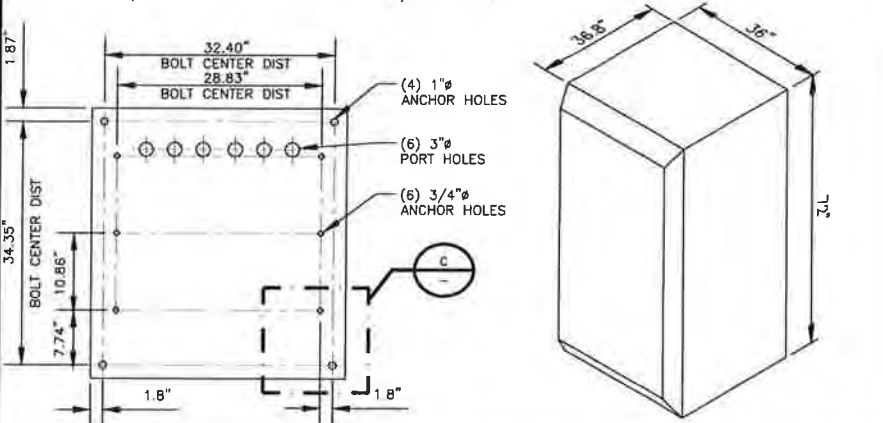
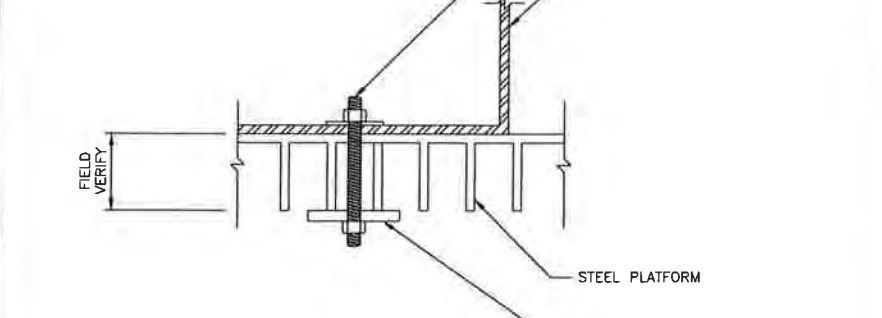
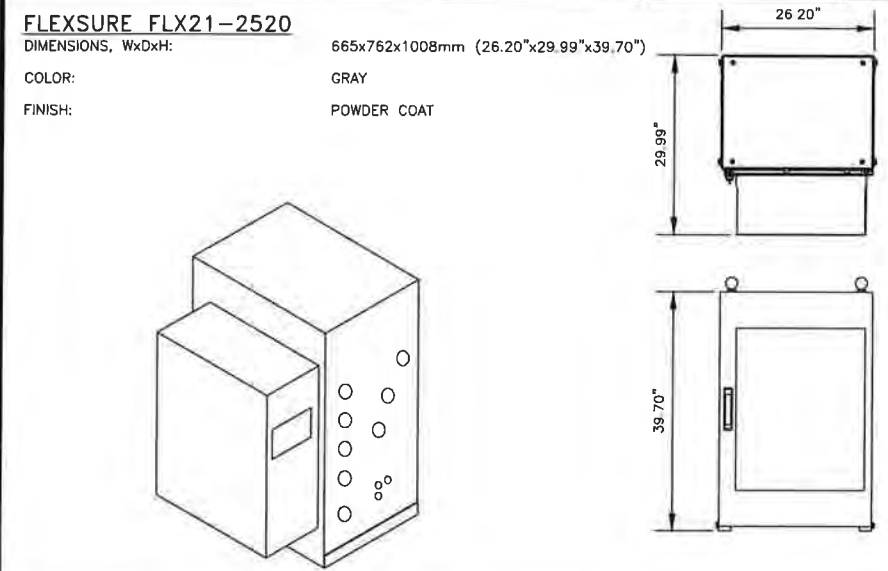
OUTDOOR PLAN
& DC CIRCUIT SCHEDULE

DRAWING NUMBER:

C-1

FINAL OUTDOOR PLAN

SCOPE OF WORK

EMERSON NETSURE 512 CABINET DIMENSIONS, WxDxH: 762x960x1829mm (30"x39"x72") COLOR: GRAY FINISH: POWDER COAT WEIGHT, EMPTY/MAX: 690 lbs. / 2300 lbs. 			EMERSON NETXTEND FLEX BATTERY ENCLOSURE DIMENSIONS, WxDxH: 914x934x1829mm (36"x36.8"x72") COLOR: GRAY FINISH: POWDER COAT WEIGHT, EMPTY/MAX: 690 lbs. / 2300 lbs. 						APPLICANT/OWNER: AT&T MOBILITY 16025 NORTHLAND DR SOUTHFIELD, MI 48075					
OUTDOOR DC POWER PLANT SPECIFICATIONS			NO SCALE	A	OUTDOOR DC BATTERY CABINET SPECIFICATIONS			NO SCALE	B	GRATING ANCHOR DETAIL			NO SCALE	C
FLEXSURE FLX21-2520 DIMENSIONS, WxDxH: 665x762x1008mm (26.20"x29.99"x39.70") COLOR: GRAY FINISH: POWDER COAT 														
FLEXSURE OUTDOOR ENCLOSURE SPECIFICATIONS			NO SCALE	D	NOT USED			NO SCALE	E	NOT USED			NO SCALE	F
NOT USED			NO SCALE	G	NOT USED			NO SCALE	H	NOT USED			NO SCALE	J

STATE OF MICHIGAN

PING JIANG

ENGINEER

No. 6201062190

08/26/2021

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2080 EAST MAPLE ROAD

BIRMINGHAM, MI 48009

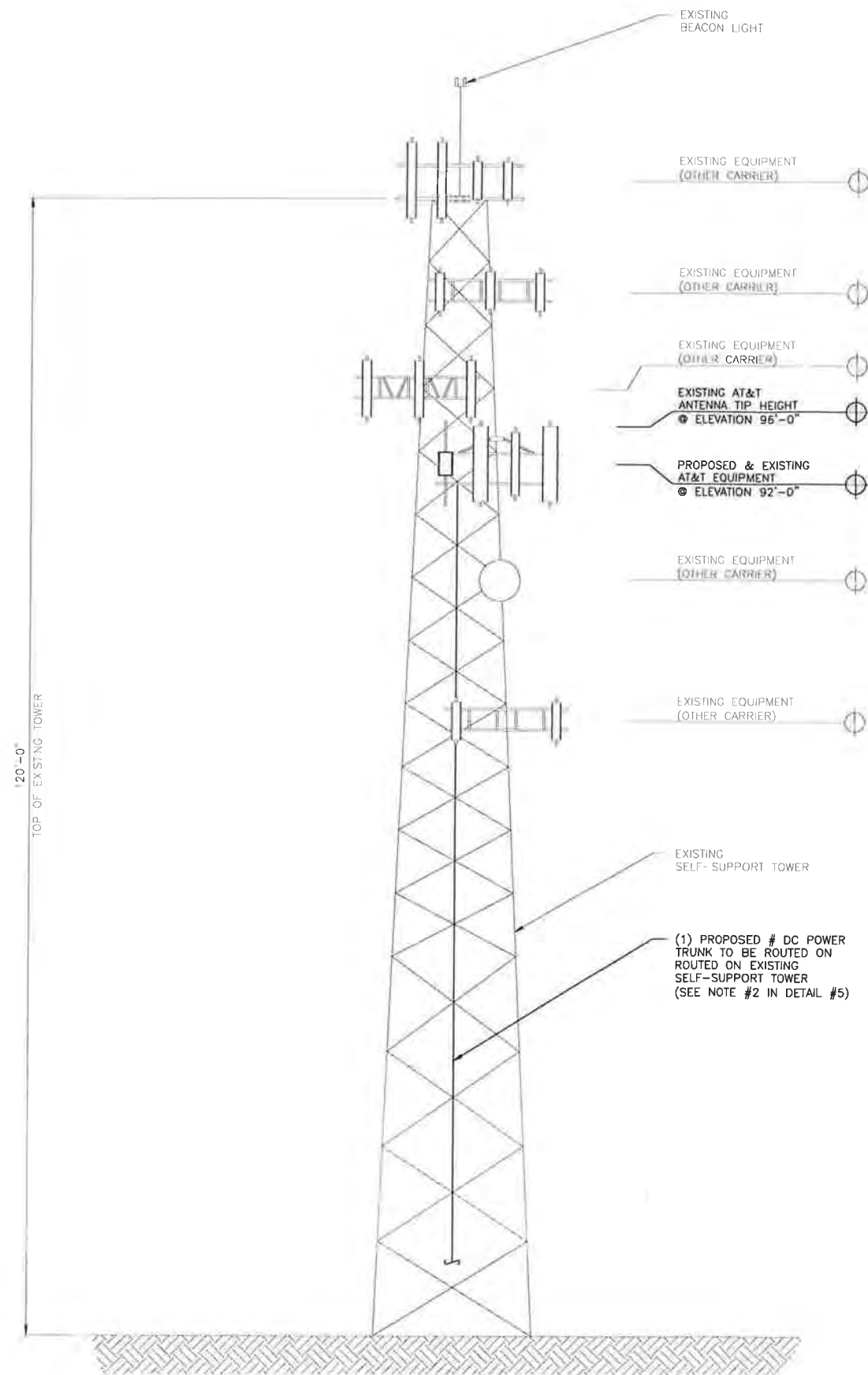
DRAWING DESCRIPTION:

EQUIPMENT DETAILS

DRAWING NUMBER:

C-2

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NOTES:
1. GROUND EQUIPMENT AND/OR EQUIPMENT SHELTERS OMITTED FOR CLARITY.

THE EXISTING TOWER SHALL BE ANALYZED TO DETERMINE ITS STRUCTURAL CAPACITY TO CARRY THE PROPOSED COAX AND ANTENNAS. THESE DRAWINGS HAVE BEEN CREATED BASED ON THE ASSUMPTION THAT THE TOWER HAS SUFFICIENT CAPACITY TO SUPPORT THE PROPOSED LOADS. INSTALLATION OF COAX AND ANTENNAS SHALL NOT COMMENCE UNTIL SUFFICIENT INFORMATION HAS BEEN PROVIDED THAT SUPPORTS THE ADEQUATE CAPACITY OF THE TOWER. THIS INFORMATION MUST BE APPROVED BY THE TOWER OWNER OR AT&T AND REVIEWED BY BLACK & VEATCH.

STRUCTURAL ANALYSIS NOTE 2

THE PASSING ANTENNA MOUNT EVALUATION LETTER FOR THE EXISTING MOUNT WAS COMPLETED BY BLACK & VEATCH ON AUGUST 12, 2021. ACCORDING TO THE BLACK & VEATCH MOUNT ANALYSIS, THE MOUNT HAS SUFFICIENT CAPACITY FOR THE EXISTING AND PROPOSED LOADING OBSERVED ON THESE CONSTRUCTION DRAWINGS.

MOUNT ANALYSIS NOTE 3

INSTALL:
(3) PROPOSED LTE ANTENNAS
(1) PROPOSED #6 DC POWER TRUNK
REMOVE:
(1) EXISTING DC6 SURGE PROTECTION UNIT

SCOPE OF WORK 4

1. WHEN STACKING CABLES 3 OR MORE DEEP, USE STACKABLE SNAP-INS, TALLEY PART NUMBER SSH-158-3 (OR ENGINEER APPROVED EQUAL).
2. CONTRACTOR SHALL CONFIRM THE FINAL CABLE ROUTING PLAN WITH THE STRUCTURAL ANALYSIS.

APPLICANT/OWNER:
AT&T MOBILITY
16025 NORTHLAND DR
SOUTHFIELD, MI 48075

PREPARED BY:

BLACK & VEATCH
6800 W. 115TH ST. SUITE 2292
OVERLAND PARK, KANSAS 66211
(913) 458-2000
PROJECT NUMBER: 129391

STATE OF MICHIGAN
PING JIANG
ENGINEER
No.
6201062190
08/26/2021
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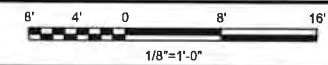
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0	08 19 21	ISSUED FOR CONSTRUCTION

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MAPLE AND ADAMS
2080 EAST MAPLE ROAD
BIRMINGHAM, MI 48009

DRAWING DESCRIPTION:
ELEVATION

DRAWING NUMBER:
T-1

FINAL TOWER ELEVATION

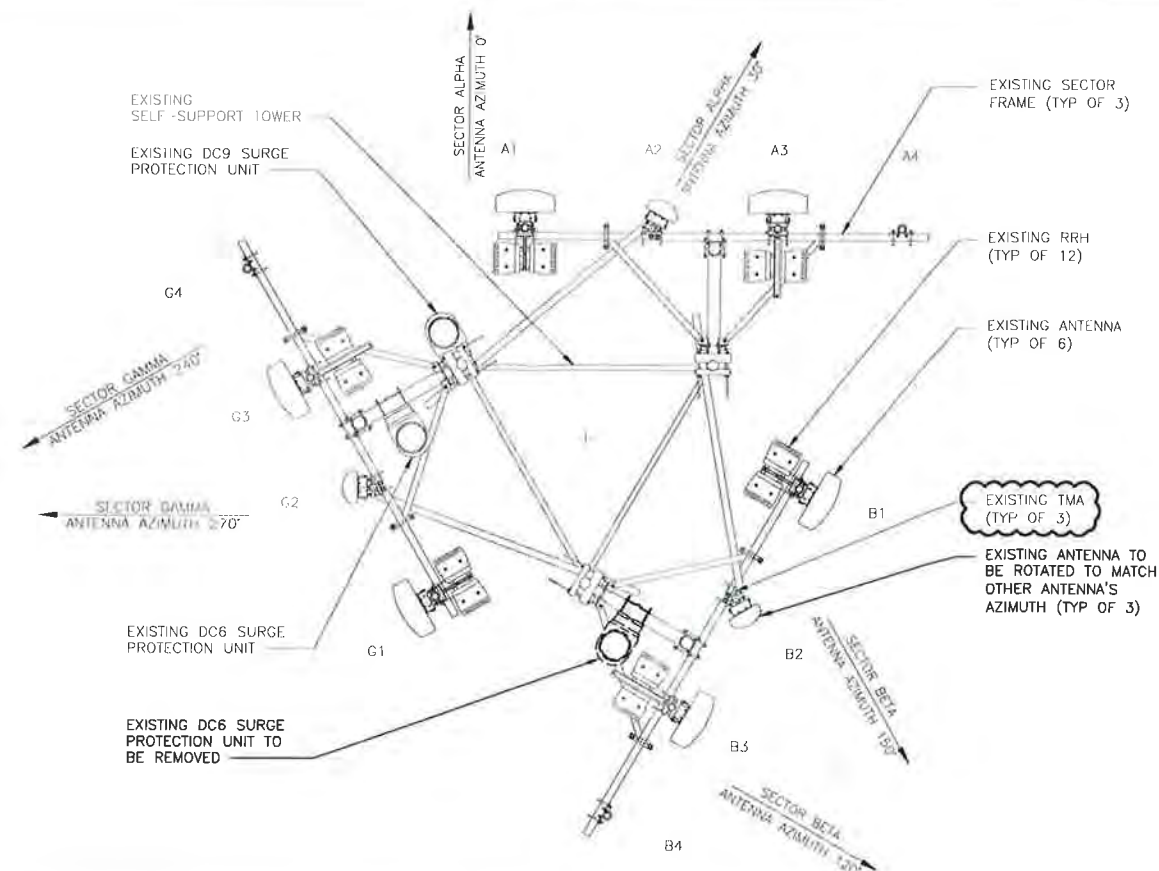


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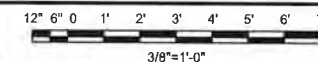
NOTES

5

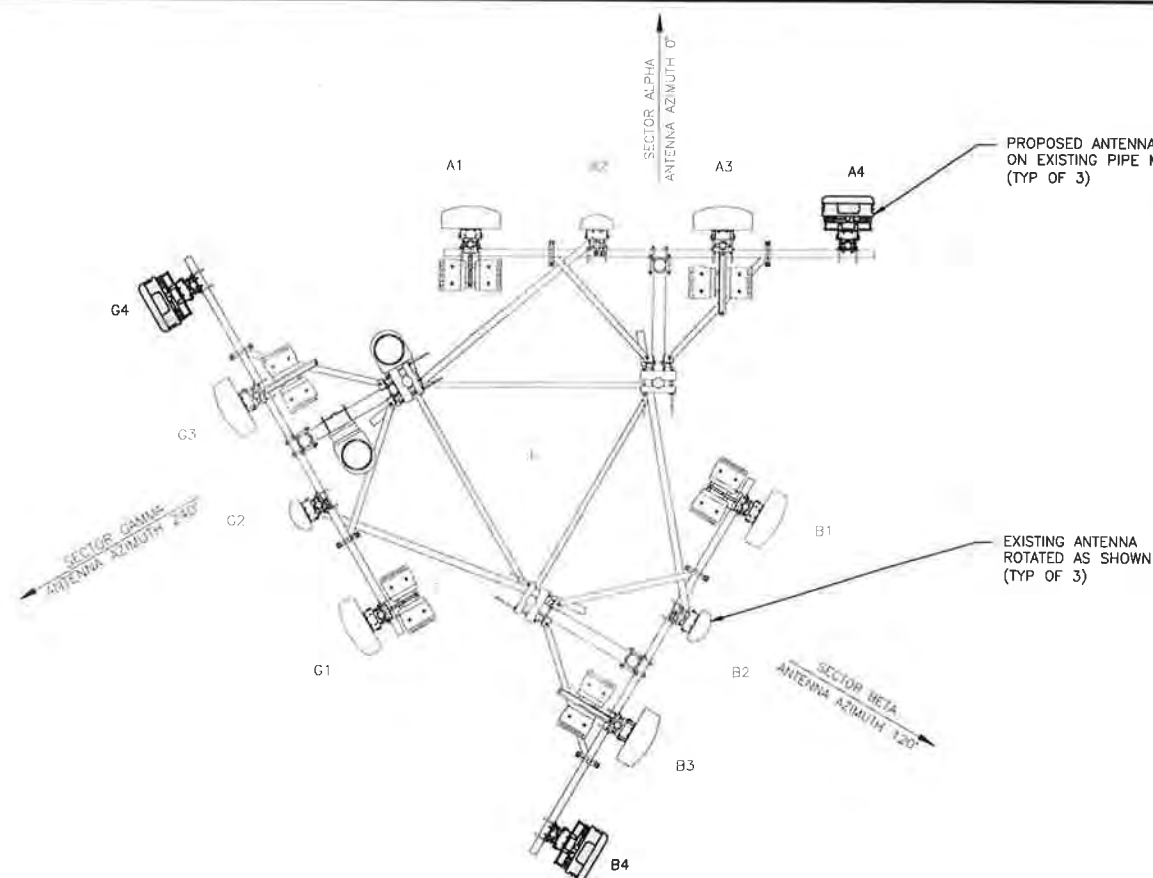
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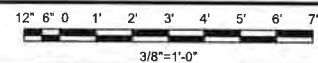
EXISTING ANTENNA LAYOUT



1



FINAL ANTENNA LAYOUT



2

THE PASSING ANTENNA MOUNT EVALUATION LETTER FOR THE EXISTING MOUNT WAS COMPLETED BY BLACK & VEATCH ON AUGUST 12, 2021. ACCORDING TO THE BLACK & VEATCH MOUNT ANALYSIS, THE MOUNT HAS SUFFICIENT CAPACITY FOR THE EXISTING AND PROPOSED LOADING OBSERVED ON THESE CONSTRUCTION DRAWINGS

MOUNT ANALYSIS NOTE

3

1. CONTRACTOR SHALL REFER TO THE LATEST RFDS PRIOR TO THE CONSTRUCTION COMMENCING.
2. BLACK AND VEATCH RECOMMENDS EQUAL HORIZONTAL SPACING OF ANTENNAS TO ENSURE ADEQUATE WEIGHT DISTRIBUTION.
3. CONTRACTOR SHALL ENSURE 3'-0" MINIMUM SPACING BETWEEN LTE 700 B17 AND LTE 700 B14 (FIRSTNET) ANTENNAS. ANY VARIATION FROM THIS DIRECTIVE SHALL REQUIRE APPROVAL FROM THE AT&T PROJECT MANAGER PRIOR TO CLOSEOUT.

NOTES

4

1. GROUNDING SHALL BE IN ACCORDANCE WITH ATT-TP-76416.
2. CONTRACTOR SHALL HAVE A COMPLETE UNDERSTANDING OF THE CONTENTS OF AT&T STANDARD TP-76416.
3. ALL INSTALLATIONS SHALL BE FIELD VERIFIED
4. ALL GROUNDING CONDUCTORS SHALL BE #2 AWG SUNLIGHT RESISTANT-TINNED STRANDED COPPER UNLESS NOTED OTHERWISE.
5. ALL RRH4X25-B30 RRH MODELS WILL REQUIRE A #6 AWG SUNLIGHT RESISTANT-TINNED STRANDED COPPER DUE TO THE LIMITED SPACE AT THE GROUNDING TERMINATION POINT.
6. ALL 2X60W 850 & 1900 RRHS MODELS WILL REQUIRE A TOP AND BOTTOM CONNECTION.

APPLICANT/OWNER:

AT&T
MOBILITY

16025 NORTHLAND DR
SOUTHFIELD, MI 48075

PREPARED BY:



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OVERLAND PARK, KANSAS 66211
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08/26/2021

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BIRMINGHAM, MI 48009

DRAWING DESCRIPTION:

ANTENNA LAYOUTS

DRAWING NUMBER:

T-2

GROUNDING NOTES

5

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APPLICANT/OWNER:

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16025 NORTHLAND DR
SOUTHFIELD, MI 48075

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2080 EAST MAPLE ROAD
BIRMINGHAM, MI 48009

DRAWING DESCRIPTION:

ANTENNA CONFIGURATION

DRAWING NUMBER:

T-3

Antenna Requirements (verify with current RFDS)													
Sector	Technology	Final Antenna Configuration	Antenna	Antenna Azimuth	Number of TMAs		Number of RRHs		RRH Model #	RRH Model #	Number of Surge Protection		Surge Protection Model #
			Final		Final	Exist.	Final	Exist.	Final	Final	Exist.	Final	Final
A1	LTE 1C/2C/4C/5C	ACE XXQLH-654L8H8-IVT	Existing	-	-	-	2	2	AirScale Dual RRH 4T4R B12/14 320W AHLBA	AirScale Dual RRH 4T4R B25/66 320W AHFIB	2	1	Raycap DC6
A2	UMTS	Powerwave RA21.7772.00	Existing	-	1	1	-	-	-	-	-	-	-
A3	LTE 3C/6C	Andrew NNH4-65C-R6	Existing	-	-	-	2	2	AirScale Dual RRH 4T4R B5 160W AHCA	Alcatel-Lucent RRH4x25-B30	1	1	Raycap DC9
A4	5G NR C-BAND	NOKIA AEQK	Proposed	0°	-	-	-	-	-	-	-	-	-
B1	LTE 1C/2C/4C/5C	ACE XXQLH-654L8H8-IVT	Existing	-	-	-	2	2	AirScale Dual RRH 4T4R B12/14 320W AHLBA	AirScale Dual RRH 4T4R B25/66 320W AHFIB	-	-	-
B2	UMTS	Powerwave RA21.7772.00	Existing	-	1	1	-	-	-	-	-	-	-
B3	LTE 3C/6C	Andrew NNH4-65C-R6	Existing	-	-	-	2	2	AirScale Dual RRH 4T4R B5 160W AHCA	Alcatel-Lucent RRH4x25-B30	-	-	-
B4	5G NR C-BAND	NOKIA AEQK	Proposed	120°	-	-	-	-	-	-	-	-	-
G1	LTE 1C/2C/4C/5C	ACE XXQLH-654L8H8-IVT	Existing	-	-	-	2	2	AirScale Dual RRH 4T4R B12/14 320W AHLBA	AirScale Dual RRH 4T4R B25/66 320W AHFIB	-	-	-
G2	UMTS	Powerwave RA21.7772.00	Existing	-	1	1	-	-	-	-	-	-	-
G3	LTE 3C/6C	Andrew NNH4-65C-R6	Existing	-	-	-	2	2	AirScale Dual RRH 4T4R B5 160W AHCA	Alcatel-Lucent RRH4x25-B30	-	-	-
G4	5G NR C-BAND	NOKIA AEQK	Proposed	240°	-	-	-	-	-	-	-	-	-

1. SCOPE:

A. PROVIDE FABRICATION AND ERECTION OF STRUCTURAL STEEL AND OTHER ITEMS AS SHOWN ON THE DRAWINGS OR REQUIRED BY OTHER SECTIONS OF THESE SPECIFICATIONS

1.2 REFERENCES:

A. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC). MANUAL OF STEEL CONSTRUCTION (13TH EDITION), ALLOWABLE STRESS DESIGN (ASD).

B. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM).

ASTM A36: STRUCTURAL STEEL

ASTM A53: PIPE, STEEL BLACK AND HOT DIPPED, ZINC-COATED WELDED AND SEAMLESS.

ASTM A108: STEEL BARS, CARBON, COLD FINISHED, STANDARD QUALITY.

ASTM A123: ZINC (HOT-DIPPED GALVANIZED) COATING ON IRON AND STEEL PRODUCTS

ASTM A307: CARBON STEEL BOLTS AND STUDS, 60,000 PSI TENSILE STRENGTH.

ASTM A325: HIGH-STRENGTH BOLT FOR STRUCTURAL STEEL JOINTS.

ASTM A490: HEAT-TREATED, STRUCTURAL STEEL BOLTS, 150 (KSI) (1035MPA) TENSILE STRENGTH.

ASTM A500: COLD-FORMED WELDED AND SEAMLESS CARBON STEEL STRUCTURAL TUBING IN ROUNDS AND SHAPES

ASTM A563: ARCBON AND ALLOY STEEL NUTS

ASTM B695: COATINGS OF ZINC MECHANICALLY DEPOSITED ON IRON AND STEEL

ASTM F436: HARDENED STEEL WASHERS.

ASTM F959: COMPRESSIBLE-WASHER-TYPE DIRECT TENSION INDICATOR FOR USE WITH STRUCTURAL FASTENERS.

C. AMERICAN WELDING SOCIETY (AWS):

AWS A5.1: COVERED CARBON STEEL ARC WELDING ELECTRODES.

AWS A5.5: LOW ALLOY STEEL COVERED ARC WELDING ELECTRODES.

AWS D1.1: STRUCTURAL WELDING CODE - STEEL.

D. RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS (RCSC): "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 BOLTS OR ASTM A490 BOLTS" AS ENDORSED BY AISC.

E. STEEL STRUCTURES PAINTING COUNCIL (SSPC):

SSPC-SP3: POWER TOOL CLEANING.

SSPC-PAINT 11: RED IRON OXIDE, ZINC CHROME, RAW LINSEED OIL OR ALKYD PAINT

1.3 SUBMITTALS:

A. SUBMIT THE FOLLOWING FOR APPROVAL:

1. FABRICATION AND ERECTION DRAWINGS SHOWING ALL DETAILS, CONNECTIONS, MATERIAL DESIGNATIONS, AND ALL TOP STEEL ELEVATIONS.

B. WELDERS SHALL BE QUALIFIED AS PRESCRIBED IN AWS D1.1.

- 2.1 STRUCTURAL STEEL:
 - A SHAPES, PLATES AND BARS SHALL CONFORM TO ASTM A36 AND ASTM A992
 - B. STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE B. STEEL PIPE SHALL CONFORM TO ASTM A53, TYPE E OR S, GRADE B.
- 2.2 ANCHOR BOLTS:
 - A ANCHOR BOLTS SHALL CONFORM TO ASTM A307 WITH HEAVY HEXAGONAL NUTS
- 2.3 BOLTS:
 - A. COMMON (MACHINE) BOLTS SHALL CONFORM TO ASTM A307 GRADE A AND NUTS TO ASTM A563. ONE COMMON BOLT ASSEMBLY SHALL CONSIST OF A BOLT, A HEAVY HEX NUT, AND A HARDENED WASHER.
 - B. HIGH STRENGTH BOLT SHALL CONFORM TO ASTM A325, ONE HIGH STRENGTH BOLT ASSEMBLY SHALL CONSIST OF A HEAVY HEX STRUCTURAL BOLT, A HEAVY HEX NUT, A HARDENED WASHER CONFIRMING WITH ASTM F436 AND A DIRECT TENSION INDICATOR CONFORMING WITH STM F959. THE HARDENED WASHER SHALL BE INSTALLED AGAINST THE ELEMENT TURNED IN TIGHTENING UNLESS NOTED OTHERWISE ON THE DRAWINGS, ALL CONNECTIONS SHALL BE BEARING TYPE CONNECTIONS.
- 2.4 WELDING ELECTRODES:
 - A. WELDING ELECTRODES SHALL COMPLY WITH AWS D1.1 USING A5.1 OR A5.5 E70XX AND SHALL BE COMPATIBLE WITH THE WELDING PROCESS SELECTED.
- 2.5 PRIMER:
 - A PRIMER SHALL BE RED OXIDE-CHROMATE PRIMER COMPLYING WITH SSPC PAINT SPECIFICATION NO. 11

- 3.1 FABRICATE:
- A. SHOP FABRICATE AND ASSEMBLY MATERIALS AS SPECIFIED HEREIN:
 1. FABRICATE ITEMS OF STRUCTURAL STEEL IN ACCORDANCE WITH THE AISC-ASD SPECIFICATION, AND AS INDICATED ON THE APPROVED SHOP DRAWINGS.
 2. ALL EXPOSED STRUCTURAL STEEL SHALL BE HOT DIP GALVANIZED PER ASTM.
 3. PROPERLY MARK AND MATCH-MARK MATERIALS FOR FIELD ASSEMBLY AND FOR IDENTIFICATION AS TO LOCATION FOR WHICH INTENDED
 4. FABRICATE AND DELIVER IN A SEQUENCE WHICH WILL EXPEDITE ERECTION AND MINIMIZE FIELD HANDLING OF MATERIALS.
 5. WHERE FINISHING IS REQUIRED, COMPLETE THE ASSEMBLY, INCLUDING THE WELDING OF UNITS, BEFORE START OF FINISHING OPERATIONS.
 6. PROVIDE FINISH SURFACE OF MEMBERS EXPOSED IN THE FINAL STRUCTURE FREE FROM MARKINGS, BURNS, AND OTHER DEFECTS.
- B. PROVIDE CONNECTIONS AS SPECIFIED HEREIN:
 1. PROVIDE BOLTS AND WASHERS OF TYPES AND SIZE REQUIRED FOR COMPLETION OF FIELD ERECTION USE 3/4 INCH DIAMETER A325 BOLTS UNLESS NOTED OTHERWISE
 2. INSTALL HIGH STRENGTH THREADED FASTENERS IN ACCORDANCE WITH RCSC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR ASTM A490 BOLTS"
 3. WELDED CONSTRUCTION SHALL COMPLY WITH AWS D1.1 FOR PROCEDURES, APPEARANCE, QUALITY OF WELD, AND METHODS USED IN CORRECTING WELDED WORK.

- 4. THE FABRICATOR SHALL FURNISH AND INSTALL ECTION CLIPS FOR FIT-UP OF WELDED CONNECTIONS.
 - 5. DOUBLE ANGLE MEMBERS SHALL HAVE WELDED FILLERS SPACED IN ACCORDANCE WITH CHAPTER E4 OF THE AISC-ASD SPECIFICATION.
 - 6. GUSSET AND STIFFENER PLATES SHALL BE 3/8 INCH THICK MINIMUM
- 3.2. PRIMING:
- A. STRUCTURAL STEEL SHALL BE PRIMED AS SPECIFIED HEREIN, UNLESS SHOWN OTHERWISE ON THE DRAWINGS.
 - B. STRUCTURAL STEEL SURFACE PREPARATION SHALL CONFORM TO SSPC-SP3, "POWER TOOL CLEANING."
 - C. SURFACE PREPARATION AND PRIMER SHALL BE IN ACCORDANCE WITH AISC CODE OF STANDARD PRACTICE AS INCLUDED IN THE ASD MANUAL OF STEEL CONSTRUCTION.
 - D. MATERIALS SHALL REMAIN CLOSED UNTIL REQUIRED FOR USE, MANUFACTURER'S POT-LIFE REQUIREMENTS SHALL BE STRICTLY ADHERED TO.
 - E. PRIMER SHALL BE APPLIED TO DRY, CLEAN, PREPARED SURFACE AND UNDER FAVORABLE CONDITIONS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. UNLESS OTHERWISE RECOMMENDED BY THE MANUFACTURER PRIMING SHALL NOT BE DONE WHEN AMBIENT TEMPERATURE IS LESS THAN 50 DEGREE F, THE RELATIVE HUMIDITY IS MORE THAN 90 PERCENT, OR THE SURFACE TEMPERATURE IS LESS THAN 5 DEGREE F ABOVE THE DEW POINT.
 - F. GENERALLY ALL PRIMER SHALL BE SPRAY APPLIED. BRUSH OR ROLLER APPLICATION SHALL BE RESTRICTED TO TOUCHUP AND TO AREAS NOT ACCESSIBLE BY SPRAY GUN.
 - G. PRIMER SHALL BE UNIFORMLY APPLIED WITHOUT RUNS, SAGS, SOLVENT BLISTERS, DRY SPRAY OR OTHER BLEMISHES. ALL BLEMISHES AND OTHER IRREGULARITIES SHALL BE REPAIRED OR REMOVED AND THE AREA RE-COATED. SPECIAL ATTENTION SHALL BE PAID TO CREVICES, WELD LINES, BOLT HEADS, CORNERS, EDGES, ETC., TO OBTAIN THE REQUIRED NOMINAL FILM THICKNESS.
 - H. THE DRY FILM THICKNESS OF THE PRIMER SHALL BE 2.0 MILS
 - I. IF THE PRIMER IS DAMAGED BY WELDING OR PHYSICAL ABUSE, THE AREA SHALL BE TOUCHED-UP AND REPAIRED. THE TOUCHUP PAINT SHALL BE COMPATIBLE WITH THE APPLIED PRIMER WITH MINIMUM DRY FILM THICKNESS OF 1.5 MILS.
- 3.3. INSTALLATION:
- A. INSTALLATION OF STRUCTURAL STEEL SHALL COMPLY WITH AISC "CODE OF STANDARD PRACTICE"
 - B. STRUCTURAL FIELD WELDING SHALL BE DONE BY THE ELECTRIC SUBMERGED OR SHIELDED METAL ARC PROCESS. WELDED CONSTRUCTION SHALL COMPLY WITH AWS D1.1.
 - C. PROVIDE ANCHOR BOLTS AND OTHER CONNECTORS REQUIRED FOR SECURING STRUCTURAL STEEL TO ELEVATOR SHAFT WALLS AND OTHER IN-PLACE WORK. PROVIDE TEMPLATES AND OTHER DEVICES NECESSARY FOR PRESETTING BOLTS AND ANCHORS TO ACCURATE LOCATIONS.
 - D. SPLICE MEMBERS ONLY WHERE INDICATED ON THE DRAWINGS.
 - E. ANY GAS CUTTING TORCHES HAVE TO BE APPROVED IN WRITING BY THE PROJECT STRUCTURAL ENGINEER.
 - F. PROVIDE TEMPORARY SHORING BRACING WITH CONNECTIONS OF SUFFICIENT STRENGTH TO BEAR IMPOSED LOADS. REMOVE TEMPORARY CONNECTIONS AND MEMBERS WHEN PERMANENT MEMBERS ARE IN PLACE AND THE FINAL CONNECTIONS HAVE BEEN MADE.
 - G. ALIGN AND ADJUST MEMBERS, AND OTHER SURFACES WHICH WILL BE IN PERMANENT CONTACT, BEFORE ASSEMBLY.
 - H. HIGH-STRENGTH BOLTS, AT A MINIMUM, SHALL BE TIGHTENED TO A "SNUG TIGHT" CONDITION AS DEFINED IN THE LATEST AISC SPECIFICATION. ALL HIGH-STRENGTH BOLTS SPECIFIED ON THE DESIGN DRAWINGS TO BE USED IN PRETENSIONED OR SLIP-CRITICAL JOINTS SHALL BE TIGHTENED TO A BOLT TENSION NOT LESS THAN THAT GIVEN IN AISC TABLE J3.1. INSTALLATION SHALL BE BY ANY OF THE FOLLOWING METHODS: TURN-OF NUT METHOD, A DIRECT-TENSION-INDICATOR, TWIST-OFF-TYPE TENSION-CONTROL BOLT, CALIBRATED WRENCH, OR ALTERNATIVE DESIGN BOLT.

1

ANTENNA MOUNTING

- DESIGN AND CONSTRUCTION OF ANTENNA SUPPORTS SHALL CONFORM TO CURRENT ANSI/TIA-222 OR APPLICABLE LOCAL CODES.
- ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS NOTED OTHERWISE.
- ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC-COATING (HOT-DIP) ON IRON AND STEEL HARDWARE", UNLESS NOTED OTHERWISE.
- DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY COLD GALVANIZING IN ACCORDANCE WITH ASTM A780.
- ALL ANTENNA MOUNTS SHALL BE INSTALLED WITH LOCK NUTS, LOCK WASHERS, OR DOUBLE NUTS AND SHALL BE TORQUED TO MANUFACTURER'S RECOMMENDATIONS.
- CONTRACTOR SHALL INSTALL ANTENNA PER MANUFACTURER'S RECOMMENDATION FOR INSTALLATION AND GROUNDING.
- ALL UNUSED PORTS ON ANY ANTENNAS SHALL BE TERMINATED WITH A 50-OHM LOAD TO ENSURE ANTENNAS PERFORM AS DESIGNED.
- PRIOR TO SETTING ANTENNA AZIMUTHS AND DOWNTILTS, ANTENNA CONTRACTOR SHALL CHECK THE ANTENNA MOUNT FOR TIGHTNESS AND ENSURE THAT THEY ARE PLUMB. ANTENNA AZIMUTHS SHALL BE SET FROM TRUE NORTH AND BE ORIENTED WITHIN +/- 5% AS DEFINED BY THE RFDS. ANTENNA DOWNTILTS SHALL BE WITHIN +/- 0.5% AS DEFINED BY THE RFDS. REFER TO ND-00246.
- JUMPERS FROM THE TMA'S MUST TERMINATE TO OPPOSITE POLARIZATIONS IN EACH SECTOR.
- CONTRACTOR SHALL RECORD THE SERIAL #, SECTOR, AND POSITION OF EACH ACTUATOR INSTALLED AT THE ANTENNAS AND PROVIDE THE INFORMATION TO AT&T.
- TMA'S SHALL BE MOUNTED ON PIPE DIRECTLY BEHIND ANTENNAS AS CLOSE TO ANTENNA AS FEASIBLE IN A VERTICAL POSITION.

TORQUE REQUIREMENTS

- ALL RF CONNECTIONS SHALL BE TIGHTENED BY A TORQUE WRENCH.
- ALL 8M ANTENNA HARDWARE SHALL BE TIGHTENED TO 9 LB-FT (12 NM).
- ALL 12M ANTENNA HARDWARE SHALL BE TIGHTENED TO 43 LB-FT (58 NM).
- ALL GROUNDING HARDWARE SHALL BE TIGHTENED UNTIL THE LOCK WASHER COLLAPSES AND THE GROUNDING HARDWARE IS NO LONGER LOOSE.
- ALL DIN TYPE CONNECTIONS SHALL BE TIGHTENED TO 18-22 LB-FT (24.4 - 29.8 NM).
- ALL N TYPE CONNECTIONS SHALL BE TIGHTENED TO 15-20 LB-IN (1.7 - 2.3 NM).

FIBER & POWER CABLE MOUNTING

- THE FIBER OPTIC TRUNK CABLES SHALL BE INSTALLED INTO CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY. WHEN INSTALLING FIBER OPTIC TRUNK CABLES INTO A CABLE TRAY SYSTEM, THEY SHALL BE INSTALLED INTO AN INTER DUCT AND A PARTITION BARRIER SHALL BE INSTALLED BETWEEN THE 600 VOLT CABLES AND THE INTER DUCT IN ORDER TO SEGREGATE CABLE TYPES. OPTIC FIBER TRUNK CABLES SHALL HAVE APPROVED CABLE RESTRAINTS EVERY (60) SIXTY FEET AND SECURELY FASTENED TO THE CABLE TRAY SYSTEM. NFPA 70 (NEC) ARTICLE 770 RULES SHALL APPLY.
- THE TYPE TC-ER CABLES SHALL BE INSTALLED INTO CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY AND SHALL BE SECURED AT INTERVALS NOT EXCEEDING (6) SIX FEET. AN EXCEPTION; WHERE TYPE TC-ER CABLES ARE NOT SUBJECT TO PHYSICAL DAMAGE, CABLES SHALL BE PERMITTED TO MAKE A TRANSITION BETWEEN CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY WHICH ARE SERVING UTILIZATION EQUIPMENT OR DEVICES, A DISTANCE (6) SIX FEET SHALL NOT BE EXCEEDED WITHOUT CONTINUOUS SUPPORTING. NFPA 70 (NEC) ARTICLES 336 AND 392 RULES SHALL APPLY.
- WHEN INSTALLING OPTIC FIBER TRUNK CABLES OR TYPE TC-ER CABLES INTO CONDUITS, NFPA 70 (NEC) ARTICLE 300 RULES SHALL APPLY.

COAXIAL CABLE NOTES

- TYPES AND SIZES OF THE ANTENNA CABLE ARE BASED ON ESTIMATED LENGTHS. PRIOR TO ORDERING CABLE, CONTRACTOR SHALL VERIFY ACTUAL LENGTH BASED ON CONSTRUCTION LAYOUT AND NOTIFY THE PROJECT MANAGER IF ACTUAL LENGTHS EXCEED ESTIMATED LENGTHS.
- CONTRACTOR SHALL VERIFY THE DOWN-TILT OF EACH ANTENNA WITH A DIGITAL LEVEL.
- CONTRACTOR SHALL CONFIRM COAX COLOR CODING PRIOR TO CONSTRUCTION. REFER TO "ANTENNA SYSTEM LABELING STANDARD" ND-00027 LATEST VERSION.
- ALL JUMPERS TO THE ANTENNAS FROM THE MAIN TRANSMISSION LINE SHALL BE 1/2" DIA. LDF AND SHALL NOT EXCEED 6'-0".
- ALL COAXIAL CABLE SHALL BE SECURED TO THE DESIGNED SUPPORT STRUCTURE, IN AN APPROVED MANNER, AT DISTANCES NOT TO EXCEED 4'-0" OC.
- CONTRACTOR SHALL FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS REGARDING BOTH THE INSTALLATION AND GROUNDING OF ALL COAXIAL CABLES, CONNECTORS, ANTENNAS, AND ALL OTHER EQUIPMENT.
- CONTRACTOR SHALL WEATHERPROOF ALL ANTENNA CONNECTORS WITH SELF AMALGAMATING TAPE. WEATHERPROOFING SHALL BE COMPLETED IN STRICT ACCORDANCE WITH AT&T STANDARDS.
- CONTRACTOR SHALL GROUND ALL EQUIPMENT, INCLUDING ANTENNAS, RET MOTORS, TMA'S, COAX CABLES, AND RET CONTROL CABLES AS A COMPLETE SYSTEM. GROUNDING SHALL BE EXECUTED BY QUALIFIED WIREMEN IN COMPLIANCE WITH MANUFACTURER'S SPECIFICATION AND RECOMMENDATION.
- CONTRACTOR SHALL PROVIDE STRAIN-RELIEF AND CABLE SUPPORTS FOR ALL CABLE ASSEMBLIES, COAX CABLES, AND RET CONTROL CABLES. CABLE STRAIN-RELIEFS AND CABLE SUPPORTS SHALL BE APPROVED FOR THE PURPOSE. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND

RECOMMENDATIONS.

- CONTRACTOR TO VERIFY THAT EXISTING COAX HANGERS ARE STACKABLE SNAP IN HANGERS. IF EXISTING HANGERS ARE NOT STACKABLE SNAP IN HANGERS THE CONTRACTOR SHALL REPLACE EXISTING HANGERS WITH NEW SNAP IN HANGERS IF APPLICABLE.

GENERAL CABLE AND EQUIPMENT NOTES

- CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ANTENNA, TMA'S, DIPLEXERS, AND COAX CONFIGURATION, MAKE AND MODELS PRIOR TO INSTALLATION.
- ALL CONNECTIONS FOR HANGERS, SUPPORTS, BRACING, ETC. SHALL BE INSTALLED PER TOWER MANUFACTURER'S RECOMMENDATIONS.
- CONTRACTOR SHALL REFERENCE THE TOWER STRUCTURAL ANALYSIS/DESIGN DRAWINGS FOR DIRECTIONS ON CABLE DISTRIBUTION/ROUTING.
- ALL OUTDOOR RF CONNECTORS/CONNECTIONS SHALL BE WEATHERPROOFED, EXCEPT THE RET CONNECTORS, USING BUTYL TAPE AFTER INSTALLATION AND FINAL CONNECTIONS ARE MADE. BUTYL TAPE SHALL HAVE A MINIMUM OF ONE-HALF TAPE WIDTH OVERLAP ON EACH TURN AND EACH LAYER SHALL BE WRAPPED THREE TIMES. WEATHERPROOFING SHALL BE SMOOTH WITHOUT BUCKLING. BUTYL BLEEDING IS NOT ALLOWED.
- IF REQUIRED TO PAINT ANTENNAS AND/OR COAX:
 - TEMPERATURE SHALL BE ABOVE 50° F.
 - PAINT COLOR MUST BE APPROVED BY BUILDING OWNER/LANDLORD.
 - FOR REGULATED TOWERS, FAA/FCC APPROVED PAINT IS REQUIRED.
 - DO NOT PAINT OVER COLOR CODING OR ON EQUIPMENT MODEL NUMBERS.
- ALL CABLES SHALL BE GROUNDED WITH COAXIAL CABLE GROUND KITS. FOLLOW THE MANUFACTURER'S RECOMMENDATIONS.
 - GROUNDING AT THE ANTENNA LEVEL.
 - GROUNDING AT MID LEVEL, TOWERS WHICH ARE OVER 200'-0", ADDITIONAL CABLE GROUNDING REQUIRED.
 - GROUNDING AT BASE OF TOWER PRIOR TO TURNING HORIZONTAL.
 - GROUNDING OUTSIDE THE EQUIPMENT SHELTER AT ENTRY PORT.
 - GROUNDING INSIDE THE EQUIPMENT SHELTER AT THE ENTRY PORT.
- ALL PROPOSED GROUND BAR DOWNLEADS ARE TO BE TERMINATED TO THE EXISTING ADJACENT GROUND.
- BAR DOWNLEADS A MINIMUM DISTANCE OF 4'-0" BELOW GROUND BAR. TERMINATIONS MAY BE EXOTHERMIC OR COMPRESSION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ANTENNA AND THE COAX CONFIGURATION IS THE CORRECT MAKE AND MODELS, PRIOR TO INSTALLATION.
- ALL CONNECTIONS FOR HANGERS, SUPPORTS, BRACING, ETC. SHALL BE INSTALLED PER TOWER MANUFACTURER'S SPECIFICATION & RECOMMENDATIONS.

GROUNDING NOTES

- GROUNDING IS SHOWN DIAGRAMMATICALLY ONLY.
- CONTRACTOR SHALL GROUND ALL EQUIPMENT AS A COMPLETE SYSTEM. GROUNDING SHALL BE IN COMPLIANCE WITH NEC SECTION 250 AND AT&T GROUNDING AND BONDING REQUIREMENTS (ATT-TP-76416) AND MANUFACTURER'S SPECIFICATIONS.
- ALL GROUND CONDUCTORS SHALL BE COPPER; NO ALUMINUM CONDUCTORS SHALL BE USED.
- ALL CABLES SHALL BE GROUNDED WITH COAXIAL CABLE GROUNDING KITS. FOLLOW THE MANUFACTURER'S RECOMMENDATIONS.
 - GROUNDING AT THE ANTENNA LEVEL.
 - GROUNDING AT MID LEVEL, TOWERS WHICH ARE OVER 200', ADDITIONAL CABLE GROUNDING REQUIRED.
 - GROUNDING AT BASE OF TOWER PRIOR TO TURNING HORIZONTAL.
 - GROUNDING OUTSIDE THE EQUIPMENT SHELTER AT ENTRY PORT.
 - GROUNDING INSIDE THE EQUIPMENT SHELTER AT THE ENTRY PORT.
- ALL PROPOSED GROUNDING BAR DOWNLEADS ARE TO BE TERMINATED TO THE EXISTING ADJACENT GROUNDING BAR DOWNLEADS A MINIMUM DISTANCE OF 4'-0" BELOW GROUNDING BAR. TERMINATIONS MAY BE EXOTHERMIC OR COMPRESSION.

EQUIPMENT NOTES

APPLICANT /OWNER:

AT&T
MOBILITY

16025 NORTHLAND DR
SOUTHFIELD, MI 48075

PREPARED BY:



BLACK & VEATCH

6800 W. 115TH ST, SUITE 2292
OVERLAND PARK, KANSAS 66211
(913) 458-2000

PROJECT NUMBER: 129391



08/26/2021

IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER, TO
ALTER THIS DOCUMENT.

LANDLORD/PROPERTY OWNER SIGNATURE

1	08.26.21	ISSUED FOR CONSTRUCTION
0	08.19.21	ISSUED FOR CONSTRUCTION
REV	DATE	DESCRIPTION

PROJECT LOCATION: USID (42108)

MAPLE AND ADAMS
2080 EAST MAPLE ROAD
BIRMINGHAM, MI 48009

DRAWING DESCRIPTION:

EQUIPMENT NOTES

DRAWING NUMBER:

T-6

GENERAL CONSTRUCTION

- GENERAL CONTRACTOR - OVERLAND CONTRACTING INC. (B&V)
CONTRACTOR: (CONSTRUCTION)
OWNER - AT&T
1. FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:
GENERAL CONTRACTOR - OVERLAND CONTRACTING INC. (B&V)
CONTRACTOR: (CONSTRUCTION)
OWNER - AT&T
 2. ALL SITE WORK SHALL BE COMPLETED AS INDICATED ON THE DRAWINGS AND AT&T PROJECT SPECIFICATIONS.
 3. GENERAL CONTRACTOR SHALL VISIT THE SITE AND SHALL FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS, DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
 4. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. GENERAL CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF WORK.
 5. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
 6. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
 7. PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS THE MINIMUM REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS. SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF WORK AND PREPARED BY THE ENGINEER PRIOR TO PROCEEDING WITH WORK.
 8. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
 9. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE ENGINEER PRIOR TO PROCEEDING.
 10. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF WORK AREA, ADJACENT AREAS AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFORM TO ALL OSHA REQUIREMENTS AND THE LOCAL JURISDICTION.
 11. GENERAL CONTRACTOR SHALL COORDINATE WORK AND SCHEDULE WORK ACTIVITIES WITH OTHER DISCIPLINES.
 12. ERECTION SHALL BE DONE IN A WORKMANLIKE MANNER BY COMPETENT EXPERIENCED WORKMAN IN ACCORDANCE WITH APPLICABLE CODES AND THE BEST ACCEPTED PRACTICE. ALL MEMBERS SHALL BE LAID PLUMB AND TRUE AS INDICATED ON THE DRAWINGS.
 13. SEAL PENETRATIONS THROUGH FIRE RATED AREAS WITH UL LISTED MATERIALS APPROVED BY LOCAL JURISDICTION. CONTRACTOR SHALL KEEP AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DEBRIS.
 14. WORK PREVIOUSLY COMPLETED IS REPRESENTED BY LIGHT SHADED LINES AND NOTES. THE SCOPE OF WORK FOR THIS PROJECT IS REPRESENTED BY DARK SHADED LINES AND NOTES. CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR OF ANY EXISTING CONDITIONS THAT DEViate FROM THE DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.
 15. CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE CONSTRUCTION MANAGER 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
 16. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER
 17. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
 18. GENERAL CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS FOR ALL TRADES AND CONTRACTORS TO THE SITE AND/OR BUILDING
 19. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY OF THE SITE FOR THE DURATION OF CONSTRUCTION UNTIL JOB COMPLETION.
 20. THE GENERAL CONTRACTOR SHALL MAINTAIN IN GOOD CONDITION ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA, AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES.
 21. THE GENERAL CONTRACTOR SHALL PROVIDE PORTABLE FIRE EXTINGUISHERS WITH A RATING OF NOT LESS THAN 2-A 0 2-A 10-B-C AND SHALL BE WITHIN 25 FEET OF TRAVEL DISTANCE TO ALL PORTIONS OF WHERE THE WORK IS BEING COMPLETED DURING CONSTRUCTION.
 22. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS SHALL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION, B) CONFINED SPACE, C) ELECTRICAL SAFETY, AND D) TRENCHING & EXCAVATION.
 23. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED, CAPPED, PLUGGED OR OTHERWISE DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, AS DIRECTED BY THE RESPONSIBLE ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.
 24. THE AREAS OF THE OWNER'S PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION.
 25. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE FEDERAL AND LOCAL JURISDICTION FOR EROSION AND SEDIMENT CONTROL.
 26. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUNDING. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
 27. THE SUBGRADE SHALL BE BROUGHT TO A SMOOTH UNIFORM GRADE AND COMPACTED TO 95 PERCENT STANDARD PROCTOR DENSITY UNDER PAVEMENT AND STRUCTURES AND 80 PERCENT STANDARD PROCTOR DENSITY IN OPEN SPACE. ALL TRENCHES IN PUBLIC RIGHT OF WAY SHALL BE BACKFILLED WITH FLOWABLE FILL OR OTHER MATERIAL PRE-APPROVED BY THE LOCAL JURISDICTION.
 28. ALL NECESSARY RUBBISH, STUMPS, DEBRIS, STICKS, STONES, AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER.
 29. ALL BROCHURES, OPERATING AND MAINTENANCE MANUALS, CATALOGS, SHOP DRAWINGS, AND OTHER DOCUMENTS SHALL BE TURNED OVER TO THE GENERAL CONTRACTOR AT COMPLETION OF CONSTRUCTION AND PRIOR TO PAYMENT.
 30. CONTRACTOR SHALL SUBMIT A COMPLETE SET OF AS-BUILT REDLINES TO THE GENERAL CONTRACTOR UPON COMPLETION OF PROJECT AND PRIOR TO FINAL PAYMENT.

31. CONTRACTOR SHALL LEAVE PREMISES IN A CLEAN CONDITION
32. THE PROPOSED FACILITY SHALL BE UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SEWER SERVICE, AND IS NOT FOR HUMAN HABITAT (NO HANDICAP ACCESS REQUIRED).
33. OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION, APPROXIMATELY 2 TIMES PER MONTH, BY AT&T TECHNICIANS.
34. NO OUTDOOR STORAGE OR SOLID WASTE CONTAINERS ARE PROPOSED.
35. ALL MATERIAL SHALL BE FURNISHED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST REVISION AT&T MOBILITY GROUNDING STANDARD "TECHNICAL SPECIFICATION FOR CONSTRUCTION OF GSM/GPRS WIRELESS SITES" AND "TECHNICAL SPECIFICATION FOR FACILITY GROUNDING", IN CASE OF A CONFLICT BETWEEN THE CONSTRUCTION SPECIFICATION AND THE DRAWINGS, THE DRAWINGS SHALL GOVERN.
36. CONTRACTORS SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR CONSTRUCTION. IF CONTRACTOR CANNOT OBTAIN A PERMIT, THEY MUST NOTIFY THE GENERAL CONTRACTOR IMMEDIATELY.
37. CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS
38. INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM SITE VISITS AND/OR DRAWINGS PROVIDED BY THE SITE OWNER. CONTRACTORS SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
39. NO WHITE STROBE LIGHTS ARE PERMITTED. LIGHTING IF REQUIRED, WILL MEET FAA STANDARDS AND REQUIREMENTS.
40. ALL COAXIAL CABLE INSTALLATIONS TO FOLLOW MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.
41. CONTRACTOR WILL REFER TO LATEST RFDS SHEET PRIOR TO CONSTRUCTION COMMENCING.

GENERAL NOTES

APPLICANT/OWNER:

**AT&T
MOBILITY**

16025 NORTHLAND DR
SOUTHFIELD, MI 48075

PREPARED BY:



BLACK & VEATCH

6800 W. 115TH ST, SUITE 2292
OVERLAND PARK, KANSAS 66211
(913) 458-2000

PROJECT NUMBER: 129391



08/26/2021

IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER, TO
ALTER THIS DOCUMENT.

LANDLORD/PROPERTY OWNER SIGNATURE _____

1	08.26.21	ISSUED FOR CONSTRUCTION
0	08.19.21	ISSUED FOR CONSTRUCTION
REV	DATE	DESCRIPTION

PROJECT LOCATION: USID (42108)

MAPLE AND ADAMS

2080 EAST MAPLE ROAD
BIRMINGHAM, MI 48009

DRAWING DESCRIPTION:

GENERAL NOTES

DRAWING NUMBER:

N-2



City of Birmingham
Harris County

APPROVED

12/20/21

PAA21-0138

Administrative Approval Application Planning Division

Form will not be processed until it is completely filled out.

1. Applicant

Name: Robert Cliffe - MGA Architects
Address: 4351 Delemere Court, Royal Oak, MI 48073
Phone Number: 248-549-4500
Fax Number: 248-549-7300
Email Address: robertc@mga-architects.net

2. Property Owner

Name: Maureen Kuhl
Address: 7530 Butterbush, Clarkston, MI 48348
Phone Number: 248-212-9830
Fax Number:
Email Address:

3. Applicant's Attorney/Contact Person

Name: Robert Cliffe - MGA Architects
Address: 4351 Delemere Court, Royal Oak, MI 48073
Phone Number: 248-549-4500
Fax Number: 248-549-7300
Email Address: robertc@mga-architects.net

4. Project Designer/Developer

Name: Robert Cliffe - MGA Architects
Address: 4351 Delemere Court, Royal Oak, MI 48073
Phone Number: 248-549-4500
Fax Number: 248-549-7300
Email Address: robertc@mga-architects.net

5. Project Information

Address/Location of Property: 2101 E 14 Mile Road
Name of Development: Michigan Smile Design Family Orthodontics
Parcel ID#: 20-31-455-006
Current Use: Orthodontic Office
Area in Acres: 0.34
Current Zoning: O-1

Name of Historic District if any: N/A
Date of HDC Approval, if any: N/A
Date of Application for Preliminary Site Plan: 11-14-19
Date of Preliminary Site Plan Approval: 12-11-19
Date of Application for Final Site Plan: 10-30-20
Date of Final Site Plan Approval: 01-27-21
Date of Revised Final Site Plan Approval:

6. Required Attachments

- Warranty Deed with legal description of property
- Authorization from Owner(s) (if applicant is not owner)
- Completed Checklist
- Material Samples
- Specification sheets for all proposed materials, fixtures, and/or mechanical equipment
- One (1) digital copy of plans
- Two (2) folded copies of plans including an itemized list of all changes for which administrative approval is requested, with the changes marked in color on all elevations
- Photographs of existing conditions on the site where changes are proposed

7. Details of the Request for Administrative Approval

Review of one additional window installed on south facade facing 14 Mile Road

The undersigned states the above information is true and correct, and understands that it is the responsibility of the applicant to advise the Planning Division and/or Building Division of any additional changes to the approved site plan.

Signature of Applicant:

Date: 12-09-21

Application #: PAA21-0138

Date of Approval: 12/20/21

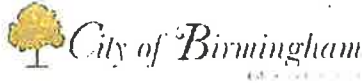
Office Use Only

Date Received: 12/10/21

Date of Denial: N/A

Fee: \$100.00

Reviewed By:



CONSENT OF PROPERTY OWNER

I, Mareen Kuhn, OF THE STATE OF Michigan AND
(Name of Property Owner)

COUNTY OF Oakland STATE THE FOLLOWING:

1. That I am the owner of real estate located at 2101 E 14 Mile Road;
(Address of Affected Property)

2. That I have read and examined the Application for Administrative Approval made to the City of

Birmingham by: Robert Cliffe - MGA Architects;
(Name of Applicant)

3. That I have no objections to, and consent to the request(s) described in the Application made to the City of
Birmingham.

By providing your e-mail to the City, you agree to receive news notifications from the City. If you do not wish to receive these messages, you may unsubscribe at any time.

Name of Owner (Printed): Mareen Kuhn

Signature of Owner: [Signature] Date: 12/2/21



ADMINISTRATIVE APPROVAL APPLICATION CHECKLIST – PLANNING DIVISION

Applicant: Robert Cliffe - MGA Architects

Date: 12-09-21

Address: 2101 E 14 Mile Road

Project: Michigan Smile Design Family Orthodontics

All site plans and elevation drawings prepared for administrative approval shall be prepared in accordance with the following specifications and other applicable requirements of the City of Birmingham. If more than one page is used, each page shall be numbered sequentially. All plans must be legible and of sufficient quality to provide for quality reproduction or recording.

Administrative Approval of Design Changes

- ☒ 1. Name and address of applicant and proof of ownership;
- ☒ 2. Name of Development (if applicable);
- ☒ 3. Address of site and legal description of the real estate;
- ☒ 4. A separate location map;
- ☒ 5. Legend and notes, including a graphic scale, north point, and date;
- ☒ 6. A list of all requested design changes;
- ☒ 7. Elevation drawings with all requested design changes marked in color;
- ☒ 8. A list of all new materials to be used, including size specifications, color and the name of the manufacturer.

Administrative Approval of Site Plan Changes

A full site plan detailing the proposed changes for which administrative approval is requested shall be drawn at a scale no smaller than 1" = 100' (unless the drawing will not fit on one 24" X 36" sheet) and shall include:

- ☐ 1. Name and address of applicant and proof of ownership;
- ☐ 2. Name of Development (if applicable);
- ☐ 3. Address of site and legal description of the real estate;
- ☐ 4. Name and address of the land surveyor;
- ☐ 5. Legend and notes, including a graphic scale, north point, and date;
- ☐ 6. A separate location map;
- ☐ 7. A map showing the boundary lines of adjacent land and the existing zoning of the area proposed to be developed as well as the adjacent land;
- ☐ 8. A list of all requested changes to the site plan;

- ☐ 9. All changes requested marked in color on the site plan and on all elevations of any building(s);
- ☐ 10. A chart indicating the dates of approval of the Preliminary Site Plan, Final Site Plan; Revised Final Site Plans, and any dates of approval by the Historic District Committee ("HDC");
- ☐ 11. Existing and proposed layout of streets, open space and other basic elements of the plan;
- ☐ 12. Existing and proposed easements and their purpose;
- ☐ 13. Location of natural streams, regulated drains, 100-year flood plains, floodway, water courses, marshes, wooded areas, isolated preservable trees, wetlands, historic features, existing structures, dry wells, utility lines, fire hydrants and any other significant feature(s) that may influence the design of the development;
- ☐ 14. General description of, location of, and types of structures on the site;
- ☐ 15. Details of existing or proposed lighting, signage, landscaping, and other pertinent development features;
- ☐ 16. Any other information requested in writing by the Planning Division, the Planning Board, or the Building Official deemed important to the development.

PLEASE NOTE: All requests for administrative approval must comply with Article 7 of the Zoning Ordinance, which outlines the terms and conditions under which administrative approval may be granted.

AGENDA
REGULAR MEETING OF THE BIRMINGHAM PLANNING BOARD
WEDNESDAY FEBRUARY 9, 2022
151 MARTIN ST., CITY COMMISSION ROOM 205, BIRMINGHAM MI *
*******7:30 pm*******

The highly transmissible COVID-19 Delta variant is spreading throughout the nation at an alarming rate. As a result, the CDC is recommending that vaccinated and unvaccinated personnel wear a facemask indoors while in public if you live or work in a substantial or high transmission area. Oakland County is currently classified as a substantial transmission area. The City has reinstated mask requirements for all employees while indoors. The mask requirement also applies to all board and commission members as well as the public attending public meetings.

- A. Roll Call
- B. Review and Approval of the Minutes of the Regular Meeting of **January 26, 2022**
- C. Chairpersons' Comments
- D. Review of the Agenda
- E. Unfinished Business
- F. Rezoning Applications
- G. Community Impact Studies
- H. Special Land Use Permits
- I. Site Plan & Design Reviews
- J. Study Session
 - 1. **2040 Plan – Chapter 4 (Support Mixed-Use Districts) & Chapter 5 (Advance Sustainability Practices)**
 - 2. **Outdoor Dining (Comprehensive)**
- K. Miscellaneous Business and Communications:
 - 1. Communications
 - 2. Administrative Approval Correspondence
 - 3. Draft Agenda – **February 23, 2022**
 - 4. Other Business
- L. Planning Division Action Items
 - 1. Staff Report on Previous Requests
 - 2. Additional Items from Tonight's Meeting
- M. Adjournment

* Please note that board meetings will be conducted in person once again. Members of the public can attend in person at Birmingham City Hall OR may attend virtually at:

Link to Access Virtual Meeting: <https://zoom.us/j/111656967>
Telephone Meeting Access: 877-853-5247 US Toll-Free
Meeting ID Code: 111656967

NOTICE: Due to Building Security, public entrance during non-business hours is through the Police Department—Pierce St. Entrance only. Individuals with disabilities requiring assistance to enter the building should request aid via the intercom system at the parking lot entrance gate on Henrietta St.

Persons with disabilities that may require assistance for effective participation in this public meeting should contact the City Clerk's Office at the number (248) 530-1880, or (248) 644-5115 (for the hearing impaired) at least one day before the meeting to request help in mobility, visual, hearing, or other assistance.

Las personas con incapacidad que requieren algún tipo de ayuda para la participación en esta sesión pública deben ponerse en contacto con la oficina del escribano de la ciudad en el número (248) 530-1800 o al (248) 644-5115 (para las personas con incapacidad auditiva) por lo menos un día antes de la reunión para solicitar ayuda a la movilidad, visual, auditiva, o de otras asistencias. (Title VI of the Civil Rights Act of 1964).