

AGENDA
SPECIAL MEETING OF THE BIRMINGHAM PLANNING BOARD

THURSDAY MARCH 31, 2022

151 MARTIN ST., CITY COMMISSION ROOM 205, BIRMINGHAM MI *

*******7:30 pm*******

Michigan and Oakland County are at a substantial rate of COVID-19 community transmission. Per Occupational Safety and Health Administration (OSHA) mask guidance for areas of high or substantial community transmission levels, and to continue to protect essential government operations and functions, the city requires masks in City Hall for all employees, and for board and commission members. Masks are recommended for members of the public who attend city meetings. The city continues to provide KN-95 respirators for all in-person meeting attendees.

- A. Roll Call**
- B. Review and Approval of the Minutes**
- 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 4-6 story mixed use building**
- H. Special Land Use Permits**
 - 1. **220 Merrill – Request for new outdoor dining platform in Merrill St. right-of-way**
- I. Site Plan & Design Reviews**
 - 1. **770 S. Adams – Request for a new 4-6 story mixed use building**
 - 2. **220 Merrill – Request for new outdoor dining platform in Merrill St. right-of-way**
- J. Study Session**
- K. Miscellaneous Business and Communications:**
 - 1. Pre-Application Discussions
 - 2. Communications
 - 3. Administrative Approval Correspondence
 - 4. Draft Agenda – **April 13, 2022**
 - 5. Action List - 2022
 - 6. 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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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).



MEMORANDUM

Planning Division

DATE: March 31, 2022

TO: Planning Board Members

FROM: Nicholas Dupuis, Planning Director

SUBJECT: 770 S. Adams – Community Impact Study & Preliminary Site Plan Review (Updates in Blue Text)

Introduction

The applicant has submitted an application for Community Impact Study and Preliminary Site Plan Review for a new 4-6 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 235,475 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 157 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, **226,856 sq. ft. of the 235,475 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 4,035 sq. ft. (1.7% of the overall building) retail area along Haynes. Interestingly, the proposal does not include a commercial use along S. Adams. Rather, 3 walk-up units and the yoga/fitness center and residential workshare spaces 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 4.5-level above ground parking deck containing 266 off-street parking spaces. At present, this results in the development providing an overage of 57 parking spaces in terms of the zoning requirements. 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 4,035 sq. ft. retail space along Haynes, as well as the 2,365 lobby. As the parking deck will have restricted access to residents only, the applicant must supply parking for the commercial space (18 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 commercial uses, leaving a deficiency of 3 spaces. **The applicant may provide an additional 3 parking spaces within the proposed parking structure, 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.

The applicant indicated during the review on January 26, 2022 that the outstanding spaces will be provided in the off-street parking facility using the current excess spaces provided within the parking structure.

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. Development Projects such as Walgreens (2012) 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.**

On February 23, 2022, the applicant has submitted a conceptual future site plan demonstrating the possibility of Worth Plaza in the area adjacent to the proposed development. Although the concept plan places the park in the correct general

area, the size of the park would be considerably reduced without an agreement with the owners of the subject site. The concept plan as designed proposes Worth Plaza at roughly 9,000 sq. ft. directly adjacent to the site, whereas the Triangle Plan shows Worth Park as a standalone park between two diverging sections of Worth. Although the easterly diversion of Worth does not appear to be critical to Worth Plaza, the size of the park should be considered at this stage. The Planning Division estimates that Worth Plaza was recommended to be roughly 21,000 sq. ft. and would serve as the main park/open space for the Torry Neighborhood. A comparable park is Capital Park in Detroit. According to the National Recreation and Park Association, a 9,000 sq. ft. park is considered more of a pocket park. Based on the vision for Worth Plaza, it appears as though more space is required to reach its full potential.

Please see the attached maps 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.**

During the meeting on January 26, 2022, the applicant indicated that the submittal of the 2013 ESA was a clerical error and has submitted a more recent ESA dated March 21, 2021 for Planning board review on February 23, 2022. The more recent ESA was provided by the same consultants, and concluded that the assessment

revealed no evidence of recognized environmental conditions connected with the property, and that no further investigation is recommended.

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, the 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 (390 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 located 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.

On February 23, 2022, the applicant provided new documentation to the Planning Board outlining a proposed security system, which will be comprised of building access controls (intercom, keyless entry systems), video surveillance systems (exterior and interior), and a security call system. The applicant must work with the Police Department to interface their security system and assess each element of the proposed system.

1.8 **Transportation Issues**

The applicant has submitted a completed Transportation Impact Study (TIS) as required by the City's transportation consultants. A review of the submission will be performed by the City's transportation consultants and furnished to the Planning Board prior to CIS and Preliminary Site Plan Review.

At this time, the applicant and the City's transportation consultants have worked diligently to conclude the Transportation Impact Study for the proposed project. The City consultants have concluded that the revised TIS submitted by the applicant addresses the list of concerns raised by the consultants. Copies of all transportation reviews, letters and attachments are attached outside of the CIS for convenience, while the most recent full TIS is supplied within the larger CIS document.

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 266 parking spaces where 209 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 commercial uses, leaving a deficiency of 3 spaces. **The applicant may provide the additional 3 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.

The applicant indicated during the review on January 26, 2022 that the outstanding spaces for use by the commercial areas will be provided in the off-street parking facility using the current excess spaces provided within the parking structure.

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 storm water 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 – Please see attached Engineering Division comments dated 1/26/2022.
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:

- 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.
- 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.
- 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.
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 applicant must submit details as to how they plan to mitigate noise, dust, debris, and other nuisances during the construction process; and
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.

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 condition:

1. The applicant must submit details as to how they plan to mitigate noise, dust, debris, and other nuisances during the construction process; and
2. The applicant engage with City Staff to discuss the Worth Plaza.

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 must submit details as to how they plan to mitigate noise, dust, debris, and other nuisances during the construction process;
2. The applicant engage with City Staff to discuss the Worth Plaza.

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 4-6 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), MU3 (Mixed-Use 3), and MU5 (Mixed-Use 5) 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.

On February 23, 2022 the applicant presented revised plans indicating that they will be pursuing a bonus story in both the MU3 and MU5 zoning districts for a total of 4 stories and 6 stories respectively. Both proposals meet the requirements of the Triangle District Overlay Standards, and no additional measures are required to receive the extra story.

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 (390 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 located 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 4.5-level, 266 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 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.17.0 details the proposed switch unit at 4 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.**

On February 23, 2022, the applicant presented revised plans demonstrating a transformer height of 6 ft., as well as a change in the screening material proposed. Based on the elevation drawings submitted, the proposed screen wall will be roughly 13 ft. in height and will be constructed of masonry with aluminum louvered gates. Article 4, Section 4.54 (B)(8) states that when required to screen a trash receptacle or ground-mounted mechanical or electrical equipment, a masonry screen wall with wood gates. The screen wall shall match the material of the principal building. **The Planning Board should discuss the proposed aluminum louvered gates in reference to the flexibility within Section 4.54 noted above.**

- 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.

It was noted by the applicant during the first review on January 26, 2022 that the proposed lawn area in the courtyard is a synthetic turf. Article 4, Section 4.20 (D)(1) states that all landscaping shall consist of approved natural materials or living plant materials. **The applicant must revise the landscaping plan to include living plant material, or obtain a variance from the Board of Zoning Appeals.**

- 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.	4,035	14
Other Commercial	1 per 550 sq. ft.	2,365	4
2 or less room unit	1 space per unit	21	21
3 or more room unit	1.25 spaces per unit	136	170
Total Required	-	-	209
Total Proposed	-	-	266

In the above calculations, the “Other Commercial” area consists of the leasing lobby/concierge space on the west side of the building. 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 commercial uses, leaving a deficiency of 3 spaces. **The applicant must provide an additional 3 parking spaces within the proposed parking structure, 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;**

The applicant indicated during the review on January 26, 2022 that the outstanding spaces for use by the commercial areas will be provided in the off-street parking facility using the current excess spaces provided within the parking structure.

- 4.2 Loading – Based on the commercial space within the proposed development (6,400 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.**

Although the applicant has submitted revised elevation drawings with a dimension of 14 ft. for the loading area, the dimension does not appear to scale out to 14 ft. Rather, it remains around 12 ft., as noted above. Thus, the issue still remains and must be corrected by Final Site Plan.

- 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.

During the previous two reviews for the project, the applicant had proposed a drive-through ATM at the south side of the building along the alley. Based on comments provided from the Planning Board, the applicant has REMOVED the ATM proposal from the plans.

- 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 down lighting 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 – **Please see the attached UPDATED Engineering Division comments dated 2/23/2022.**

6.2 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:

- 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.
- 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.
- 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

(see next page)

	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 revise the landscaping plan to include living plant material, 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 revise the landscaping plan to include living plant material, 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. _____

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

Existing Site: 2 story commercial & office buildings

Zoning: B2 (General Business) & MU3/MU5 (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:	157 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:	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:	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) 77 ft., 6 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:	209 off-street spaces
	Proposed:	266 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 space 40 ft. x 12 ft. x 14 ft.
Proposed:	1 off-street loading spaces 43 ft. x 21 ft. x 12 ft.

Screening:

<u>Parking:</u>	Required:	6 ft. masonry screen wall
	Proposed:	Screened by building facade

<u>Loading:</u>	Required:	Screened from view
	Proposed:	Interior loading area screened by building

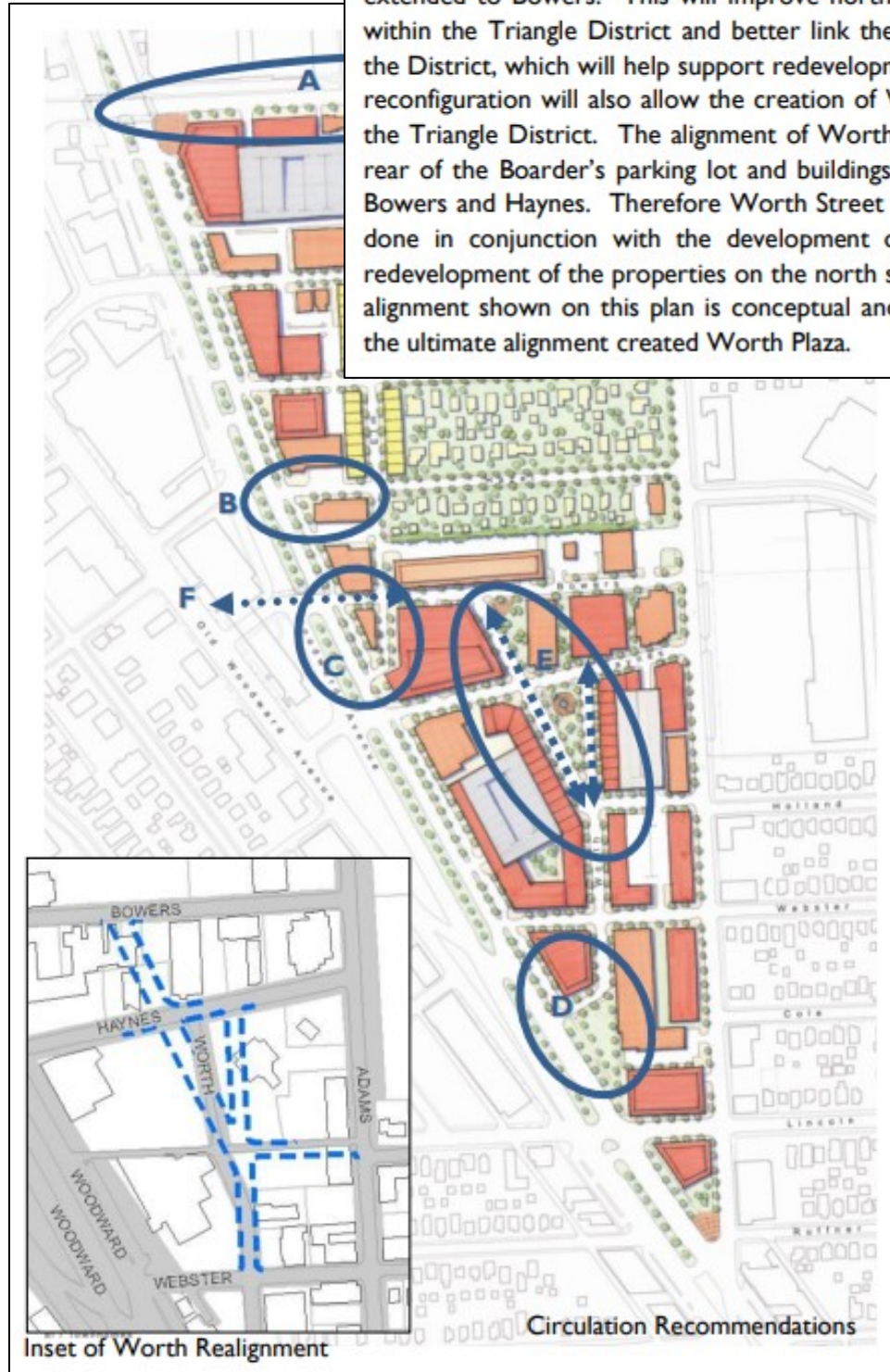
<u>Rooftop Mechanical:</u>	Required:	Screened from view
	Proposed:	6 ft. screen wall

<u>Elect. Transformer:</u>	Required:	Obscured from public view
	Proposed:	13 ft. masonry screen wall with aluminum louvered gates

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



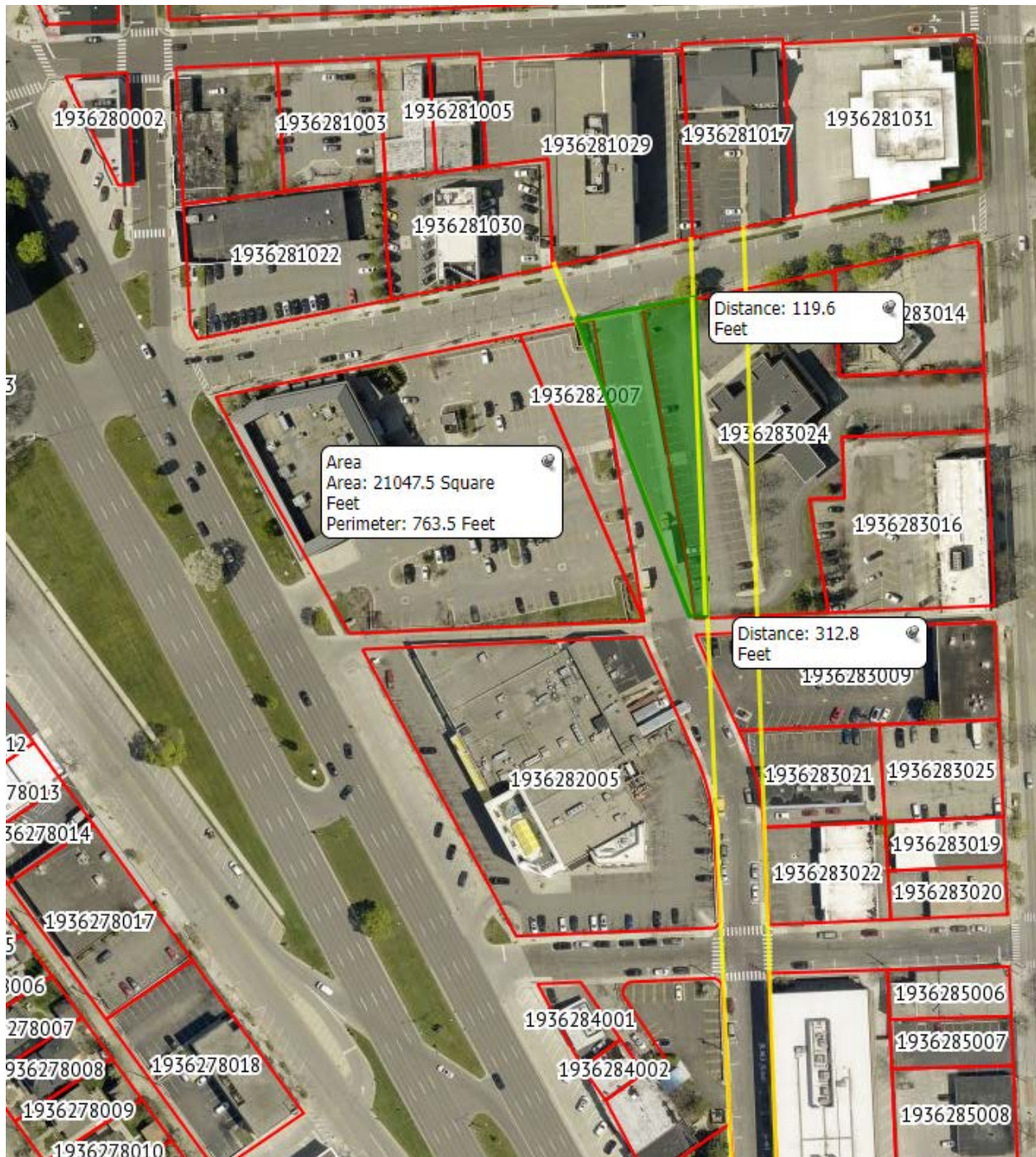
Worth Street (E). Currently Worth Street ends at Haynes Street. This prevents circulation between the Triangle District's northern and southern halves. Worth should be realigned parallel to Woodward Avenue and extended to Bowers. This will improve north/south interior connectivity within the Triangle District and better link the north and south halves of the District, which will help support redevelopment of this area. This road reconfiguration will also allow the creation of Worth Plaza in the heart of the Triangle District. The alignment of Worth Street will be through the rear of the Boarder's parking lot and buildings currently located between Bowers and Haynes. Therefore Worth Street realignment will need to be done in conjunction with the development of a parking structure and redevelopment of the properties on the north side of Haynes. The specific alignment shown on this plan is conceptual and could be varied, provided the ultimate alignment created Worth Plaza.

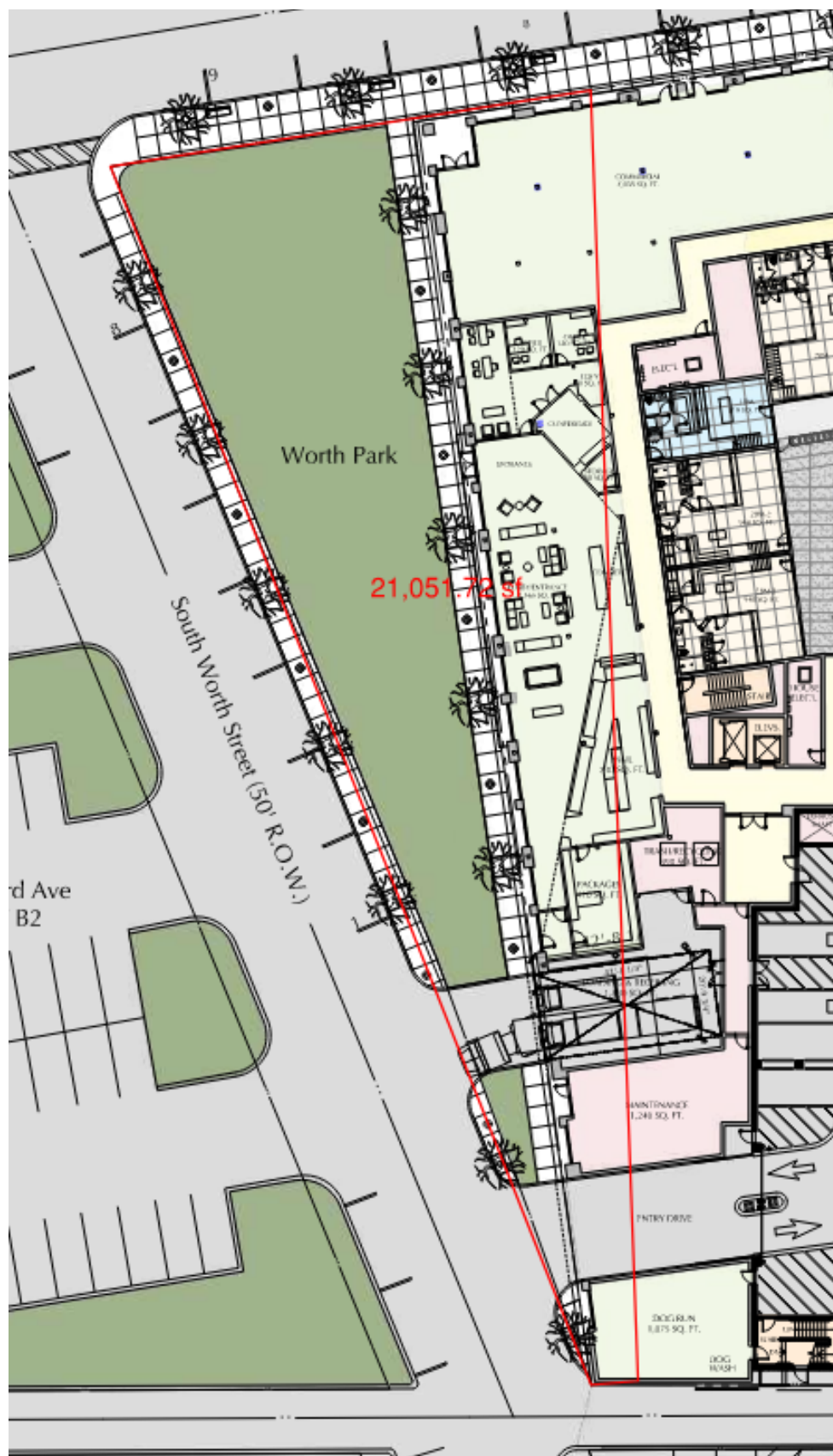


Worth Plaza SF - Approximately 21,000 SF

Dimensions - Approximately 120' x 310'

Comparable Park Size - Capital Park, Detroit MI (140' x 300')





Departmental Comments

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

Fire Department Comments

770 South Adams Development – Revised-Preliminary Plan Comments

1. A bi-directional antenna system (BDA) may be required per the fire code. Determination shall be made toward the end of final construction after walls are poured and construction is near completion.
2. **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.
3. Full fire suppression is required for this structure.
 - a. Fire department connection to be installed on the north side (Brown St.) side and located within 100 feet of a fire hydrant. IF a hydrant is not within 100 feet of the FDC a hydrant shall be installed at the expense of the project owner to meet this requirement.
4. Stand pipe system to be installed in all stairwells on each level. Standpipe system to be installed on rooftop. Parking decks require standpipe system.
5. Fire department connection, FDC shall be located on the streetside (South Adams side of building).
6. Full fire alarm coverage and installation is required for this structure.
7. Stairway access to rooftop.
8. Required egress pathway distances shall be met and required in the building and enclosed egress points per IBC and IFC.
9. Knox box key box (surface mount) shall be required on north and south side of building due to the size of the building. Contact Fire Marshal with specific locations for Knox box installation.
10. Exterior fire alarm notification devices on rooftop elevation required.
11. Rooftop garden shall follow all fire code requirements listed in the International Fire Code.
12. Dependent on the final design height of the building and IBC, IFC requirements an emergency generator may be required.
13. A fire command center is recommended and may be required per IFC.
14. A fire pump may be required dependent of final building height and available city water pressure.
15. Street access to be open and clear for all emergency vehicles at all times.
16. Exit signage illuminated shall be installed above doors and at ground level of all floors.
17. If parking lot/garage is made sub level (later decided) a ventilation and CO detection system shall be installed.

DATE: February 23, 2022

TO: Nicholas Dupuis, Planning Director

FROM: Scott D. Zielinski, Assistant City Engineer

SUBJECT: Preliminary Site Plan Review – 770 S. Adams (Adams/Haynes Development)

The Engineering Department has completed a review of the newly submitted architectural drawings prepared by Christopher J Longe AIA for Preliminary Site Plan, and the preliminary site plans dated 12/16/2021 prepared by PEA Group with respect to conformance with City ordinances and engineering standards. Comments that have been addressed have been crossed out, additional comments are in **BLUE**. The Engineering Department has the following comments:

GENERAL:

- ~~Site Plans will be required to show changes in planned grade elevations.~~
- ~~Elevations on design plans shall be based on the City's datum, this must be clearly noted on the plans. Please note that the City's datum is not NAVD88.~~

SEWER:

- ~~An existing 42" combined sewer exists along Adams Road, this is the sewer that the new development should be connected to.~~
- Separate connections for both Storm Sewer and Sanitary Sewer shall be established.
- Plans do not indicate how roof drainage will be handled. Note that City Ordinance prohibits downspouts from being directly connected to the sewer system.

STORM WATER RUNOFF:

- For the proposed site development, I have made the determination that the proposed construction site on Unit 2 is considered the "affected area" with respect to City's Storm Water Runoff Ordinance (Chapter 114, Article III, Division 4, Sec 114-271 to 114-274). Therefore, the allowable runoff from the site for a 10-year storm event is 1.0 cfs/acre, or 0.2 cfs, whichever is greater.
- Provide calculations for required storm water detention, and show how the excess storm water will be detained and released at the allowable discharge rate.

WATER SYSTEM:

- ~~There is an existing 12" water main on Adams. We assume your development will require an 8" connection to this water main.~~
- All existing site connections to water mains must be properly abandoned.
- Show the proposed water service for domestic supply and fire suppression on the plans.

- The proposed 8" water tap should be converted to an 8" City water main extending the length of the alley connecting the 12" main on Adams to the 8" main on S Worth St. Gate valves should be placed at either end of the new water main section.
 - An 8"x 8" T can be placed in the alley at the planned service location for the 8" fire supply with the 4" Domestic tap connected to the 8" service.
 - An 8"x6" T can be placed from the constructed 8" alley main to the proposed hydrant at the SE corner of the development.

The city believes by connecting the proposed facility to the water supply in this fashion will provide the best possible water quality and pressure.

PERMITS FOR CONSTRUCTION:

- Right-of-Way Permit for any excavations or work in Adams St. right-of-way.
- Street Obstruction Permit for any temporary traffic interference on any surrounding road, or for pedestrian traffic interference on public sidewalks.
- Sidewalk/Drive Approach Permit for any pavement installed in the public right-of-way.

GENERAL CONSTRUCTION:

- Inspections will be required for planned Streetscape work, including sidewalk preparation and concrete placement.
- Power System plans for building must be shown on final plans (we do not anticipate the use of City ROW space for power)

Please note these are our initial comments and the City should be provided an opportunity to review [any design changes completed for](#) engineered drawings prior to final submission. [Engineering design changes could impact the](#) Engineering Department comments, which could impact design requirements.

Site Plans

PERENNIAL
Birmingham, Michigan 48009

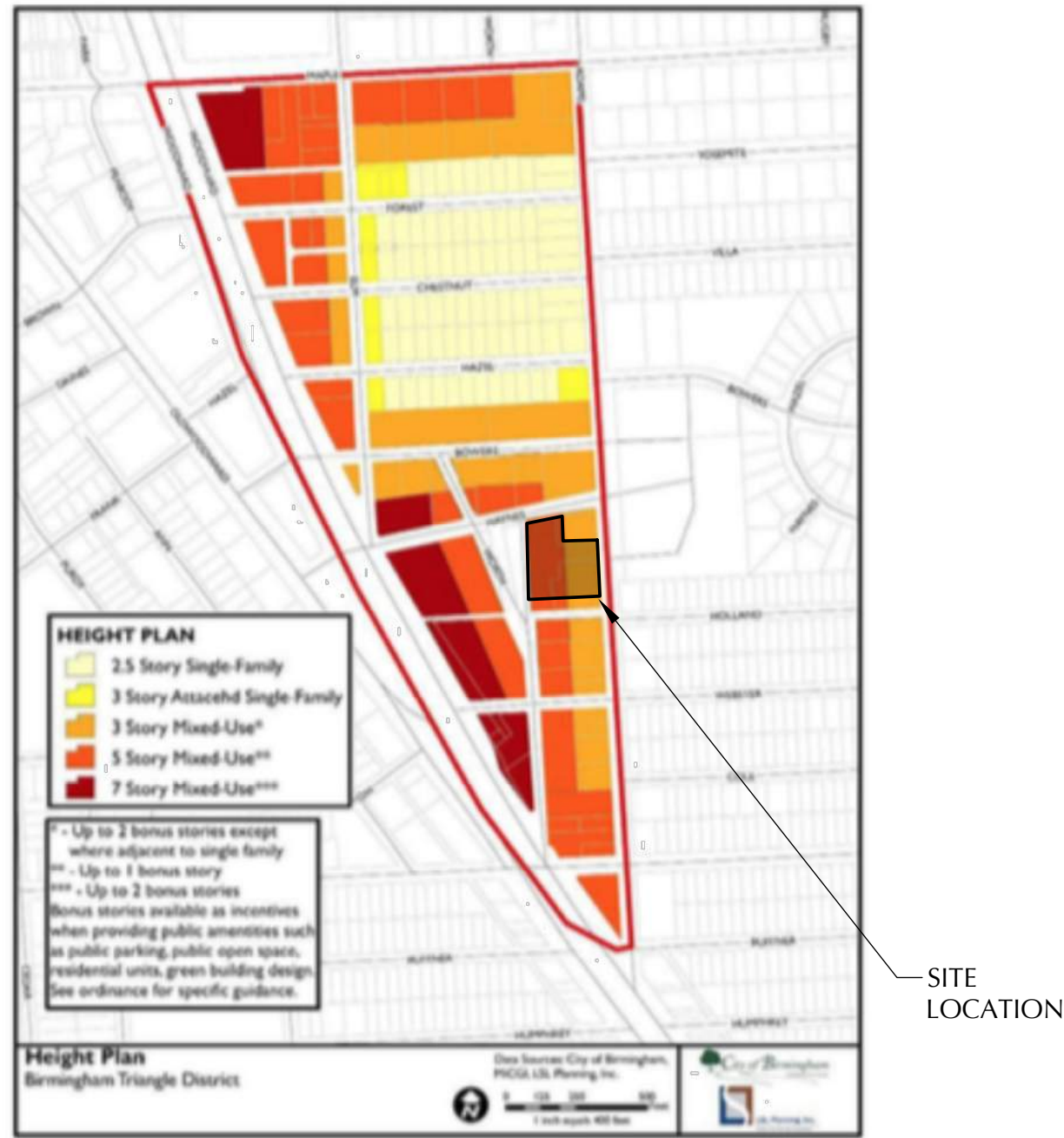


Haynes @ Worth (NW Corner) looking South

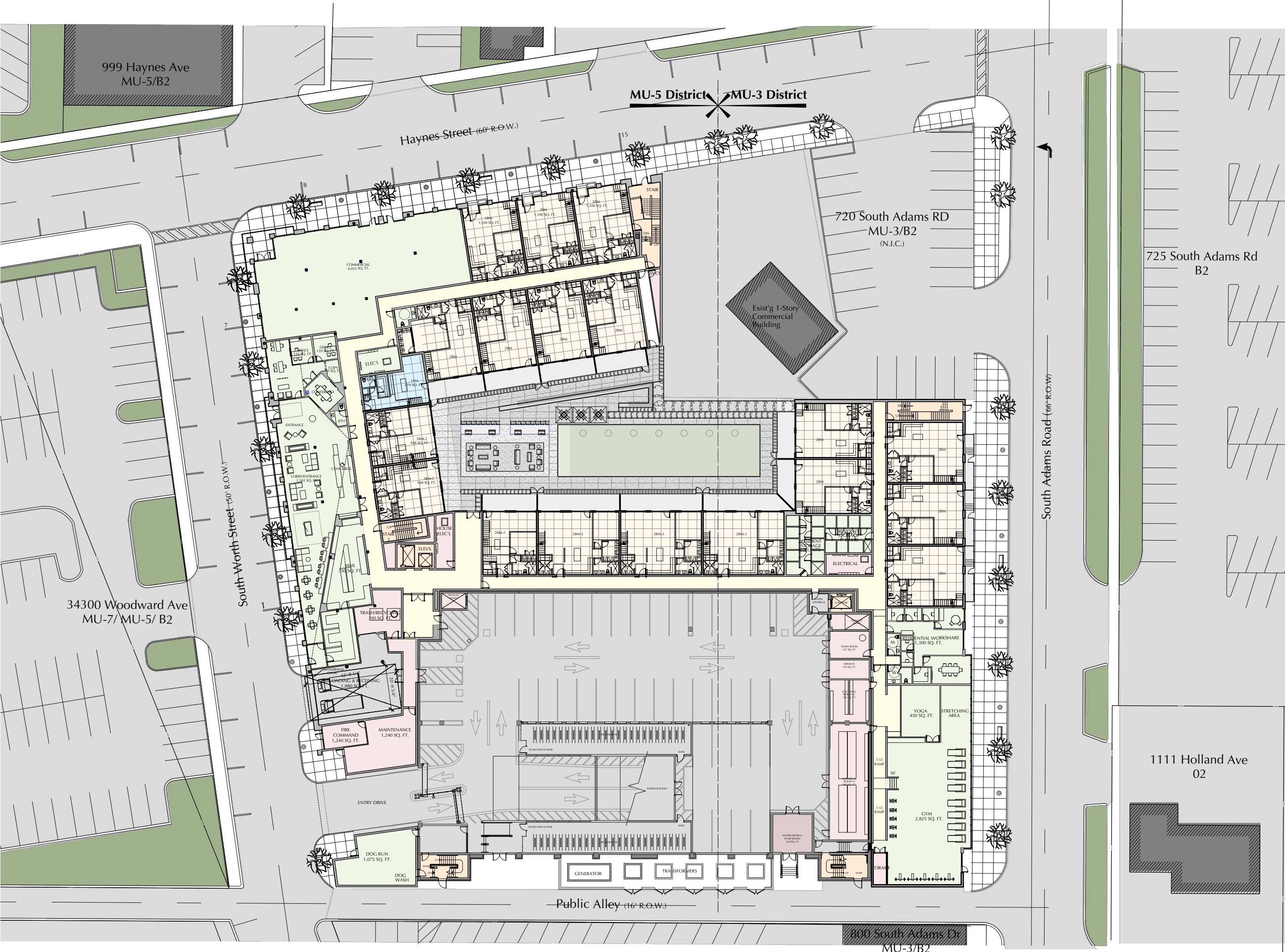
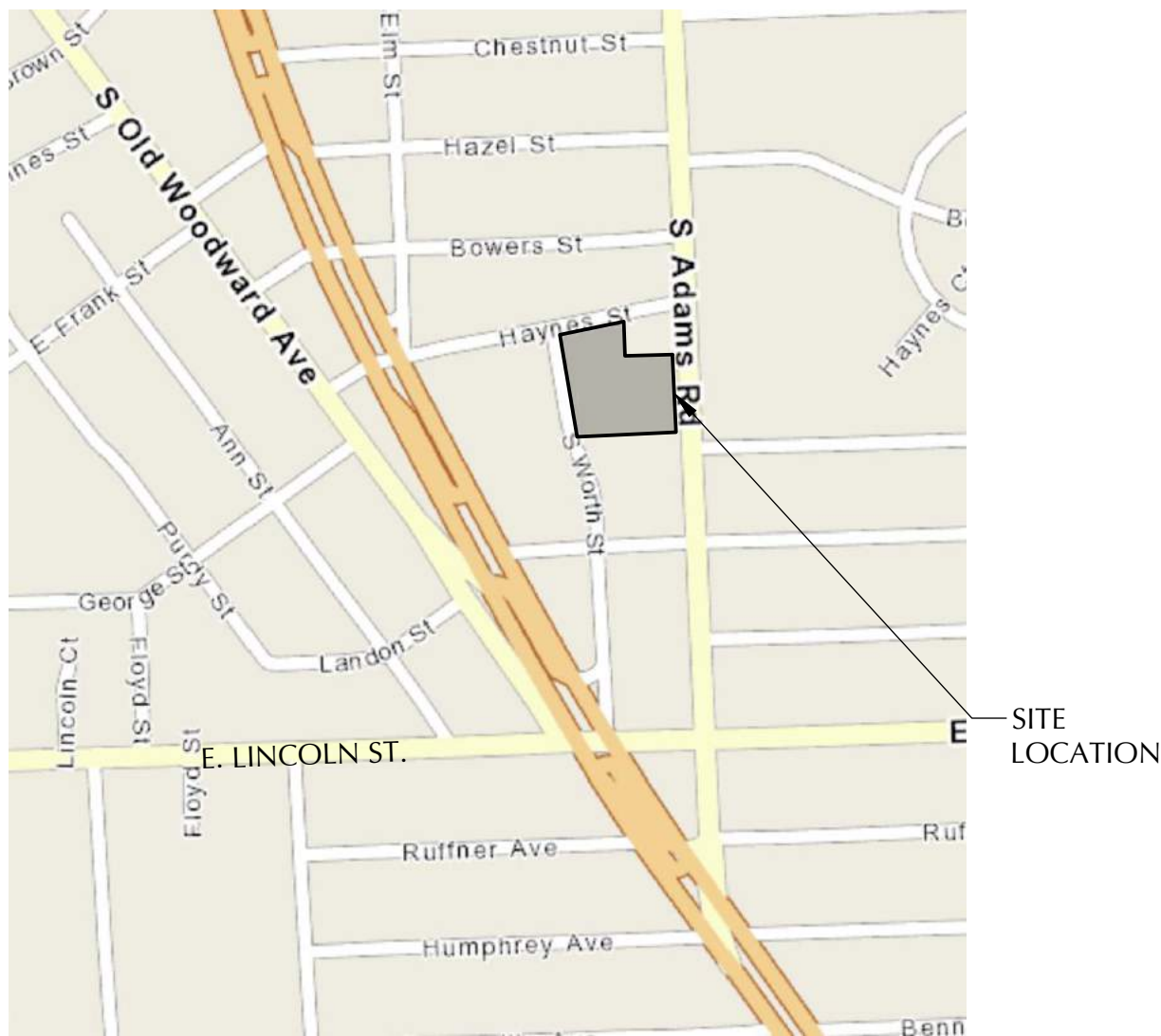


Adams @ Haynes (NE Corner) looking West

TRIANGLE DISTRICT HEIGHT MAP



LOCATION MAP



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"
Level 6 (ADDITIONAL BONUS STORY)		24'-0"	12'-0"	11'-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	M, B, S-2, R-2
Level 2	Resident Amenities, Apartments	R-2, B
Level 3	Apartments	R-2
Level 4	Apartments	R-2
Level 5	Apartments (Haynes/Worth only)	R-2
Level 6	Apartments (Haynes/Worth only)	R-2
Total No. of Apartments		157 Units

PARKING DATA

RESIDENTIAL APARTMENTS	153 APARTMENTS X 1 (1-2 BEDROOM APARTMENTS)	REQUIRED 153.0 SPACES	PROVIDED 266.0 SPACES
	4 APARTMENTS X 1.25 (3 BEDROOM APARTMENTS)	5.0 SPACES	
RETAIL RETAIL	4,035 / 300 SF	14.0 SPACES	
TOTAL	157 APARTMENTS	172.0 SPACES	266.0 SPACES
TOTAL (INCLUDING 15 STREET PARKING SPACES)			281.0 SPACES

FACADE DATA

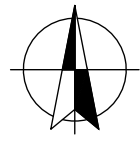
Elevation	Brick, Stone, Glass (60% Minimum)	Main Level Glazing (70% Minimum)	Glazing Above 8'-0" (50% Maximum)
North (Haynes Ave.)	Meets	Meets	Meets
East (Adams Rd.)	Meets	No Frontage	Meets
West (Worth St.)	Meets	Meets	Meets
South (Alley)	No Frontage	No Frontage	Meets
Cumulative Totals			

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

6th level Apartments Area =	19,346 GSF	
5th Level Apartments Area =	22,879 GSF	
Indoor Amenity Area =	4,817 GSF	
Total 5th Level Area =	27,696 GSF	
Total 4th Level Apartments Area =	46,370 GSF	
Total 3rd Level Apartments Area =	48,196 GSF	
Total 2nd Level Apartments Area =	48,196 GSF	
1st Level Apartments Area =	27,614 GSF	
Fitness Center =	3,275 GSF	
Resident Workshare =	1,300 GSF	
Retail Area =	4,035 GSF	
Lobby, Leasing, Mail & Pkgs. Area =	4,863 GSF	
Loading/Receiving Area =	1,880 GSF	
Trash Collection Area =	390 GSF	
Dog Run & Wash Area =	1,075 GSF	
Maintenance Area =	1,240 GSF	
Total 1st Level Area =	45,672 GSF	
Total Building Indoor Area =		235,475 GSF
Total Rentable Area =		212,601 SF

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
Patios = 2,802 GSF

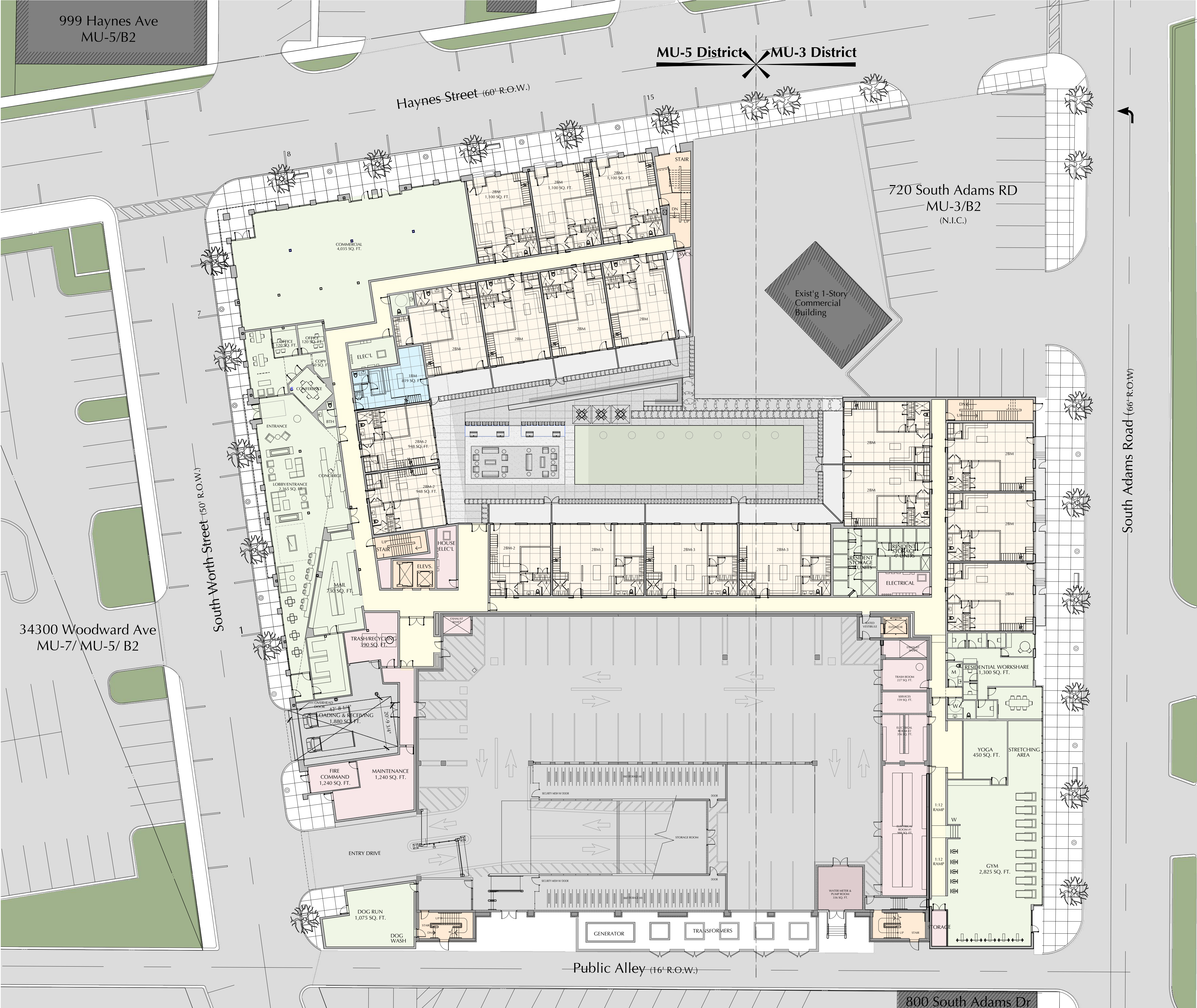
NOTE: Total Mezzanine area must be added to Total Building Indoor Area for actual constructed square footage.



SITE PLAN

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Birmingham, Michigan 48009



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							Unit Mix	
	Lvl 1	Lvl 2	Lvl 3	Lvl 4	Lvl 5	Lvl 6	Total	%	
Studio (S, S-2)	0	2	2	0	0	0	4	2.5%	2.5%
1 Bedroom (1B, 1BC)	0	2	2	7	2	4	17	10.8%	
1 Bedroom + Den (1BD, 1BD-2, 1BDC)	0	17	16	9	8	6	56	35.7%	48.4%
1 Bedroom, 2 Levels (1BM)	1	0	0	0	0	0	3	1.9%	
2 Bedroom (2B, 2B-2)	0	6	6	8	2	7	29	18.5%	
2 Bedroom + Den (2BD, 2BD-2, 2BDC)	0	6	7	7	6	1	27	17.2%	45.9%
2 Bedroom, 2 Levels (2BM, 2BM-2, 2BM-3)	18	0	0	0	0	0	16	10.2%	
3 Bedroom (3BM)	0	1	1	1	1	1	5	3.2%	3.2%
Total	19	34	34	32	19	19	157	100%	100%

TOTAL PARKING
266 SPACES
(12 BARRIER FREE) 1.71/UNIT

TOTAL BIKE STORAGE
96 SPACES

TOTAL RESIDENT STORAGE
129 UNITS

1ST LEVEL
(AMENITIES/APARTMENTS)

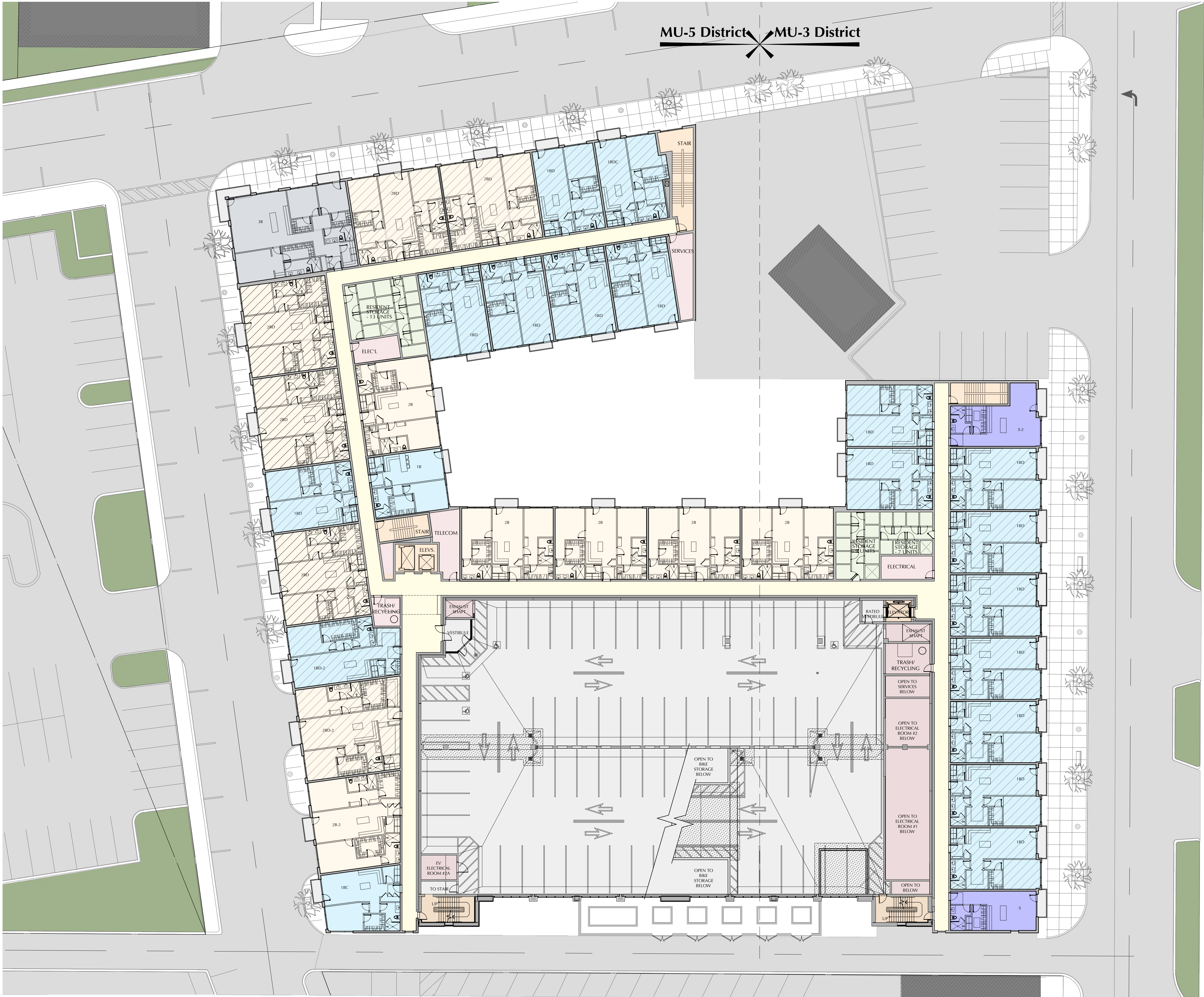
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SCALE: 1" = 20'-0"



SD.1.2

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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							Unit Mix	
	Lvl 1	Lvl 2	Lvl 3	Lvl 4	Lvl 5	Lvl 6	Total	%	
Studio (S, S-2)	0	2	2	0	0	0	4	2.5%	2.5%
1 Bedroom (1B, 1BC)	0	2	2	7	2	4	17	10.8%	
1 Bedroom + Den (1BD, 1BD-2, 1BDC)	0	17	16	9	8	6	56	35.7%	48.4%
1 Bedroom, 2 Levels (1BM)	1	0	0	0	0	0	3	1.9%	
2 Bedroom (2B, 2B-2)	0	6	6	8	2	8	30	19.1%	
2 Bedroom + Den (2BD, 2BD-2, 2BDC)	0	6	7	7	6	1	27	17.2%	46.5%
2 Bedroom, 2 Levels (2BM, 2BM-2, 2BM-3)	18	0	0	0	0	0	16	10.2%	
3 Bedroom (3BM)	0	1	1	1	1	0	4	2.5%	2.5%
Total	19	34	34	32	19	19	157	100%	100%

TOTAL PARKING
266 SPACES
(12 BARRIER FREE) 1.71/UNIT

TOTAL BIKE STORAGE
96 SPACES

TOTAL RESIDENT STORAGE
129 UNITS

2ND LEVEL
(AMENITIES/APARTMENTS)

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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							Unit Mix	
	Lvl 1	Lvl 2	Lvl 3	Lvl 4	Lvl 5	Lvl 6	Total	%	
Studio (S, S-2)	0	2	2	0	0	0	4	2.5%	2.5%
1 Bedroom (1B, 1BC)	0	2	2	7	2	0	17	10.8%	48.4%
1 Bedroom + Den (1BD, 1BD-2, 1BDC)	0	17	16	9	8	6	56	35.7%	
1 Bedroom, 2 Levels (1BM)	1	0	0	0	0	0	3	1.9%	
2 Bedroom (2B, 2B-2)	0	6	6	8	2	8	30	19.1%	46.5%
2 Bedroom + Den (2BD, 2BD-2, 2BDC)	0	6	7	7	6	1	27	17.2%	
2 Bedroom, 2 Levels (2BM, 2BM-2, 2BM-3)	18	0	0	0	0	0	16	10.2%	
3 Bedroom (3BM)	0	1	1	1	1	0	4	2.5%	2.5%
Total	19	34	34	32	19	19	157	100%	100%

TOTAL PARKING
266 SPACES
(12 BARRIER FREE) 1.71/UNIT

TOTAL BIKE STORAGE
96 SPACES

TOTAL RESIDENT STORAGE
129 UNITS

3RD LEVEL
(APARTMENTS)

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SD.3.0

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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

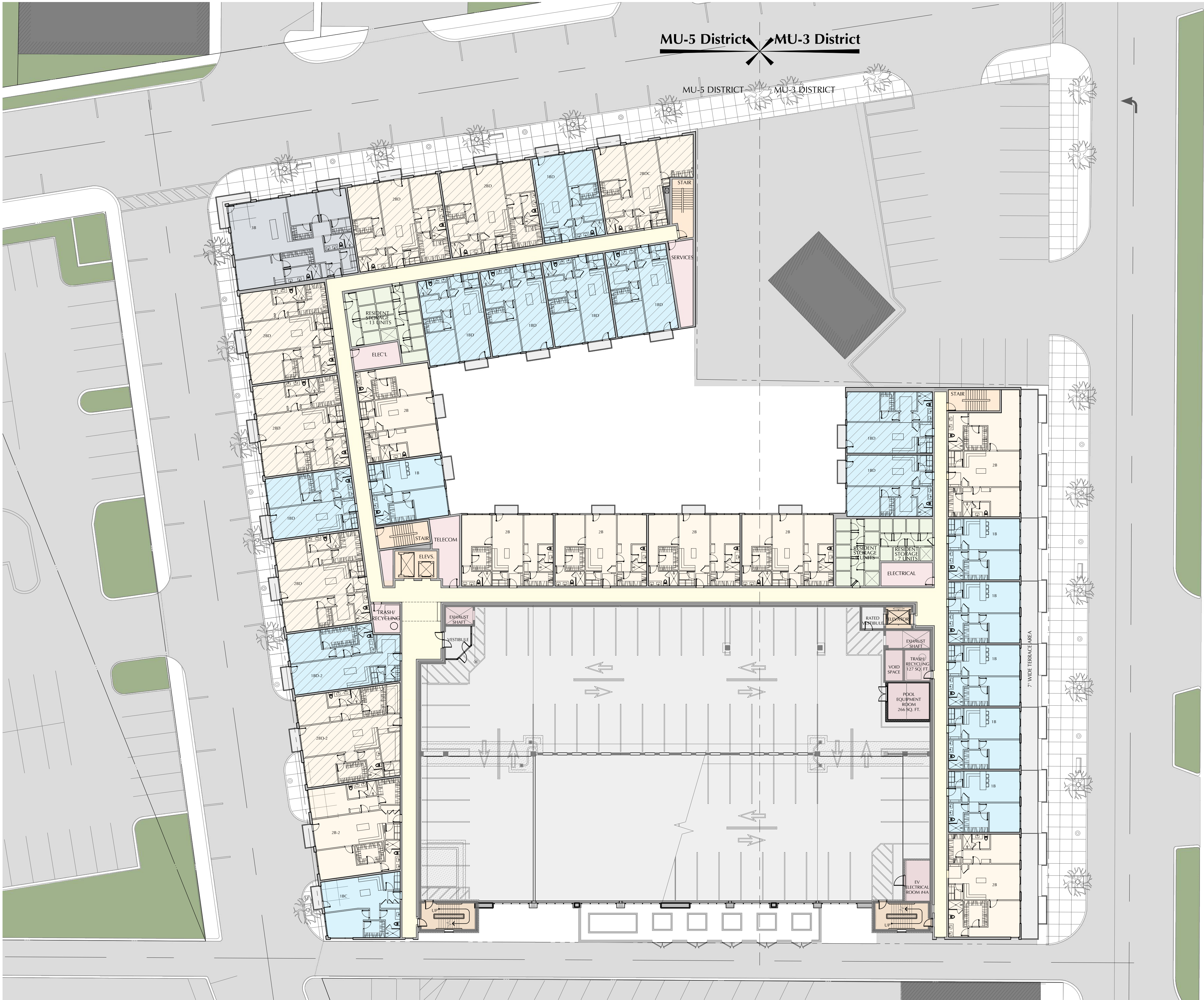
UNIT DATA

Type	# of Units							Unit Mix	
	Lvl 1	Lvl 2	Lvl 3	Lvl 4	Lvl 5	Lvl 6	Total	%	
Studio (S, S-2)	0	2	2	0	0	0	4	2.5%	2.5%
1 Bedroom (1B, 1BC)	0	2	2	7	2	4	17	10.8%	
1 Bedroom + Den (1BD, 1BD-2, 1BDC)	0	17	16	9	8	6	56	35.7%	48.4%
1 Bedroom, 2 Levels (1BM)	1	0	0	0	0	0	3	1.9%	
2 Bedroom (2B, 2B-2)	0	6	6	8	2	8	30	19.1%	
2 Bedroom + Den (2BD, 2BD-2, 2BDC)	0	6	7	7	6	1	27	17.2%	46.5%
2 Bedroom, 2 Levels (2BM, 2BM-2, 2BM-3)	18	0	0	0	0	0	16	10.2%	
3 Bedroom (3BM)	0	1	1	1	1	0	4	2.5%	2.5%
Total	19	34	34	32	19	19	157	100%	100%

TOTAL PARKING
266 SPACES
(12 BARRIER FREE) 1:7.1/UNIT

TOTAL BIKE STORAGE
96 SPACES

TOTAL RESIDENT STORAGE
129 UNITS



4TH LEVEL
(APARTMENTS)

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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

UNIT DATA

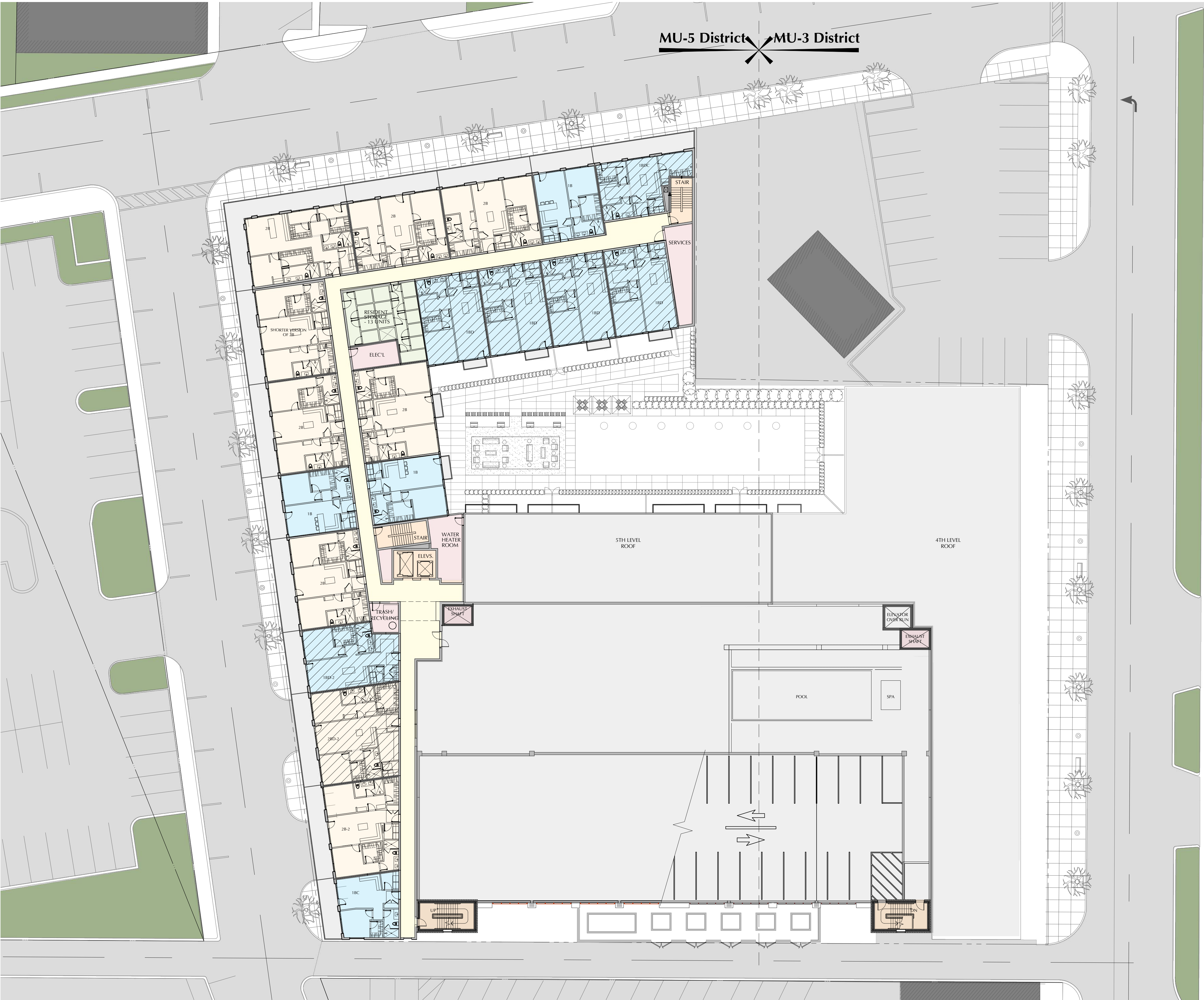
Type	# of Units							Unit Mix	
	Lvl 1	Lvl 2	Lvl 3	Lvl 4	Lvl 5	Lvl 6	Total	%	
Studio (S, S-2)	0	2	2	0	0	0	4	2.5%	2.5%
1 Bedroom (1B, 1BC)	0	2	2	7	2	4	17	10.8%	
1 Bedroom + Den (1BD, 1BD-2, 1BDC)	0	17	16	9	8	6	56	35.7%	48.4%
1 Bedroom, 2 Levels (1BM)	1	0	0	0	0	0	3	1.9%	
2 Bedroom (2B, 2B-2)	0	6	6	8	2	8	30	19.1%	
2 Bedroom + Den (2BD, 2BD-2, 2BDC)	0	6	7	7	6	1	27	17.2%	46.5%
2 Bedroom, 2 Levels (2BM, 2BM-2, 2BM-3)	18	0	0	0	0	0	16	10.2%	
3 Bedroom (3BM)	0	1	1	1	1	0	4	2.5%	2.5%
Total	19	34	34	32	19	19	157	100%	100%

TOTAL PARKING
266 SPACES
(12 BARRIER FREE) 1:7.7/UNIT

TOTAL BIKE STORAGE
96 SPACES

TOTAL RESIDENT STORAGE
129 UNITS

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6TH LEVEL
(APARTMENTS)

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

UNIT DATA

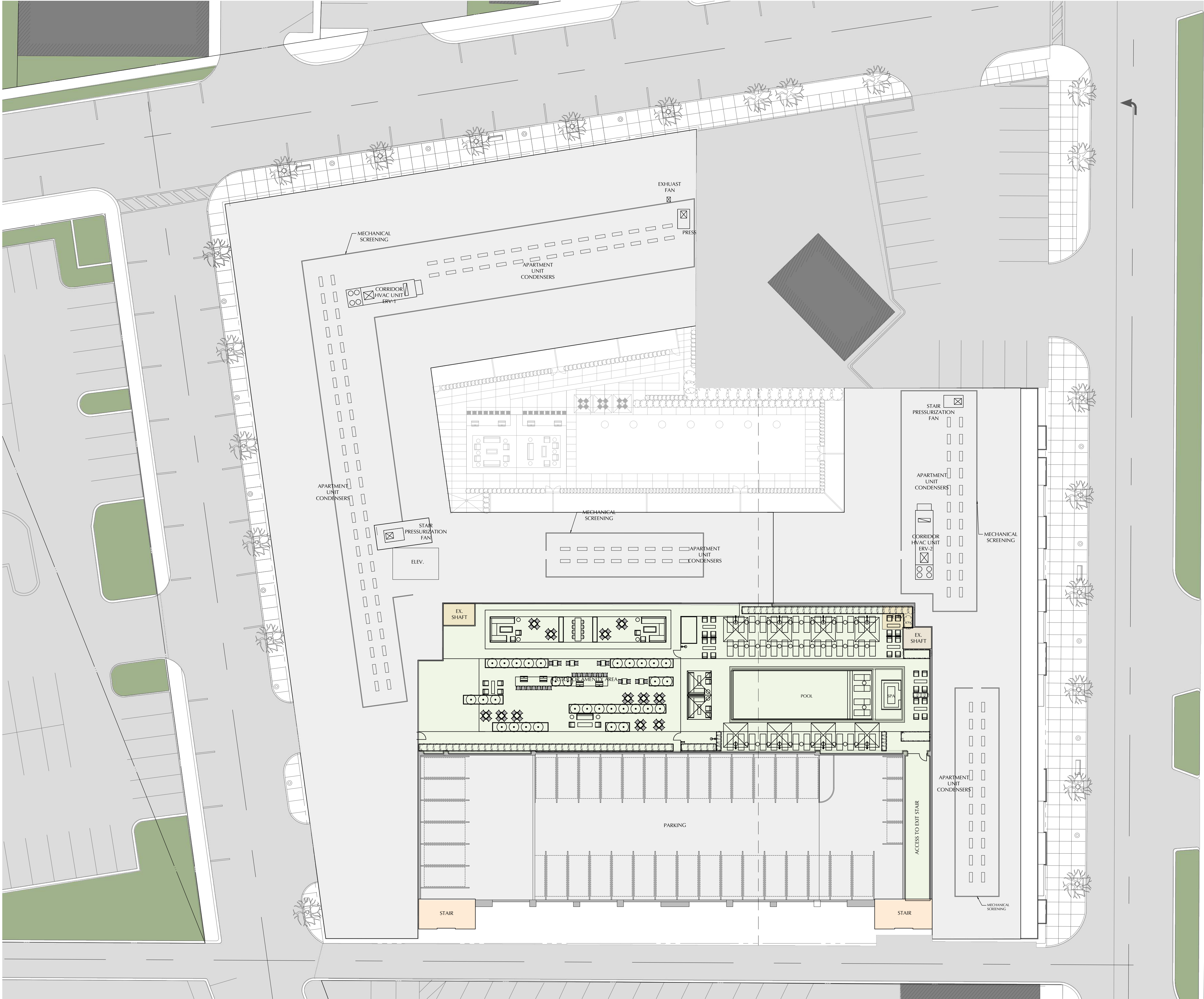
Type	# of Units								Unit Mix	
	Lvl 1	Lvl 2	Lvl 3	Lvl 4	Lvl 5	Lvl 6	Total	%		
Studio (S, S-2)	0	2	2	0	0	0	4	2.5%	2.5%	
1 Bedroom (1B, 1BC)	0	2	2	7	2	4	17	10.8%		
1 Bedroom + Den (1BD, 1BD-2, 1BDC)	0	17	16	9	8	6	56	35.7%	48.4%	
1 Bedroom, 2 Levels (1BM)	1	0	0	0	0	0	3	1.9%		
2 Bedroom (2B, 2B-2)	0	6	6	8	2	8	30	19.1%		
2 Bedroom + Den (2BD, 2BD-2, 2BDC)	0	6	7	7	6	1	27	17.2%	46.5%	
2 Bedroom, 2 Levels (2BM, 2BM-2, 2BM-3)	18	0	0	0	0	0	16	10.2%		
3 Bedroom (3BM)	0	1	1	1	1	0	4	2.5%	2.5%	
Total	19	34	34	32	19	19	157	100%	100%	

TOTAL PARKING
266 SPACES
(12 BARRIER FREE) 1.71/UNIT

TOTAL BIKE STORAGE
96 SPACES

TOTAL RESIDENT STORAGE
129 UNITS

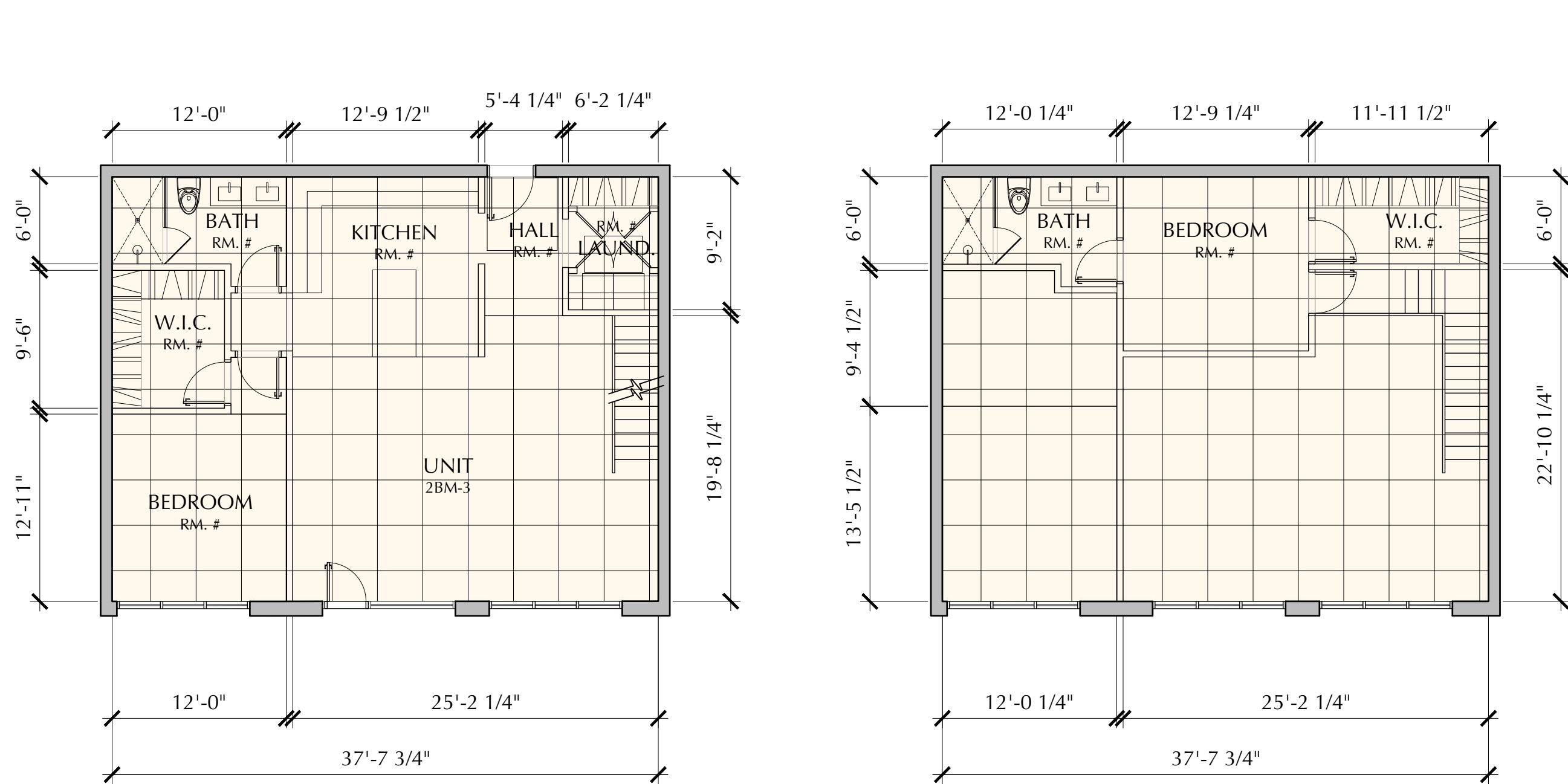
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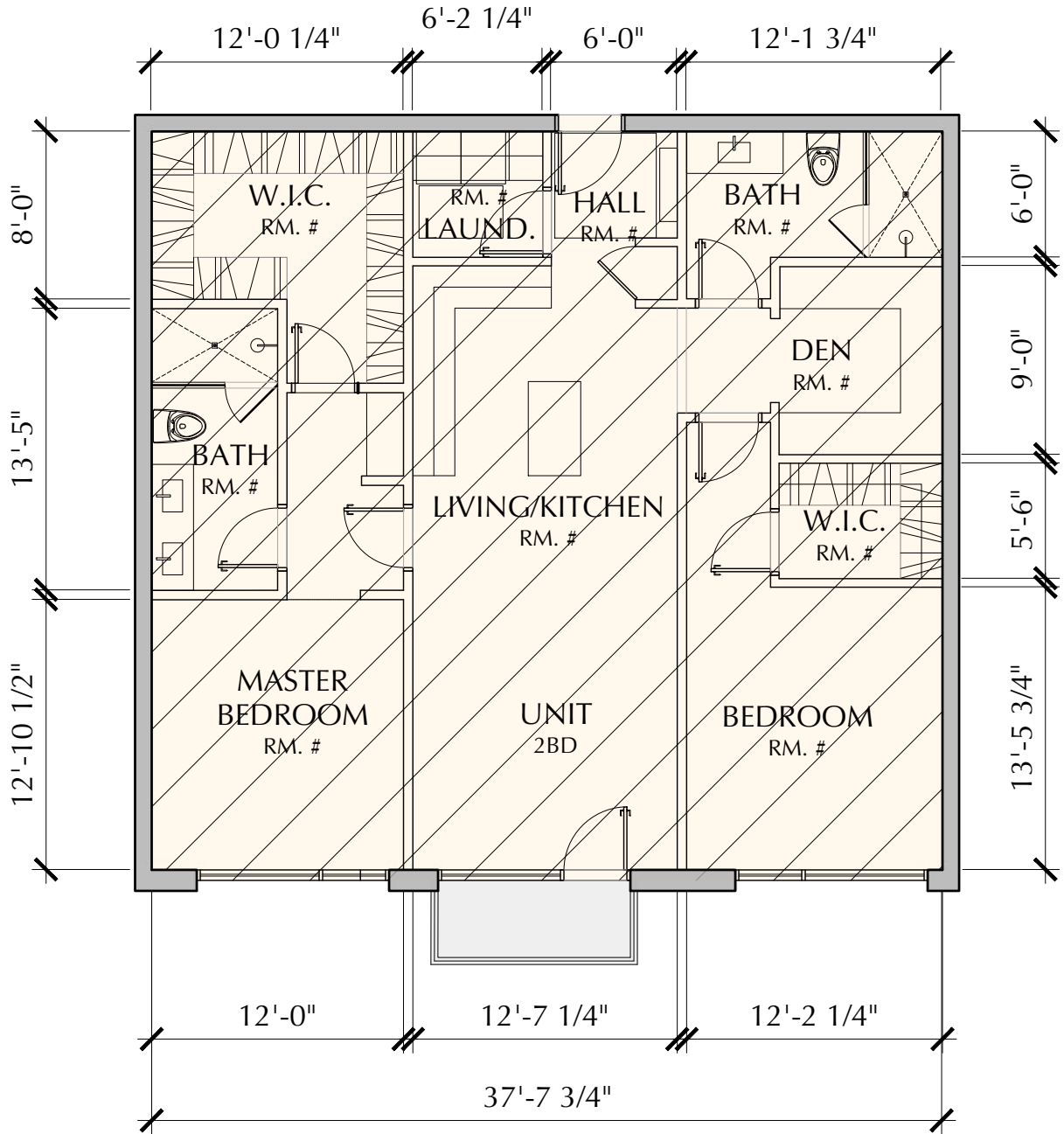
- LEGEND
- PARKING
 - RETAIL + RESIDENT SERVICES
 - ANCILLARY
 - EGRESS
 - CIRCULATION
 - STUDIO
 - 1 BEDROOM
 - 1 BEDROOM + DEN
 - 1 BEDROOM - 2 LEVELS
 - 2 BEDROOM
 - 2 BEDROOM + DEN
 - 2 BEDROOM - 2 LEVELS
 - 2 BEDROOM + DEN - 2 LEVELS
 - 3 BEDROOM

ROOF PLAN
(AMENITIES)

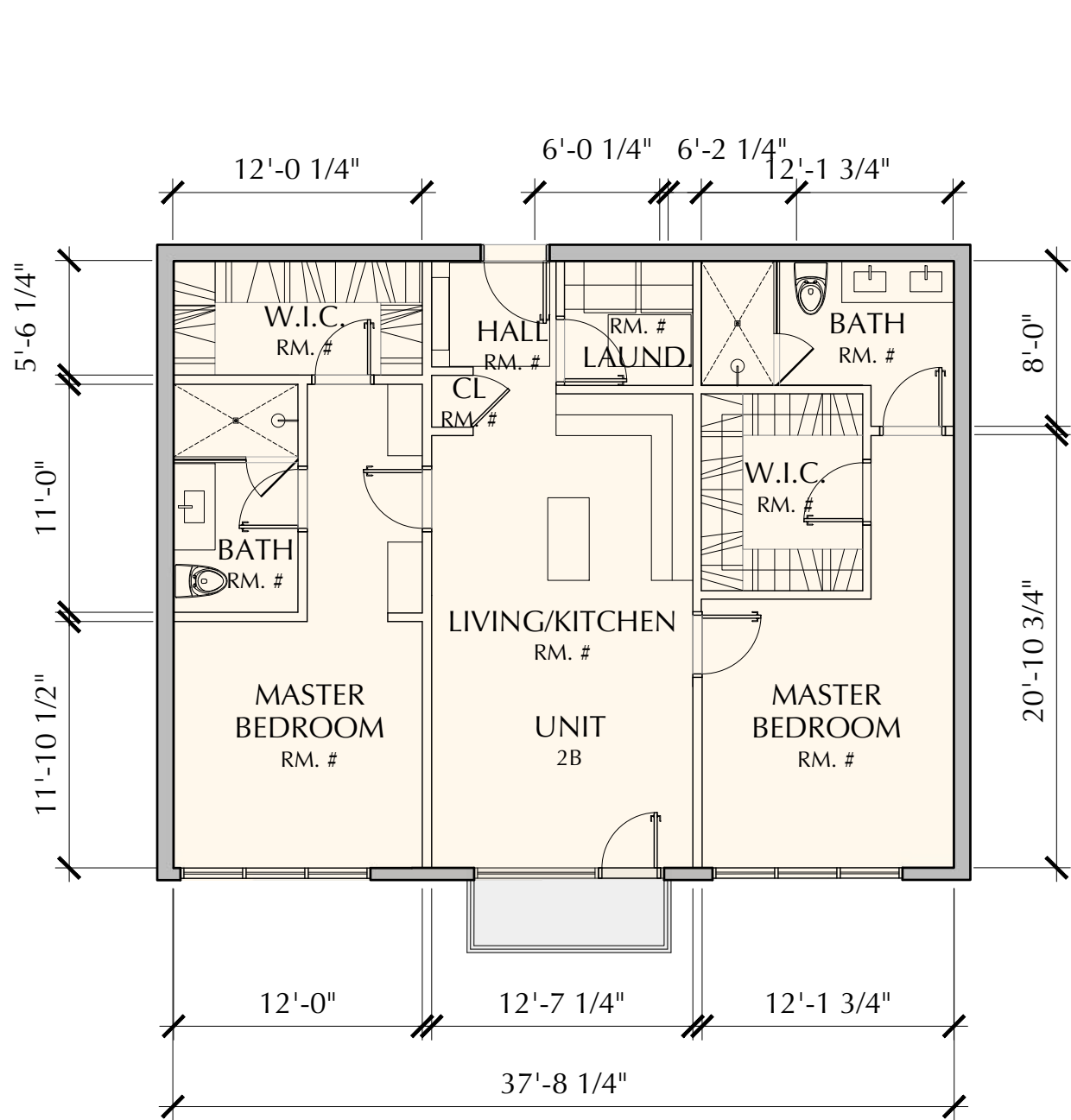
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2 Bedroom + Den 2 Level Unit (below No Den Units):
2BM-3
1st Level = 1,101 sf
Room Below = 774 sf
Mezzanine = 309 sf (< 50% Room Below)
3 @ 1,608 sf



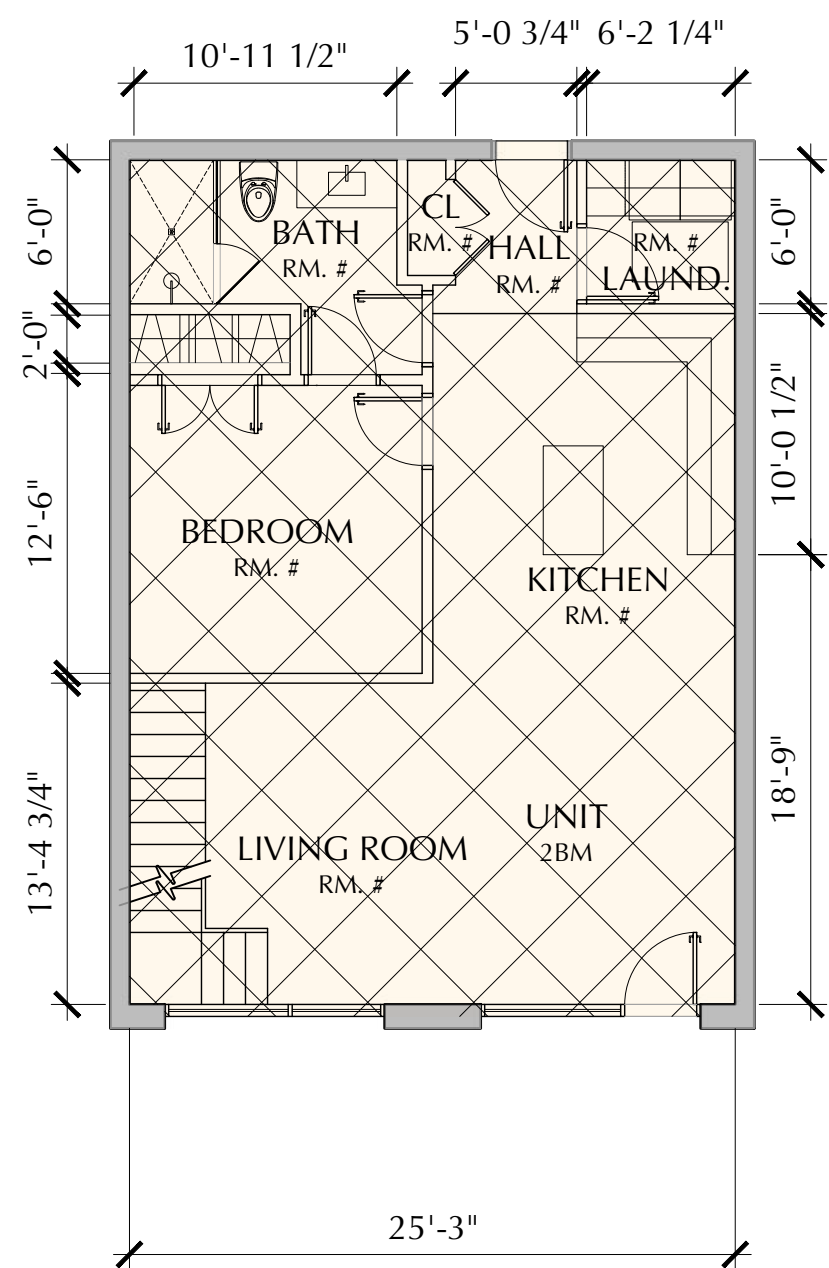
2 Bedroom + Den Unit - 24 @ 1,423 sf
2BD
SF: 1,326



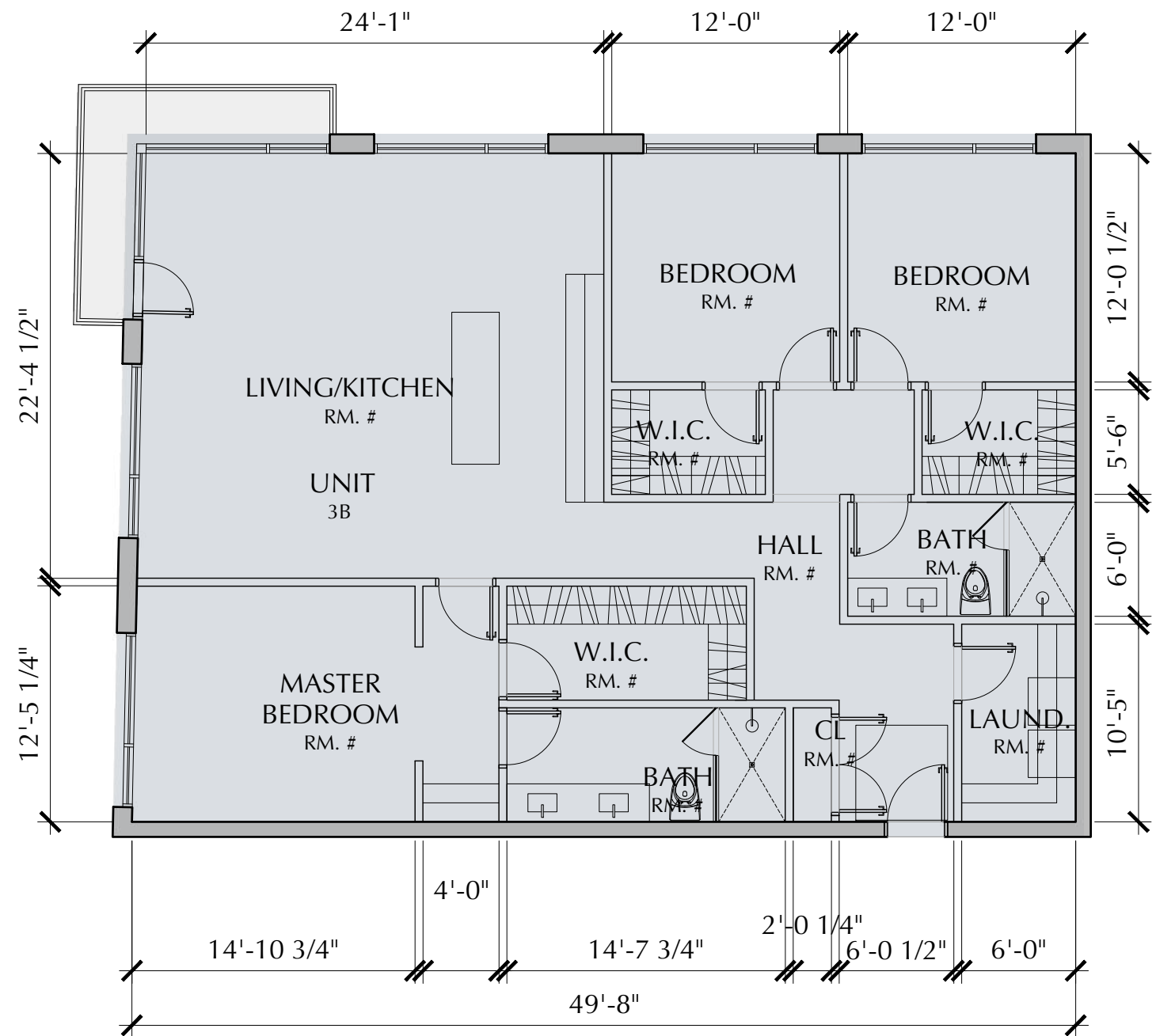
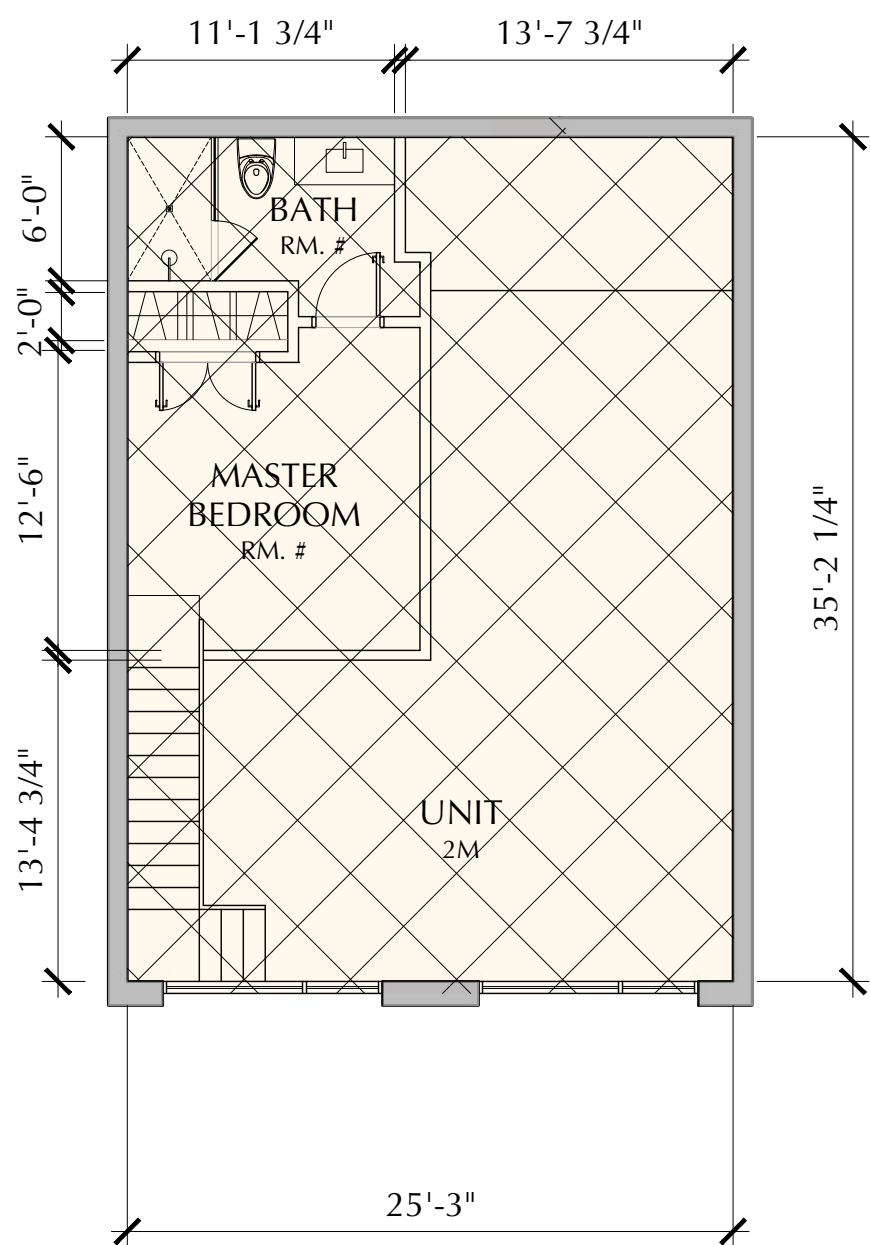
2 Bedroom Unit - 22 @ 1,229 sf
2B
SF: 1102

LEGEND

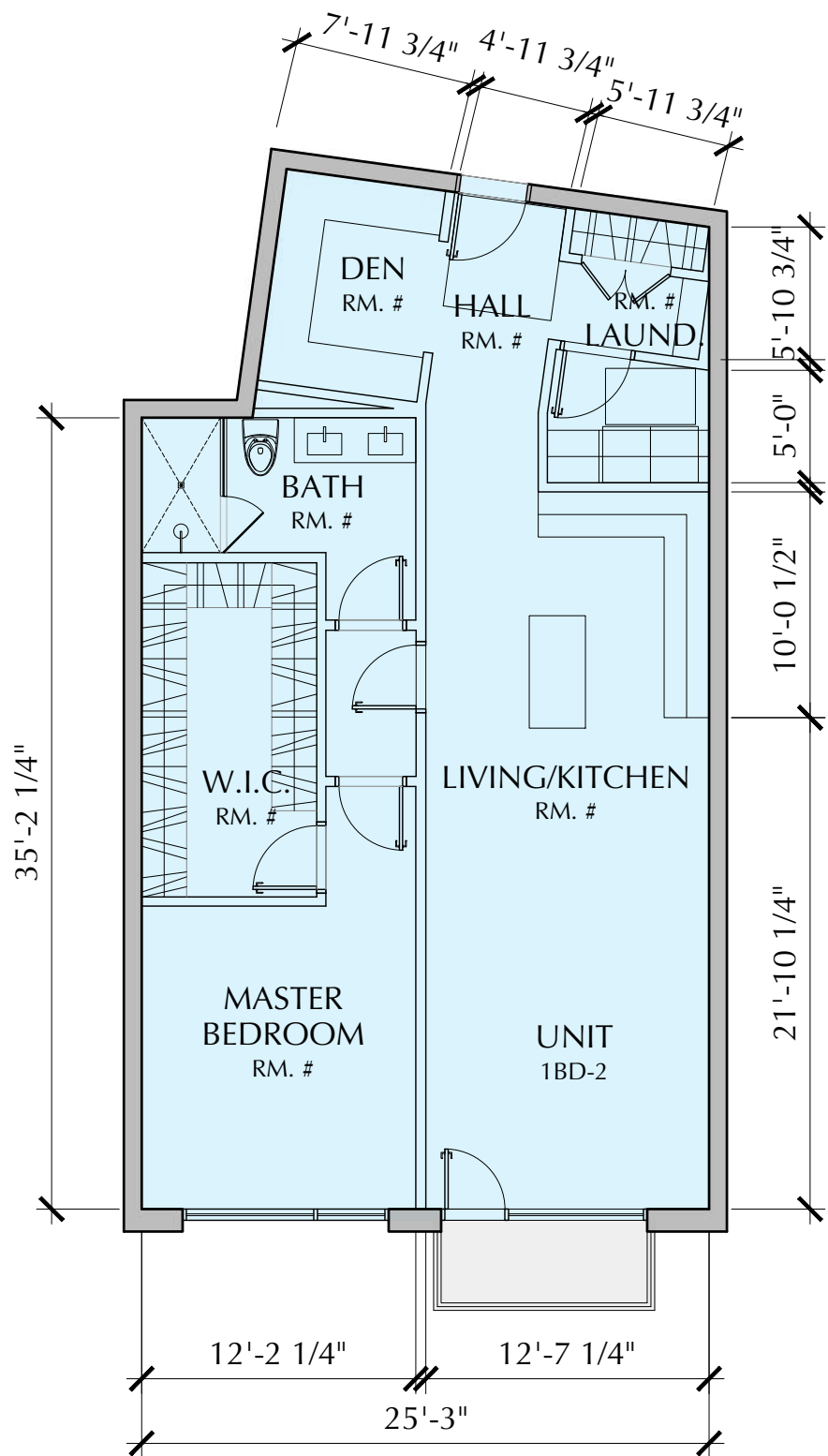
- PARKING
- RETAIL + RESIDENT SERVICES
- ANCILLARY
- EGRESS
- CIRCULATION
- STUDIO
- 1 BEDROOM
- 1 BEDROOM + DEN
- 1 BEDROOM - 2 LEVELS
- 2 BEDROOM
- 2 BEDROOM + DEN
- 2 BEDROOM - 2 LEVELS
- 2 BEDROOM + DEN - 2 LEVELS
- 3 BEDROOM



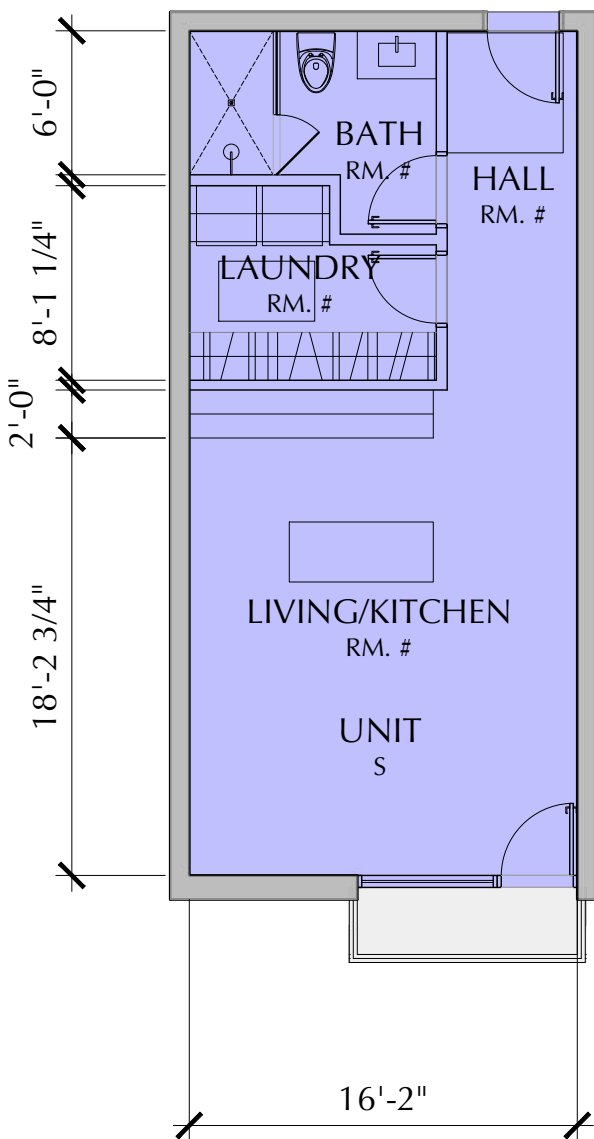
2 Bedroom 2 Level Unit (below + Den Units):
2BM
1st Level = 888 sf
Mezzanine = 255 sf (< 50% Room Below)
13 @ 1,143 sf



3 Bedroom Unit 4 @1855 SF.
3B
SF: 1734



1 Bedroom Worth/Alley Corner 4@ 1080 SF.
1BD-2
SF: 1080

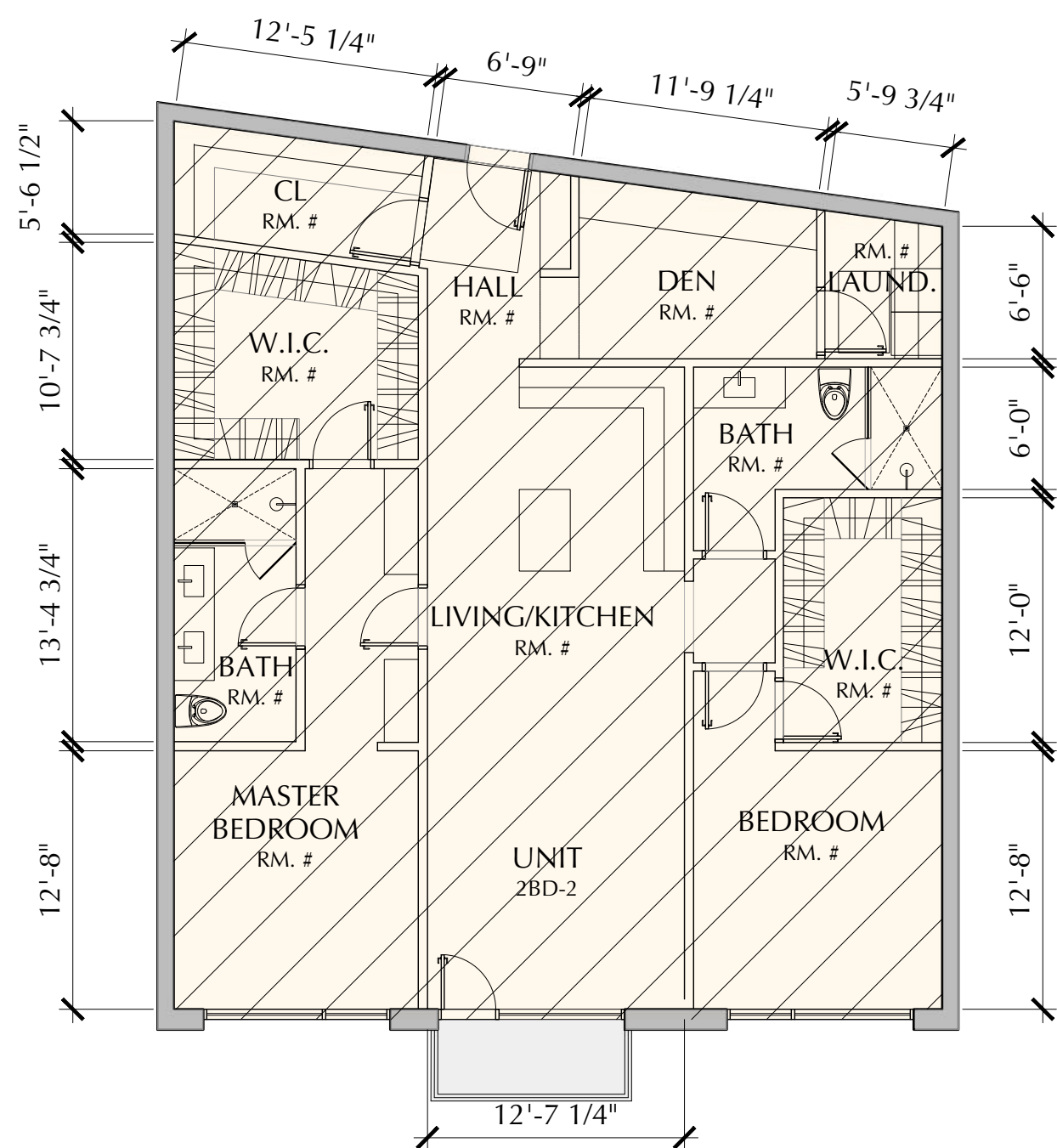


STUDIO
S
SF : 568

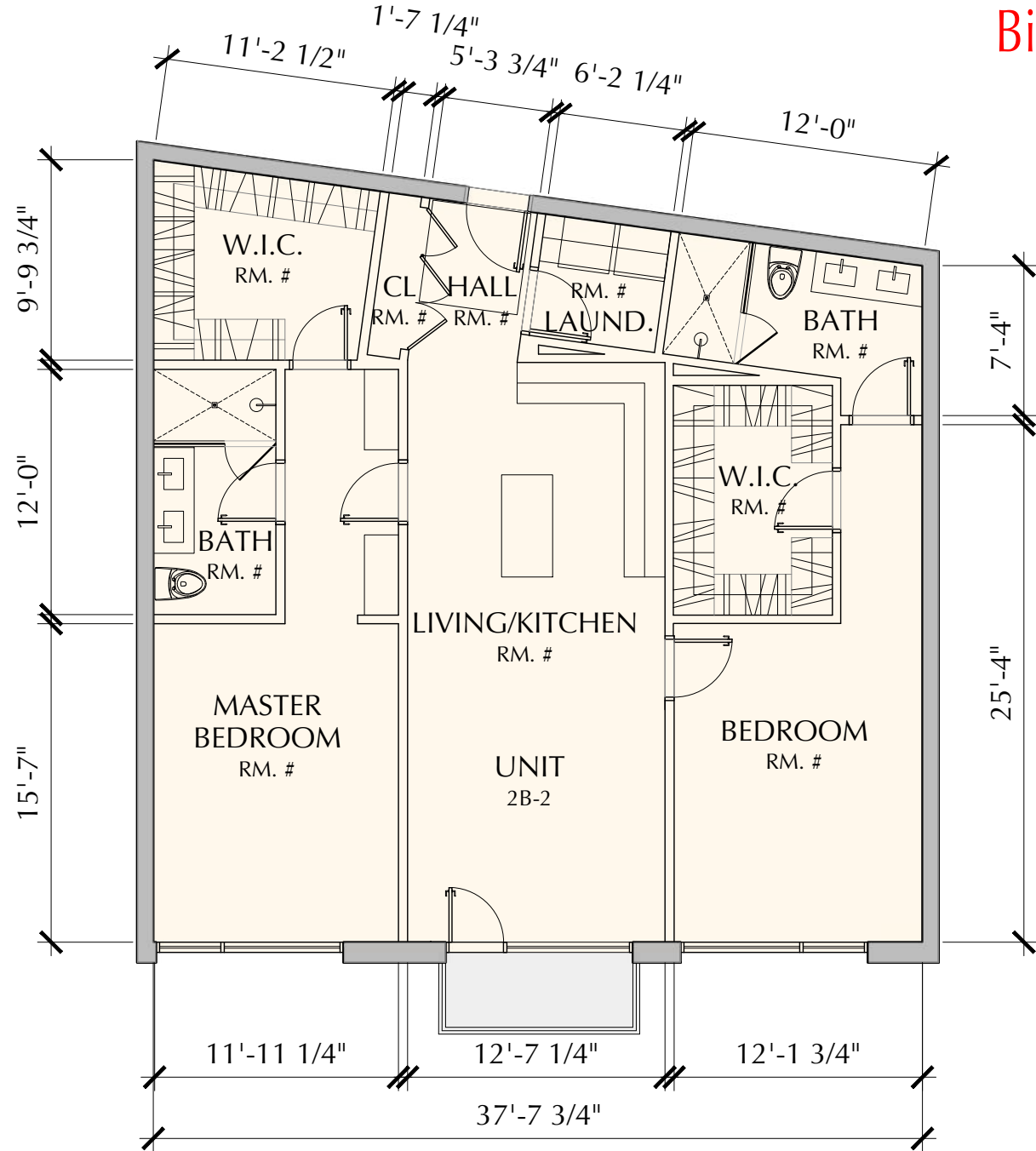
UNIT LAYOUTS

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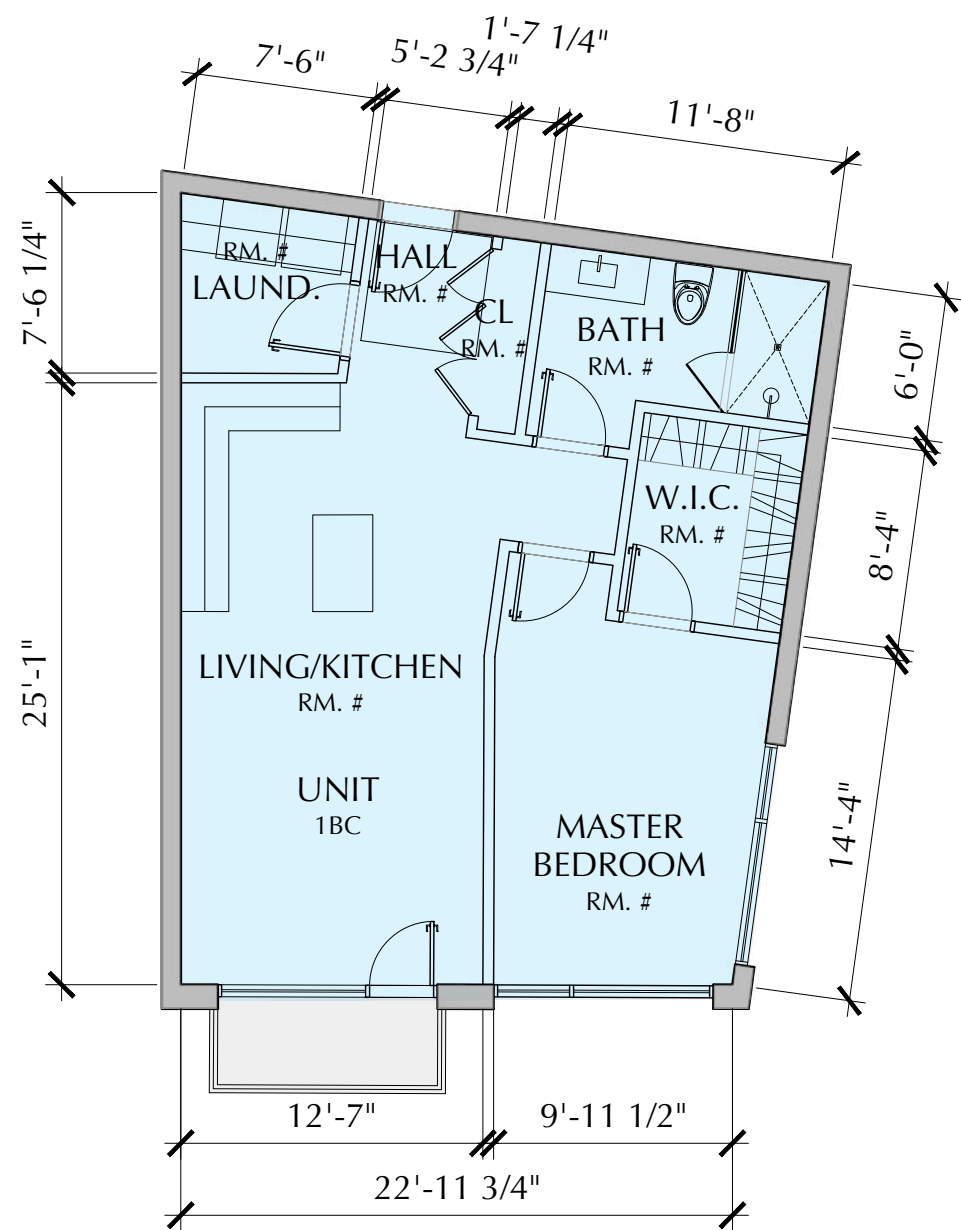
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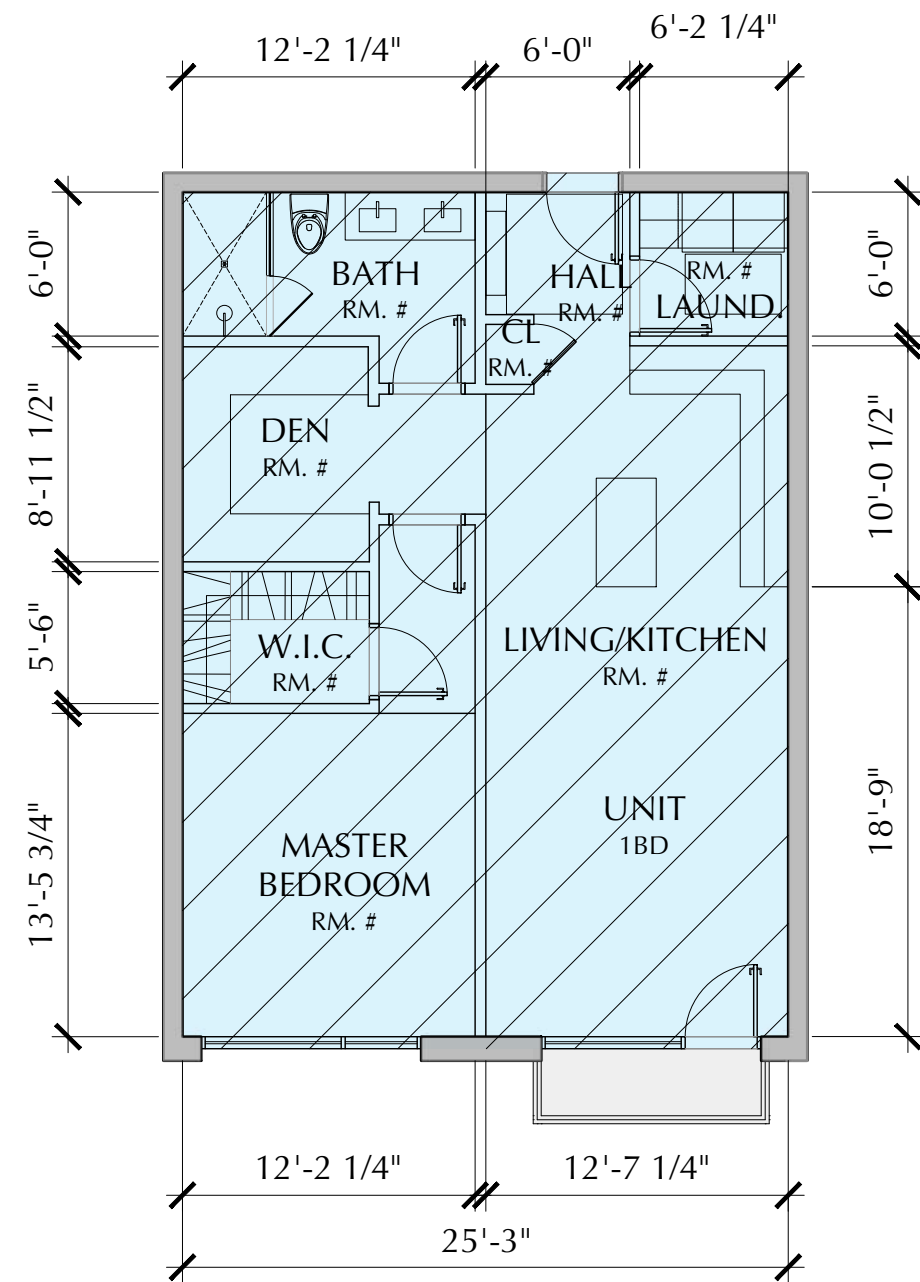
2 Bedroom+Den Worth/Alley Corner 4 @1544 SF.
2BD-2
SF: 1544



2 Bedroom Worth/Alley Corner
4 @ 1,343 sf
2B-2



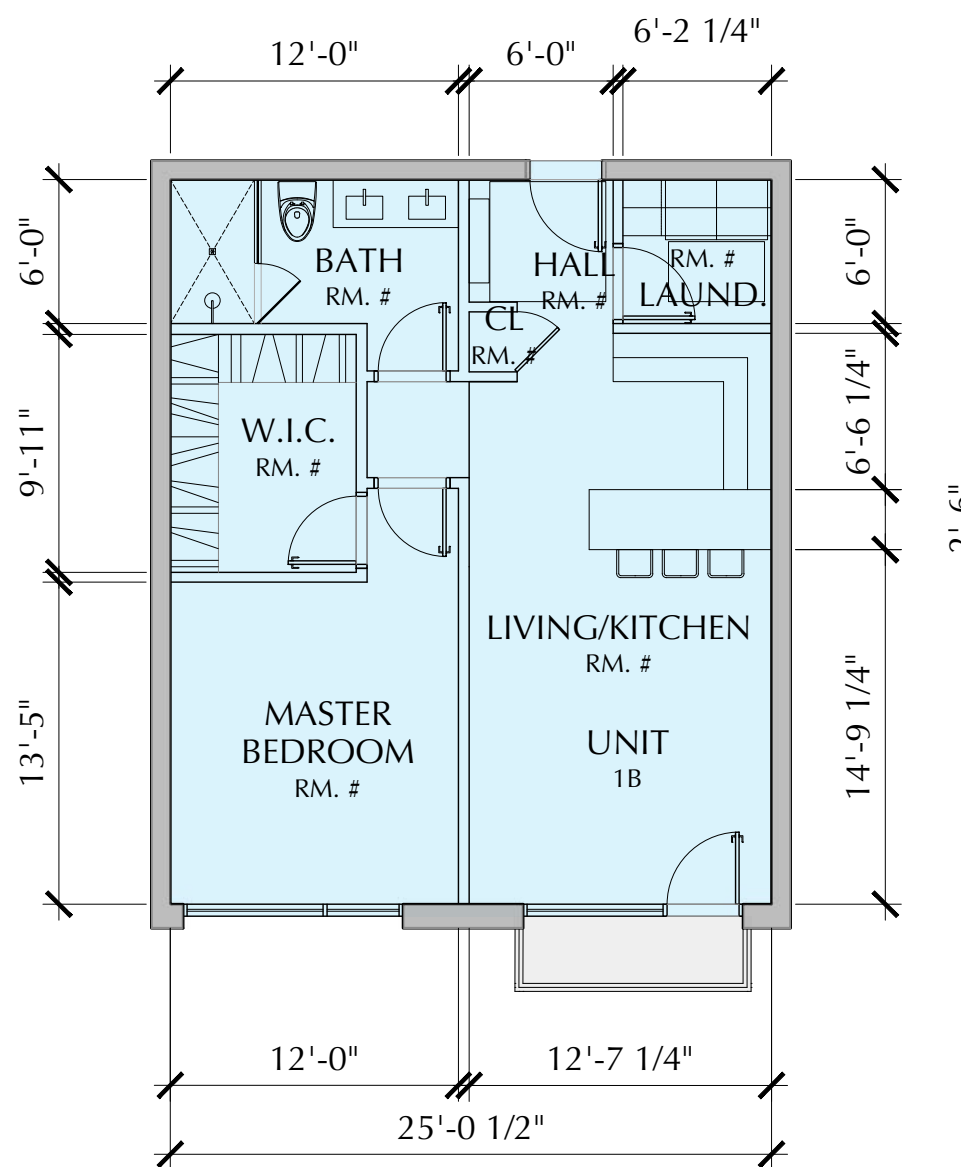
1 Bedroom Worth/Alley Corner
4 @ 782 sf
1BC



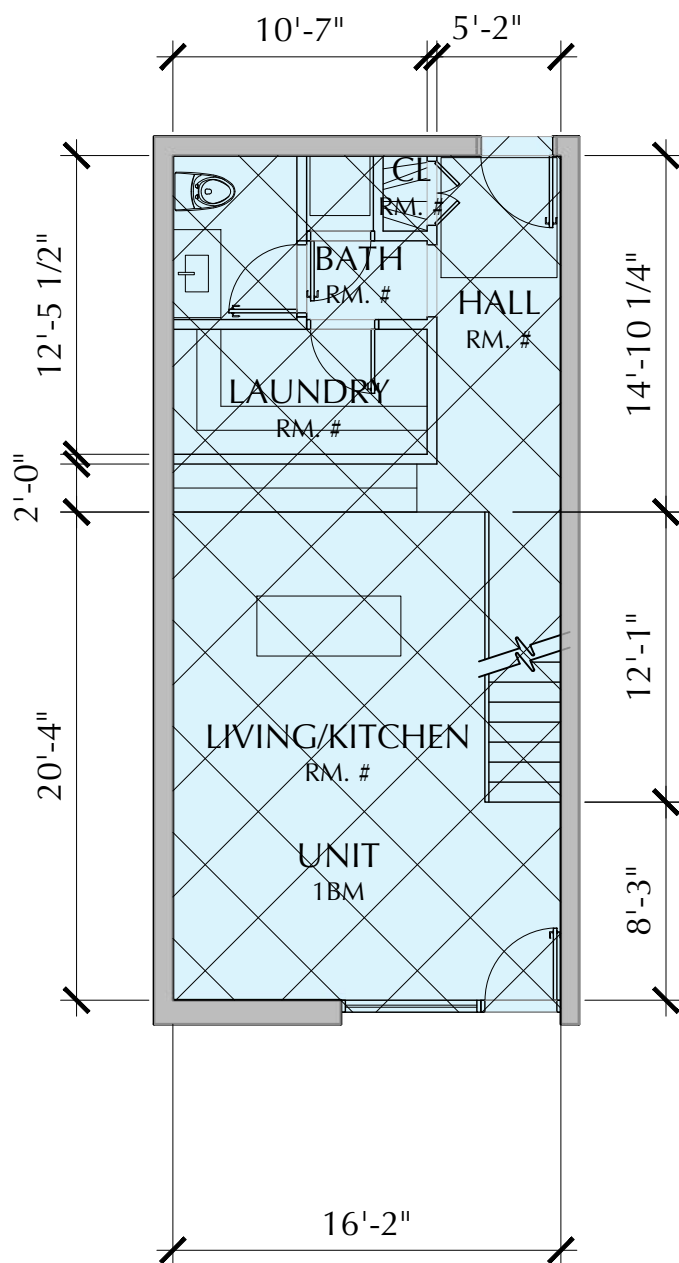
1 BEDROOM + DEN
1BD
SF: 888

LEGEND

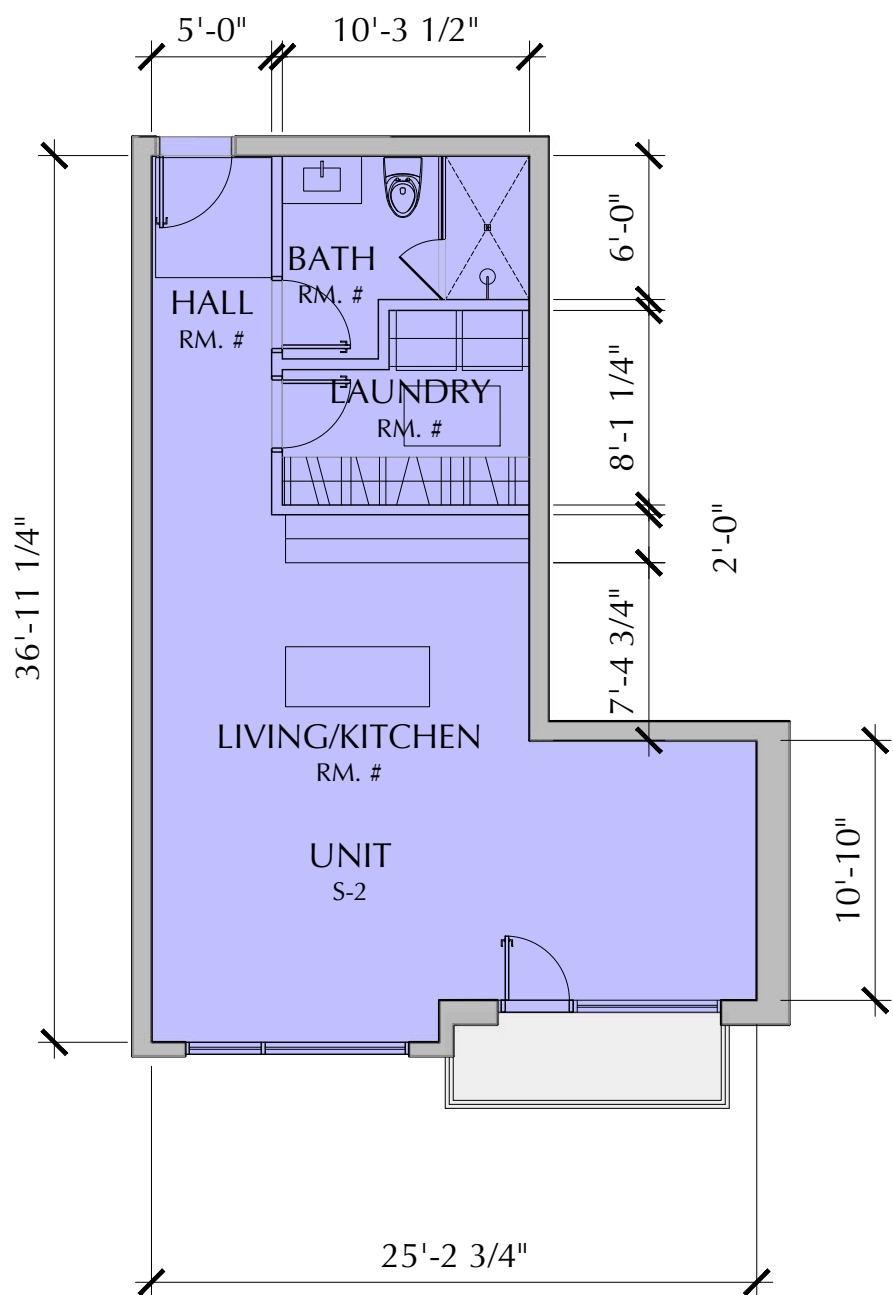
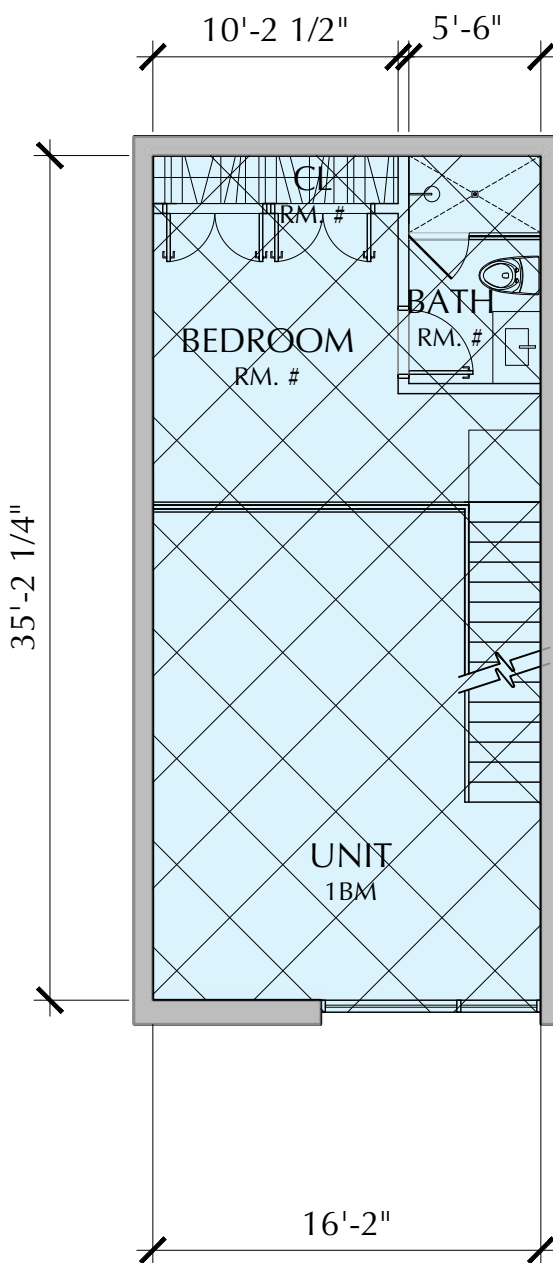
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[Pattern]	ANCILLARY
[Pattern]	EGRESS
[Pattern]	CIRCULATION
[Pattern]	STUDIO
[Pattern]	1 BEDROOM
[Pattern]	1 BEDROOM + DEN
[Pattern]	1 BEDROOM - 2 LEVELS
[Pattern]	2 BEDROOM
[Pattern]	2 BEDROOM + DEN
[Pattern]	2 BEDROOM - 2 LEVELS
[Pattern]	2 BEDROOM + DEN - 2 LEVELS
[Pattern]	3 BEDROOM



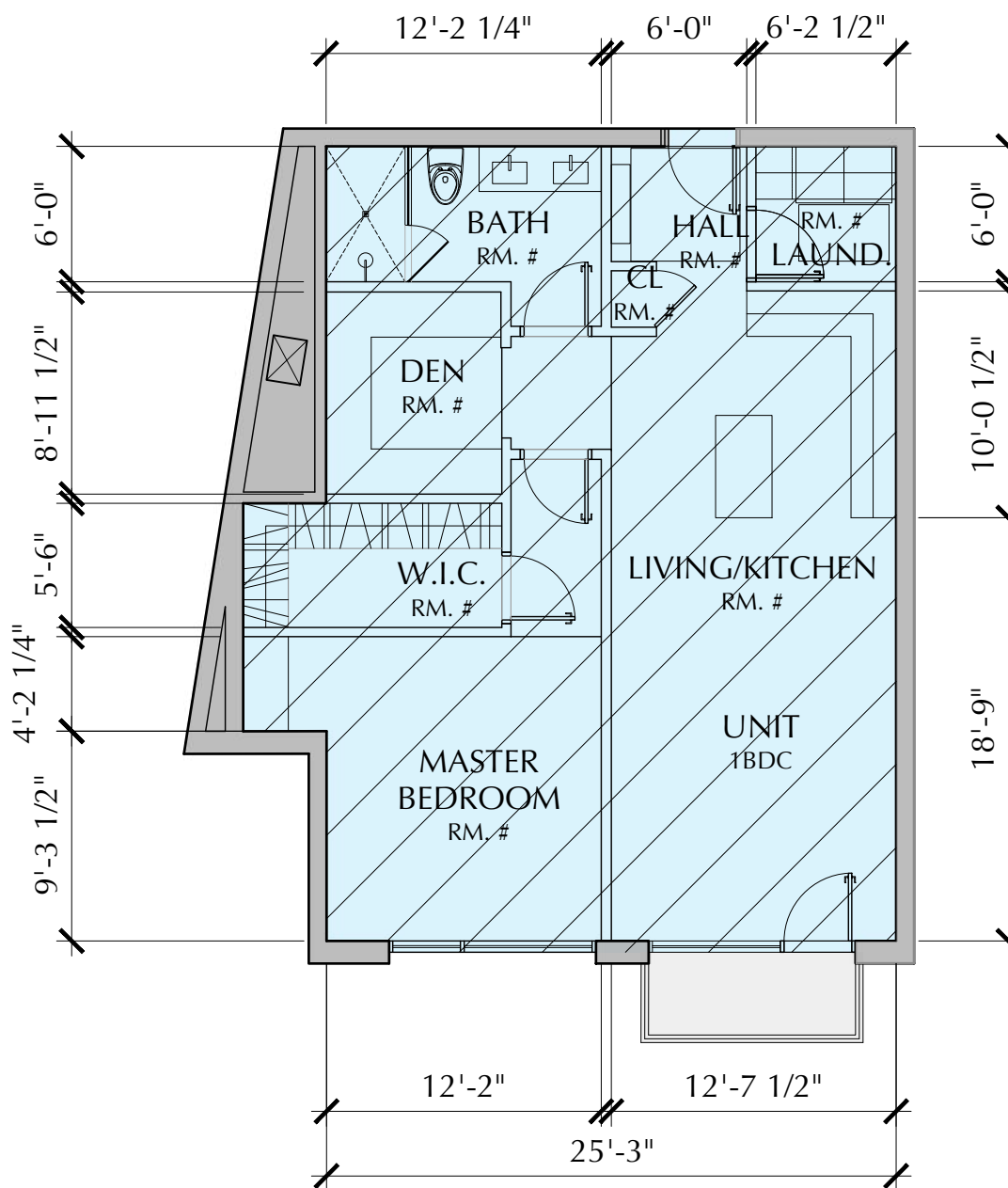
1 BEDROOM
1B
SF : 756



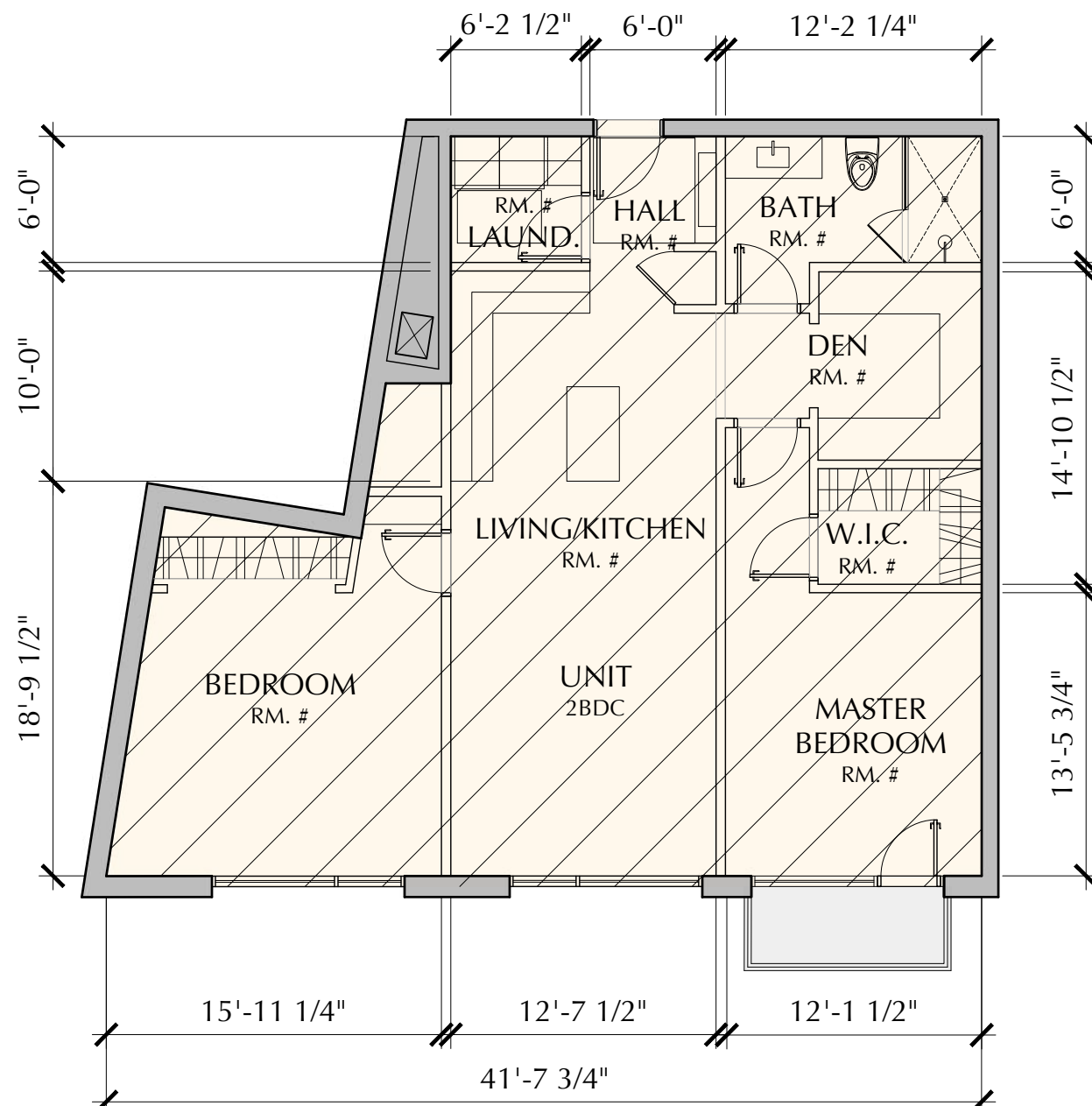
1 BEDROOM AND MEZZANINE UNIT
1BM
SF: 819



STUDIO
S-2
SF: 677



1 Bedroom + den
1BDC
SF: 925



2 Bedroom + den
2BDC
SF : 1165

UNIT LAYOUTS

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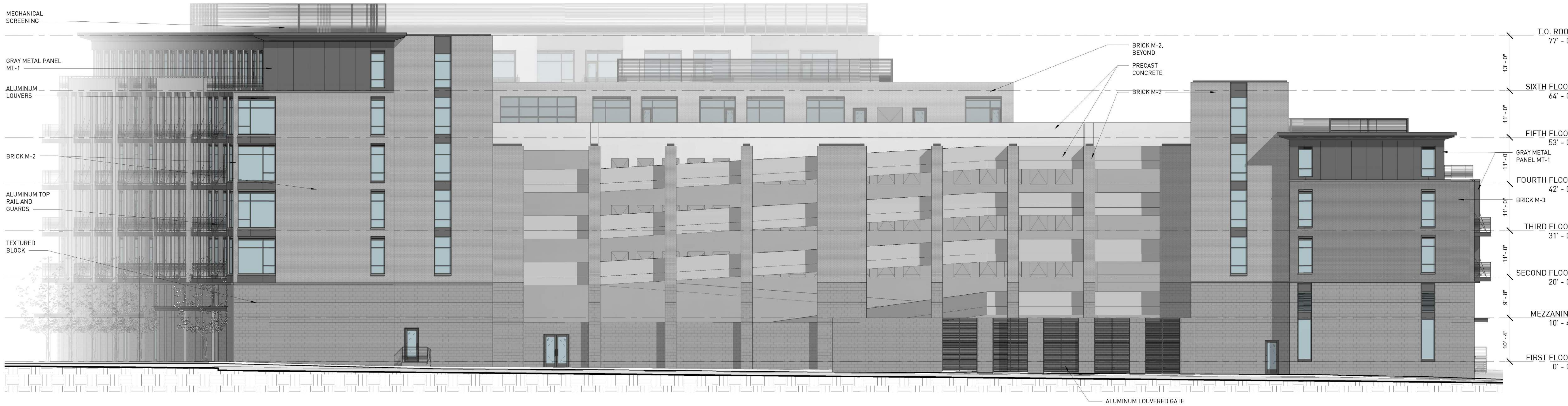


1 NORTH ELEVATION (HAYNES)
SCALE: 3/32" = 1'-0"



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

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



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

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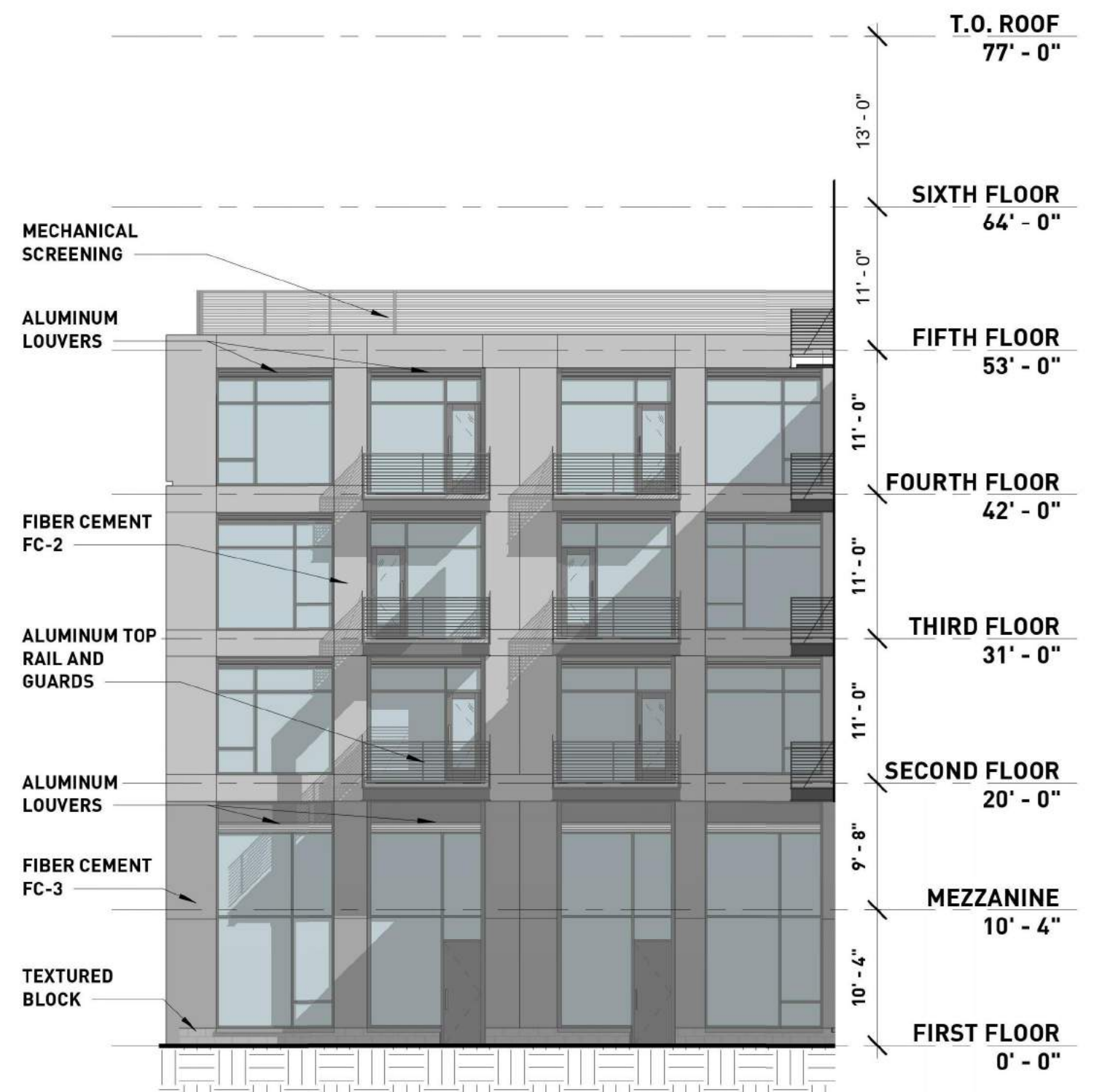
1 COURTYARD NORTH ELEVATION 3/32
SCALE: 3/32" = 1'-0"



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"

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HAYNES AND WORTH
(STREET VIEW)

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WORTH STREET VIEW
(STREET VIEW)

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ADAMS VIEW
(STREET VIEW)

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ADAMS VIEW
(STREET VIEW)

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.



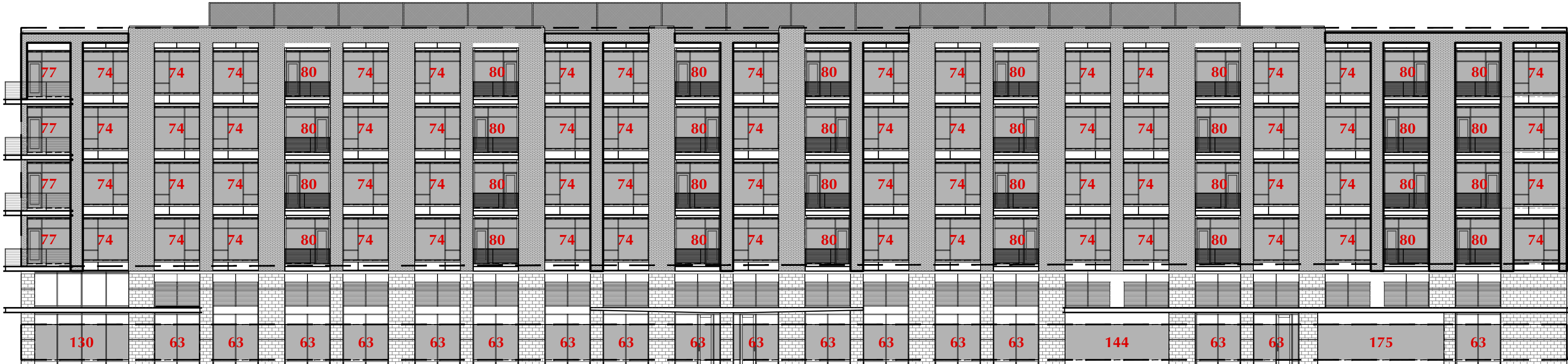
DTE PRIMARY SWITCH
PAD IS APPROXIMATELY 36" WIDE BY 44"
DEEP. SWITCH IS ABOUT 44" HIGH.



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

GROUND MOUNTED EQUIPMENT

PERENNIAL
Birmingham, Michigan 48009

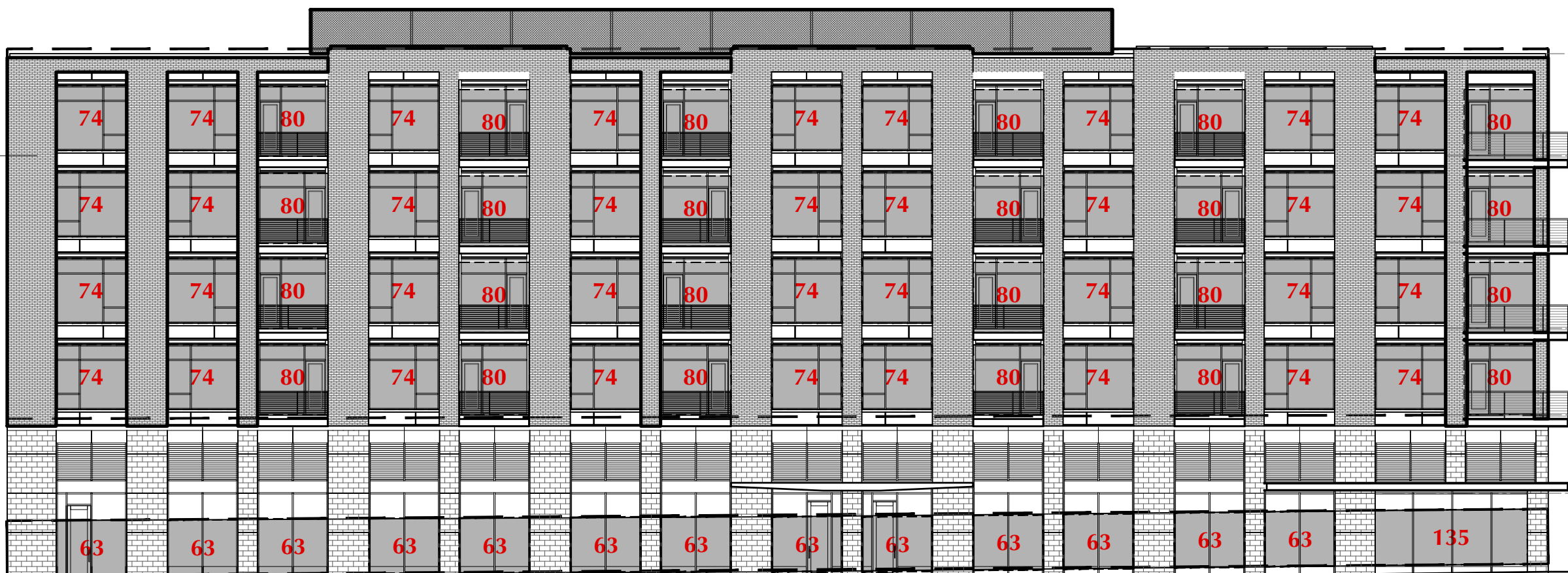


SOUTH WORTH STREET

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

SOUTH WORTH STREET 1ST LEVEL FROM 1'-0" TO 8'-0"
ABOVE GRADE IN ACCORDANCE WITH ORDINANCE:
GLASS SF = 1,520 SOLID SF = 2,135
 $(1,520 \div 100) / 2,135 = 71.1\%$

SOUTH WORTH STREET UPPER LEVEL GLAZING
GLASS SF = 7,180 SOLID SF = 14,290
 $(7,180 \times 100) / 14,290 = 51\%$



HAYNES STREET

REQUIRED VLT:
1ST 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 8'-0"
ABOVE GRADE IN ACCORDANCE WITH ORDINANCE:
GLASS SF = 954 SOLID SF = 1,303

$$(954 \times 100) / 1,383 = 69\%$$

HAYNES STREET UPPER LEVEL GLAZING
GLASS SF = 4,584 SOLID SF = 9,210
(4,584x100) / 9,210 = 5



SOUTH ADAMS STREET

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

SOUTH ADAMS STREET 1ST LEVEL FROM 1'-0" TO 8'-0"
ABOVE GRADE IN ACCORDANCE WITH ORDINANCE
GLASS SF = 351 SOLID SF = 1,506

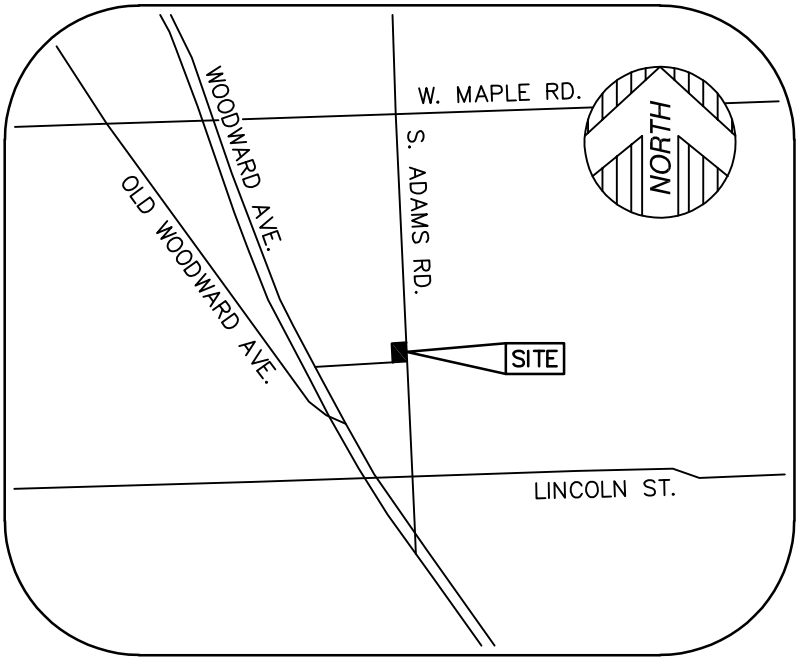
$$353(100) / 1,595 = 22$$

SOUTH ADAMS STREET UPPER LEVEL GLAZING
GLASS SF = 3,854 SOLID SF = 7,854
 $(3,854 \div 7,854) \times 100 = 49\%$

GLAZING CALCULATION

NOT TO SCALE

CHRISTOPHER J LONGE AIA
ARCHITECTURAL INTERIOR
124 Peabody, Birmingham, Michigan 48209 248.258.6940



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

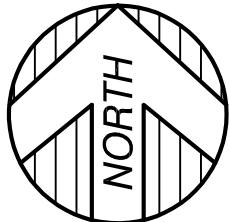
SITE BENCHMARK
MAG NAIL IN THE EAST FACE OF THE UTILITY POLE NEAR THE SOUTHWEST PROPERTY CORNER
ELEVATION = 756.13' (NAVD 88 DATUM)

SURVEYOR'S NOTE

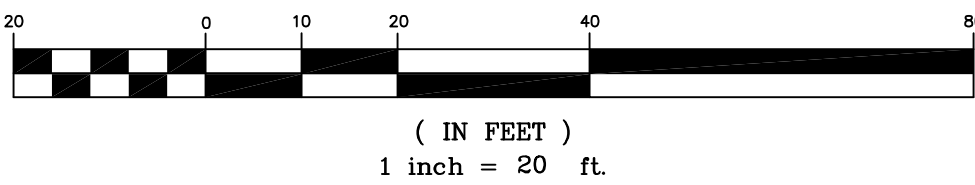
THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND 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) RIM=755.77' UNABLE TO OPEN	SEWER MANHOLE (#15300) RIM=753.00' INV. 12" RCP, NW=746.55' INV. 42" RCP, N=741.20' INV. 42" RCP, SE=741.20'
SEWER CATCH BASIN (#15010) RIM=754.59' INV. RCP, NE=749.62'	SEWER CATCH BASIN (#15297) RIM=751.69' INV. 12" RCP, SE=747.74' INV. 12" RCP, S=747.49'
SEWER CATCH BASIN (#15230) RIM=754.27' INV. 12" RCP, NW=750.17' INV. 12" RCP, W=750.47'	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 (#15231) RIM=754.33' INV. 42" N=743.56' INV. 42" S=743.56'	SEWER CATCH BASIN (#10433) RIM=753.14' INV. 12" RCP, SE=747.99'
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 (#15124) RIM=753.70' T/WATER=751.80' BOTTOM=750.40'
SEWER MANHOLE (#15222) RIM=754.38' INV. 12" RCP, E=750.68'	

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

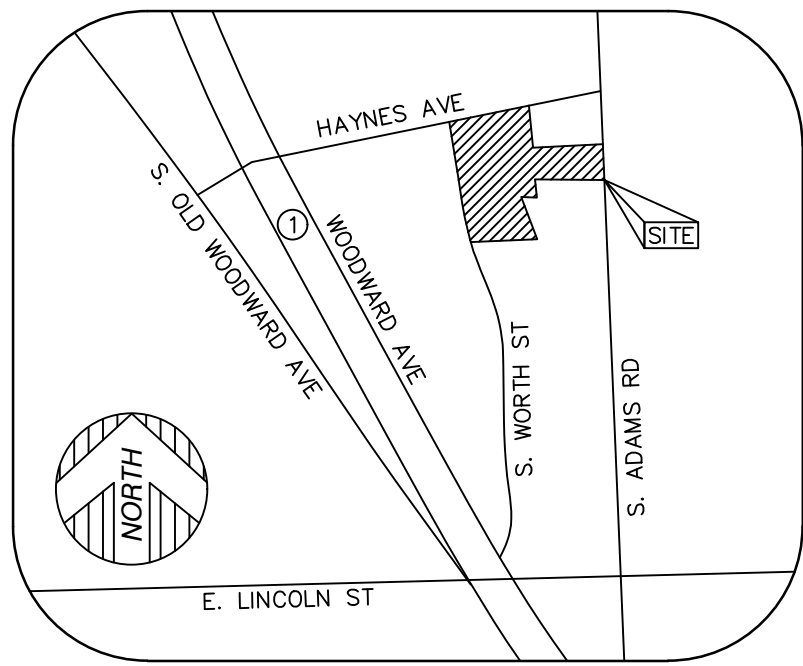
DRAFT

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
(800) 283-7222
FAX (800) 283-7222
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



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

02.16.2022 100% SD
12.16.2021 100% SD

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

Job Number

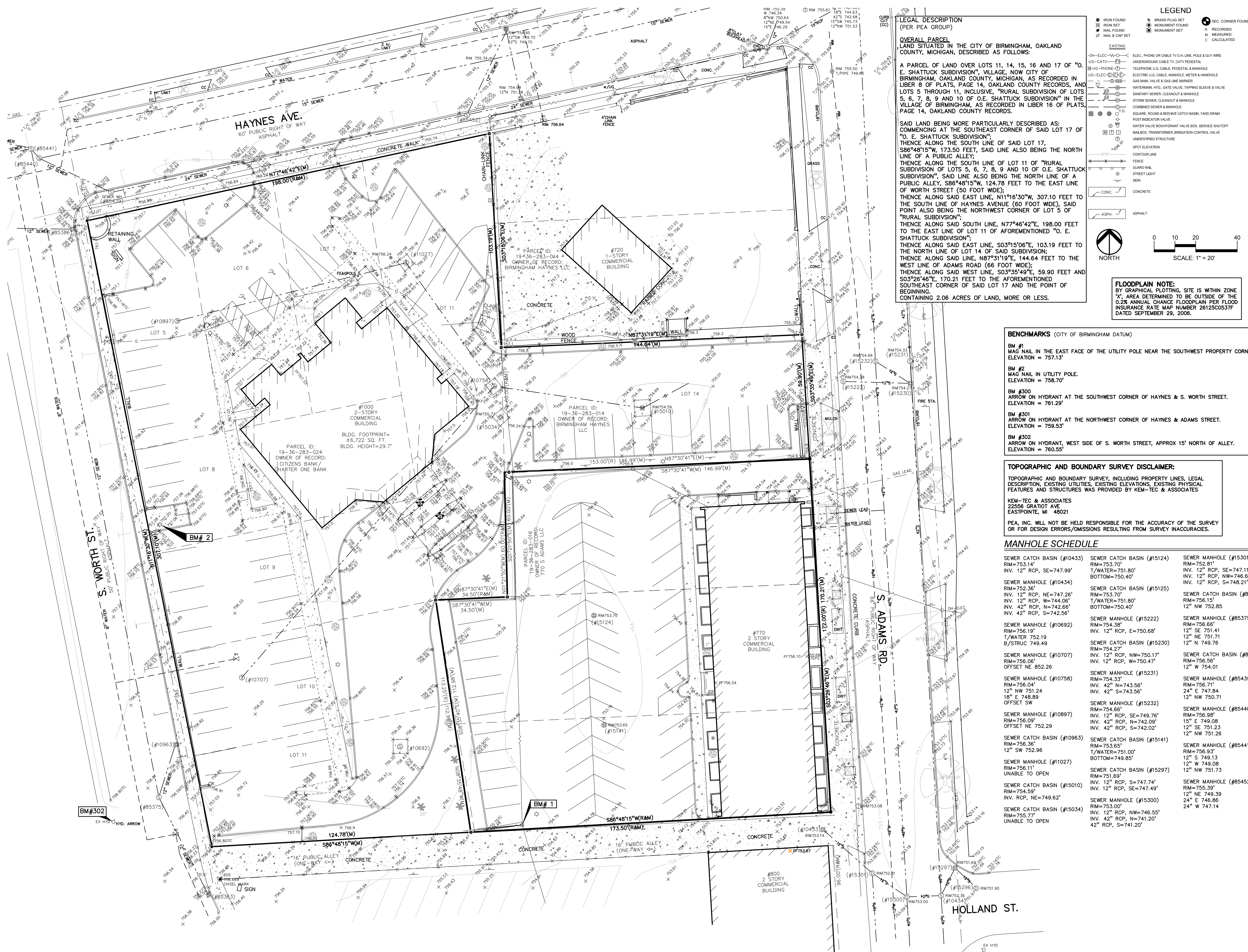
2021089

Title

TOPOGRAPHIC
SURVEY

Sheet

C-1.0

LEGAL DESCRIPTION
(PER PEA GROUP)

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

A PARCEL OF LAND OVER LOTS 11, 14, 15, 16 AND 17 OF "O.
E. SHATTUCK SUBDIVISION", VILLAGE, NOW CITY OF
BIRMINGHAM, OAKLAND COUNTY, MICHIGAN, AS RECORDED IN
LIBER 8 OF PLATS, PAGE 14, OAKLAND COUNTY RECORDS, AND
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, AS RECORDED IN LIBER 16 OF PLATS,
PAGE 14, OAKLAND COUNTY RECORDS.

SAID LAND BEING MORE PARTICULARLY DESCRIBED AS:
COMMENCING AT THE SOUTHEAST CORNER OF SAID LOT 17 OF
"O. E. SHATTUCK SUBDIVISION";
THENCE ALONG THE SOUTH LINE OF SAID LOT 17,
S86°48'15"W, 173.50 FEET, SAID LINE ALSO BEING THE NORTH
LINE OF A PUBLIC ALLEY;
THENCE ALONG THE SOUTH LINE OF LOT 11 OF "RURAL
SUBDIVISION OF LOTS 5, 6, 7, 8, 9 AND 10 OF O.E. SHATTUCK
SUBDIVISION"; SAID LINE ALSO BEING THE NORTH LINE OF A
PUBLIC ALLEY, S86°48'15"W, 124.78 FEET TO THE EAST LINE
OF WORTH STREET (50 FOOT WIDE);
THENCE ALONG SAID EAST LINE, N11°16'30"W, 307.10 FEET TO
THE SOUTH LINE OF HAYNES AVENUE (60 FOOT WIDE), SAID
POINT ALSO BEING THE NORTHWEST CORNER OF LOT 5 OF
"RURAL SUBDIVISION";
THENCE ALONG SAID SOUTH LINE, N77°46'42"E, 198.00 FEET
TO THE EAST LINE OF LOT 11 OF AFOREMENTIONED "O. E.
SHATTUCK SUBDIVISION";
THENCE ALONG SAID EAST LINE, S03°15'06"E, 103.19 FEET TO
THE NORTH LINE OF LOT 14 OF SAID SUBDIVISION;
THENCE ALONG SAID LINE, N87°31'19"E, 144.64 FEET TO THE
WEST LINE OF ADAMS ROAD (66 FOOT WIDE);
THENCE ALONG SAID WEST LINE, S03°35'49"E, 59.90 FEET AND
S03°26'46"E, 170.21 FEET TO THE AFOREMENTIONED
SOUTHEAST CORNER OF SAID LOT 17 AND THE POINT OF
BEGINNING
CONTAINING 2.06 ACRES OF LAND, MORE OR LESS.

BENCHMARKS (CITY OF BIRMINGHAM DATUM)

BM #1
MAG NAIL IN THE EAST FACE OF THE UTILITY POLE NEAR THE SOUTHWEST PROPERTY CORNER
ELEVATION = 757.13'

BM #2
MAG NAIL IN UTILITY POLE.
ELEVATION = 758.70'

BM #300
ARROW ON HYDRANT AT THE SOUTHWEST CORNER OF HAYNES & S. WORTH STREET.
ELEVATION = 761.29'

BM #301
ARROW ON HYDRANT AT THE NORTHWEST CORNER OF HAYNES & ADAMS STREET.
ELEVATION = 759.53'

BM #302
ARROW ON HYDRANT, WEST SIDE OF S. WORTH STREET, APPROX 15' NORTH OF ALLEY.
ELEVATION = 760.55'

TOPOGRAPHIC AND BOUNDARY SURVEY DISCLAIMER:

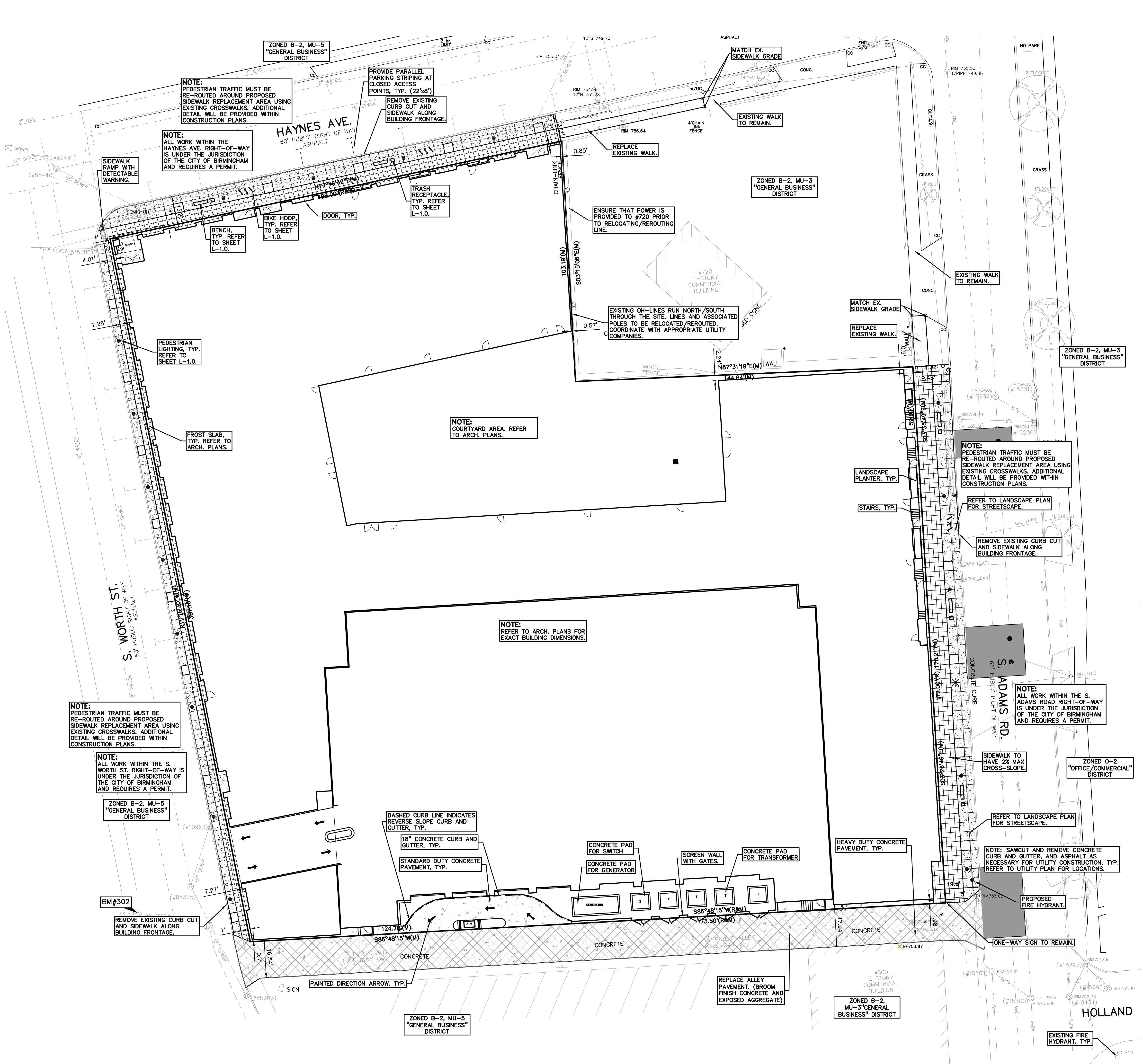
TOPOGRAPHIC AND BOUNDARY SURVEY, INCLUDING PROPERTY LINES, LEGAL
DESCRIPTION, EXISTING UTILITIES, EXISTING ELEVATIONS, EXISTING PHYSICAL
FEATURES AND STRUCTURES WAS PROVIDED BY KEM-TEC & ASSOCIATES

KEM-TEC & ASSOCIATES
22556 GRATIOT AVE
EASTPOINT, MI 48021

PEA, INC. WILL NOT BE HELD RESPONSIBLE FOR THE ACCURACY OF THE SURVEY
OR FOR DESIGN ERRORS/OMISSIONS RESULTING FROM SURVEY INACCURACIES.

MANHOLE SCHEDULE

SEWER CATCH BASIN (#10433) RIM=753.14' INV. 12" RCP, SE=747.99' T/WATER=751.80' BOTTOM=750.40'	SEWER CATCH BASIN (#15124) RIM=753.70' INV. 12" RCP, SE=747.11' 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 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 (#15125) RIM=753.70' T/WATER=751.80' BOTTOM=750.40'	SEWER CATCH BASIN (#85363) RIM=756.15' 12" NW 752.85
SEWER MANHOLE (#10692) RIM=756.19' T/WATER 752.19 B/STRUC 749.49	SEWER MANHOLE (#15222) RIM=754.38' INV. 12" RCP, E=750.68'	SEWER MANHOLE (#85375) RIM=756.66' 12" SE 751.41 12" NE 751.71 12" N 749.76
SEWER MANHOLE (#10707) RIM=756.06' OFFSET NE 852.26	SEWER CATCH BASIN (#15230) RIM=754.27' INV. 12" RCP, NW=750.17' INV. 12" RCP, W=750.47'	SEWER CATCH BASIN (#85386) RIM=756.56' 12" W 754.01
SEWER MANHOLE (#10758) RIM=756.04' 12" NW 751.24 18" E 748.89 OFFSET SW	SEWER MANHOLE (#15231) RIM=754.33' INV. 42" N=743.56' INV. 42" S=743.56'	SEWER MANHOLE (#85439) RIM=756.71' 24" E 747.84 12" NW 750.71
SEWER MANHOLE (#10897) RIM=756.09' OFFSET NE 752.29	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 MANHOLE (#85440) RIM=756.98' 15" E 749.08 12" SE 751.23 12" NW 751.26
SEWER CATCH BASIN (#10963) RIM=756.36' 12" SW 752.96	SEWER CATCH BASIN (#15141) RIM=753.63' T/WATER=751.00' BOTTOM=749.85'	SEWER MANHOLE (#85441) RIM=756.93' 12" S 749.13 12" W 749.08 12" NW 751.73
SEWER MANHOLE (#11027) RIM=756.11' UNABLE TO OPEN	SEWER CATCH BASIN (#15297) RIM=751.69' INV. 12" RCP, S=747.74' INV. 12" RCP, SE=747.49'	SEWER MANHOLE (#85452) RIM=755.39' 12" NE 749.39 24" E 746.86 24" W 747.14
SEWER CATCH BASIN (#15010) RIM=754.59' INV. RCP, NE=749.62'	SEWER MANHOLE (#15300) RIM=753.00' INV. 12" RCP, NW=746.55' INV. 42" RCP, N=741.20' 42" RCP, S=741.20'	
SEWER CATCH BASIN (#15034) RIM=755.77' UNABLE TO OPEN		



LEGEND

EXISTING

- IRON FOUND
- IRON SET
- NAIL FOUND
- NAIL & CAP SET
- BRASS PLUG SET
- MONUMENT FOUND
- MONUMENT SET
- SEC. CORNER FOUND
- R. RECORDED
- M. MEASURED
- C. CALCULATED

PROPOSED

- OH-ELEC
- UG-CATV
- UG-PHONE
- UG-ELEC
- WATERMAIN
- SANITARY SEWER
- COMBINED SEWER
- SQUARE, ROUND & REINFORCED CATCH BASIN
- POST INDICATOR VALVE
- WATER VALVE BOX/VALVE
- MAILBOX
- TRANSFORMER
- BRIGADION CONTROL VALVE
- UNIDENTIFIED STRUCTURE
- SPOT ELEVATION
- CONTOUR LINE
- FENCE
- QUARD RAIL
- STREET LIGHT
- SIGN
- CONC.
- ASPH.

DEMOLITION NOTES:

REMOVE THE FOLLOWING ON-SITE ITEMS:
PARKING LOT, STORM SEWER, LANDSCAPING,
LIGHTPOLES, SIDEWALK AND BUILDING.

SITE DATA TABLE:

1) TOTAL SITE AREA	= 2.05 ACRES
2) ZONED:	TZ1 TRANSITION ZONE MUS (AT ADAMS) AND MU5 (AT REAR) TRIANGLE OVERLAY DISTRICT
3) PROPOSED USE:	MULTI-FAMILY RESIDENTIAL
4) BUILDING SETBACKS:	REQUIRED: FRONT: 0' REAR: N/A SIDE: 0' INTERIOR
	PROVIDED: VARIES VARIES VARIES
5) MAX BUILDING HEIGHT:	66', 5 STORIES OR 78', 6 STORIES PROPOSED: 5 STORIES / 6 STORIES

TOPOGRAPHIC AND BOUNDARY SURVEY DISCLAIMER:

TOPOGRAPHIC AND BOUNDARY SURVEY, INCLUDING PROPERTY LINES, LEGAL DESCRIPTION, EXISTING UTILITIES, EXISTING ELEVATIONS, EXISTING PHYSICAL FEATURES AND STRUCTURES WAS PROVIDED BY KEM-TEC & ASSOCIATES

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EASTPOINTE, MI 48021

PEA, INC. WILL NOT BE HELD RESPONSIBLE FOR THE ACCURACY OF THE SURVEY OR FOR DESIGN ERRORS/OMISSIONS RESULTING FROM SURVEY INACCURACIES.

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.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF BIRMINGHAM CURRENT 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.
- ANY WORK WITHIN THE STREET OR HIGHWAY RIGHT-OF-WAYS 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.
- 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.

architecture

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Approved **MW**

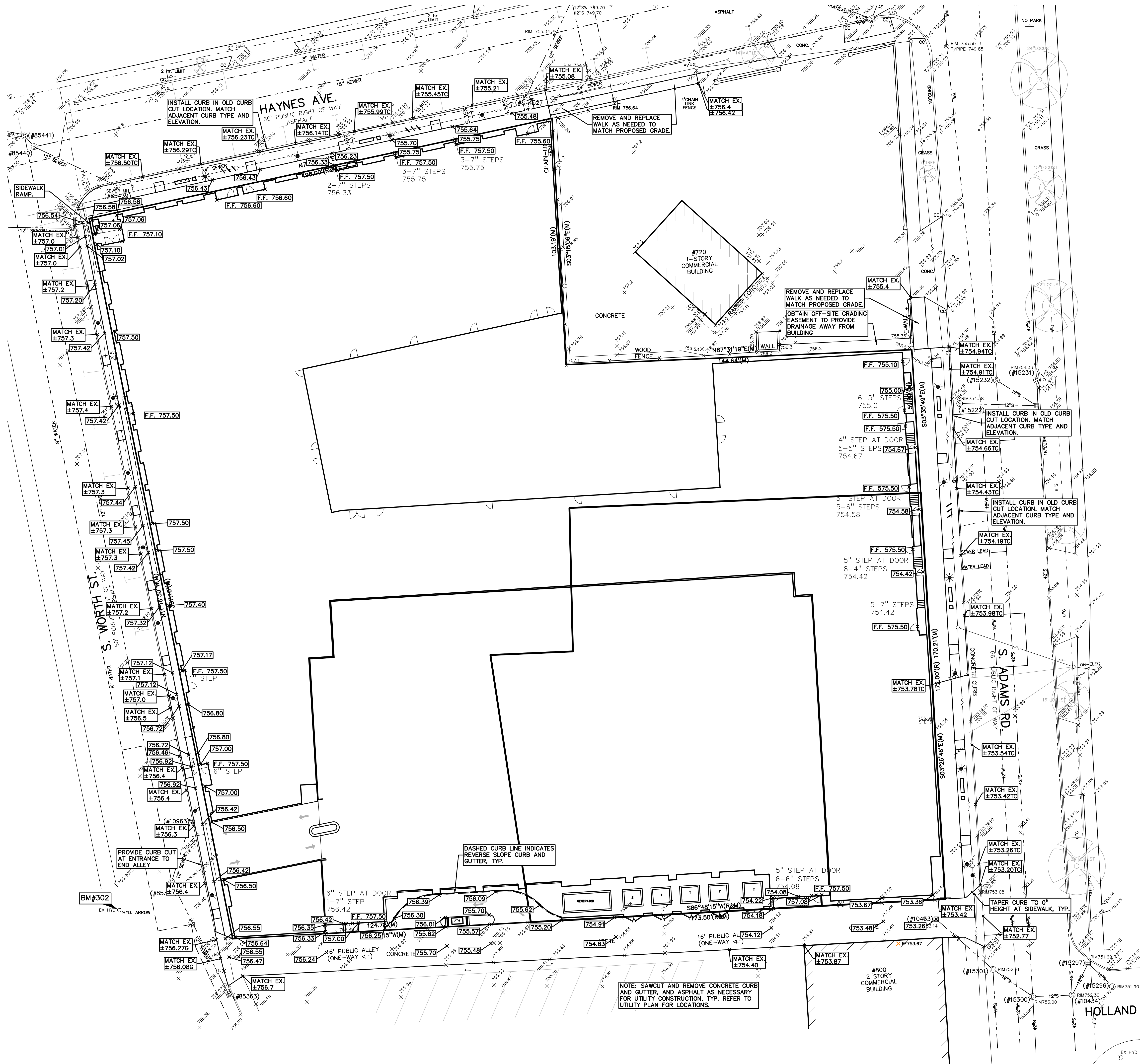
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Title
PRELIMINARY SITE PLAN

Sheet
C-2.0



LEGEND

EXISTING

- IRON FOUND
- IRON SET
- NAIL FOUND
- NAIL & CAP SET
- BRASS PLUG SET
- MONUMENT FOUND
- MONUMENT SET
- SEC. CORNER FOUND
- R. RECORDED
- M. MEASURED
- C. CALCULATED

PROPOSED

- ELEC. PHONE OR CABLE TV O.H. LINE, POLE & GUY WIRE
- UNDERGROUND CABLE TV, CATV PEDESTAL
- TELEPHONE U.G. CABLE, PEDESTAL & MANHOLE
- ELECTRIC U.G. CABLE, MANHOLE, METER & HANDHOLE
- GAS MAIN, VALVE & GAS LINE MARKER
- WATERMAIN, HYD. GATE VALVE, TAPPING SLEEVE & VALVE
- SANITARY SEWER, CLEANOUT & MANHOLE
- STORM SEWER, CLEANOUT & MANHOLE
- COMBINED SEWER & MANHOLE
- SQUARE, ROUND & REINFORCED CATCH BASIN, YARD DRAIN
- POST INDICATOR VALVE
- WATER VALVE BOX/HYDRANT VALVE BOX, SERVICE SHUTOFF
- MAILBOX, TRANSFORMER, IRRIGATION CONTROL VALVE
- UNIDENTIFIED STRUCTURE
- SPOT ELEVATION
- CONTOUR LINE
- FENCE
- GUARD RAIL
- STREET LIGHT
- SIGN
- CONC. CONCRETE
- ASPH. ASPHALT

SCALE: 1" = 20'

NORTH

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SYMBOLS: GRADING

PROPOSED SPOT ELEVATION:
TYPICALLY TOP OF PAVEMENT IN PAVED AREAS, GUTTER GRADE IN CURB LINES.

PROPOSED CONTOUR LINE

ABBREVIATIONS:
TC = TOP OF CURB
G = GUTTER GRADE
T/P = TOP OF PAVEMENT
T/S = TOP OF SIDEWALK
F.G. = FINISH GRADE
RIM = RIM ELEVATION

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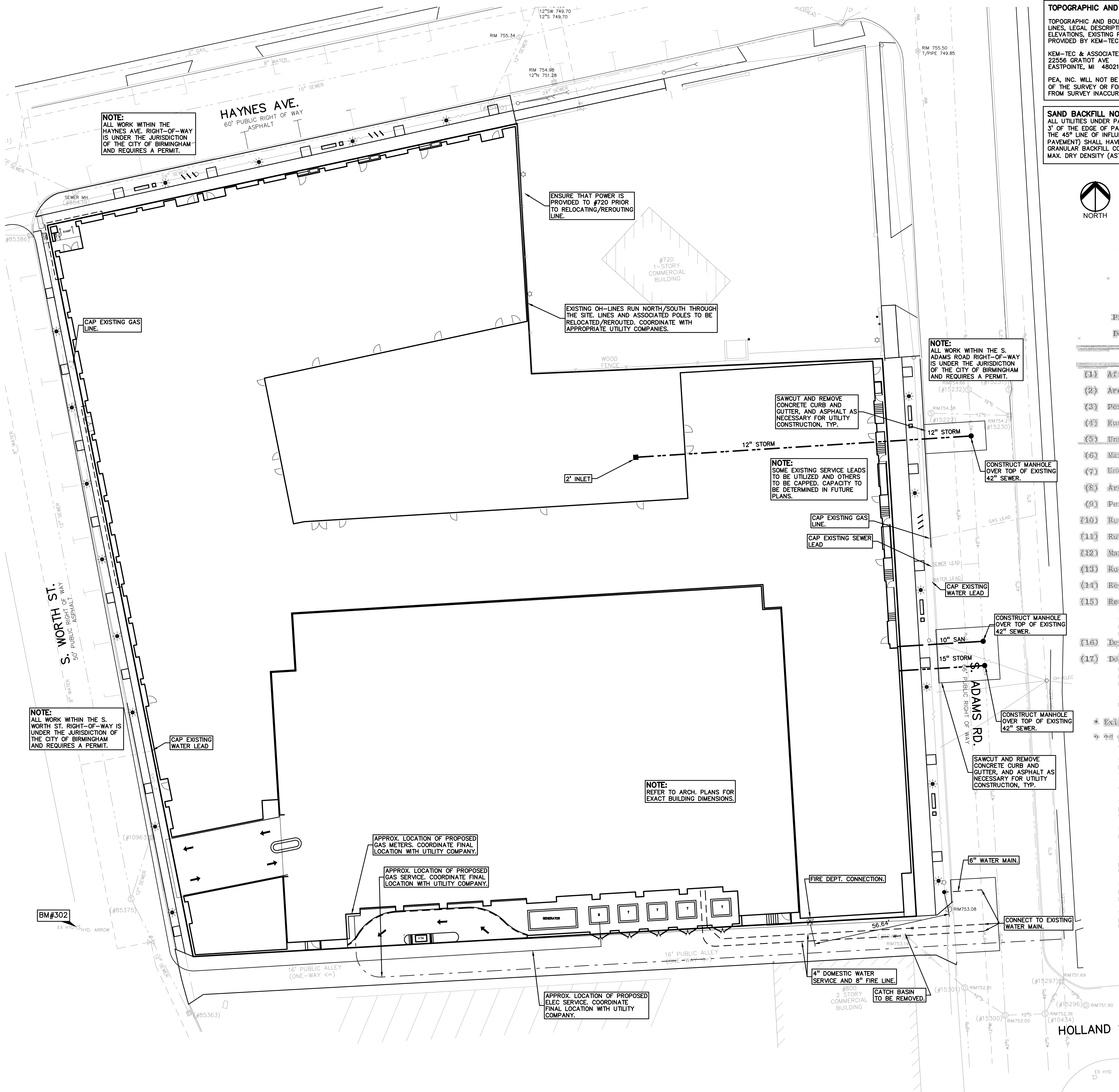
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RMM
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MW Use figured
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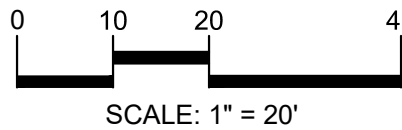
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**PRELIMINARY
GRADING PLAN**

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EASTPOINTE, MI 48021
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SAND 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).



LEGEND

EXISTING

- IRON FOUND
- IRON SET
- NAIL FOUND
- NAIL & CAP SET
- BRASS PLUG SET
- MONUMENT FOUND
- MONUMENT SET
- SEC. CORNER FOUND
- RECORDED
- MEASURED
- CALCULATED

PROPOSED

- OH-ELEC-W-O
- UG-CATV
- UG-PHONE
- UG-ELEC-TE
- WATERMAIN HYD. GATE VALVE, TAPPING SLEEVE & VALVE
- SANITARY SEWER, CLEANOUT & MANHOLE
- STORM SEWER, CLEANOUT & MANHOLE
- COMBINED SEWER & MANHOLE
- SQUARE, ROUND & REINFORCED CATCH BASIN, YARD DRAIN
- POST INDICATOR VALVE
- WATER VALVE BOX/VALVE BOX, SERVICE SHUTOFF
- MAILBOX, TRANSFORMER, IRRIGATION CONTROL VALVE
- UNIDENTIFIED STRUCTURE
- SPOT ELEVATION
- CONTOUR LINE
- FENCE
- GUARD RAIL
- STREET LIGHT
- SIGN
- CONC.
- ASPH.

CONCRETE

ASPHALT

PERMIT NO. _____

DATE _____

CITY OF BIRMINGHAM
STORM WATER RUNOFF CONTROL

Project Location 770 S. Adams & 1000 Haynes St

Designed by: John B. Thompson

PE: Yes ☒ No ☐

	(A) Exist.	(B) Proposed	
(1) Affected Area	2.055	2.055	acres
(2) Area of Impervious Surfaces	1.780	2.023	acres
(3) Percent Impervious	87	98	%
(4) Runoff Factor	2.20	2.39	cfs/acre
(5) Unrestricted Runoff Rate	4.52	4.91	cfs
(6) Maximum Permitted Runoff Rate		4.52	cfs
(7) Uncontrolled Runoff Area		0.072	acres
(8) Area of Impervious Surfaces - Uncontrolled Runoff Area		0.040	acres
(9) Percent Impervious - Uncontrolled Runoff Area		55	%
(10) Runoff Factor - Uncontrolled Runoff Area		1.68	cfs/acre
(11) Runoff Rate - Uncontrolled Runoff Area		0.12	cfs
(12) Maximum Permitted Runoff Rate via Sewer Service Connection		4.40	cfs
(13) Runoff Rate per Acre		2.20	cfs/acre
(14) Required Storage per Acre		N/A	cu.ft./acre
(15) Required Storage for Parcel		N/A	cu.ft.
(16) Design Storage			cu.ft.
(17) Design Outlet Capacity to Sewer Service			cfs

Approved by: _____ City Engineer

Existing Prior to Redevelopment

NO DETENTION REQUIRED.

- GENERAL UTILITY NOTES:**
- ALL UTILITY LINES, STRUCTURES AND TRENCHES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS AND REQUIREMENTS OF THE CITY OF BIRMINGHAM.
 - NO PHYSICAL CONNECTION TO THE EXISTING WATER MAIN CAN BE MADE UNTIL ALL NEW WATER MAIN PASSES PRESSURE AND BACTERIOLOGICAL TESTS TO THE SATISFACTION OF THE CITY.
 - ALL WATER MAIN AND FITTINGS (4" DIAMETER AND LARGER) SHALL BE DUCTILE IRON, CLASS 54.
 - ALL WATER MAIN SHALL BE PROVIDED WITH 5.5' OF COVER UNLESS OTHERWISE NOTED.
 - ALL FIRE HYDRANTS SHALL BE PER CITY OF BIRMINGHAM STANDARDS.
 - ALL NECESSARY FITTINGS, THRUST BLOCKS, RESTRAINING GLANDS, BLOW OFFS, ETC. FOR WATER MAIN ARE CONSIDERED INCIDENTAL TO THIS PROJECT. THE CONTRACTOR SHALL INSTALL THESE ITEMS AS NECESSARY AND AS REQUIRED BY THE CITY OF BIRMINGHAM.
 - THE WATER MAIN CONTRACTOR SHALL NOTIFY THE INSPECTION SECTION OF THE DETROIT WATER AND SEWER DEPARTMENT AT (313) 833-4682 AT LEAST THREE WORKING DAYS IN ADVANCE OF STARTING CONSTRUCTION.
 - ALL SANITARY SEWER LEADS SHALL BE POLYVINYL CHLORIDE (PVC) SDR 23.5 PIPE AND FITTINGS. ALL JOINTS TO BE ELASTOMERIC GASKET JOINTS PER ASTM D3034 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.J.W. #1565 BOX OR EQUAL.
 - ALL STORM SEWER 12" DIAMETER OR LARGER SHALL BE REINFORCED CONCRETE PIPE (RCP C-76) CLASS IV WITH PREMIUM JOINTS, UNLESS OTHERWISE NOTED.
 - ALL STORM SEWER LEADS SHALL BE PVC SCHEDULE 40 WITH GLUED JOINTS UNLESS OTHERWISE NOTED.
 - PIPE LENGTHS ARE GIVEN FROM CENTER OF STRUCTURE AND TO END OF FLARED END SECTION UNLESS NOTED OTHERWISE.
 - THE CITY OF BIRMINGHAM STANDARD DETAIL SHEETS ARE INCORPORATED INTO AND MADE A PART OF THESE PLANS. CONTRACTOR TO REFER TO THE CITY OF BIRMINGHAM STANDARD DETAIL SHEETS FOR ALL STRUCTURE, PIPE MATERIALS, BEDDING, TESTING, ETC. NOTES AND DETAILS.

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Adams/Haynes Mixed
Use Development

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**PRELIMINARY
UTILITY PLAN**

Sheet

C-4.0



HADCO LUMINAIRE C8191B
120-277 VAC
LED FIXTURE
4000K COLOR TEMP.
3000 LUMENS
QUANTITY: 18

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: 5

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: 5

3 TRASH RECEPTACLE

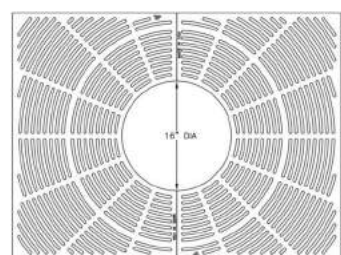
NOT TO SCALE



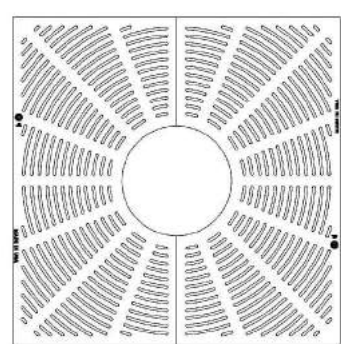
LOOP BIKE RACK
SURFACE MOUNT
POWDER COAT: SILVER
LANDSCAPE FORMS
PHONE: 800.521.2546
QUANTITY: 9

2 BIKE HOOP

NOT TO SCALE



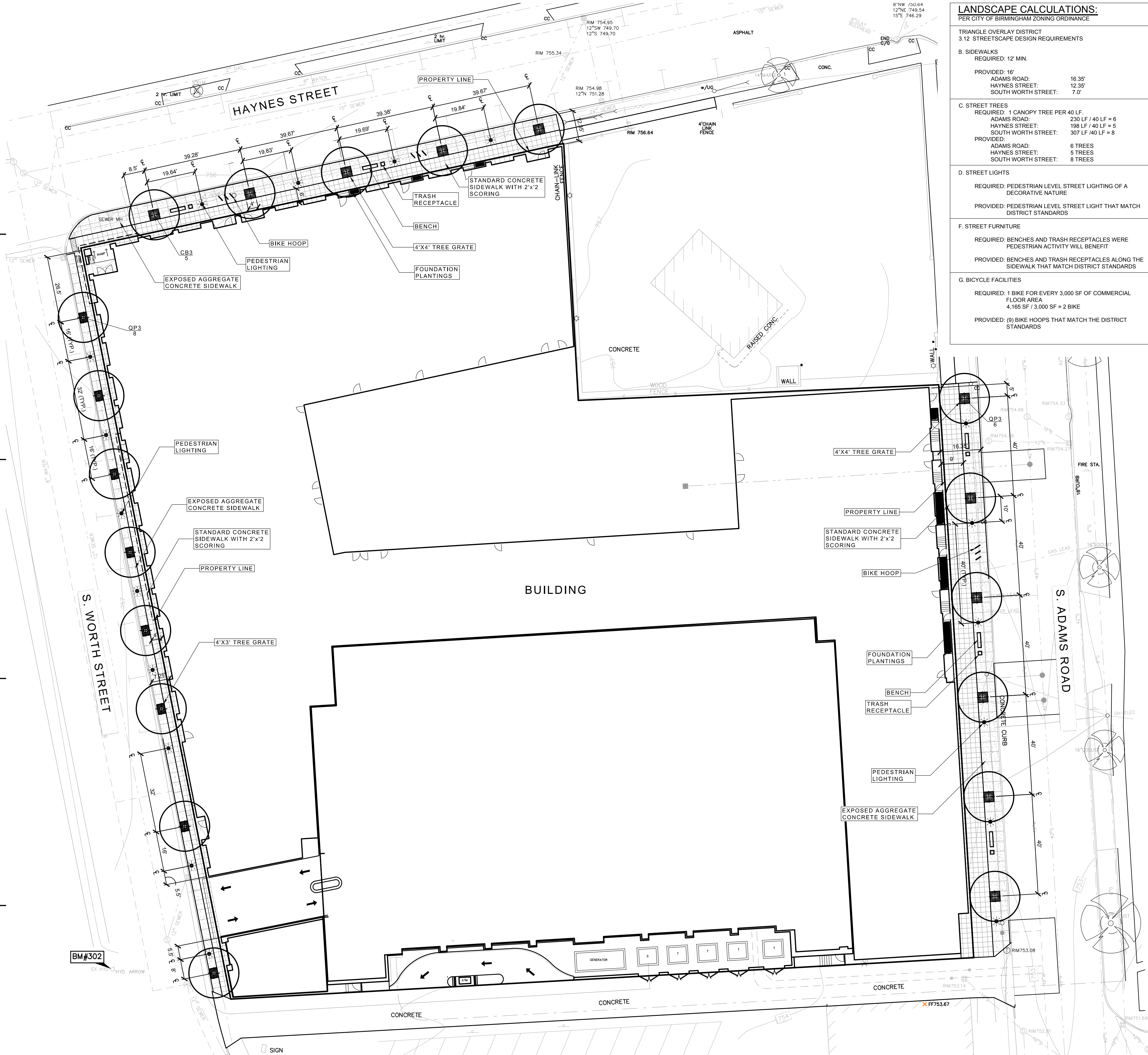
8650 48" X 36" TREE GRATE SET
PRODUCT NUMBER: 00869000
MATERIAL: GRAY IRON
MANUFACTURER: EJ
PHONE: 800.626.4653
QUANTITY: 8



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
4,165 SF / 3,000 SF = 2 BIKE

PROVIDED: (9) BIKE HOOPS THAT MATCH THE DISTRICT
STANDARDS

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Adams/Haynes Mixed
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PRELIMINARY
LANDSCAPE
PLAN

Sheet

L-1.0

DECIDUOUS TREE PLANT LIST:

QUANTITY	KEY SYMBOL	COMMON NAME	SCIENTIFIC NAME	SIZE	SPEC
5	CB3	Upright European Hornbeam	<i>Carpinus betulus 'Fastigiata'</i>	3" Cal.	B&B, Single Stem, Matched Specimens
14	QP3	Regal Prince Oak	<i>Quercus robur x bicolor 'Long' (columnar)</i>	3" Cal.	B&B, Matched Specimens
19	TOTAL DEC.				

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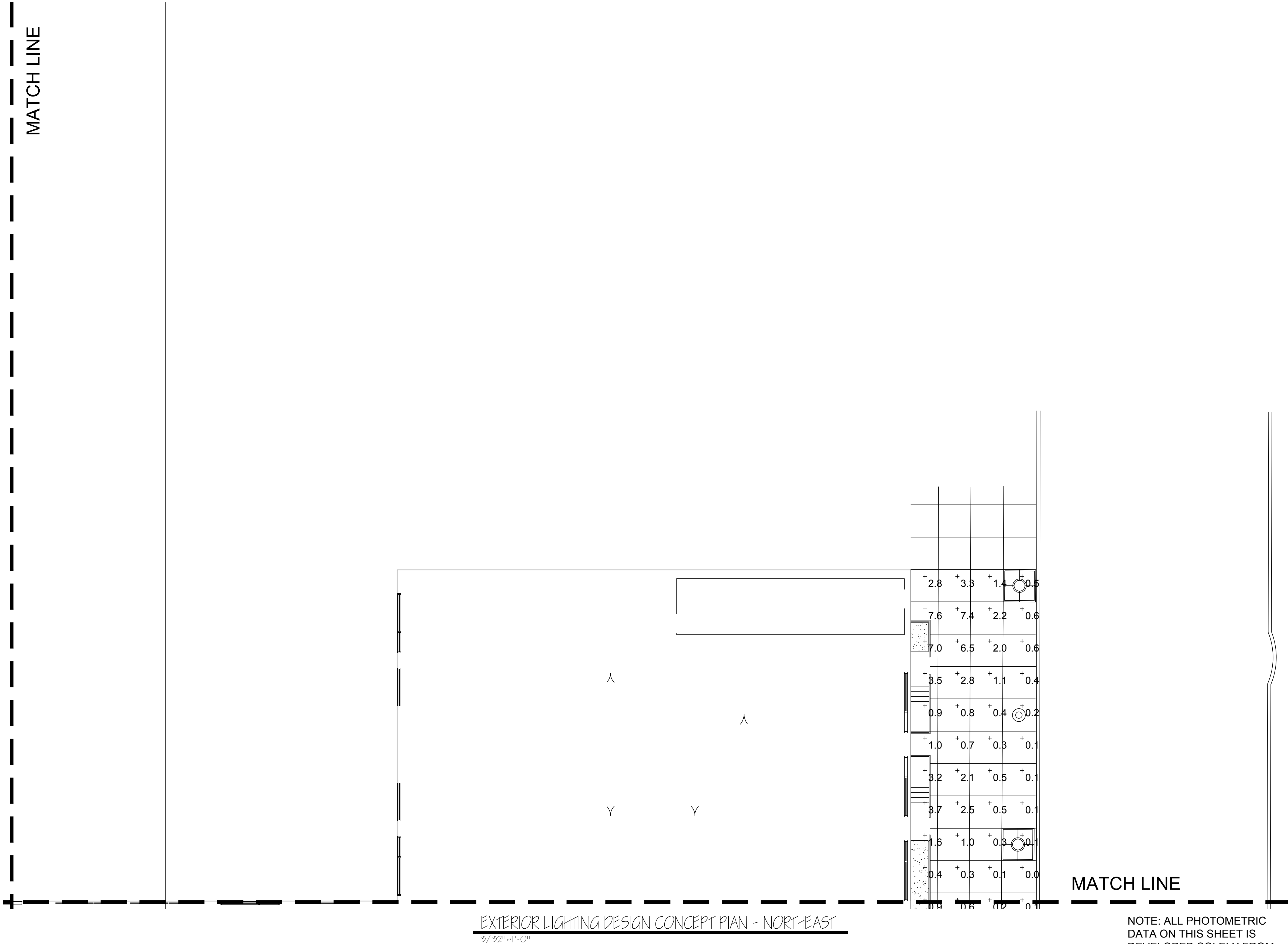
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Oakewood Design

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

FHS-BHM
Adams/Haynes Mixed
Use Development



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.

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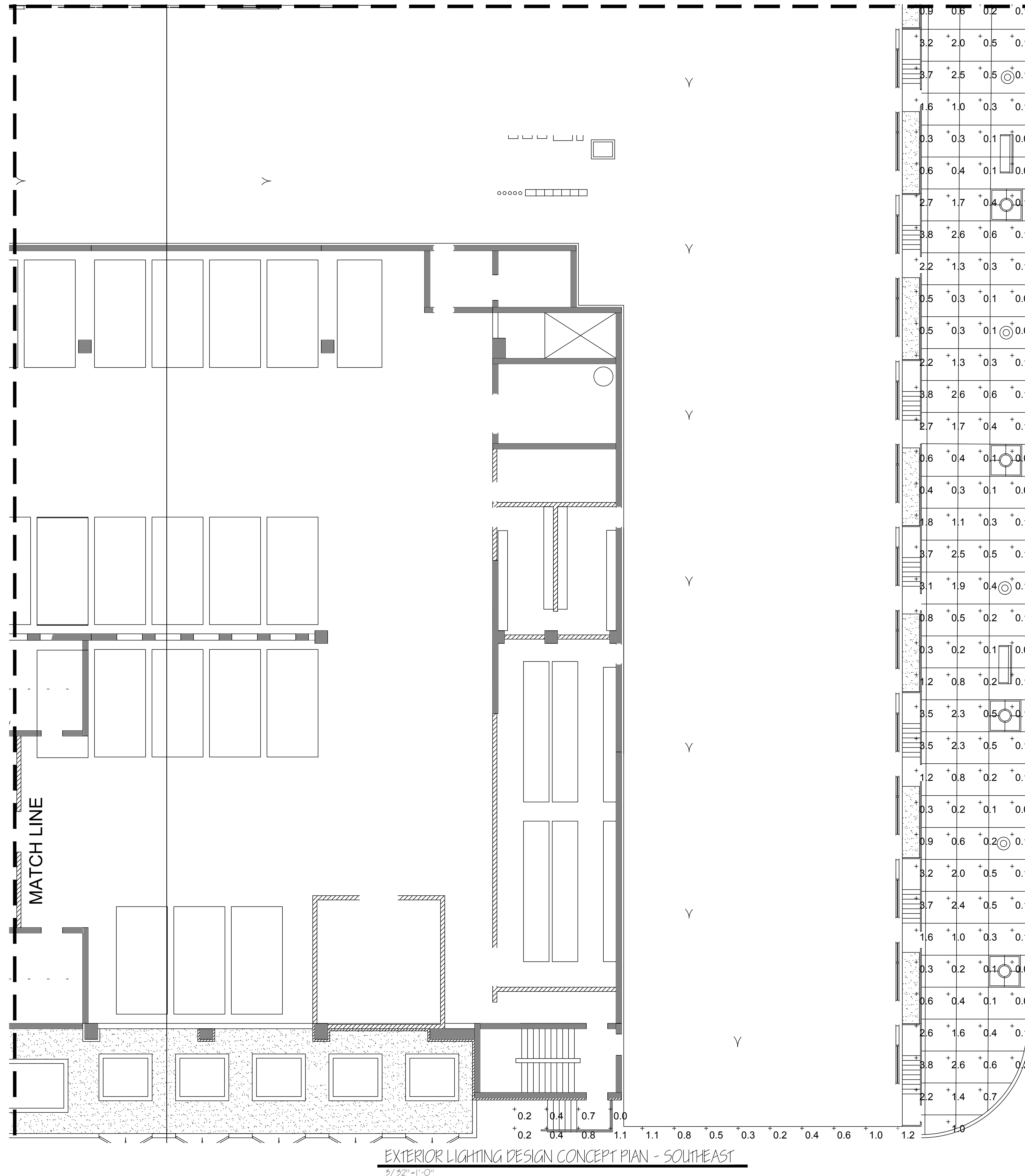
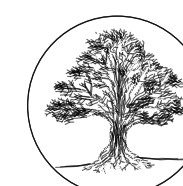
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The drawing is a technical site plan or road layout, oriented diagonally. It features a grid of numerical data points, likely representing elevations or distances, organized into rows and columns. The grid is divided into several sections by dashed lines and symbols, including circles with dots and squares. The drawing includes a 'MATCH LINE' on the right side and a 'MATCH LINE' on the bottom left. The top-left corner is the most detailed, showing a complex network of roads and structures, while the bottom-right corner is the least detailed, showing a large open area. The drawing is oriented diagonally, with the top-left corner being the most detailed and the bottom-right corner being the least detailed.

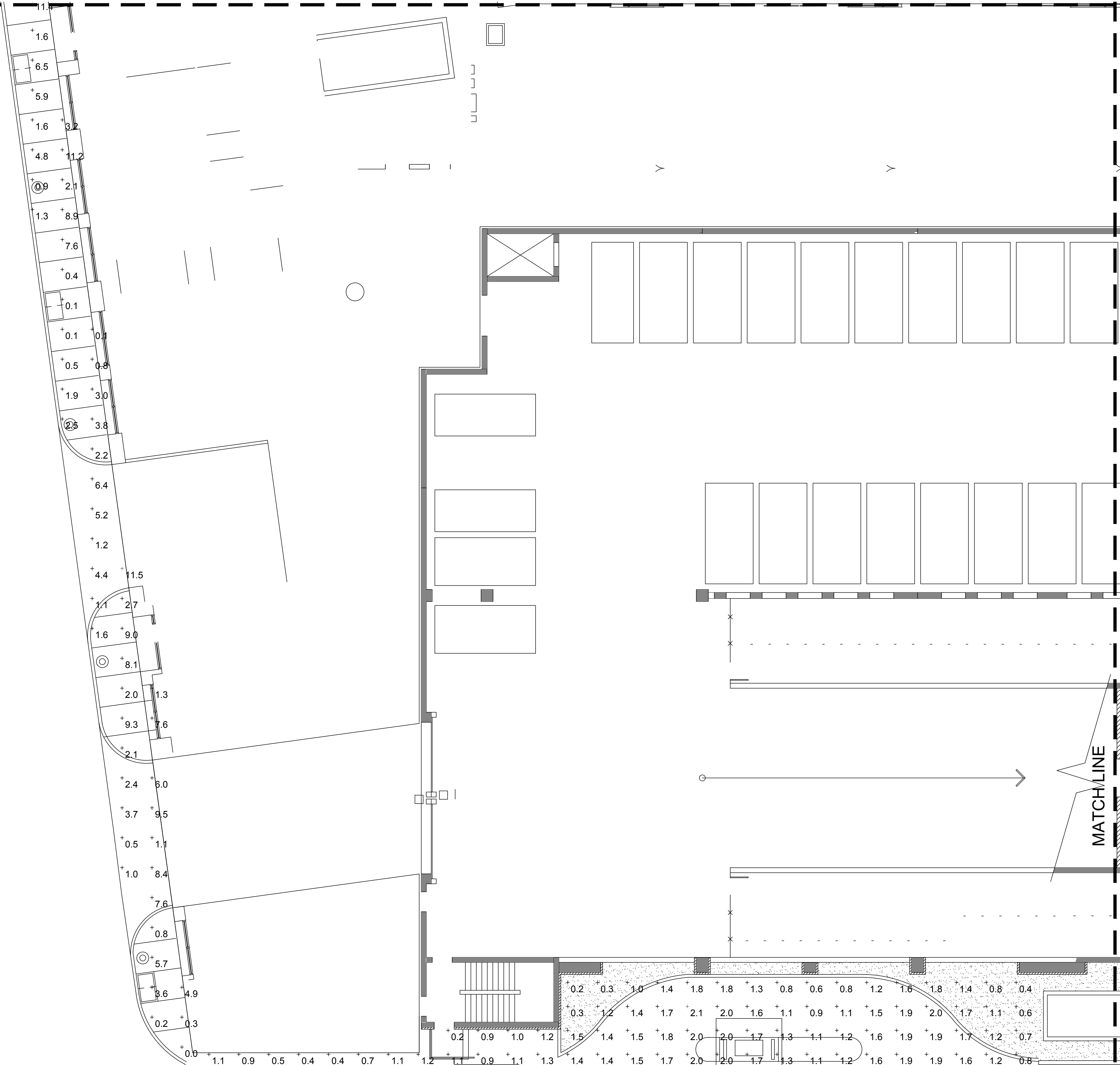
EXTERIOR LIGHTING DESIGN CONCEPT PLAN - NORTHWEST

$$3/32'' \approx 1'-0''$$



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.

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.



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Traffic Reviews



MKSK

Planning
Urban Design
Landscape Architecture

March 24, 2022

VIA EMAIL ndupuis@bhamgov.org

Mr. Nicholas Dupuis
Planning Director
City of Birmingham
151 Martin Street, P.O. Box 3001
Birmingham, MI 48012

**RE: Adams/Haynes Development
770 S. Adams and 1000 Haynes, Birmingham, MI
Transportation Impact Study Review**

Dear Mr. Dupuis:

Fleis & VandenBrink (F&V) and MKSK have completed our review of the response to comments letter prepared by Rowe PSC, dated March 22, 2022. Based on our review of the supplementary information provided by Rowe, PSC **we find that the Transportation Impact Study is substantially complete, and no further information or revisions are required.**

We offer the following comments for the City's consideration:

1. The pedestrian trips generated by this site were very low based on ITE and area modal split data. However, it is expected more pedestrians than evaluated in the study will be utilizing the adjacent network.
 - In an effort to improve the existing pedestrian infrastructure the applicant has offered to install ADA compliant ramps along the west side of Adams at Haynes.
2. The existing and anticipated pedestrian crossings described in the report do not warrant consideration of a new pedestrian crossings on Adams at either Haynes or Holland. With the anticipated increase in pedestrian volumes the City may wish to include Adams Road as part of the bi-annual pedestrian counts performed by the City to determine if additional pedestrian facilities and mid-block crossings are warranted and recommended.
 - The applicant has offered to contribute \$20,000 to the City to provide pedestrian improvements as warranted and recommended from further study of this area.

In conclusion, the addendum to the transportation impact study addresses the list of concerns raised by F&V/MKSK. We hope that this report addresses the City's needs regarding this project. If you have any questions, please do not hesitate to contact us at your convenience.

Sincerely,

FLEIS & VANDENBRINK ENGINEERING, INC.

Julie M. Kroll, PE, PTOE
Traffic Services Manager

MKSK

Brad Strader, AICP, PTP
Principal, Transportation Planning Studio Leader

27725 Stansbury Boulevard, Suite 195
Farmington Hills, MI 48334

P: 248.536.0080

F: 248.536.0079

www.fveng.com



March 22, 2022

Mr. Nicholas Dupuis
Planning Director
City of Birmingham
151 Martin Street
PO Box 3001
Birmingham, MI 48012

RE: 770 S. Adams Road Mixed Use Development
Transportation Impact Study

Dear Mr. Dupuis:

ROWE has considered the review of the revised Traffic Impact Study for the above noted site, as outlined in a letter from Fleis & Vandenbrink dated March 14, 2022. Following our meeting with you, as well as Julie and Brad of the F&V/MKSK team, the following responses are provided for your consideration:

Item #1 of the review letter indicates that person trips generated from the site (pedestrian and bicycle) should be added to the exhibits. We have maintained that there is no established methodology in the industry to determine how to distribute person trips generated from the site. F&V suggested that we use the same distributions calculated for the vehicle trips, which is now included. While we do not believe this correlation is entirely accurate, we have modified Figure 4 to include the predicted person trips using this methodology.

Item #2 raises the hypothesis that pedestrians tend to take the shortest path to their desired destination and may be tempted to cross Adams Road in the area of either Haynes Street or Holland Avenue. While we agree that the potential for pedestrians to cross Adams Road at these locations is a possibility instead of utilizing the crosswalks nearby at Bowers Street or Webster Avenue., the conditions under which a pedestrian might make this decision vary greatly – day/night, traffic/no traffic, weather, etc. The City of Birmingham struggles with this conundrum throughout the city as was discussed during our meeting. Based on traffic counts taken, the current number of crossings that in these areas appears to be quite small. While the proposed development may increase this potential, it is difficult to predict where and to what extent. If one uses the methodology encouraged in #1 above, it appears that the potential number will continue to be quite small.

As communities move toward a more multi-modal transportation strategy throughout Michigan, the tendency to install more pedestrian crossings has increased. However, road agencies have found that it is important to have an established set of warrants as to where such crossings should be installed, similar to the warrants that have been set up for the installation of STOP signs and traffic signals. Otherwise, they may create new or unintended safety issues.

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Referring to MDOT's 2020 publication entitled "Guidance for Installation of Pedestrian Crosswalks on Michigan State Trunkline Highways" (attached), it would appear that the installation of uncontrolled crossings at either Haynes Street or Holland Avenue may not be appropriate. The guide considers such things as the posted speed limit, pedestrian demand, and pedestrian crash history. Referring to the Pedestrian Crossing Treatment Flow Chart for an Uncontrolled Crossing on page 15 of the report, the decisions that apply for this crossing (as highlighted) leads one to the direction of determining that no improvements are recommended. F&V and ROWE are both familiar with the MDOT publication but a copy can be provided upon request.

Based on current and predicted pedestrian demand in this area, as well as the conditions on Adams Road, no additional crossing improvements are recommended on Adams Road at this time, either at Haynes Street or Holland Avenue. Furthermore, any improvements made to cross Adams Road should be carefully considered, given the proximity of the current crosswalks, traffic signals and driveways. Our client, the applicant and property owner of the 1000 Haynes Street and 770 South Adams Road properties has proposed a solution that a \$20,000 contribution be made to the city's appropriate fund in order for the city to implement improvements at a later date should the need be determined necessary after the project is open. This amount is based on the estimated cost to install ramps and pavement markings and is based on the discussions of historical costs that the city made on Brown Street near Pierce Street.

Item #3 in the F&V review letter related to crossing Adams Road was addressed above under Item #2. As the question posed regarding retail visitors and the potential for on-street parking spaces being occupied, the proposed plan meets the ordinance. We note that there are additional parking spaces west of the site on Haynes Street, and south of the site on Worth Street. As to the possibility of a visitor choosing to park in a nearby private parking lot and walking to the subject property, the Walgreens parking lot is closer than Adams Square's parking lot, and therefore would be more likely to be used. Regardless, neither of the private lots are owned by the developer and should not be counted or considered as parking available for the subject property.

Item #4 refers to needed upgrades for existing adjacent sidewalks and Americans with Disabilities Act (ADA) facilities. While the developer plans to install streetscape and ADA compliant sidewalks on all three sides of the 770 South Adams Road property, they are also agreeable to installing new handicap ramps for north/south pedestrian traffic traveling on the west side of Adams Road at Haynes Street, bringing this intersection into ADA compliance, as a part of the project.

At our meeting with F&V, other comments made within the review spreadsheet were discussed, and F&V agreed that addressing items 1 – 4 in the letter would satisfy the open items in the spreadsheet. To avoid any doubt:

- a) Spreadsheet item "Existing Conditions #1" is addressed in the Item #1 response above.
- b) Spreadsheet item "Trip Distribution #3" is addressed in the Items #1 and #2 responses above. In addition, the attached Figure 8 has been revised to demonstrate that pedestrian desire lines, other than the ones previously shown, will include trips to the adjacent Walgreen's, Papa Joe's building, and Adams Square shopping center.
- c) Spreadsheet item "Non-Motorized and Transit #4" is addressed in Item #2 above.
- d) Spreadsheet item "Mitigation" is addressed in Items #2 and #4 responses above.

Mr. Nicholas Dupuis
March 22, 2022
Page 3

We trust that the above helps clarify our findings within the Transportation Impact Study, and the developer's position regarding the issues that were raised.

Sincerely,
ROWE Professional Services Company

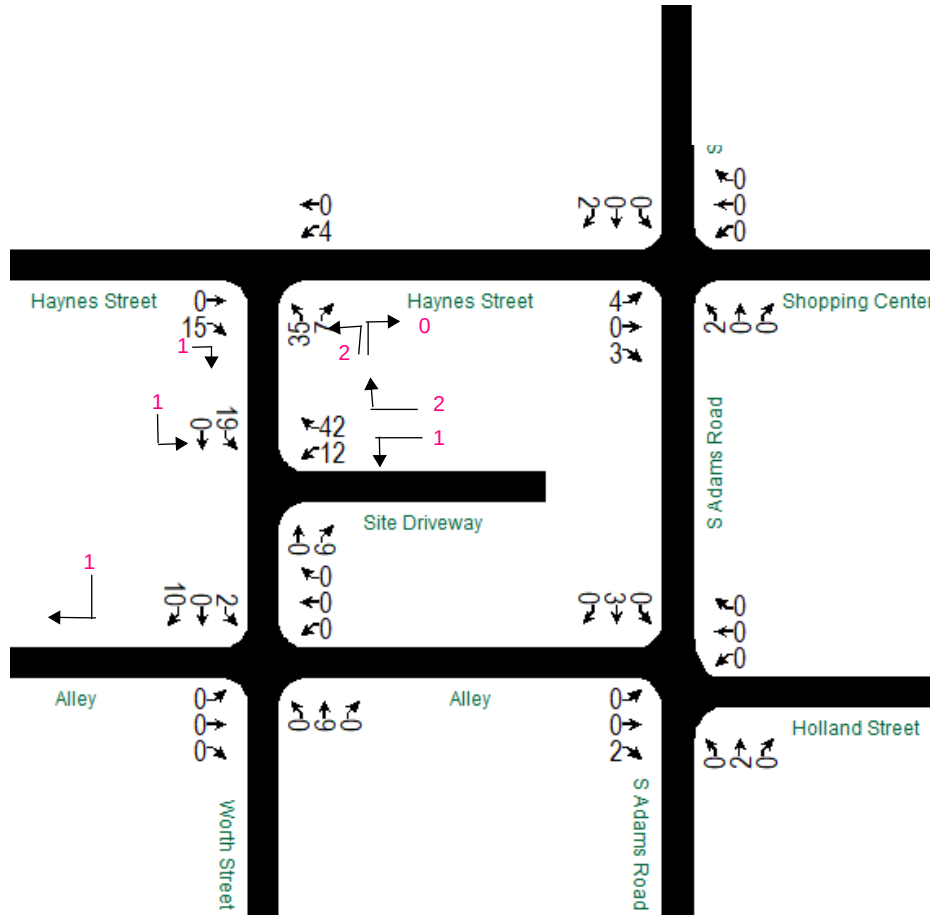
Paul T. O'Meara, P.E.
Project Manager

Attachments

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AM Peak Hour

Pedestrians

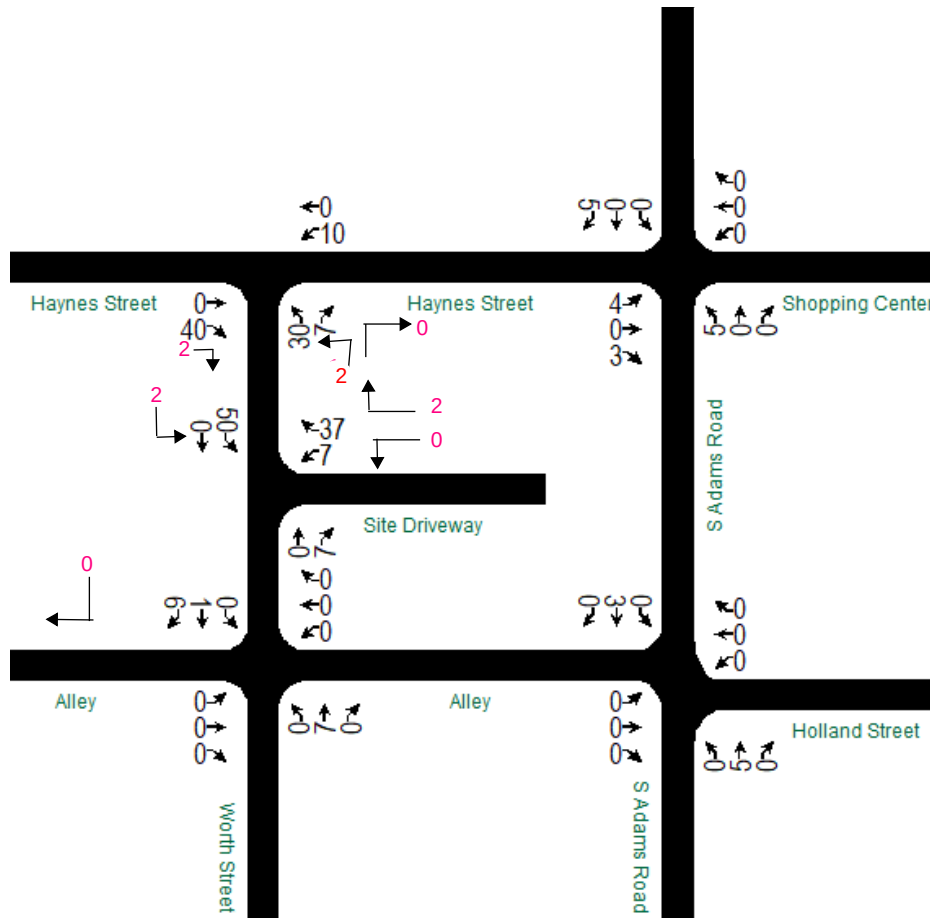


Note: Pedestrian trips distributed by vehicle distribution percentages as directed by the City.

Transit and cyclist trips omitted as determined to be statistically insignificant.

PM Peak Hour

Pedestrians



Note: Pedestrian trips distributed by vehicle distribution percentages as directed by the City.

Transit and cyclist trips omitted as determined to be statistically insignificant.

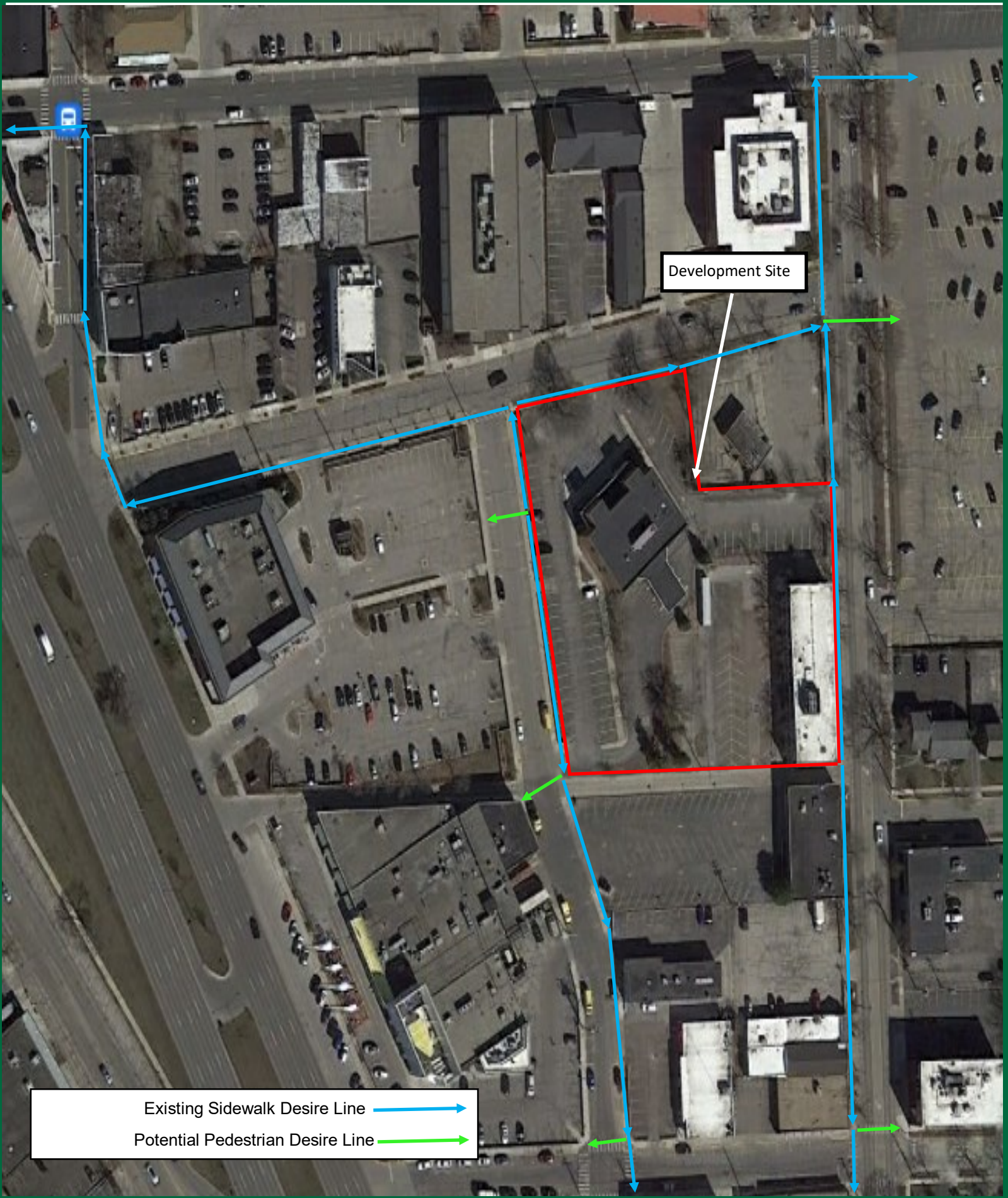


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Trip Generation Volumes
770 S Adams Road TIS
Figure 4

Not to scale – for illustrative purposes only



Development Site

Existing Sidewalk Desire Line
Potential Pedestrian Desire Line

March 14, 2022

VIA EMAIL ndupuis@bhamgov.org

Mr. Nicholas Dupuis
Planning Director
City of Birmingham
151 Martin Street, P.O. Box 3001
Birmingham, MI 48012

**RE: Adams/Haynes Development
770 S. Adams and 1000 Haynes, Birmingham, MI
Transportation Impact Study Review**

Dear Mr. Dupuis:

Fleis & VandenBrink (F&V) and MKSK have completed our review of the Traffic Impact Study prepared by Rowe PSC, dated March 9, 2022. Based on our review of the TIS, we offer the following comments. The TIS should be revised to reflect the comments noted on the attached Transportation Impact Study Guidelines. Key items are summarized below, and the guidelines and corresponding review comments are attached.

1. The person trips generated by the proposed development should be shown on the exhibits. The exhibits note that *"Pedestrian and Bike trips not included as industry standard does not give accurate way to anticipate trips."* This is not correct, the pedestrian and bike trips can be distributed to the roadway network in a manner similar to site generated traffic volumes. This should be addressed to determine the additional pedestrian traffic volumes anticipated at the study intersections and provide mitigation measures accordingly.
2. The study *"All pedestrians are expected to use existing crosswalks and adhere to local laws and regulations."*, however, we know that pedestrians will take the shortest path to a route and there is no discussion regarding pedestrian desire lines and pedestrians crossing mid-block. Pedestrians that are looking to cross the street may not utilize the adjacent study intersections, by may cross mid-block.

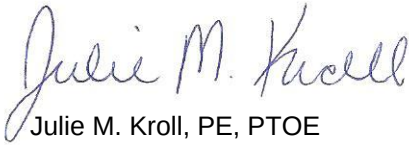
Mitigation measures for consideration include: **Adding E/W pedestrian crossings, with advance signage and gateway treatments at the following locations:**

- Haynes St. & Adams St.
 - Holland St. & Adams St.
3. The proposed development intends to utilize on-street parking to accommodate the retail parking demands. If the adjacent on-street parking on Haynes is occupied, it is anticipated that vehicle will utilize the adjacent parking facilities, including the Adams Square parking lot, and cross Adams to access the proposed development. There are no pedestrian facilities to accommodate E/W pedestrian movements at Haynes St. or Holland Street to accommodate pedestrian trip generation.
 4. The TIS provided recommendations to upgrade existing adjacent sidewalks and ADA facilities. These mitigation measures should be considered as part of this project to accommodate the additional person trips generated by residents and visitors of the site.

We hope that this report addresses the City's needs regarding this project. If you have any questions, please do not hesitate to contact us at your convenience.

Sincerely,

FLEIS & VANDENBRINK ENGINEERING, INC.



Julie M. Kroll, PE, PTOE
Traffic Services Manager

MKSK



Brad Strader, AICP, PTP
Principal, Transportation Planning Studio Leader

Attachment

Transportation Impact Study Guidelines-TIS Review

Transportation Impact Study**Engineer: Rowe PSC****Study Date: 3/9/2022****Reviewed by: Fleis & VandenBrink and MKSK****Date: 3/14/22**

STUDY AREA: A description and map(s) of the study area including, but not limited to	Complete	Comments
1. Surrounding land uses	Yes	
2. Intersection geometries (Lane configuration, traffic control and signal timing, etc.)	Yes	
3. Roadway geometries (Functional classifications, cross-sections, jurisdictions, posted speed limits, on-street parking, grades, percentage of heavy trucks, etc.)	Yes	
4. Developments under construction, approved or anticipated in the area that may influence background	Yes	
5. Planned and committed roadway improvements in the vicinity	Yes	
6. Existing traffic volume data (general ADT from recent counts, SEMCOG, etc.)	Yes	
7. Acknowledge review of the City's Master Plan, Subarea Plan, and Multi-Modal Transportation Plan, and describe or illustrate any specific recommendations in the Study Area from those Plans.	Yes	
8. Study area map(s) with site location, study intersections, and area evaluated for pedestrian, bicycle and	Yes	
PROPOSED USE(S): A description of the current and proposed land use(s), including characteristics such as:	Complete	Comments
1. Type of development, with associated ITE land use categories	Yes	
2. Development size (Number of dwelling units, gross and usable floor area, etc.)	Yes	
3. Development characteristics that influence travel (Number of employees, expected hours of operation, shift change factors, work from home or other programs that may influence person travel trips)	Yes	
4. Proposed build-out year (Include any phasing or future expansion)	Yes	
EXISTING CONDITIONS: A description of existing transportation conditions, including:	Complete	Comments
1. Existing traffic, pedestrian and bicycle counts including existing peak-hour turning movement counts at the study intersections and site access point(s).	No	No Ped/Bike Counts shown on exhibits.
2. Traffic count data shall not be over two years old, unless the City permits counts up to three years old to be increased by a factor supported by documentation.	Yes	
3. Traffic and non-motorized counts shall be taken on a Tuesday, Wednesday, or Thursday of non-holiday weeks, while school is in session. Additional counts (i.e. on a Saturday for a proposed commercial development) may also be required in some cases. The individual or firm, shall obtain counts during average or higher than average volume conditions (i.e. regarding weather or seasonal variations and in consideration of any construction or special events) for the area under study.	Yes	
4. Calculate the existing vehicle delays, LOS, and vehicle queues for all movements at signalized intersections and for all critical movements at unsignalized intersections at during the AM and PM peak hours of the streets, unless indicated otherwise. Intersection analysis shall include LOS determination for all approaches and movements, based on the procedures outlined in the most recent edition of the	Yes	
5. Traffic crash data and analysis covering the most recent three (3) years for the study area or proximity to site access points is required for a TIS and MAY be required by the City for a TIA, particularly for sites along roadways identified by SEMCOG or the City as Critical or Congested Corridors or High Crash locations. (see safety section below)	Yes	

Transportation Impact Study

Engineer: Rowe PSC

Study Date: 3/9/2022

Reviewed by: Fleis & VandenBrink and MKSK

Date: 3/14/22

BACKGROUND TRAFFIC ASSUMPTIONS: A description of the background traffic growth (traffic	Complete	Comments
1. For any project with an opening date beyond one year from the date the transportation study was prepared, the analysis should include a scenario analyzing forecasted traffic at the expected date of completion (i.e. existing + forecasted change + project traffic).	Yes	
2. Existing traffic volumes should be forecasted for the future through use of historic count trends and/or use of the future traffic projected by SEMCOG + traffic associated with approved and/or proposed developments in the vicinity of the study area that have yet to be constructed, are currently under construction or are not yet fully occupied (data from traffic studies for those projects may be available from the City for this calculation).	n/a	
3. Include in the baseline background condition, any transportation improvement projects in the study area that will be completed or underway by the build-out year.	n/a	
4. Calculate the background (without the proposed development) vehicle delays, LOS, and vehicle queues for all movements at signalized intersections and for all critical movements at unsignalized intersections at during the AM and PM, unless indicated otherwise. Intersection analysis shall include LOS determination for all approaches and movements, based on the procedures outlined in the most recent edition of the HCM.	Yes	
5. If one or more movements experiences a LOS "E" or worse in the downtown, or "D" or worse outside of the downtown, a description shall be provided and potential mitigation measures need to be evaluated.	Yes	
PERSON TRIP GENERATION: A description of the person trip generation, including:	Complete	Comments
1. Forecast of the number of peak hour (AM and PM, if applicable) and daily person trips that would be generated by the proposed development based on data published by the most recent edition of the Institute of Transportation Engineers (ITE) in Trip Generation and/or local development data as approved for use in the	Yes	
2. Provide a comprehensive analysis of site-generated trips, based on the available transportation modes (i.e. private vehicle, semi-truck, pedestrian, bicycle, bike share, e-bike, e-scooter, SMART transit, private shuttles, ride hailing, and any other ways people or goods may be transported to the site.)	Yes	
3. A table that describes the land use, ITE code number, development size/number of units, daily trips, and peak hour trips in and out.	Yes	
4. Any trip reduction for pass-by trips, internal capture rates, transit, ridesharing, other modes, etc. shall be based on ITE methodologies in the Trip Generation Handbook.	Yes	
5. For a rezoning, a comparison of the rates associated with the range of uses permitted in the current zoning district compared to the range of uses permitted in the requested district.	N/A	
6. For projects intended to be developed in phases, trip generation by phase shall be described and provided in a table format.	Yes	
TRIP DISTRIBUTION: A description of the trip distribution (expected trip routing), including:	Complete	Comments
1. Illustrations of where traffic generated is expected to be distributed onto the existing street network. The basis shall be explained (counts, observations, gravity model, market study)	Yes	
2. Illustrations of project turning movements at site access point(s) and nearby intersections, where required.	Yes	
3. For pedestrian, bicycle and transit trips, a map that illustrates expected volumes and the travel patterns related to nearby pedestrian crossings, bike share/parking, bus stops.	No	No discussion, map or volume data was provided. The desire lines are where pedestrians want to travel, not where they are directed to travel.
PROJECTED CONDITIONS - TRAFFIC: A description of the future transportation conditions, including:	Complete	Comments
1. Calculate the future (existing + background + development) vehicle delays, LOS, and vehicle queues for all movements at signalized intersections and for all critical movements at unsignalized intersections during the AM and PM, unless indicated otherwise.	Yes	
2. Intersection analysis shall include LOS determination for all approaches and movements, based on the procedures outlined in the most recent edition of the HCM.	Yes	
3. If one or more movements experiences a LOS "E" or worse in the downtown, or "D" or worse outside the downtown, potential mitigation measures shall be evaluated.(see mitigation section below)	Yes	

Transportation Impact Study**Engineer: Rowe PSC****Study Date: 3/9/2022****Reviewed by: Fleis & VandenBrink and MKSK****Date: 3/14/22**

NON-MOTORIZED AND TRANSIT: A description of multi-modal transportation, including:	Complete	Comments
1. Describe the existing + projected volumes of pedestrian and bicyclists.	Yes	
2. Provide a map that illustrates anticipated pedestrian and bicycle travel to and from the site including sidewalks, crosswalks or expected crossing locations, bike lanes, bicycle parking, and the closest SMART bus	Yes	
3. Illustrations on a site plan of the anticipated on-site routing of pedestrians and bicyclists, including those in any parking lot or structure.	Yes	
4. An evaluation of the anticipated routes used by pedestrians and bicyclists to/from and within the site. This should include an evaluation of the pedestrian signal timing.	No	The study indicates that pedestrians will utilize the existing pedestrian facilities and crosswalks, however there is no discussion regarding pedestrian desire lines and pedestrians crossing mid-block.
ACCESS MANAGEMENT. A description of the access design/access design and a demonstration that	Complete	Comments
a. Illustration of the site plan with the location and design of the proposed access point(s).	Yes	
b. Data to demonstrate the number of driveways proposed is the fewest necessary to provide reasonable	Yes	
c. Notation of any sight distance limitations and, if applicable, changes to meet standards (sight distance to/from vehicles, and for pedestrians and bicyclists).	Yes	
d. Dimensions from adjacent driveways and intersections on either side of the street in the vicinity of the proposed driveway(s), with analysis to demonstrate that there will not be conflicts such as left-turn lock-ups with opposing access points.	Yes	
e. Dimensions from signalized intersections and analysis that the access points will not interfere with the functional operating area (i.e. the area within which vehicles commonly queue).	Yes	
f. Evaluation of the need for any changes to streets or access to improve safety and travel for vehicles, pedestrians, and bicyclists (driveway radii, widths, turn lanes, tapers, etc.	Yes	Recommendations included upgrading ADA facilities and sidewalks that will be used by residents and visitors of the site.
SAFETY: A safety analysis is required to evaluate the existing safety and the impact of additional site	Complete	Comments
1. A safety analysis shall be performed at the study intersections and site driveway locations.	Yes	
2. The safety analysis shall include an evaluation of all crashes that have occurred within the past five (5) years of available data. Those that involved a pedestrian or bicyclists should be highlighted.	Yes	
3. Crashes shall be evaluated in accordance with the most recent version of the SEMCOG Crash Analysis Process as outlined in the SEMCOG Traffic Safety Manual (or analysis using the procedures in the Highway Safety Manual for FHWA STEM guidelines if endorsed by the City Traffic Engineer as appropriate for the	Yes	
4. The intersection crash summary shall be compared for each intersection to determine the if the intersections are high-crash locations as compared to similar intersections by type and location and identify any significant crash patterns.	Yes	
5. Provide a summary of generally related causes and potential countermeasures for crash patterns, including specific countermeasures to address pedestrian and bicycle safety.	Yes	

Transportation Impact Study**Engineer: Rowe PSC****Study Date: 3/9/2022****Reviewed by: Fleis & VandenBrink and MKSK****Date: 3/14/22**

PARKING AND CIRCULATION: A description of parking and on-site circulation including	Complete	Comments
1. Review of the parking requirements in the Zoning Ordinance, where applicable.	Yes	
2. Describe the anticipated parking demand of the proposed development.	Yes	
3. Describe the locations of bicycle and micromobility parking proposed to be installed as part of this project, and explain how the locations were selected.	Yes	
4. Proposed program to accommodate parking demand. This may include a description of on- site parking, shared parking (agreements required) or use of city parking structures/lots (for those within the parking	Yes	
5. If public parking facilities are expected to be utilized for all or some of the parking demand, an acknowledgement by the Developer of the current availability should be provided.	Yes	
6. Describe any parking features related to sustainability such as underground parking, parking lot canopy trees, Electric Vehicle Charging Stations, car-share, bicycle parking etc.	Yes	
7. Circulation for vehicles that will commonly operate on the site shall be illustrated with appropriate turning radii (delivery vehicles, semi-trucks, access to waste receptables, etc.)	Yes	
8. There must be sufficient on-site storage to accommodate at least three (3) queued vehicles waiting to park or exit without using a portion of the public right-of-way obstructing exiting vehicle sight distance, or otherwise interfering with street traffic.	Yes	
9. For uses with a drive-through, an analysis shall be provided that the on-site queuing area is sufficient to accommodate peak conditions without causing back-up onto public streets. The City may require a special study of similar uses and site sizes from other locations in Michigan.	Yes	

Transportation Impact Study**Engineer: Rowe PSC****Study Date: 3/9/2022****Reviewed by: Fleis & VandenBrink and MKSK****Date: 3/14/22**

MITIGATION: A description of measures/alternatives to mitigate the development's transportation impact for the categories below. The timing or phasing of improvements, and how those improvements will be accomplished, shall be described.	Complete	Comments
Non-Motorized: Describe any design changes that could improve the Quality of Service (travel convenience and safety) for pedestrians and bicyclists (both in the study area and on-site). Examples include: additional or improve crosswalks, pedestrian signals/signs, bump-outs, streetscape enhancements. Describe the timing or phasing of vehicle and non-motorized improvements, and how those improvements will be accomplished	No	Recommendations included upgrading ADA facilities and sidewalks that will be used by residents and visitors of the site. The City's Master Plan, Subarea Plan, and Multi-Modal Transportation Plan should be referenced for recommendations on potential improvements.
Transit: For site along a SMART route, or within ¼ mile of a bus stop, describe any proposed transit enhancements, such as the installation of a bench or a bus shelter. Documentation of communications with SMART regarding bus stop relocations or any amenities to make transit more convenient shall be provided.	Yes	
Transportation Demand Management: Describe design features and programs that the developer or Owner has considered or will employ to reduce vehicular travel, such as: on-site amenities, employee health programs, convenient and covered bicycle parking, shared vehicle service with priority parking, micro-transit to remote parking areas, free or subsidized bike share programs, financial incentives (e.g. transit passes, separate charges for any on-site parking, etc.)	Yes	
Traffic: Outline of proposed mitigation measures necessary to accommodate the existing, background, and/or future conditions, for the study street network required (if needed) to accommodate the site-generated traffic volumes at a LOS E or better for all movements in the downtown and D or better outside of the downtown. If the street is under jurisdiction of MDOT or the Road Commission for Oakland County, the applicant shall document those agencies endorse the change. A list of example mitigation measures is provided below. The designers are encourage to explore other options as well. The City may require a description of alternatives considered and an explanation of those selected. 1. Street Improvements: Construct additional lanes, add turn lanes, improve sight distance 2. Median Changes: Modify, relocate or close median crossovers, alter traffic signals 3. Operational Improvements: Changes to signalization, improve pedestrian phases Note: For study intersections located along coordinated signal corridors, optimizing traffic signals will not be considered an acceptable recommendation to mitigate site-generated traffic Unless proposed signal timing changes reduce delays for the network not just traffic associated with the development Note: If a traffic signal is recommended at any of the study intersections or site access point(s), a signal warrant analysis shall be included in the study and follow the guidelines provided in the Michigan Manual on Uniform Traffic Control Devices (MMUTCD). The signal warrant analysis shall include an evaluation of Warrant 1: Eight-Hour Volumes, Warrant 2: Four-Hour Volumes, and Warrant 3: Peak-Hour Volumes. 4. Access Management: Close or consolidate access points, relocate access to reduce conflicts, change driveway design to improve crossings for pedestrians and bicyclists, provide access onto a lower volume street (when appropriate) 5. Site Plan/Land Use Techniques: Reduce project intensity, alter site design, on-site traffic calming, move drive-through or increase queuing area	Yes	



March 9, 2022

Mr. Nick Dupuis, City Planner
City of Birmingham
PO Box 3001
Birmingham, MI 48012-3011

RE: 770 S. Adams Road Mixed Use Building
Traffic Impact Study

Dear Mr. Dupuis:

We have revised the Traffic Impact Study for 770 S. Adams per the comments raised in the review letter dated March 1, 2022, by Fleis & Vandenbrink. The revisions to the report are also summarized below:

COVER LETTER

1. The report has been enhanced with information regarding how pedestrians will most likely use the sidewalk and crosswalk network. The relevant master plans were reviewed and considered in this analysis.
2. The developer does not have a designated tenant in mind for the retail space at this time. Since actual trip generation numbers cannot be calculated, the conservative standard of 300 square feet of retail area per parking space results in a need of 14 parking spaces. Utilizing the provision in the ordinance that allows the developer to count public street parking along the property's frontage toward this requirement, the 15 parking spaces proposed on Haynes Street and Worth Street will meet this requirement.
3. Additional analysis and information have been provided as noted below and within the report to consider the direction of travel not only for vehicle occupants, but for those that choose to access the site as a pedestrian, bicyclist, or transit rider. We believe the additional information will be helpful for the Planning Board in conducting their review.

SPREADSHEET

Existing Conditions Item #1

For the intersections where counts were taken specifically for this study, pedestrian and bike counts have been added to the report figures.

Trip Distribution Item #3

ROWE is not aware of an accepted methodology for predicting pedestrian/bicycle trips from a particular building to other nearby attractions. However, based on known attractions in the area, such as nearby commercial areas and bus stops, Figure 8 has been prepared to identify expected pedestrian/bicycle routes. Discussion has also been provided in the Master Plan Review, and Multi-Modal Considerations sections of the report.

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Non-Motorized and Transit Item #2

Figure 8 has been prepared to clarify the existing sidewalk network. Once completed, the existing sidewalks on all three frontages of the proposed building will be widened to provide the streetscape elements called for in the Triangle District Master Plan, while also being fully ADA compliant.

Non-Motorized and Transit Item #4

Figure 8 has been prepared to identify expected pedestrian/bicycle routes. Discussion has also been provided in the Master Plan Review, and Multi-Modal considerations sections of the report.

Access Management Item d.

Dimensions from the proposed driveway to the other existing driveways is indicated on Figure 13 of the report. Left turns from Worth Street to the rear entrance of the Walgreen's driveway (98' away measured center to center) is the only opportunity for left turn lock ups (wherein drivers wishing to turn left into opposing driveways cannot do so due to queues in each direction). The model predicts that demand for left turns into the proposed driveway will only result in queue lengths of one vehicle, much less than the distance from the existing Walgreen's driveway. The alley driveway to the south will not cause any conflicts, since left turns from Worth Street into the alley is not allowed.

Access Management Item e.

The proposed development proposes to remove the one existing access point from the site onto Adams Road which could be impacted by the operation of a traffic signal. Instead, all vehicles will be directed to the entry point on Worth Street. There are no signals operating in the area of Worth Street that impact its traffic operation.

Parking and Circulation Item 5

The development does not intend to rely on any public parking facility as a part of its residential parking demand; all parking will be on site. The proposed retail component does not have a designated tenant at this time; therefore, the standard 300 square feet per parking space demand ratio has been applied, which indicates that a total of 14 parking spaces should be provided. The site plan indicates that sufficient room on the Haynes Street and Worth Street frontages exist to allow for the construction of 15 parking spaces that will be open to the public.

Parking and Circulation Item 7

Operation of delivery vehicles, as well as rubbish removal, will be handled at the 1,880-square-foot loading and receiving area to be accessed off of Worth Street. Figures 10 through 12 have been created to demonstrate that there is sufficient space on Worth Street to accommodate the maneuvering of a 40-foot-long single unit truck or trash truck. The developer plans to regulate tenants and visitors to the site to these size vehicles, or less.

Parking and Circulation Item 8

In the area of the vehicle entrance for the parking garage, the site plan has been revised to address the requirement that space be provided on site to accommodate a minimum of three vehicles being stored in front of the proposed gate control for the garage.

Mitigation, Non-Motorized

As noted in the report, the development will be constructing improved sidewalk and streetscape on its three public street frontages, all meeting ADA compliance. Overall, the sidewalk network is in excellent condition except for one non-ADA compliant crosswalk in the area, which is outside

Mr. Nick Dupuis, City Planner
March 9, 2022
Page 3

of the scope of this project. Public and private bike parking facilities will be added both on the Haynes Street sidewalk, and internal to the project, encouraging the use of bikes both for residents and visitors to the building. The development as proposed will create an enhanced sidewalk streetscape environment on all three of its public street frontages, and no further improvements are recommended at this time.

Mitigation, Transit

As noted in Figure 9, direct, improved sidewalk access is in place for all transit users wishing to use existing bus stops either on Woodward Avenue or on Adams Road. More recently, widened and enhanced crosswalks have been provided on Woodward Avenue. It is not anticipated that the development will overly burden the current transit infrastructure, and no further improvements are recommended at this time.

We appreciate the feedback provided by the city and its consultant, and we are pleased to submit this revised report for consideration by the Planning Board when considering the approval of this project.

Sincerely,
ROWE Professional Services Company

Paul T. O'Meara, PE
Project Manager



MKSK

Planning
Urban Design
Landscape Architecture

March 1, 2022

VIA EMAIL ndupuis@bhamgov.org

Mr. Nicholas Dupuis
Planning Director
City of Birmingham
151 Martin Street, P.O. Box 3001
Birmingham, MI 48012

**RE: Adams/Haynes Development
770 S. Adams and 1000 Haynes, Birmingham, MI
Transportation Impact Study Review**

Dear Mr. Dupuis:

Fleis & VandenBrink (F&V) and MKSK have completed our review of the Traffic Impact Study prepared by Rowe PSC, dated February 16, 2022. Based on our review of the TIS, we offer the following comments the study should be revised to reflect the comments noted on the attached Transportation Impact Study Guidelines. Key items are summarized below, and the guidelines and corresponding review comments are attached.

1. The study indicates that pedestrians will utilize the existing pedestrian facilities and crosswalks, however there is no discussion regarding pedestrian desire lines and pedestrians crossing mid-block. The City's Master Plan, Subarea Plan, and Multi-Modal Transportation Plan should be referenced for recommendations on potential improvements, including pedestrian connectivity and bike facilities.
2. Study indicates that the parking garage will dedicate two (2) parking spaces for the proposed retail use, with the remaining parking spaces for residential use only. The study indicates that there are 15 on-street parking spaces to accommodate the proposed retail use. It is not clear if there is enough on-street parking to accommodate the proposed retail use.
3. The results of the study did not provided recommendations to accommodate the person trips generated by this development. This should be reevaluated with the comments included herein considering all users.

We hope that this report addresses the City's needs regarding this project. If you have any questions, please do not hesitate to contact us at your convenience.

Sincerely,

FLEIS & VANDENBRINK ENGINEERING, INC.

Julie M. Kroll, PE, PTOE
Traffic Engineering Services Manager

MKSK

Brad Strader, AICP, PTP
Principal, Transportation Planning Studio Leader

Attachment

Transportation Impact Study Guidelines-TIS Review

27725 Stansbury Boulevard, Suite 195
Farmington Hills, MI 48334

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www.fveng.com

Transportation Impact Study**Engineer: Rowe PSC****Study Date: 2/16/2022****Reviewed by: Fleis & VandenBrink and MKSK****Date: 3/1/22**

STUDY AREA: A description and map(s) of the study area including, but not limited to	Complete	Comments
1. Surrounding land uses	Yes	
2. Intersection geometries (Lane configuration, traffic control and signal timing, etc.)	Yes	
3. Roadway geometries (Functional classifications, cross-sections, jurisdictions, posted speed limits, on-street parking, grades, percentage of heavy trucks, etc.)	Yes	
4. Developments under construction, approved or anticipated in the area that may influence background conditions	Yes	
5. Planned and committed roadway improvements in the vicinity	Yes	
6. Existing traffic volume data (general ADT from recent counts, SEMCOG, etc.)	Yes	
7. Acknowledge review of the City's Master Plan, Subarea Plan, and Multi-Modal Transportation Plan, and describe or illustrate any specific recommendations in the Study Area from those Plans.	Yes	
8. Study area map(s) with site location, study intersections, and area evaluated for pedestrian, bicycle and transit)	Yes	
PROPOSED USE(S): A description of the current and proposed land use(s), including characteristics such as:	Complete	Comments
1. Type of development, with associated ITE land use categories	Yes	
2. Development size (Number of dwelling units, gross and usable floor area, etc.)	Yes	
3. Development characteristics that influence travel (Number of employees, expected hours of operation, shift change factors, work from home or other programs that may influence person travel trips)	Yes	
4. Proposed build-out year (Include any phasing or future expansion)	Yes	
EXISTING CONDITIONS: A description of existing transportation conditions, including:	Complete	Comments
1. Existing traffic, pedestrian and bicycle counts including existing peak-hour turning movement counts at the study intersections and site access point(s).	No	No Ped/Bike Counts shown on exhibits.
2. Traffic count data shall not be over two years old, unless the City permits counts up to three years old to be increased by a factor supported by documentation.	Yes	
3. Traffic and non-motorized counts shall be taken on a Tuesday, Wednesday, or Thursday of non-holiday weeks, while school is in session. Additional counts (i.e. on a Saturday for a proposed commercial development) may also be required in some cases. The individual or firm, shall obtain counts during average or higher than average volume conditions (i.e. regarding weather or seasonal variations and in consideration of any construction or special events) for the area under study.	Yes	
4. Calculate the existing vehicle delays, LOS, and vehicle queues for all movements at signalized intersections and for all critical movements at unsignalized intersections at during the AM and PM peak hours of the streets, unless indicated otherwise. Intersection analysis shall include LOS determination for all approaches and movements, based on the procedures outlined in the most recent edition of the Highway Capacity Manual (HCM).	Yes	
5. Traffic crash data and analysis covering the most recent three (3) years for the study area or proximity to site access points is required for a TIS and MAY be required by the City for a TIA, particularly for sites along roadways identified by SEMCOG or the City as Critical or Congested Corridors or High Crash locations. (see safety section below)	Yes	

Transportation Impact Study**Engineer: Rowe PSC****Study Date: 2/16/2022****Reviewed by: Fleis & VandenBrink and MKSK****Date: 3/1/22**

BACKGROUND TRAFFIC ASSUMPTIONS: A description of the background traffic growth (traffic	Complete	Comments
1. For any project with an opening date beyond one year from the date the transportation study was prepared, the analysis should include a scenario analyzing forecasted traffic at the expected date of completion (i.e. existing + forecasted change + project traffic).	Yes	
2. Existing traffic volumes should be forecasted for the future through use of historic count trends and/or use of the future traffic projected by SEMCOG + traffic associated with approved and/or proposed developments in the vicinity of the study area that have yet to be constructed, are currently under construction or are not yet fully occupied (data from traffic studies for those projects may be available from the City for this calculation).	n/a	
3. Include in the baseline background condition, any transportation improvement projects in the study area that will be completed or underway by the build-out year.	n/a	
4. Calculate the background (without the proposed development) vehicle delays, LOS, and vehicle queues for all movements at signalized intersections and for all critical movements at unsignalized intersections at during the AM and PM, unless indicated otherwise. Intersection analysis shall include LOS determination for all approaches and movements, based on the procedures outlined in the most recent edition of the HCM.	Yes	
5. If one or more movements experiences a LOS "E" or worse in the downtown, or "D" or worse outside of the downtown, a description shall be provided and potential mitigation measures need to be evaluated.	Yes	

PERSON TRIP GENERATION: A description of the person trip generation, including:	Complete	Comments
1. Forecast of the number of peak hour (AM and PM, if applicable) and daily person trips that would be generated by the proposed development based on data published by the most recent edition of the Institute of Transportation Engineers (ITE) in Trip Generation and/or local development data as approved for use in the study by the City.	Yes	
2. Provide a comprehensive analysis of site-generated trips, based on the available transportation modes (i.e. private vehicle, semi-truck, pedestrian, bicycle, bike share, e-bike, e-scooter, SMART transit, private shuttles, ride hailing, and any other ways people or goods may be transported to the site.)	Yes	
3. A table that describes the land use, ITE code number, development size/number of units, daily trips, and peak hour trips in and out.	Yes	
4. Any trip reduction for pass-by trips, internal capture rates, transit, ridesharing, other modes, etc. shall be based on ITE methodologies in the Trip Generation Handbook.	Yes	
5. For a rezoning, a comparison of the rates associated with the range of uses permitted in the current zoning district compared to the range of uses permitted in the requested district.	N/A	
6. For projects intended to be developed in phases, trip generation by phase shall be described and provided in a table format.	Yes	

TRIP DISTRIBUTION: A description of the trip distribution (expected trip routing), including:	Complete	Comments
1. Illustrations of where traffic generated is expected to be distributed onto the existing street network. The basis shall be explained (counts, observations, gravity model, market study)	Yes	
2. Illustrations of project turning movements at site access point(s) and nearby intersections, where required.	Yes	

3. For pedestrian, bicycle and transit trips, a map that illustrates expected volumes and the travel patterns related to nearby pedestrian crossings, bike share/parking, bus stops.	No	No discussion, map or volume data was provided.
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PROJECTED CONDITIONS - TRAFFIC: A description of the future transportation conditions, including:	Complete	Comments
1. Calculate the future (existing + background + development) vehicle delays, LOS, and vehicle queues for all movements at signalized intersections and for all critical movements at unsignalized intersections during the AM and PM, unless indicated otherwise.	Yes	
2. Intersection analysis shall include LOS determination for all approaches and movements, based on the procedures outlined in the most recent edition of the HCM.	Yes	
3. If one or more movements experiences a LOS "E" or worse in the downtown, or "D" or worse outside the downtown, potential mitigation measures shall be evaluated.(see mitigation section below)	Yes	

Transportation Impact Study**Engineer: Rowe PSC****Study Date: 2/16/2022****Reviewed by: Fleis & VandenBrink and MKSK****Date: 3/1/22**

NON-MOTORIZED AND TRANSIT: A description of multi-modal transportation, including:	Complete	Comments
1. Describe the existing + projected volumes of pedestrian and bicyclists.	Yes	
2. Provide a map that illustrates anticipated pedestrian and bicycle travel to and from the site including sidewalks, crosswalks or expected crossing locations, bike lanes, bicycle parking, and the closest SMART bus stops.	No	Figure 6 is missing existing and proposed sidewalk
3. Illustrations on a site plan of the anticipated on-site routing of pedestrians and bicyclists, including those in any parking lot or structure.	Yes	
4. An evaluation of the anticipated routes used by pedestrians and bicyclists to/from and within the site. This should include an evaluation of the pedestrian signal timing.	No	The study indicates that pedestrians will utilize the existing pedestrian facilities and crosswalks, however there is no discussion regarding pedestrian desire lines and pedestrians crossing mid-block.
ACCESS MANAGEMENT. A description of the access design/access design and a demonstration that	Complete	Comments
a. Illustration of the site plan with the location and design of the proposed access point(s).	Yes	
b. Data to demonstrate the number of driveways proposed is the fewest necessary to provide reasonable access.	Yes	
c. Notation of any sight distance limitations and, if applicable, changes to meet standards (sight distance to/from vehicles, and for pedestrians and bicyclists).	Yes	
d. Dimensions from adjacent driveways and intersections on either side of the street in the vicinity of the proposed driveway(s), with analysis to demonstrate that there will not be conflicts such as left-turn lock-ups with opposing access points.	No	Not provided
e. Dimensions from signalized intersections and analysis that the access points will not interfere with the functional operating area (i.e. the area within which vehicles commonly queue).	No	Not provided
f. Evaluation of the need for any changes to streets or access to improve safety and travel for vehicles, pedestrians, and bicyclists (driveway radii, widths, turn lanes, tapers, etc).	Yes	Recommendations included upgrading ADA facilities and sidewalks that will be used by residents and visitors of the site.
SAFETY: A safety analysis is required to evaluate the existing safety and the impact of additional site	Complete	Comments
1. A safety analysis shall be performed at the study intersections and site driveway locations.	No	Crash analysis provided, however crashes should be summarized by intersection and segment. If there are any mitigation measures to improve safety they should be identified.
2. The safety analysis shall include an evaluation of all crashes that have occurred within the past five (5) years of available data. Those that involved a pedestrian or bicyclists should be highlighted.	Yes	
3. Crashes shall be evaluated in accordance with the most recent version of the SEMCOG Crash Analysis Process as outlined in the SEMCOG Traffic Safety Manual (or analysis using the procedures in the Highway Safety Manual for FHWA STEM guidelines if endorsed by the City Traffic Engineer as appropriate for the location).	No	The crash analyses did not utilize the correct crash analysis tables. Separate crash rates are provided for intersections and segments, both with and without signalization. This analysis should be revised accordingly.
4. The intersection crash summary shall be compared for each intersection to determine the if the intersections are high-crash locations as compared to similar intersections by type and location and identify any significant crash patterns.	No	Crashes to be summarized by intersection and segment crashes
5. Provide a summary of generally related causes and potential countermeasures for crash patterns, including specific countermeasures to address pedestrian and bicycle safety.	No	Not provided

Transportation Impact Study**Engineer: Rowe PSC****Study Date: 2/16/2022****Reviewed by: Fleis & VandenBrink and MKSK****Date: 3/1/22**

PARKING AND CIRCULATION: A description of parking and on-site circulation including	Complete	Comments
1. Review of the parking requirements in the Zoning Ordinance, where applicable.	Yes	
2. Describe the anticipated parking demand of the proposed development.	Yes	
3. Describe the locations of bicycle and micromobility parking proposed to be installed as part of this project, and explain how the locations were selected.	Yes	
4. Proposed program to accommodate parking demand. This may include a description of on- site parking, shared parking (agreements required) or use of city parking structures/lots (for those within the parking assessment area).	Yes	Study indicates 2 parking spaces for retail. The remaining parking spaces for residential only. No clear if there is enough parking to accomdate the proposed retail use.
5. If public parking facilities are expected to be utilized for all or some of the parking demand, an acknowledgement by the Developer of the current availability should be provided.	No	Additional information required.
6. Describe any parking features related to sustainability such as underground parking, parking lot canopy trees, Electric Vehicle Charging Stations, car-share, bicycle parking etc.	Yes	
7. Circulation for vehicles that will commonly operate on the site shall be illustrated with appropriate turning radii (delivery vehicles, semi-trucks, access to waste receptables, etc.)	No	Not provided
8. There must be sufficient on-site storage to accommodate at least three (3) queued vehicles waiting to park or exit without using a portion of the public right-of-way obstructing exiting vehicle sight distance, or otherwise interfering with street traffic.	No	Additional information required.
9. For uses with a drive-through, an analysis shall be provided that the on-site queuing area is sufficient to accommodate peak conditions without causing back-up onto public streets. The City may require a special study of similar uses and site sizes from other locations in Michigan.	Yes	

Transportation Impact Study**Engineer: Rowe PSC****Study Date: 2/16/2022****Reviewed by: Fleis & VandenBrink and MKSK****Date: 3/1/22**

MITIGATION: A description of measures/alternatives to mitigate the development's transportation impact for the categories below. The timing or phasing of improvements, and how those improvements will be accomplished, shall be described.	Complete	Comments
Non-Motorized: Describe any design changes that could improve the Quality of Service (travel convenience and safety) for pedestrians and bicyclists (both in the study area and on-site). Examples include: additional or improve crosswalks, pedestrian signals/signs, bump-outs, streetscape enhancements. Describe the timing or phasing of vehicle and non-motorized improvements, and how those improvements will be accomplished	No	Recommendations included upgrading ADA facilities and sidewalks that will be used by residents and visitors of the site. The City's Master Plan, Subarea Plan, and Multi-Modal Transportation Plan should be referenced for recommendations on potential improvements.
Transit: For site along a SMART route, or within ¼ mile of a bus stop, describe any proposed transit enhancements, such as the installation of a bench or a bus shelter. Documentation of communications with SMART regarding bus stop relocations or any amenities to make transit more convenient shall be provided.	No	Provide discussion regarding the pedestrian routes to the bus stops and the location of the FAST bus stops along Woodward Ave. Any gaps in the sidewalk system that access the transit should be identified.
Transportation Demand Management: Describe design features and programs that the developer or Owner has considered or will employ to reduce vehicular travel, such as: on-site amenities, employee health programs, convenient and covered bicycle parking, shared vehicle service with priority parking, micro-transit to remote parking areas, free or subsidized bike share programs, financial incentives (e.g. transit passes, separate charges for any on-site parking, etc.)	Yes	
Traffic: Outline of proposed mitigation measures necessary to accommodate the existing, background, and/or future conditions, for the study street network required (if needed) to accommodate the site-generated traffic volumes at a LOS E or better for all movements in the downtown and D or better outside of the downtown. If the street is under jurisdiction of MDOT or the Road Commission for Oakland County, the applicant shall document those agencies endorse the change. A list of example mitigation measures is provided below. The designers are encourage to explore other options as well. The City may require a description of alternatives considered and an explanation of those selected. 1. Street Improvements: Construct additional lanes, add turn lanes, improve sight distance 2. Median Changes: Modify, relocate or close median crossovers, alter traffic signals 3. Operational Improvements: Changes to signalization, improve pedestrian phases Note: For study intersections located along coordinated signal corridors, optimizing traffic signals will not be considered an acceptable recommendation to mitigate site-generated traffic Unless proposed signal timing changes reduce delays for the network not just traffic associated with the development Note: If a traffic signal is recommended at any of the study intersections or site access point(s), a signal warrant analysis shall be included in the study and follow the guidelines provided in the Michigan Manual on Uniform Traffic Control Devices (MMUTCD). The signal warrant analysis shall include an evaluation of Warrant 1: Eight-Hour Volumes, Warrant 2: Four-Hour Volumes, and Warrant 3: Peak-Hour Volumes. 4. Access Management: Close or consolidate access points, relocate access to reduce conflicts, change driveway design to improve crossings for pedestrians and bicyclists, provide access onto a lower volume street (when appropriate) 5. Site Plan/Land Use Techniques: Reduce project intensity, alter site design, on-site traffic calming, move drive-through or increase queuing area	No	No mitigation measures were recommended to accommodate this development. This should be reevaluated with the comments included herein.

Memorandum

To: Timothy Andres, AIA
From: Paul T. O'Meara, PE and Alyssa M. Wambold, PE
Date: January 26, 2022
RE: Traffic Impact Study for 770 S Adams Road – Review Responses

ROWE Professional Services Company has reviewed the study revisions and comments as received from the city of Birmingham and their consultants and have provided the following responses and revisions as included below (ROWE responses in **bold**). The review letter received is attached to this memorandum.

TRAFFIC IMPACT STUDY COMMENTS

1. The focus of the study is transportation impacts and should be titled accordingly.
 - **ROWE can update the study title if necessary.**
2. Review the proposed land uses and applicable trip generation. Include daily person trip generation information.
 - **ROWE used the land uses and trip generation approved by the City's consultant on 11-29-21. ROWE will work with the City's consultant to determine if adjustments need to be made to the land uses and/or applicable trip generation.**
3. Provide support for internal capture and pass-by trip reductions to validate the percentages used in the analysis. The ITE rates should be used in context with the adjacent neighborhood characteristics.
 - **Pages 3-5 of the study outlines the methodologies and data utilized to calculate internal capture and pass-by trip reductions. ROWE will work with the City's consultant to determine if adjustments need to be made to the methodology.**
4. Background growth and COVID adjustments should be revised to more accurately reflect traffic volumes in the vicinity of the project.
 - **ROWE used the COVID adjustments approved by the City's consultant on 12-1-2021. ROWE will work with the City's consultant to determine if adjustments need to be made to the methodology.**

5. The proposed development is located in a highly walkable zone, convenient to the downtown, Triangle district and neighborhoods. The person trip calculations used are not representative of the Adams Road corridor and should be revised accordingly.
 - **ROWE used trip generation values approved by the City's consultant on 11-29-21. ROWE will work with the City's consultant to determine if adjustments need to be made to the methodology.**
6. Include the adjacent signalized intersections (Lincoln and Bowers) along the Adams Road corridor to consider vehicle platooning and queueing impacts. Provide confirmation that the simulations of existing conditions and vehicle queues are consistent with field observations.
 - **ROWE developed the study based on the scope of work that was approved by the City's consultant on 8-19-21. The two additional intersections referenced were not included in the scope at that time. ROWE will work with the City's consultant to determine if adjustments need to be made to the study scope.**
7. Review the existing truck traffic volumes and operations on Worth Street and impacts to vehicle and pedestrian traffic.
 - **ROWE provided the turning movement counts (TMCs) in the appendices of the study. There were 2 trucks in the AM peak hour and 0 trucks in the PM peak hour. ROWE can add a section to the study to discuss truck impacts on Worth St.**
8. The proposed loading area truck dock utilizes the travel lane along Worth Street, blocking both the roadway and the sidewalk. Review the design to accommodate the truck within the site.
 - **The proposed loading dock has been designed such that it is in conformance with the ordinance. All loading activity will occur on site and not in the right-of-way. It is acknowledged that trucks will have to cross the sidewalk to enter the loading area, as typical in urban/suburban areas. Worth St. was selected as the building frontage that is more service oriented. The entrances to the building that are designed to draw pedestrians are located on Haynes St. and Adams Rd. In addition, the width of Worth St. is such that it will allow the parallel parking on the west side of the street to remain, even when trucks are backing up to permit entry into the loading dock. Similar conditions have been approved in the downtown and operate well in areas where vehicle and pedestrian traffic is higher, such as at the 210 S. Old Woodward Ave. Building (with loading on Merrill St.)**

9. Provide an evaluation of the sight distance at the parking structure access drive to ensure vehicles have visibility from the adjacent alley.
 - **The design as proposed is in conformance with the ordinance. Sight distance will be reduced for vehicles entering Worth St. from either the driveway or the alley, as is anticipated and repeated throughout the downtown area in Birmingham. ROWE and City will discuss possible mitigation methods such as mirrors or audible/visual warning systems.**
10. Provide a pedestrian and bicycle circulation plan for the parking structure to ingress/egress to the adjacent pedestrian and bicycle facilities.
 - **Pedestrians: The parking structure has been designed to be primarily used by residents of the building. The structure offers two elevator accesses and two stairwell accesses, located in all four corners of the structure, reducing the amount of walking from any parked vehicle to a pedestrian exit to 100 feet or less. In addition, 10 accessible parking spaces have been provided in the immediate vicinity of elevators to allow excellent accommodations for disabled residents.**
 - **Bicycles: A separate room accommodating 96 bikes has been provided on level 1 of the parking structure. The entrance to the bike room is 55 feet from the main entry drive of the parking structure off of Worth St.**
 - **A pedestrian and bicycle circulation plan will be provided.**
11. Provide mitigation measures and recommendations to improve the projected operations with the addition of the proposed development. Recommendations should include accommodations for all multi-modal (ped, bike, transit, ADA, vehicles, trucks, etc.) users of this site. For example, there are 96 spaces for bicycle storage for residents, however there is no bike racks for employees or visitors. Additional bike racks should be located adjacent to the building on all blocks, except the alley, near the building entrances and convenient to the commercial.
 - **Pedestrians: The building has been designed with pedestrians in mind by providing sidewalks on all street frontages and multiple pedestrian entrances on all sides, with an emphasis on the most highly visible frontages (Haynes and Adams). Benches are currently proposed on the Haynes and Adams frontages.**
 - **Bikes: Public bike parking will be added on the Haynes and Adams frontages, in addition to the 96 spaces accommodated on site.**
 - **Transit: The building is in a highly serviced transit area, with close access to existing SMART routes already operating on Woodward Ave. and Adams Rd.**
 - **ADA: The building will be designed to accommodate all current ADA requirements, some of which are noted above. If the City wishes to have designated ADA reserved parking spaces on either Haynes or Worth St., the plan can be revised to accommodate this.**
 - **Vehicles and Trucks: The building is being designed to serve almost all parking demand generated on site. In addition, vehicle entrance and**

loading areas have been kept to one short frontage on Worth St. so as to reduce impact on available parking and reduce sidewalk crossings with vehicles.

- **ROWE will be available to explore further potential improvements with the City and their consultant.**

12. Review potential alleyway enhancements for multi-modal traffic operations and safety.

- **The current condition, use, and one-way nature of the alley has been maintained in the design. ROWE and the developer do not recommend designing the alley as an area to encourage the addition of multi-modal traffic. Given the use of this area and the existing adjacent building, the alley is meant to be a service access primarily to the adjacent site. Note that the new building has been designed to discourage vehicle use of the alley, but it will continue to be used by the adjacent building's traffic.**

13. The non-motorized routing should consider not only the existing facilities, but also desire lines.

- **ROWE believes that the building is designed to accommodate multi-modal trips in all possible directions, with the exception of the southeast corner. The existing design of the Adams Rd./Holland Ave./Alley intersection is inherently dangerous, and it is not recommended that any pedestrian desire line crossing of Adams Rd. be encouraged in this area.**

14. Provide additional information regarding the anticipated parking occupancy throughout the day and if shared parking may be considered for this site. Additionally, provide a parking summary this includes how on-street parking (metered, un-metered) was factored into commercial and visitor parking needs.

- **The developer has designed the parking to meet the need of the residents and employees of the building. There is no opportunity for shared parking with other users. The retail component requires 17 parking spaces per the ordinance. The site provides 15 of those on the street in front of the building. The developer will provide at least 2 dedicated spaces in the structure for employees of the commercial space.**

15. The "Transportation Impact Study" spreadsheet was attached to the review letter.

- **ROWE is in the process of reviewing this spreadsheet. ROWE will work with the City's consultant to confirm that any outstanding items are addressed.**



MKSK

Planning
Urban Design
Landscape Architecture

January 25, 2022

VIA EMAIL ndupuis@bhamgov.org

Mr. Nicholas Dupuis
Planning Director
City of Birmingham
151 Martin Street, P.O. Box 3001
Birmingham, MI 48012

**RE: Adams/Haynes Development
770 S. Adams and 1000 Haynes, Birmingham, MI
Transportation Impact Study Review**

Dear Mr. Dupuis:

Fleis & VandenBrink (F&V) and MKSK have completed our review of the Traffic Impact Study prepared by Rowe PSC, dated December 23, 2021. The scope of work for this study should follow the City's Transportation Impact Study guidelines. Based on our review of the TIS, the study should be revised to reflect the comments noted on the attached Transportation Impact Study Guidelines. Key items are summarized below and the guidelines and corresponding review comments are attached

1. The focus of the study is transportation impacts and should be titled accordingly.
2. Review the proposed land uses and applicable trip generation. Include daily person trip generation information.
3. Provide support for internal capture and pass-by trip reductions to validate the percentages used in the analysis. The ITE rates should be used in context with the adjacent neighborhood characteristics.
4. Background growth and COVID adjustments should be revised to more accurately reflect traffic volumes in the vicinity of the project.
5. The proposed development is located in a highly walkable zone, convenient to the downtown, Triangle district and neighborhoods. The person trip calculations used are not representative of the Adams Road corridor and should be revised accordingly.
6. Include the adjacent signalized intersections (Lincoln and Bowers) along the Adams Road corridor to consider vehicle platooning and queueing impacts. Provide confirmation that the simulations of existing conditions and vehicle queues are consistent with field observations.
7. Review the existing truck traffic volumes and operations on Worth Street and impacts to vehicle and pedestrian traffic.
8. The proposed loading area truck dock utilizes the travel lane along Worth Street, blocking both the roadway and the sidewalk. Review the design to accommodate the truck within the site.
9. Provide an evaluation of the sight distance at the parking structure access drive to ensure vehicles have visibility from the adjacent alley.
10. Provide a pedestrian and bicycle circulation plan for the parking structure to ingress/egress to the adjacent pedestrian and bicycle facilities.
11. Provide mitigation measures and recommendations to improve the projected operations with the addition of the proposed development. Recommendations should include accommodations for all multi-modal (ped, bike, transit, ADA, vehicles, trucks, etc.) users of this site. For example, there are 96 spaces for bicycle storage for residents, however there is no bike racks for employees or visitors. Additional bike racks should

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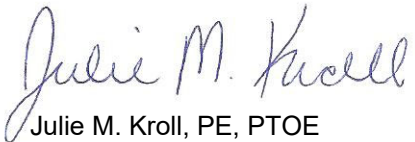
be located adjacent to the building on all blocks, except the alley, near the building entrances and convenient to the commercial.

12. Review potential alleyway enhancements for multi-modal traffic operations and safety.
13. The non-motorized routing should consider not only the existing facilities, but also desire lines.
14. Provide additional information regarding the anticipated parking occupancy throughout the day and if shared parking may be considered for this site. Additionally, provide a parking summary this includes how on-street parking (metered, un-metered) was factored into commercial and visitor parking needs.

We hope that this report addresses the City's needs regarding this project. If you have any questions, please do not hesitate to contact us at your convenience.

Sincerely,

FLEIS & VANDENBRINK ENGINEERING, INC.



Julie M. Kroll, PE, PTOE
Traffic Engineering Services Manager

MKSK



Brad Strader, AICP, PTP
Principal, Transportation Planning Studio Leader

Attachment:

Transportation Impact Study Guidelines-TIS Review

Transportation Impact Study**Engineer: Rowe PSC****Study Date: 12/23/21****Reviewed by: Fleis & VandenBrink and MKSK****Date: 1/25/2022**

STUDY AREA: A description and map(s) of the study area including, but not limited to	Complete	Comments
1. Surrounding land uses	No	This was not included in the narrative of the study.
2. Intersection geometries (Lane configuration, traffic control and signal timing, etc.)	No	Intersection geometries not shown. Alleys shown as one-way, however only a small section of the alleyway adjacent to the project site is designated as one-way. The operations of the alleyways should be reviewed and shown correctly.
3. Roadway geometries (Functional classifications, cross-sections, jurisdictions, posted speed limits, on-street parking, grades, percentage of heavy trucks, etc.)	No	Data missing
4. Developments under construction, approved or anticipated in the area that may influence background conditions	No	No discussion was provided. Confirm with the City regarding adjacent development to include.
5. Planned and committed roadway improvements in the vicinity	No	No discussion was provided. Confirm with the City regarding programmed roadway improvements.
6. Existing traffic volume data (general ADT from recent counts, SEMCOG, etc.)	No	Data missing
7. Acknowledge review of the City's Master Plan, Subarea Plan, and Multi-Modal Transportation Plan, and describe or illustrate any specific recommendations in the Study Area from those Plans.	No	No discussion was provided.
8. Study area map(s) with site location, study intersections, and area evaluated for pedestrian, bicycle and transit) Note: The Study Area, especially intersections selected for data collection and analysis, should be confirmed with the City's Traffic Engineer and Transportation Planner before data is collected.	No	The Figure 2 does not depict areas evaluated for multi-modal facilities. Figure 7 does not show the site location. The signalized intersections on Adams at Lincoln and Bowers should be included in the evaluation to consider the impacts of vehicle queueing and vehicle platoons.
PROPOSED USE(S): A description of the current and proposed land use(s), including characteristics such as:	Complete	Comments
1. Type of development, with associated ITE land use categories	No	There is a free standing ATM shown off the alley adjacent to the building. Trip generation for this use was not included in the analysis and it is anticipate that vehicles generated by this use will impact the alley. The retail use shown is a very different type of design and the "Strip Retail" described in the ITE manual for Land Use code 822. Code 822 is for a typical suburban strip mall, not a mixed use in an urban setting. Additional information needed regarding what type of retail land use would be considered for this space. The Triangle District Plan should be reviewed as the official policy/design guidance for development which will impact the ITE Land Use code used.
2. Development size (Number of dwelling units, gross and usable floor area, etc.)	Yes	
3. Development characteristics that influence travel (Number of employees, expected hours of operation, shift change factors, work from home or other programs that may influence person travel trips)	No	No discussion was provided regarding the work from home options and potential impact of retail use for internal capture.
4. Proposed build-out year (Include any phasing or future expansion)	Yes	Opening day 2025, no phasing indicated.
EXISTING CONDITIONS: A description of existing transportation conditions, including:	Complete	Comments
1. Existing traffic, pedestrian and bicycle counts including existing peak-hour turning movement counts at the study intersections and site access point(s).	No	Only vehicle information is provided, ped and bike data is missing.
2. Traffic count data shall not be over two years old, unless the City permits counts up to three years old to be increased by a factor supported by documentation.	No.	New counts were performed in 2021. COVID adjustment factors used in the analysis were not reviewed/approved for use in the study. The baseline existing traffic volumes will need to be revised.
3. Traffic and non-motorized counts shall be taken on a Tuesday, Wednesday, or Thursday of non-holiday weeks, while school is in session. Additional counts (i.e. on a Saturday for a proposed commercial development) may also be required in some cases. The individual or firm, shall obtain counts during average or higher than average volume conditions (i.e. regarding weather or seasonal variations and in consideration of any construction or special events) for the area under study.	Yes	New counts were performed in 2021.
4. Calculate the existing vehicle delays, LOS, and vehicle queues for all movements at signalized intersections and for all critical movements at unsignalized intersections at during the AM and PM peak hours of the streets, unless indicated otherwise. Intersection analysis shall include LOS determination for all approaches and movements, based on the procedures outlined in the most recent edition of the Highway Capacity Manual (HCM).	No	Provide LOS and delay by movement for each intersection. Include adjacent signalized intersections to consider vehicle platooning and queuing from upstream and downstream signals. Include Synchro models with future submittals
5. Traffic crash data and analysis covering the most recent three (3) years for the study area or proximity to site access points is required for a TIS and MAY be required by the City for a TIA, particularly for sites along roadways identified by SEMCOG or the City as Critical or Congested Corridors or High Crash locations. (see safety section below)	No	Crash analysis provided, however crashes should be summarized by intersection and segment. If there are any mitigation measures to improve safety they should be identified.

Transportation Impact Study**Engineer: Rowe PSC****Study Date: 12/23/21****Reviewed by: Fleis & VandenBrink and MKSK****Date: 1/25/2022**

BACKGROUND TRAFFIC ASSUMPTIONS: A description of the background traffic growth (traffic	Complete	Comments
1. For any project with an opening date beyond one year from the date the transportation study was prepared, the analysis should include a scenario analyzing forecasted traffic at the expected date of completion (i.e. existing + forecasted change + project traffic).	Yes	Background analysis was performed. Opening day identified as 2025.
2. Existing traffic volumes should be forecasted for the future through use of historic count trends and/or use of the future traffic projected by SEMCOG + traffic associated with approved and/or proposed developments in the vicinity of the study area that have yet to be constructed, are currently under construction or are not yet fully occupied (data from traffic studies for those projects may be available from the City for this calculation).	No	Not explicitly stated in the analysis, however it appears that a 0.5% annual growth rate was applied to the baseline 2021 existing traffic volumes. Further data should be considered from SEMCOG or MDOT Regional planning regarding projected background growth on the study roadways.
3. Include in the baseline background condition, any transportation improvement projects in the study area that will be completed or underway by the build-out year.	n/a	
4. Calculate the background (without the proposed development) vehicle delays, LOS, and vehicle queues for all movements at signalized intersections and for all critical movements at unsignalized intersections at during the AM and PM, unless indicated otherwise. Intersection analysis shall include LOS determination for all approaches and movements, based on the procedures outlined in the most recent edition of the HCM.	No	Provide LOS and delay by movement for each intersection. Include adjacent signalized intersections to consider vehicle platooning and queuing from upstream and downstream signals. Include Synchro models with future submittals
5. If one or more movements experiences a LOS "E" or worse in the downtown, or "D" or worse outside of the downtown, a description shall be provided and potential mitigation measures need to be evaluated.	No	Poor LOS identified at Haynes & Adams, however the study needs to consider impacts from Adams and Lincoln intersection and operations with revised background traffic volumes.

PERSON TRIP GENERATION: A description of the person trip generation, including:	Complete	Comments
1. Forecast of the number of peak hour (AM and PM, if applicable) and daily person trips that would be generated by the proposed development based on data published by the most recent edition of the Institute of Transportation Engineers (ITE) in Trip Generation and/or local development data as approved for use in the study by the City.	No	Daily person trips not provided.
2. Provide a comprehensive analysis of site-generated trips, based on the available transportation modes (i.e. private vehicle, semi-truck, pedestrian, bicycle, bike share, e-bike, e-scooter, SMART transit, private shuttles, ride hailing, and any other ways people or goods may be transported to the site.)	No	The modal splits used for this site do not reflect the context of the Adams Road corridor.
3. A table that describes the land use, ITE code number, development size/number of units, daily trips, and peak hour trips in and out.	Yes	
4. Any trip reduction for pass-by trips, internal capture rates, transit, ridesharing, other modes, etc. shall be based on ITE methodologies in the Trip Generation Handbook.	No	Review the pass by rates for the proposed retail use and provide additional supporting data regarding the internal trip reduction based upon the anticipated land use(s).
5. For a rezoning, a comparison of the rates associated with the range of uses permitted in the current zoning district compared to the range of uses permitted in the requested district.	N/A	
6. For projects intended to be developed in phases, trip generation by phase shall be described and provided in a table format.	No	It is not clear from the TIS if this development will be completed in phases.

Note: Person trip generation rates and reduction factors should be confirmed with the City's Traffic Engineer and Transportation Planner before analysis

The trip generation calculations and assumptions used in the study were NOT provided for review.

TRIP DISTRIBUTION: A description of the trip distribution (expected trip routing), including:	Complete	Comments
1. Illustrations of where traffic generated is expected to be distributed onto the existing street network. The basis shall be explained (counts, observations, gravity model, market study)	No	The trip distributions used in the analysis were not approved for use in the study. The majority of traffic generated (>80%) by the proposed development was sent to/from Woodward Ave. The adjacent roadway network should be considered when determining the trip distributions.
2. Illustrations of project turning movements at site access point(s) and nearby intersections, where required.	Yes	
3. For pedestrian, bicycle and transit trips, a map that illustrates expected volumes and the travel patterns related to nearby pedestrian crossings, bike share/parking, bus stops.	No	No discussion, map or volume data was provided.

PROJECTED CONDITIONS - TRAFFIC: A description of the future transportation conditions, including:	Complete	Comments
1. Calculate the future (existing + background + development) vehicle delays, LOS, and vehicle queues for all movements at signalized intersections and for all critical movements at unsignalized intersections during the AM and PM, unless indicated otherwise.	Yes	
2. Intersection analysis shall include LOS determination for all approaches and movements, based on the procedures outlined in the most recent edition of the HCM.	No	Provide LOS and delay by movement for each intersection. Include adjacent signalized intersections to consider vehicle platooning and queuing from upstream and downstream signals. Include Synchro models with future submittals
3. If one or more movements experiences a LOS "E" or worse in the downtown, or "D" or worse outside the downtown, potential mitigation measures shall be evaluated.(see mitigation section below)	No	Poor LOS identified at Haynes & Adams, however the study needs to consider impacts from Adams and Lincoln intersection and operations with revised background traffic volumes.

Transportation Impact Study**Engineer: Rowe PSC****Study Date: 12/23/21****Reviewed by: Fleis & VandenBrink and MKSK****Date: 1/25/2022**

NON-MOTORIZED AND TRANSIT: A description of multi-modal transportation, including:	Complete	Comments
1. Describe the existing + projected volumes of pedestrian and bicyclists.	No	No discussion provided.
2. Provide a map that illustrates anticipated pedestrian and bicycle travel to and from the site including sidewalks, crosswalks or expected crossing locations, bike lanes, bicycle parking, and the closest SMART bus stops.	No	Figure 7 is missing existing and proposed sidewalk, SMART Bus Route 445 runs limiting service on Adams.
3. Illustrations on a site plan of the anticipated on-site routing of pedestrians and bicyclists, including those in any parking lot or structure.	No	The site plan shows storage for 96 bikes, however a pedestrian path and on-site routing for pedestrians is not shown or discussed.
4. An evaluation of the anticipated routes used by pedestrians and bicyclists to/from and within the site. This should include an evaluation of the pedestrian signal timing.	No	The study indicates that pedestrians will utilize the existing pedestrian facilities and crosswalks, however there is no discussion regarding pedestrian desire lines and pedestrians crossing mid-block. The study states "it is not recommended to route pedestrians through an Alley, when other options are available nearby (page 11)" However, additional design considerations for the alley should be evaluated for shared use as pedestrians and cyclists frequent the alleyways in Birmingham.

ACCESS MANAGEMENT. A description of the access design/access design and a demonstration that	Complete	Comments
a. Illustration of the site plan with the location and design of the proposed access point(s).	No	Site plan used in the study was not attached to TIS.
b. Data to demonstrate the number of driveways proposed is the fewest necessary to provide reasonable access.	Yes	
c. Notation of any sight distance limitations and, if applicable, changes to meet standards (sight distance to/from vehicles, and for pedestrians and bicyclists).	No	No discussion provided.
d. Dimensions from adjacent driveways and intersections on either side of the street in the vicinity of the proposed driveway(s), with analysis to demonstrate that there will not be conflicts such as left-turn lock-ups with opposing access points.	No	Not provided
e. Dimensions from signalized intersections and analysis that the access points will not interfere with the functional operating area (i.e. the area within which vehicles commonly queue).	No	Not provided
f. Evaluation of the need for any changes to streets or access to improve safety and travel for vehicles, pedestrians, and bicyclists (driveway radii, widths, turn lanes, tapers, etc).	Yes	Recommendations included upgrading ADA facilities and sidewalks that will be used by residents and visitors of the site.

SAFETY: A safety analysis is required to evaluate the existing safety and the impact of additional site	Complete	Comments
1. A safety analysis shall be performed at the study intersections and site driveway locations.	No	Crash analysis provided, however crashes should be summarized by intersection and segment. If there are any mitigation measures to improve safety they should be identified.
2. The safety analysis shall include an evaluation of all crashes that have occurred within the past five (5) years of available data. Those that involved a pedestrian or bicyclists should be highlighted.	Yes	
3. Crashes shall be evaluated in accordance with the most recent version of the SEMCOG Crash Analysis Process as outlined in the SEMCOG Traffic Safety Manual (or analysis using the procedures in the Highway Safety Manual for FHWA STEM guidelines if endorsed by the City Traffic Engineer as appropriate for the location).	No	The crash analyses did not utilize the correct crash analysis tables. Separate crash rates are provided for intersections and segments, both with and without signalization. This analysis should be revised accordingly.
4. The intersection crash summary shall be compared for each intersection to determine the if the intersections are high-crash locations as compared to similar intersections by type and location and identify any significant crash patterns.	No	Crashes to be summarized by intersection and segment crashes
5. Provide a summary of generally related causes and potential countermeasures for crash patterns, including specific countermeasures to address pedestrian and bicycle safety.	No	Not provided

Transportation Impact Study**Engineer: Rowe PSC****Study Date: 12/23/21****Reviewed by: Fleis & VandenBrink and MKSK****Date: 1/25/2022**

PARKING AND CIRCULATION: A description of parking and on-site circulation including	Complete	Comments
1. Review of the parking requirements in the Zoning Ordinance, where applicable.	No	Not provided
2. Describe the anticipated parking demand of the proposed development.	No	Not provided
3. Describe the locations of bicycle and micromobility parking proposed to be installed as part of this project, and explain how the locations were selected.	No	Additional recommendations for bike accommodations should be included in the TIS. There are 96 spaces for bicycle storage for residents, however there is no bike racks for employees or visitors. Additional bike racks should be located adjacent to the building on all blocks, except the alley, near the building entrances and convenient to the commercial.
4. Proposed program to accommodate parking demand. This may include a description of on- site parking, shared parking (agreements required) or use of city parking structures/lots (for those within the parking assessment area).	No	The study indicates that there will be 236 parking spaces, with 172 reserved for residential and 64 spaces reserved for building staff and/ retail parking. Additional information regarding the existing and proposed parking for this site (on-street and off-street) should be provided, including any changes in parking.
5. If public parking facilities are expected to be utilized for all or some of the parking demand, an acknowledgement by the Developer of the current availability should be provided.	No	Additional information required.
6. Describe any parking features related to sustainability such as underground parking, parking lot canopy trees, Electric Vehicle Charging Stations, car-share, bicycle parking etc.	No	Additional information required regarding the proposed parking sustainable features.
7. Circulation for vehicles that will commonly operate on the site shall be illustrated with appropriate turning radii (delivery vehicles, semi-trucks, access to waste receptables, etc.)	No	Not provided
8. There must be sufficient on-site storage to accommodate at least three (3) queued vehicles waiting to park or exit without using a portion of the public right-of-way obstructing exiting vehicle sight distance, or otherwise interfering with street traffic.	No	Additional information required.
9. For uses with a drive-through, an analysis shall be provided that the on-site queuing area is sufficient to accommodate peak conditions without causing back-up onto public streets. The City may require a special study of similar uses and site sizes from other locations in Michigan.	No	Drive-up ATM proposed in the adjacent alley. Additional information required regarding the projected operations and the potential vehicle queues and impacts to the one-way alley.

Transportation Impact Study**Engineer: Rowe PSC****Study Date: 12/23/21****Reviewed by: Fleis & VandenBrink and MKSK****Date: 1/25/2022**

MITIGATION: A description of measures/alternatives to mitigate the development's transportation impact for the categories below. The timing or phasing of improvements, and how those improvements will be accomplished, shall be described.	Complete	Comments
Non-Motorized: Describe any design changes that could improve the Quality of Service (travel convenience and safety) for pedestrians and bicyclists (both in the study area and on-site). Examples include: additional or improve crosswalks, pedestrian signals/signs, bump-outs, streetscape enhancements. Describe the timing or phasing of vehicle and non-motorized improvements, and how those improvements will be accomplished	No	Recommendations included upgrading ADA facilities and sidewalks that will be used by residents and visitors of the site. The City's Master Plan, Subarea Plan, and Multi-Modal Transportation Plan should be referenced for recommendations on potential improvements.
Transit: For site along a SMART route, or within ¼ mile of a bus stop, describe any proposed transit enhancements, such as the installation of a bench or a bus shelter. Documentation of communications with SMART regarding bus stop relocations or any amenities to make transit more convenient shall be provided.	No	Provide discussion regarding the pedestrian routes to the bus stops and the location of the FAST bus stops along Woodward Ave. Any gaps in the sidewalk system that access the transit should be identified.
Transportation Demand Management: Describe design features and programs that the developer or Owner has considered or will employ to reduce vehicular travel, such as: on-site amenities, employee health programs, convenient and covered bicycle parking, shared vehicle service with priority parking, micro-transit to remote parking areas, free or subsidized bike share programs, financial incentives (e.g. transit passes, separate charges for any on-site parking, etc.)	No	Additional information required.
Traffic: Outline of proposed mitigation measures necessary to accommodate the existing, background, and/or future conditions, for the study street network required (if needed) to accommodate the site-generated traffic volumes at a LOS E or better for all movements in the downtown and D or better outside of the downtown. If the street is under jurisdiction of MDOT or the Road Commission for Oakland County, the applicant shall document those agencies endorse the change. A list of example mitigation measures is provided below. The designers are encourage to explore other options as well. The City may require a description of alternatives considered and an explanation of those selected. 1. Street Improvements: Construct additional lanes, add turn lanes, improve sight distance 2. Median Changes: Modify, relocate or close median crossovers, alter traffic signals 3. Operational Improvements: Changes to signalization, improve pedestrian phases Note: For study intersections located along coordinated signal corridors, optimizing traffic signals will not be considered an acceptable recommendation to mitigate site-generated traffic Unless proposed signal timing changes reduce delays for the network not just traffic associated with the development Note: If a traffic signal is recommended at any of the study intersections or site access point(s), a signal warrant analysis shall be included in the study and follow the guidelines provided in the Michigan Manual on Uniform Traffic Control Devices (MMUTCD). The signal warrant analysis shall include an evaluation of Warrant 1: Eight-Hour Volumes, Warrant 2: Four-Hour Volumes, and Warrant 3: Peak-Hour Volumes. 4. Access Management: Close or consolidate access points, relocate access to reduce conflicts, change driveway design to improve crossings for pedestrians and bicyclists, provide access onto a lower volume street (when appropriate) 5. Site Plan/Land Use Techniques: Reduce project intensity, alter site design, on-site traffic calming, move drive-through or increase queuing area	No	No mitigation measures were recommended to accommodate this development. This should be reevaluated with the comments included herein.

Complete CIS Document

Community Impact Study

PERENNIAL

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

PERENNIAL

Birmingham, Michigan

Development Team

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Contact: John B. Thompson

Acoustical Engineer:

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3559 Sashabaw Road
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Contact: Darren Brown

Environmental Consultant

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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

Table of Contents

Section 1 Combined CIS & Site Plan Review Application

Section 2 CIS Checklist

Section 3 CIS Checklist Supplemental Information

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 Abbreviated Phase 1 Environmental Site Assessment

4.7 Geotechnical Investigation

4.8 Air Quality Report

4.9 Proposed Security System

4.10 LEED Project Checklist

4.11 Site Photographs

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.: 18

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.



COMMUNITY IMPACT STUDY CHECKLIST PLANNING DIVISION

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

All Community Impact Studies prepared for approval must contain the following information:

General Information

- ☒ 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. Details of all proposed site plan changes;

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;
- ☒ 10. Goals and objectives of the city's Master Plans that demonstrate the City's support of the proposed development;
- ☒ 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;
- ☒ 12. The current zoning classification of the subject property;
- ☒ 13. The zoning classification required for the proposed development;
- ☒ 14. The existing land uses adjacent to the proposed project;
- ☒ 15. Complete the attached "Zoning Requirements Analysis" chart;

Land Development Issues

- ☒ 16. A Survey and Site Drainage Plan;
- ☒ 17. Identify any sensitive soils on site that will require stabilization or alteration in order to support the proposed development;
- ☒ 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;

- ☒ 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 26125C0537F, 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 TREASURER'S 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. 115, 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.]

REVENUE TO BE AFFIXED
AFTER RECORDING

OK - MH

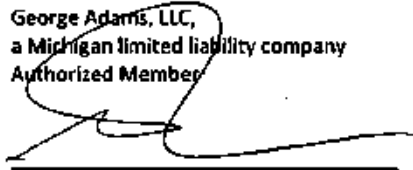
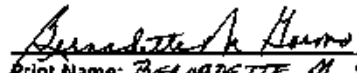
RECEIVED
OAKLAND COUNTY
REGISTER OF DEEDS

2021 JUN -3 PM 12:41

3P
1-Cont
LNU

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. GARNO
NOTARY PUBLIC, STATE OF MI
COUNTY OF OAKLAND
MY COMMISSION EXPIRES JUN 30, 2024
ACTING IN COUNTY OF OAKLAND
Print Name: BERNADETTE M. GARNO
Notary Public, OAKLAND County, MICHIGAN
Acting in the County of OAKLAND
My commission expires: 6/30/2024

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 48207Recording Fee: \$ _____
Transfer Taxes: Real Estate Transfer Tax Valuation Affidavit filed~~1-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:

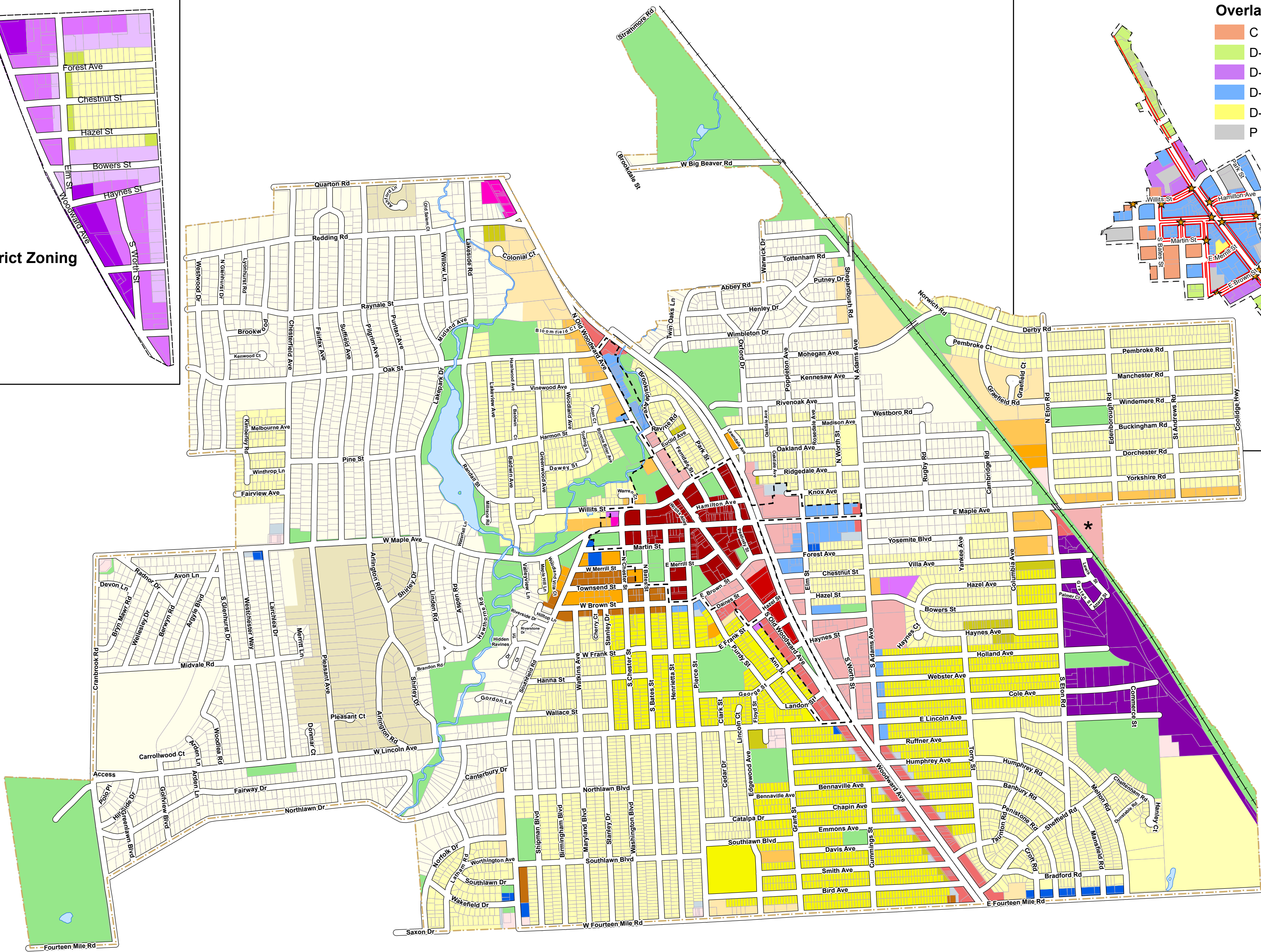
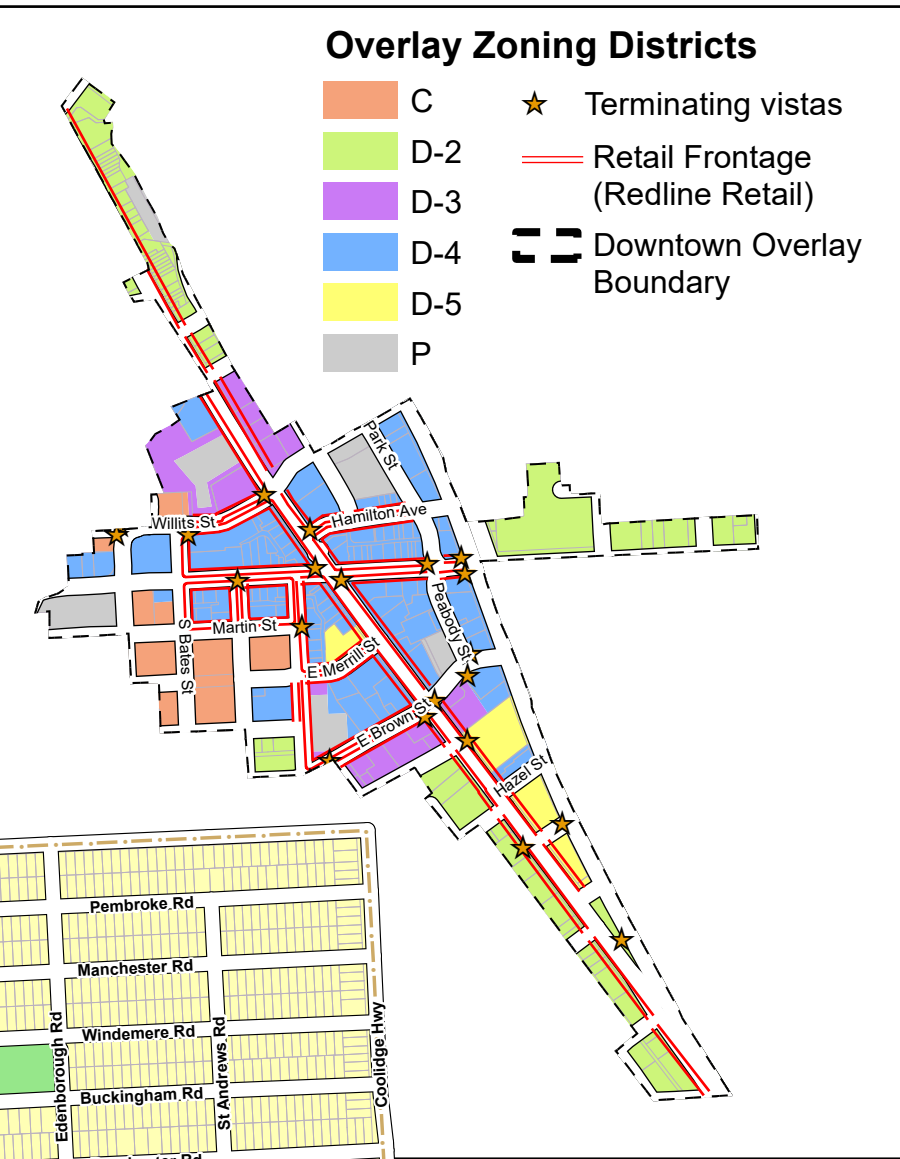
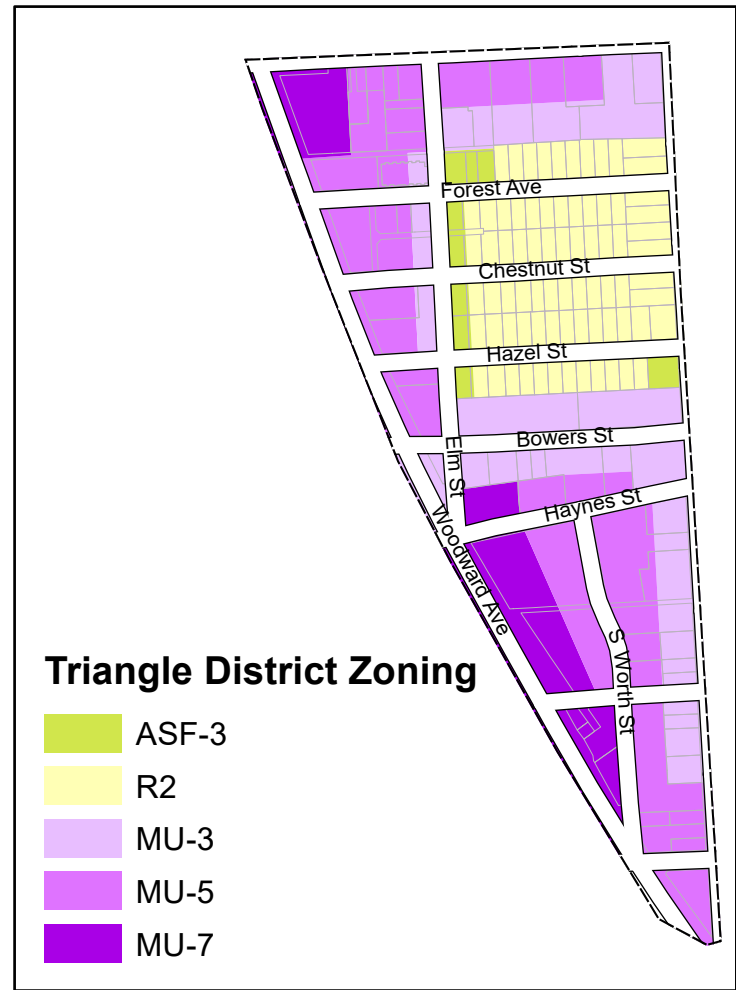
FHS Birmingham L.L.C.
c/o Nico Schultz, Sr., VP, Real Estate
Soave Enterprises LLC
3400 East Lafayette
Detroit, MI 48207

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

Recording Fee:

Revenue Stamps:

4.2 Maps



1,500 750 0 1,500 Feet

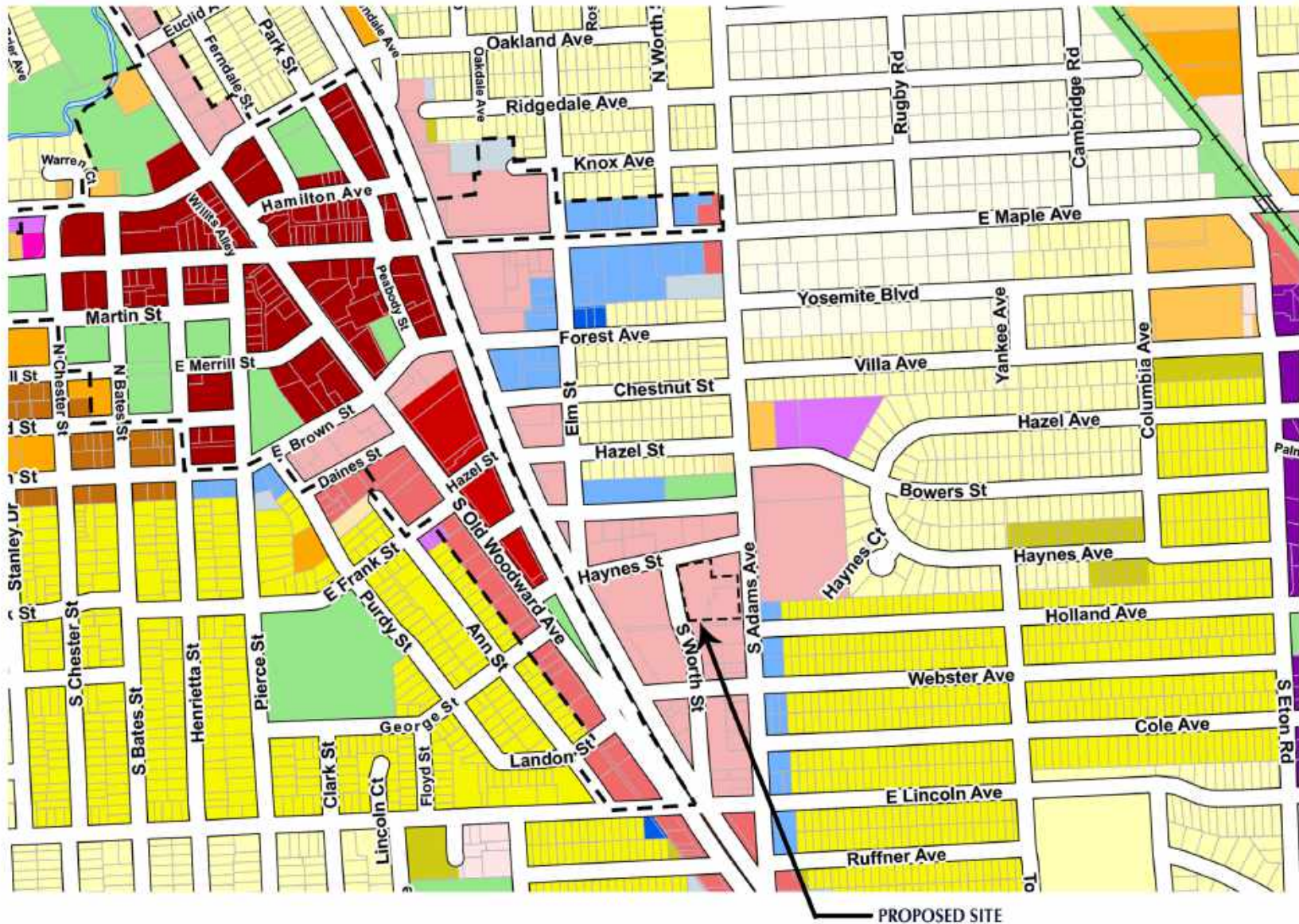
Coordinate System: State Plane Coordinate System Michigan South Zone 2113 Projection: Lambert Conformal
 Conic, Units: International Feet, Datum: NAD83
 Data Sources: Oakland County GIS Utility, City of Birmingham
 Updated: February 17, 2017



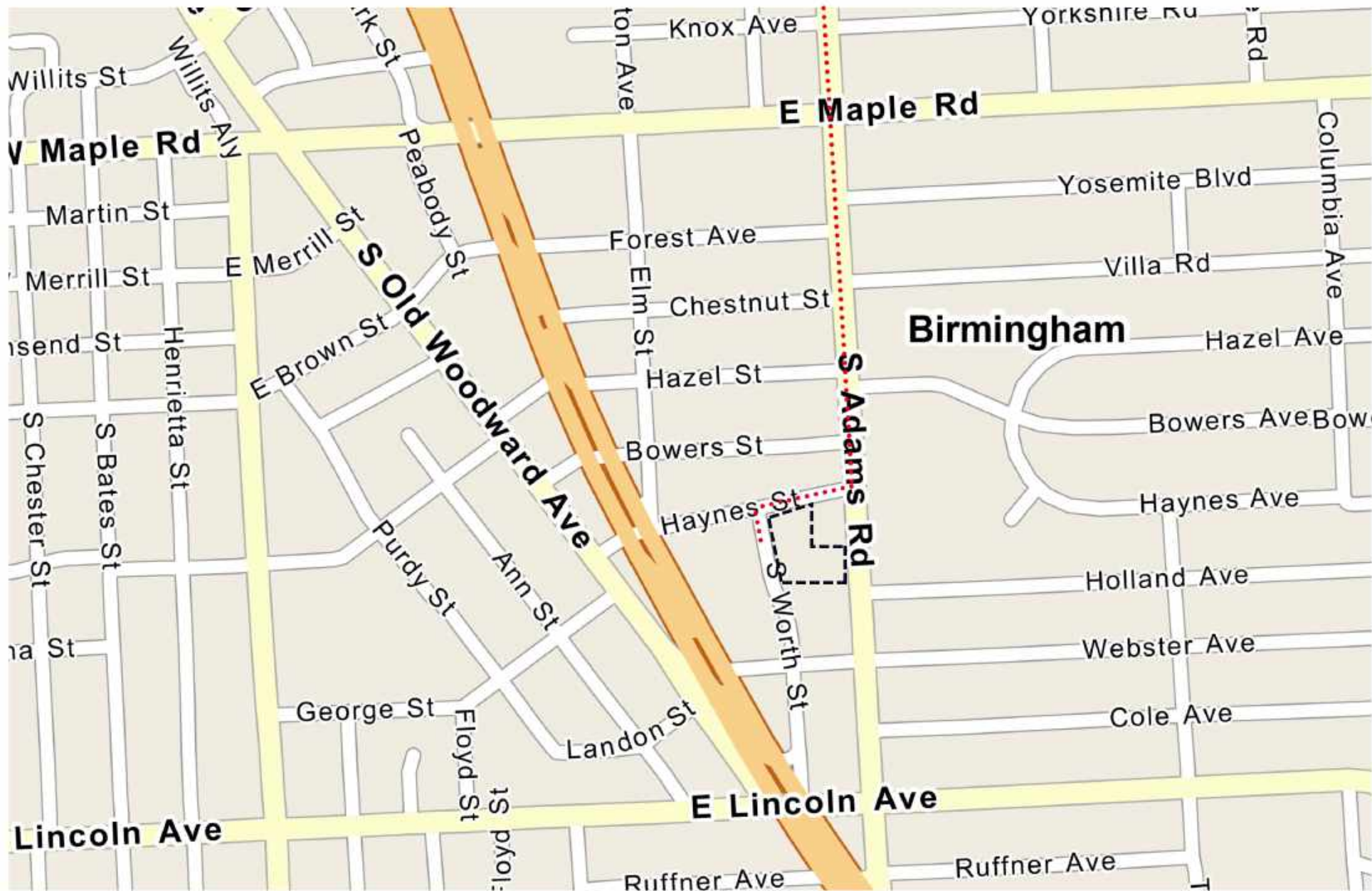
City Of Birmingham Zoning Map

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



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

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**

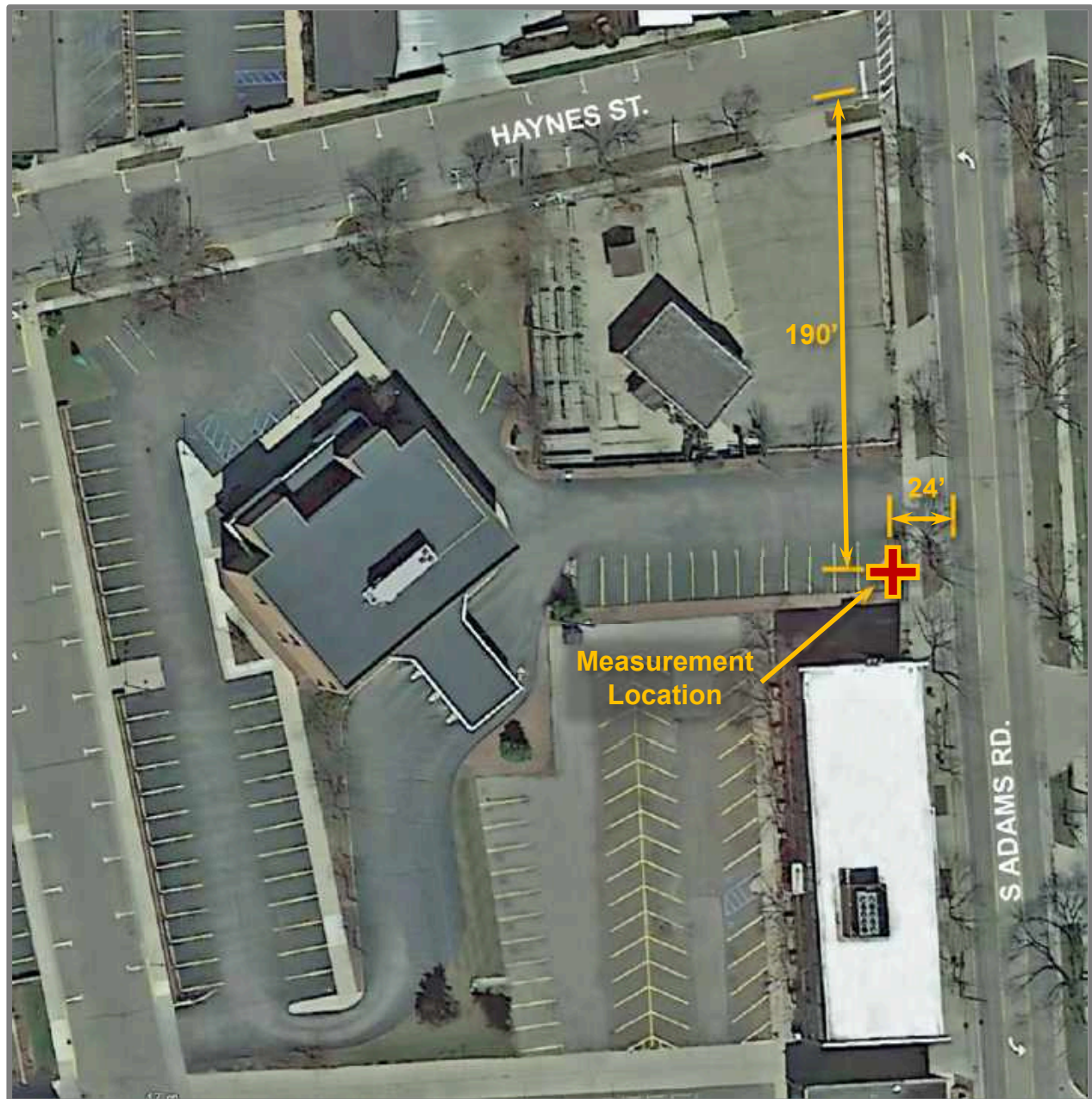
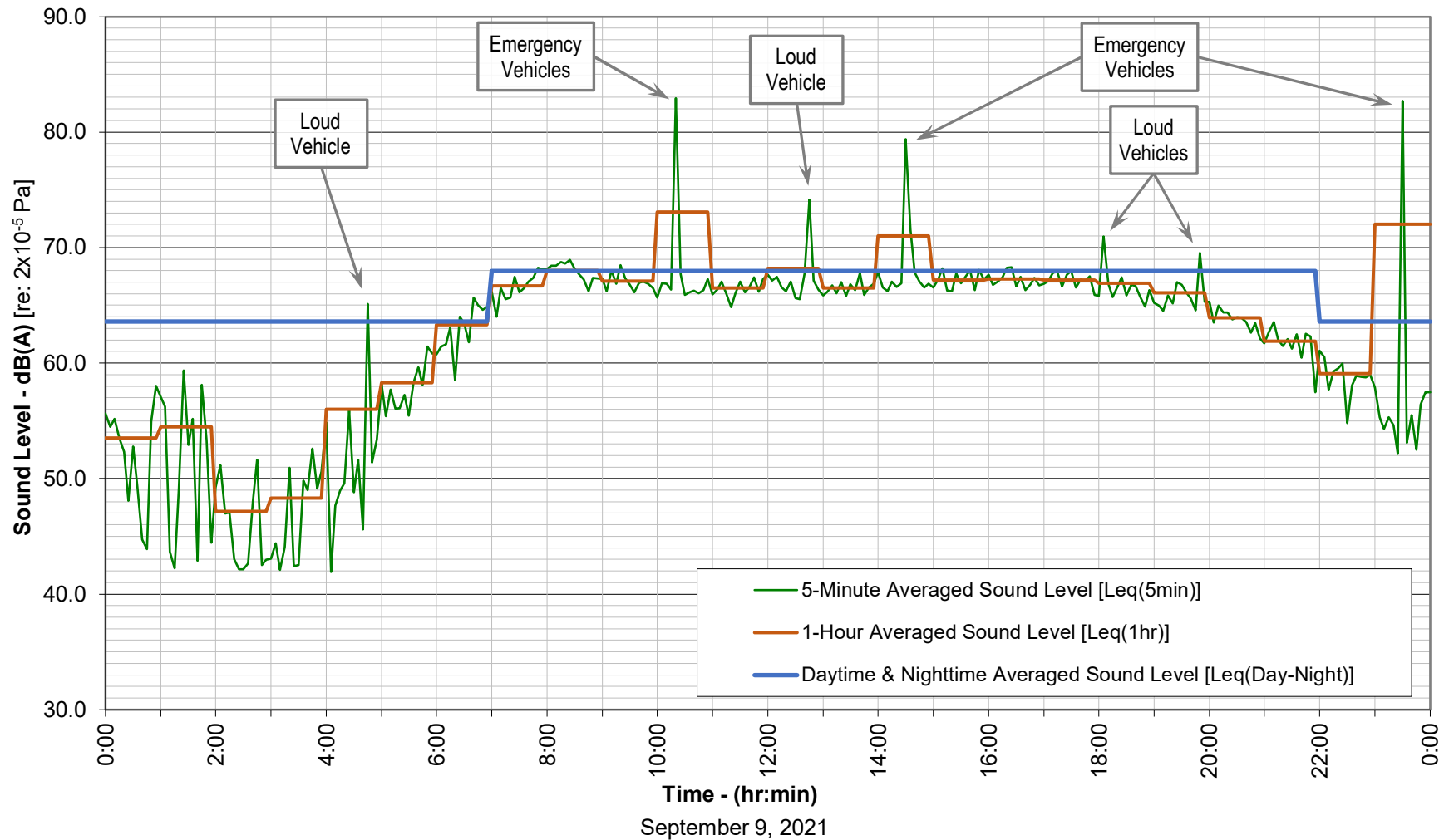


EXHIBIT 2

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 Hailey Savola
Date: March 9, 2022
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 4,035 square feet (SF) of retail and 157 dwelling units (DU) 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 consultants.

TRAFFIC IMPACT STUDY

Study Area

The subject property is currently occupied by a 20,574 SF office building (770 S. Adams Rd.) and a 6,700 SF two-story office building that contains a bank with two drive-through teller windows and a drive-through ATM station. The property is currently zoned B-2 (General Business). All of the surrounding properties are also zoned B-2, with the exception of the property at the northeast corner of Adams Road and Holland Street, which is zoned O-2. The property also is in an overlay zoning district in accordance with the Triangle District Master Plan, wherein the section closest to Adams Road is zoned MU-3, and the section closest to Worth Street is zoned MU-5.

Existing Conditions

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

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	-

¹SEMCOC TCDS

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Flint, MI (HQ) | Lapeer, MI | Farmington Hills, MI | Kentwood, MI | Mt. Pleasant, MI | Grayling, MI | Myrtle Beach, SC | www.rowepsc.com

The subject property has frontage on three streets and one public alley. Adams Road is a three-lane principal arterial serving the region. Traffic flow on S. Adams Road adjacent to the proposed site is controlled by signals at Bowers Street and E. Lincoln Street. The roadways on the north (Haynes Street) and west (Worth Street) sides of the property are two-lane local streets with on-street parking available on both sides. Both of the studied intersections on Haynes Street are T-intersections with STOP control on the non-through street only. All streets in the vicinity of the proposed project operate at 25 mph and are under the jurisdiction of the City of Birmingham. Grades are mild in the immediate area and do not introduce any traffic concerns.

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

Master Plan Review

The subject property is contained within the area known as the Triangle District. The Master Plan for this area was prepared in 2007. The building has been designed to take advantage of the overlay zoning that calls for mixed uses. The Triangle District Master Plan calls for the creation of a park on Worth Street that would take a significant portion of the west side of the subject parcel. The city has not actively pursued acquiring the property that would be needed to create this park as proposed in the Master Plan. Reducing the size of the studied parcel to the extent required to create this park would drastically alter the size and scope of the proposed development and make the proposal infeasible. However, the applicant is in support of a Worth Park of reduced size using the land that is currently available for this purpose and has designed the proposed building to help activate this corridor if and when the city chooses to pursue the construction of this park, which may or may not include minor realignment of Worth Street. The addition of the park would not change the conclusions of this study.

The Triangle District Master Plan also encourages a pedestrian oriented streetscape environment where activity on the street is encouraged. The proposed development has been designed with these goals in mind, with the use of wide sidewalks that will have the city's standard exposed aggregate design element, street trees, adjacent on-street parking, and public bicycle parking in the right-of-way.

A review of the city's Multi-Modal Transportation Plan was also conducted. The plan calls for the installation of shared use pavement markings on the adjacent segment of Adams Road, as well as the construction of a three-lane road with bike lanes further north (north and south of Derby St.). It is expected that once the city is prepared to make such improvements to an adjacent section of Adams Road, it will consider whether it is appropriate to install shared use lane markings on Adams Road adjacent to this site. Shared use markings are also proposed on Bowers Street as part of a planned neighborhood connector route that will encourage the use of bicycle travel from downtown to the Rail District. Such improvements should be done as part of a much larger effort that would be managed by the city.

The Multi-Modal Transportation Plan also calls for improved pedestrian crossings at each signalized intersection of the Woodward Avenue corridor, including Maple Road, Bowers Street, and Lincoln Avenue. Upgraded crosswalks using wider 8-foot ramps, as well as continental style pavement markings, were installed in 2018.

No elements of the proposed development conflict with the goals of the Multi-Modal Transportation Plan or the Triangle District Master Plan. Additional Multi-Modal information related to the proposed development can be found in the *Trip Generation* section below.

Proposed Development

The proposed mixed-use building will contain 157 DU, 4,035 SF of commercial space, and 268 parking spaces located in an on-site parking structure. The building has also dedicated significant square footage on the first floor to amenities dedicated for the use of the residents, such as a gym, dog run, and meeting rooms for home office/remote work use. The building has been designed to reflect the current trend toward working from home. Final building completion is planned for 2025 and the development will be constructed in a single phase.

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

In addition, the city and their consultants provided TMCs that were collected in 2019 at the intersections of:

- S. Adams Road and Bowers Street (East)
- S. Adams Road and Bowers Street/Shopping Center (West)
- S. Adams Road and E. Lincoln Street

Due to the impact of COVID-19, current traffic volume data may not be representative of typical operations. At the direction of the city and their consultants, the TMCs collected in 2019 were not adjusted and used in the study as-is.

Subsequently, a comparison was drawn between the 2019 counts and the counts collected in 2021. The traffic volumes collected in 2021 were adjusted proportionally to balance to the counts taken in 2019.

In addition, heavy vehicle percentages were reviewed at the studied intersections. Heavy vehicle percentages varied between 0 percent and 3 percent at the studied intersections, which is typical for urban/suburban areas. A summary of all peak hour TMCs, including heavy vehicle percentages by approach, are attached to this memorandum.

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. A single historical traffic count from 2013 was

found in the vicinity of the study area, located on S. Adams Road north of E. Lincoln Street. A comparison was completed between the 2013 count and the counts completed in 2019 at the intersection of S. Adams Road and E. Lincoln Street. The results of this analysis revealed that traffic volumes had decreased by an average of 2.13 percent and 1.60 percent in the northbound and southbound directions respectively between the hours of 7 a.m. and 6 p.m. In addition, community profiles were reviewed on the Southeast Michigan Council of Government's (SEMCOG) website. The population forecast for the City of Birmingham revealed that a small decrease in population is expected between 2020 and 2030 (21,813 to 21,732). Population forecasts for the City of Troy and Bloomfield Township were reviewed as S. Adams Road is a commonly used route between these communities and Birmingham. The analysis revealed a decrease between 2020 and 2030 (87,294 to 83,409 and 44,253 to 41,212 respectively). Based on this review and conversations with the city and their consultants, it was agreed upon that no background growth rate should be applied to this project.

No other developments were identified that are currently under construction or planned in the immediate area. Likewise, no changes to the public streets are anticipated, other than the addition of shared pavement markings on S. Adams Road and potential changes to Worth Street if the city were to construct a park, as noted in the *Master Plan Review* section above. With no background growth of existing traffic volumes and no known background developments, 2025 background models were not completed, as the results would be the same as the existing models for each peak hour.

Trip Generation

There are currently two buildings on the proposed property, a 20,574 SF office building at 770 S Adams Road and a 6,700 SF building at 1000 Haynes Street with a bank, two drive-through teller lanes, and one drive-through ATM station on the first floor and offices on the second floor. The traffic associated with these buildings will be removed from the future models and analysis. It was assumed that the office building at 770 S. Adams Road was operating at 50 percent capacity when the TMCs were collected in 2019. Additionally, it is recognized that the ITE trip generation for LUC 912 – Drive-In Bank is based on data collected in the 2000s and 2010s. This data likely does not represent the significant increase of online and mobile banking, which reduces the amount of traffic generated by a physical bank building. In order to account for this change in trip generation characteristics, it was assumed that a bank in 2022 would generate 50 percent of the traffic of a bank in the 2000s and 2010s (which the ITE trip generation is based on). 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 existing buildings. The results of the trip generation forecasts for the existing building are provided below in Table 2.

Table 2: Trip Generation for Existing Buildings

Land Use	Units	Land Use Code	AM Peak Hour			PM Peak Hour			Weekday
			In	Out	Total	In	Out	Total	
General Office Building (770 S Adams) ¹	20,574 SF	710	19	3	22	4	19	23	147
Small Office Building (1000 Haynes)	3,350 SF	712	5	1	6	2	5	7	48
Drive-In Bank (1000 Haynes) ¹	3,350 SF	912	10	7	17	17	18	35	168
Total	-	-	34	10	44	23	42	65	363
Pass-By Rates, LUC 912: 29% AM, 35% PM			3	2	5	6	6	12	-
Total New Trips			31	8	39	17	36	53	363

¹Trip generation calculations were completed using the full size of the building, which were then reduced by 50%

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. The 4,035SF of commercial space does not have a defined tenant; however, the developer has stated that a variety of uses could occupy that space including but not limited to a retail use, an office use, and a fine dining (bistro) use. Land Use Codes (LUC) 712 – Small Office Building, LUC 822 – Strip Retail Plaza (<40k), and LUC 931 – Fine Dining Restaurant were compared. The results of the trip generation analysis revealed that LUC 822 generated the greatest number of new trips (trip generation minus internal capture minus pass-by rates) out of the three LUCs that were reviewed. LUC 822 was used to provide a conservative analysis. Additionally, 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 – Multifamily Housing (Mid-Rise) 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 3.

Table 3: Trip Generation for Proposed Development

Land Use	Land Use Code	Units	AM Peak Hour			PM Peak Hour			Weekday
			In	Out	Total	In	Out	Total	
Multifamily Housing (Mid-Rise)	221	157 DU	13	44	57	38	24	62	713
Strip Retail Plaza (<40k)	822	4,035 SF	6	4	10	20	21	41	400
Total	-	-	19	48	67	58	45	103	1,113
Internal Capture Reductions: 12% PM (11% In, 14% Out)			-	-	-	7	7	14	-
Total External Trips			19	48	67	51	38	89	1,113

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 12 percent (11% in, 14% 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 67 external trips during the AM peak hour (19 inbound and 48 outbound) and 103 external trips during the PM peak hour (58 inbound and 45 outbound).

The vehicle trips in Table 3 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* and community profile data provided on SEMCOG’s website. Additionally, the city and their consultants identified that previous studies in the Triangle District revealed a minimum walking mode share of 4 percent. The vehicle mode splits and vehicle occupancy rates for the studies developed for this project are provided in Table 4 below.

Table 4 : Vehicle Occupancy and Mode Share

Land Use	Land Use Code	Mode Share					Vehicle Occupancy		
		Vehicle	Walking	Cycling	Transit	WFH ¹	AM Peak Hour	PM Peak Hour	Weekday
Multifamily (Mid-Rise)	221	0.85	0.04	0.002	0.002	0.106	1.13	1.15	1.14
Strip Retail Plaza (>40k)	822	0.94	0.04	0.01	0.01	0.00	1.17	1.21	1.19

¹Work From Home

Appendix B of the *Trip Generation Handbook, 3rd Edition* specifies weekday average vehicle occupancy rates of 1.13 (AM peak hour), 1.15 (PM peak hour), and 1.14 (Weekday) for LUC 221 vehicle-based trips, weekday average vehicle occupancy rates of 1.17 (AM peak hour), 1.21 (PM peak hour), and 1.19 (Weekday) for LUC 822 vehicle-based trips. Appendix B also specifies a *minimum* vehicle mode share of 96 percent for the LUC 822 and ATM person-trips. Therefore, it was assumed that the remaining 4 percent of person-trips were made via walking (2%), cycling (1%), and transit (1%). Finally, to increase the walking mode share to 4 percent based on data available for the Triangle District, the vehicle mode share was reduced to 94 percent. For the residential uses, 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, cycling/transit mode shares of 0.2 percent each, and a 10.6 percent work from home (WFH) mode share. The vehicle mode share was then reduced to 85 percent in order to increase the walking mode share to 4 percent. 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 5 and Table 6 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 7 and Table 8, for the LUC 221 and LUC 822, 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 9 and Table 10 for the LUC 22 and LUC 822, respectively.

Table 5: Person-Trip Generation - LUC 221 (Prior to Internal Capture Reductions)

Land Use	Land Use Code	Units	AM Peak Hour			PM Peak Hour			Weekday
			In	Out	Total	In	Out	Total	
Multifamily Housing (Mid-Rise)	221	157 DU	15	49	64	43	28	71	813

Table 6: Person-Trip Generation - LUC 882 (Prior to Internal Capture Reductions)

Land Use	Land Use Code	Units	AM Peak Hour			PM Peak Hour			Weekday
			In	Out	Total	In	Out	Total	
Strip Retail Plaza (<40k)	822	4,035 SF	7	5	12	25	25	50	476

Table 7: Person-Trip Generation - LUC 221 (After Internal Capture Reductions)

Land Use	Land Use Code	Units	AM Peak Hour			PM Peak Hour			Weekday
			In	Out	Total	In	Out	Total	
Multifamily Housing (Mid-Rise)	221	157 DU	15	49	64	38	25	63	813

Table 8: Person-Trip Generation - LUC 822 (After Internal Capture Reductions)

Land Use	Land Use Code	Units	AM Peak Hour			PM Peak Hour			Weekday
			In	Out	Total	In	Out	Total	
Strip Retail Plaza (<40k)	822	4,035 SF	7	5	12	21	20	41	476

Table 9: Person-Trip Generation by Travel Mode- LUC 221

Travel Mode	Land Use Code	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	
Vehicle	221	12	42	54	33	21	54	691
Walking	221	1	2	3	1	1	2	32
Cycling	221	0	0	0	0	0	0	2
Transit	221	0	0	0	0	0	0	2
Work From Home	221	2	5	7	4	3	7	86
Total New Person-Trips		15	49	64	38	25	63	813

Table 10: Person-Trip Generation by Travel Mode- LUC 822

Travel Mode	Land Use Code	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	
Vehicle	822	7	4	11	20	19	39	447
Walking	822	0	1	1	1	1	2	21
Cycling	822	0	0	0	0	0	0	4
Transit	822	0	0	0	0	0	0	4
Total New Person-Trips		7	5	12	21	20	41	476

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 11 shows the result of this analysis.

Table 11: 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 3 and Figure 4 attached to this memorandum. The volumes associated with the existing buildings were subtracted from the existing traffic volumes. It was assumed for the purpose of this study that all of these trips originated or were destined to the entrance along Haynes Street. These volumes were then combined with the proposed site generated traffic volumes to obtain the total future traffic volumes, which are shown in Figure 5 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 and 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 12 presents the criteria for defining the various LOS for unsignalized intersections. LOS D is considered acceptable in urban/suburban areas.

Table 12: LOS Criteria – Unsignalized Intersection

LOS	Average Stopped Delay/Vehicle (seconds)
A	≤ 10
B	$> 10 \text{ and } \leq 15$
C	$> 15 \text{ and } \leq 25$
D	$> 25 \text{ and } \leq 35$
E	$> 35 \text{ and } \leq 50$
F	> 50

The results of the LOS analyses for the intersection listed above are summarized in Table 13 through Table 15. Full LOS output reports are attached to this memorandum.

In addition, SimTraffic simulations were reviewed to identify any potential queueing issues. The city and their consultants required that the following intersections be included in the model for simulations purposes only (no LOS analysis was completed):

- S. Adams Road and Bowers Street (East)
- S. Adams Road and Bowers Street (West)/Shopping Center
- S. Adams Road and E. Lincoln Street

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.

The 95th percentile queue lengths were reviewed at the studied intersections. No significant queue lengths were observed in the simulations. Northbound queues on S. Adams Road will occasionally block the intersection of S. Adams Road and Haynes Street/Shopping Center, however these queues dissipate within one cycle length of the signal at S. Adams Road and Bowers Street. 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 119 feet (5 vehicles) in the PM peak hour.

The operational results for existing conditions are presented in Table 13.

Table 13: LOS Analysis for Existing Conditions

Intersection	Control Type	Approach	Movement	AM Peak	PM Peak
S. Adams Road & Haynes Street/Shopping Center	Stop	Eastbound	LTR	E 36.5	F 63.8
		Westbound	LTR	C 21.6	C 21.1
	Free	Northbound	L	A 9.1	A 9.0
			TR	A 0.0	A 0.0
			Approach	A 0.6	A 0.6
		Southbound	L	A 8.7	A 8.7
			TR	A 0.0	A 0.0
			Approach	A 0.1	A 0.1
	Two-Way Stop Control	Overall		C 3.1	A 7.0
S. Adams Road & Holland Street/Alley	Stop	Eastbound	LTR	A 0.0	C 18.3
		Westbound	LTR	C 17.4	C 19.6
	Free	Northbound	L	A 8.9	A 8.8
			TR	A 0.0	A 0.0
			Approach	A 0.1	A 0.1
		Southbound	L	A 8.8	A 8.9
			TR	A 0.0	A 0.0
			Approach	A 0.2	A 0.5
	Two-Way Stop Control	Overall		A 0.6	A 0.9
Worth Street & Alley	Stop	Eastbound	LTR	A 8.5	A 9.1
		Westbound	LTR	A 8.5	A 9.3
	Free	Northbound	LTR	A 0.0	A 0.0
		Southbound	LTR	A 0.0	A 0.0
	Two-Way Stop Control	Overall		A 3.8	A 4.1
Haynes Street & Worth Street	Free	Eastbound	TR	A 0.0	A 0.0
		Westbound	LT	A 1.6	A 2.6
	Stop	Northbound	LR	A 9.2	A 9.9
	Two-Way Stop Control	Overall		A 2.2	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.

The 95th percentile queue lengths were reviewed at the studied intersections. No significant queue lengths were observed in the simulations. Northbound queues on S. Adams Road will continue to occasionally block the intersection of S. Adams Road and Haynes Street/Shopping Center, however these queues dissipate within one cycle length of the signal at S. Adams Road and Bowers Street. At the intersection of S. Adams Road and Haynes Street/Shopping Center, queues on the eastbound approach do not exceed 76 feet (3 vehicles) in the AM peak hour and 110 feet (4 vehicles) in the PM peak hour.

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

Table 14: LOS Analysis for Future Conditions

Intersection	Control Type	Approach	Movement	AM Peak	PM Peak
S Adams Road & Haynes Street/Shopping Center	Stop	Eastbound	LTR	E 40.0	F 67.2
		Westbound	LTR	C 21.7	C 21.4
	Free	Northbound	L	A 9.1	A 9.0
			TR	A 0.0	A 0.0
			Approach	A 0.6	A 0.6
		Southbound	L	A 8.7	A 8.7
			TR	A 0.0	A 0.0
			Approach	A 0.1	A 0.1
	Two-Way Stop Control	Overall		C 3.6	A 7.3
S Adams Road & Holland Street/Alley	Stop	Eastbound	LTR	B 12.8	C 18.4
		Westbound	LTR	C 17.5	C 19.7
	Free	Northbound	L	A 8.9	A 8.8
			TR	A 0.0	A 0.0
			Approach	A 0.1	A 0.1
		Southbound	L	A 8.8	A 8.9
			TR	A 0.0	A 0.0
			Approach	A 0.2	A 0.5
	Two-Way Stop Control	Overall		A 0.6	A 0.9
Worth Street & Alley	Stop	Eastbound	LTR	A 8.5	A 9.1
		Westbound	LTR	A 8.6	A 9.3
	Free	Northbound	LTR	A 0.0	A 0.0
		Southbound	LTR	A 0.4	A 0.0
	Two-Way Stop Control	Overall		A 3.1	A 3.9
Haynes Street & Worth Street	Free	Eastbound	TR	A 0.0	A 0.0
		Westbound	LT	A 2.0	A 4.3
	Stop	Northbound	LR	A 9.8	B 10.6
	Two-Way Stop Control	Overall		A 4.7	A 4.9
Worth Street & Site Driveway	Stop	Westbound	LR	A 8.8	A 9.1
	Free	Northbound	TR	A 0.0	A 0.0
		Southbound	LT	A 3.5	A 3.6
	TWSC	Overall		A 5.2	A 3.4

XX.X Average seconds of delay per vehicle

For the adjacent traffic movement of most concern (eastbound Haynes St. at Adams Rd.), the estimated increase in delay for this movement during the AM and PM Peak Hours is 3.5 seconds or less.

Future Conditions Improvements

Improvements to the eastbound approach at the intersection of S. Adams Road and Haynes Street/Shopping Center were investigated. The eastbound approach currently operates at LOS E and LOS F in the AM and PM peak hours, respectively. With the addition of the site generated traffic, these delays will increase slightly, however the LOS values will remain the same. To reduce delays on this approach the addition of an eastbound right turn lane was modeled.

The results of the LOS analysis for future conditions improvements reveals that the eastbound approach would operate at LOS D and E in the AM and PM peak hours respectively. The Left/Through movement would operate at LOS F in the AM and PM peak hours.

The 95th percentile queue lengths were reviewed. Northbound queues on S. Adams Road will continue to occasionally block the intersection of S. Adams Road and Haynes Street/Shopping Center, however these queues dissipate within one cycle length of the signal at S. Adams Road and Bowers Street. At the intersection of S. Adams Road and Haynes Street/Shopping Center, queues on the eastbound approach do not exceed 50 feet (2 vehicles) in the AM peak hour and 80 feet (3 vehicles) in the PM peak hour, which is a reduction of 26 feet (1 vehicle) in the AM peak hour and 30 feet (1 vehicle) in the PM peak hour.

The addition of a right turn lane on the eastbound approach at the intersection of S. Adams Road and Haynes Street/Shopping Center would impact adjacent on-street parking and require the removal of existing on-street parking spaces. Additionally, the poor LOS is present under existing traffic conditions, and will be only minimally impacted by the proposed development. The city should continue to monitor this intersection to determine if the city should install a right turn lane at some point in the future.

The operational results for future conditions are presented in Table 15.

Table 15: LOS Analysis for Future Conditions Improvements

Intersection	Control Type	Approach	Movement	AM Peak	PM Peak
S Adams Road & Haynes Street/Shopping Center	Stop	Eastbound	LT	F 51.8	F 75.7
			R	B 13.4	B 13.6
			Approach	D 32.1	E 45.2
		Westbound	LTR	C 21.7	C 21.4
	Free	Northbound	L	A 9.1	A 8.7
			TR	A 0.0	A 0.0
			Approach	A 0.6	A 0.6
		Southbound	L	A 8.7	A 8.7
			TR	A 0.0	A 0.0
			Approach	A 0.1	A 0.1
Two-Way Stop Control	Overall		C 3.0	A 75.2	

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 30 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).

The 95th percentile queues lengths were assessed at the proposed driveway on Worth Street. These queue lengths exiting the site did not exceed 47 feet (2 vehicles) in the AM peak hour and 46 feet (2 vehicles) in the PM peak hour. On northbound Worth Street, no queue lengths were observed in the AM peak hour and queue lengths did not exceed 10 feet (1 vehicle) in the PM peak hour. On southbound Worth Street, no queue lengths were observed in the AM peak hour and queue lengths did not exceed 25 feet (1 vehicle) in the PM peak hour. Vehicle queues entering or exiting the site will not impact the intersection of Worth Street and the alley.

Reviewing the simulations for left turns into the development on Worth Street, there was a PM peak queue of 20 feet (1 vehicle). This queue will not impact neighboring driveways as they are 98 feet away from the proposed development entrance. This is shown in Figure 13.

Site Circulation and Parking

This development includes an above grade multi-level parking structure with 268 proposed spaces. A majority of these spaces will be for resident use. A specific tenant has not yet been identified for this space. Using the ordinance standard of 1 parking space for every 300 SF of retail space; the retail space would generate demand for 14 parking spaces. The Triangle District Master Plan allows for the use of existing public parking spaces by the proposed development. Traffic generated by the retail component can utilize the 15 parallel parking spaces along Haynes Street. In order to ensure that sufficient capacity is provided, the developer is indicating that two spaces in the parking structure will be dedicated for use by the tenant of the retail space.

The parking structure is being designed to allow for 10 percent of the parking spaces to accommodate electric vehicle charging on opening day, with the ability to increase that percentage over time. Traffic to/from the commercial component and residential visitors also have the option to utilize existing on-street parking.

Review of the zoning ordinance indicated that the amount of residential parking proposed will be in excess of what is required. However, the applicant intends to offer the proposed parking to the residents and tenants of the building only; there will not be sufficient surplus to offer any shared parking with other adjacent properties.

As is often the case with urban developments and urban parking structures, the single site driveway access and the adjacent alley to the south will have limited sight distance when vehicles exit the garage and the alley on to Worth Street. It is recommended that the project implement audible and visual warning systems to alert pedestrians using the Worth Street sidewalk that caution should be exercised when crossing these driveways.

For loading and trash handling functions, a two-bay loading garage will be provided with access to Worth Street. One bay is required by ordinance. The property operations team will arrange loading times that are in accordance with the ordinance and coordinate vehicles to minimize obstructions of the Worth Street sidewalk. A separate trash storage room will also be constructed adjacent to the two-bay loading garage, so that all trash storage from the building can be accommodated indoors, and out of sight of the public.

Multi-Modal Considerations

Cyclists

Bicycle parking will be provided for residents in the parking structure. These facilities can accommodate 96 bicycles. Residents using the bike parking facility will have the opportunity to

walk their bike in/out of the parking structure via a doorway just north of the vehicle entrance. In addition, public bike racks that can accommodate ten bicycles will be provided at two different locations within the Haynes Street right-of-way. No further enhancements are required to support the subject development.

Pedestrians

The existing sidewalk network in the area was studied with respect to expected pedestrian desire lines. As shown on Figure 6, significant points of interest for future residents of this building include:

1. Downtown Birmingham to the northwest.
2. Adams Square Shopping Center to the northeast.
3. S. Woodward Avenue corridor to the south.

Analysis of the preferred pedestrian corridors is provided below.

1. Downtown Birmingham to the northwest

Pedestrians wishing to access downtown Birmingham will find a complete sidewalk network, using portions of Haynes Street, Elm Street, and Bowers Street. All intersections have ADA compliant crosswalks and ramps, including more recent improvements at the Bowers Street intersections of both Woodward Avenue and Elm Street. In 2022, the city also plans to reconstruct the S. Old Woodward Avenue corridor both north and south of Bowers Street, making that area ADA compliant as well. No further improvements are recommended.

2. Adams Square Shopping Center to the northeast

Pedestrians wishing to cross S. Adams Road 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 streets and driveways, a mid-block pedestrian crossing is not feasible on S. Adams Road at Holland Street. The expected preferred route for pedestrians to Adams Square shopping center would be north to Bowers Street, as shown on Figure 6. 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.

3. S. Woodward Avenue corridor to the south

Pedestrians wishing to access the commercial corridor of S. Woodward Avenue may use the existing sidewalks on Worth Street. Extra wide and ADA compliant marked crosswalks and ramps exist at the Worth Street and Webster Street intersection as well as the Lincoln Avenue at Woodward Avenue intersection, in all directions.

Other observations relative to pedestrians in the area follow:

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.

There are no pedestrian facilities along the alley south of site; however, it is not recommended to route pedestrians through an alley when other options are available nearby. The alley does not currently include any accommodations for pedestrians.

Other than the one location noted above where existing sidewalk ramps are not ADA compliant, an excellent sidewalk network currently exists for pedestrians wishing to walk in all directions. Once completed, the sidewalks on all three frontages of this development will also be widened and 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 Saturdays, and approximately 16 hours on Sundays. Headways are approximately 60 minutes for each of the two independently numbered routes. Existing sidewalk is available to access the bus stops from the proposed development. Bus stops for northbound and southbound Woodward Avenue are located between 750 feet and 1,250 feet from the site, both less than $\frac{1}{4}$ mile.

There are also bus stops located to the north of the development on Adams Road. These stops are approximately 695 feet and 800 feet from the site, both less than $\frac{1}{4}$ of a mile.

No additional bus stops, routes, or sidewalk 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 Figures 7, 8, and 9 attached to this memorandum. These routes will utilize the existing pedestrian facilities and crosswalks.

As noted above, crosswalk improvements along the Woodward Avenue corridor have already been completed. Other shared lane marking recommendations in the area would be best implemented as part of larger projects implemented at the city level.

Crash/Safety Analysis

A crash analysis was conducted for all intersections included in this study. Traffic crash data was reviewed for the most recently 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 the studied segments.

Of these 23 crashes, there were no fatal or serious injury (A) crashes, 1 minor injury (B) crash, 4 potential injury (C) crashes, and 18 property damage only (PDO) crashes. None of these crashes involved alcohol, drugs, pedestrians, or bicyclists.

A breakdown of all crashes by crash type and severity is shown in Table 16 and a breakdown by contributing circumstance and severity is shown in Table 17.

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%

Table 17: Overall Crash Summary - Contributing Circumstances

Contributing Circumstance	Number of Crashes by Severity						Percentage
	Fatal	A-Level	B-Level	C-Level	PDO	Total	
Backing	-	-	-	-	1	1	4%
Parking/Parked Cars	-	-	-	-	2	2	9%
Traffic Congestion	-	-	1	4	15	20	87%
Total	-	-	1	4	18	23	100%

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

Crash data was also separated by intersection and roadway segment. There were no crashes within 250 feet of the following intersections:

- S. Adams Road and Holland Street/Alley
- Worth Street and Alley
- Haynes Street and Worth Street

A breakdown of by location, crash type, and severity is shown in Table 18 and a breakdown by location, contributing circumstance, and severity is shown in Table 19.

Table 18: Location Crash Summary – Crash Type

Location	Total Crashes	Crash Type	Number of Crashes by Severity					
			Fatal	A-Level	B-Level	C-Level	PDO	Total
S. Adams Rd & Haynes St/Shopping Center	5	Angle	-	-	-	-	2	2
		Backing	-	-	-	-	1	1
		Other	-	-	-	-	1	1
		Sideswipe Opposite Direction	-	-	-	-	1	1
			-	-	-	-	5	5
S. Adams Rd	19	Rear End	-	-	1	4	8	13
		Angle	-	-	-	-	3	3
		Backing	-	-	-	-	1	1
		Other	-	-	-	-	1	1
		Sideswipe Opposite Direction	-	-	-	-	1	1
Haynes St	2	Rear End	-	-	-	-	1	1
		Angle	-	-	-	-	1	1
Worth St	2	Sideswipe Same Direction	-	-	-	-	1	1
		Unknown	-	-	-	-	1	1
Total			-	-	1	4	18	23

Table 19: Location Crash Summary – Contributing Circumstances

Location	Total Crashes	Contributing Circumstance	Number of Crashes by Severity					
			Fatal	A-Level	B-Level	C-Level	PDO	Total
S. Adams Rd & Haynes St/Shopping Center	5	Backing	-	-	-	-	1	1
		Traffic Congestion	-	-	-	-	4	4
			-	-	-	-	5	5
S. Adams Rd	19	Traffic Congestion	-	-	1	4	14	19
Haynes St	2	Traffic Congestion	-	-	-	-	2	2
Worth St	2	Parking/Parked Cars	-	-	-	-	2	2
			-	-	1	4	18	23

Based on the methodologies described in the SEMCOG Traffic Safety Manual ((SEMCOG), 2016), crash frequencies (average number of crashes per year) and crash rates (number of crashes per million entering vehicles) were determined for each studied intersection and roadway segment. The calculated values were then compared to average values and critical values for roadways of similar characteristics in the SEMCOG region. The results of these analyses are shown in Table 20 and Table 21.

Table 20: Crash Data by Location

	Studied Area			Average Values - SEMCOG Region ¹		
	Total Crashes	Crash Frequency ²	Crash Rate ³	Crash Frequency ²	Critical Crash Frequency	Crash Rate ³
S. Adams Rd & Haynes St/Shopping Center	5	1.0	0.08	2.36	4.71	0.46
S. Adams Rd	19	3.8	0.30	9.77	18.09	5.73
Haynes St	2	0.4	0.1	5.35	11.82	6.30
Worth St	2	0.4	0.1	5.35	11.82	6.30

¹SEMCOG Traffic Safety Manual 2016 Chapter 3

²Average number of crashes per year

³Crashes per million entering vehicles

Table 21: Injury Crash Data by Location

	Studied Area				Average Values – SEMCOG Region ¹	
	B-Level	C-Level	PDO	Casualty Ratio ²	Casualty Ratio ²	Critical Casualty Ratio ²
S Adams Rd & Haynes St/Shopping Center	-	-	5	0.0	.22	.46
S Adams Rd	1	4	14	0.26	.23	.39
Haynes St	-	-	2	0.0	.22	.44
Worth St	-	-	2	0.0	.22	.44

¹SEMCOG Traffic Safety Manual 2016 Chapter 3

²Casualty ratio is the number of injury and fatal crashes divided by the total number of crashes

The crash frequency and crash rate at all studied locations are lower than the average rate for locations of similar characteristics. The casualty ratio along S. Adams Road is greater than the average casualty for road segments of similar characteristics. However, the causality ratio is below the critical casualty ratio for road segments of similar characteristics. A summary of the crash data is attached to this memorandum.

As noted above, the majority of the crashes on these streets are related to existing congestion on Adams Road. Since the project is predicted to only slightly increase the overall number of AM and PM peak hour trips and will remove an existing driveway on to Adams Road, it is predicted that the project will have a net reduction to the overall crash rate in this corridor. By moving all site generated traffic to Worth Street, vehicle turns will be dispersed away from Adams Road.

By avoiding the construction of a new driveway on to Adams Road, but rather keeping all turning movements on Worth Street, the development will not be a detriment to the existing operations of S. Adams Road.

Conclusions and Recommendations for the Traffic Impact Study

Motor Vehicle Analysis

The proposed project consists of a mixed-use development located on the west side of S. Adams Road between Haynes Street and the Alley in Birmingham, MI. The current site plan shows 4,035 SF of commercial space and 157 DU 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 67 new trips during the AM peak hour (19 inbound and 48 outbound from the site) and 103 new trips during the PM peak hour (58 inbound and 45 outbound from the site). When trips from the previous uses of the two sites are considered, actual new trips from this development drops to 28 new trips during the AM peak hour and 50 new trips during the PM peak hour.

An operational analysis was performed for existing 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 and F in the AM and PM peak hours, respectively. With the addition of the site generated traffic, this approach would continue to operate at LOS E and F in the AM and PM peak hours, respectively. However, 95th percentile queue lengths were reviewed on this approach, and no queue length exceeds 76 feet (3 vehicles) in the AM peak hour and 110 feet (4 vehicles) in the PM peak hour. For both the AM and PM peak hour periods, delays added to the current conditions for the critical eastbound Haynes Street movement are less than 3.5 seconds.

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 to be constructed at this time.

Multi-Modal Analysis

The Multi-Modal Transportation Plan recommends crosswalk improvements along the Woodward Avenue corridor that have already been completed. It also recommends shared use pavement markings on Bowers Street and Adams Road. For both the Bowers Street and Adams Road corridors, the implementation of shared use markings should be considered in a larger context that involves many other streets, so as to be a part of a holistic network.

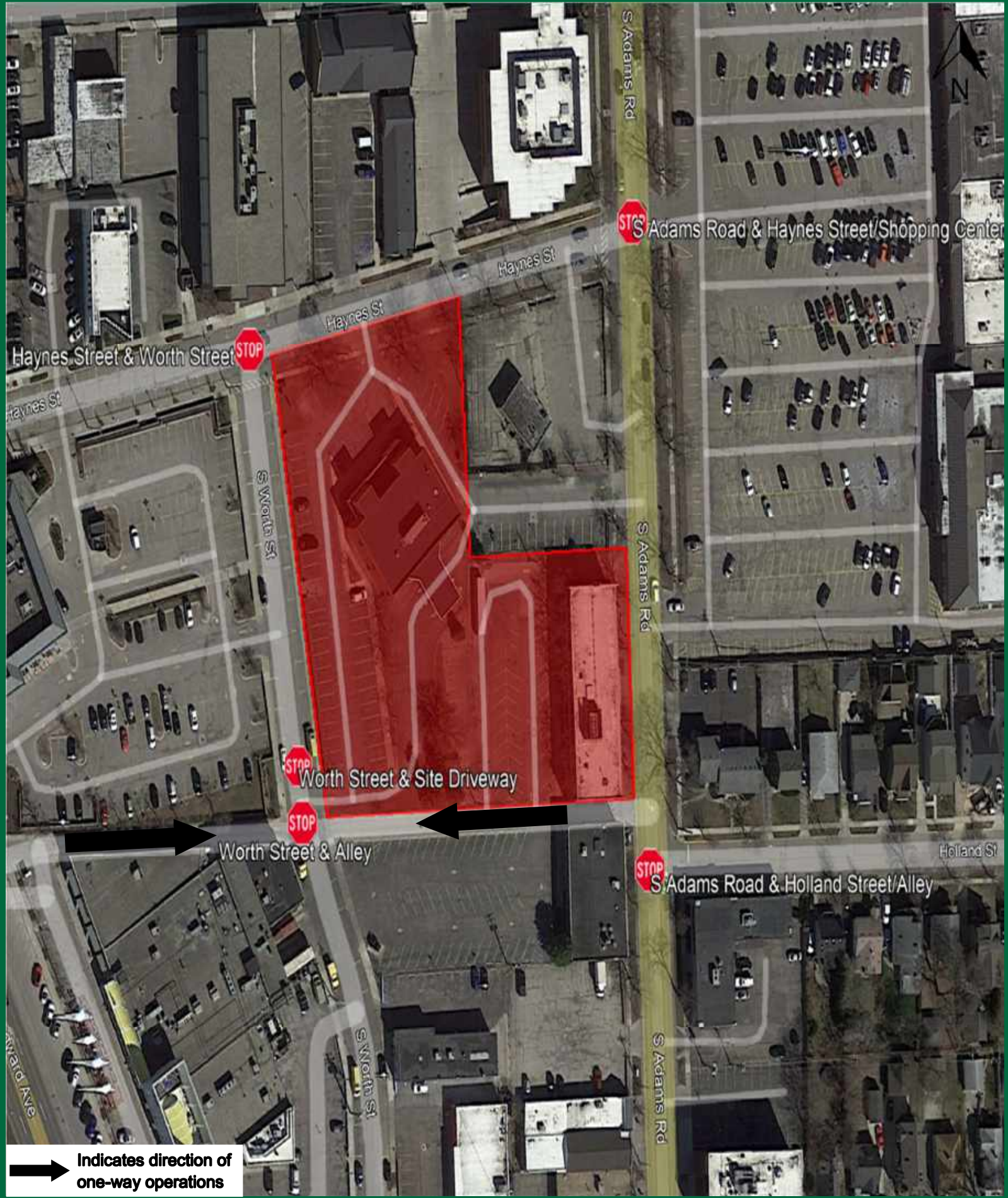
Overall, the proposed project has a minimal impact at the studied intersections or on the surrounding road network. No transportation improvements will be required to support the development on opening day.

Attachments

SITE PLAN

UNIT DATA							
Type	S.F.	# of Units					
		Lvl 1	Lvl 2	Lvl 3	Lvl 4	Lvl 5	Total
S-0	568	0	1	1	1	0	3
S-2	677	0	1	1	0	0	2
1B	756	0	1	1	6	1	12
1BD	888	0	15	15	8	6	48
1BD-2	1,080	0	1	1	1	1	5
1BA	1	0	0	0	0	0	0
1B	782	0	1	1	1	1	5
1BD	925	0	1	0	0	0	2
2B	1102	0	5	5	7	1	25
2B-2	1343	0	1	1	1	1	5
2B-0	1325	0	1	1	5	5	10
2B-2	1544	0	1	0	1	1	5
2BM	1,143	12	0	0	0	0	11
2BM-2	948	3	0	0	0	0	3
2BM-3	1608	3	0	0	0	0	3
2BD	1165	0	0	1	1	0	3
3B	1734	0	1	1	1	0	4
Total	-	19	34	34	32	19	157

REPORT FIGURES



**ROWE PROFESSIONAL
SERVICES COMPANY**

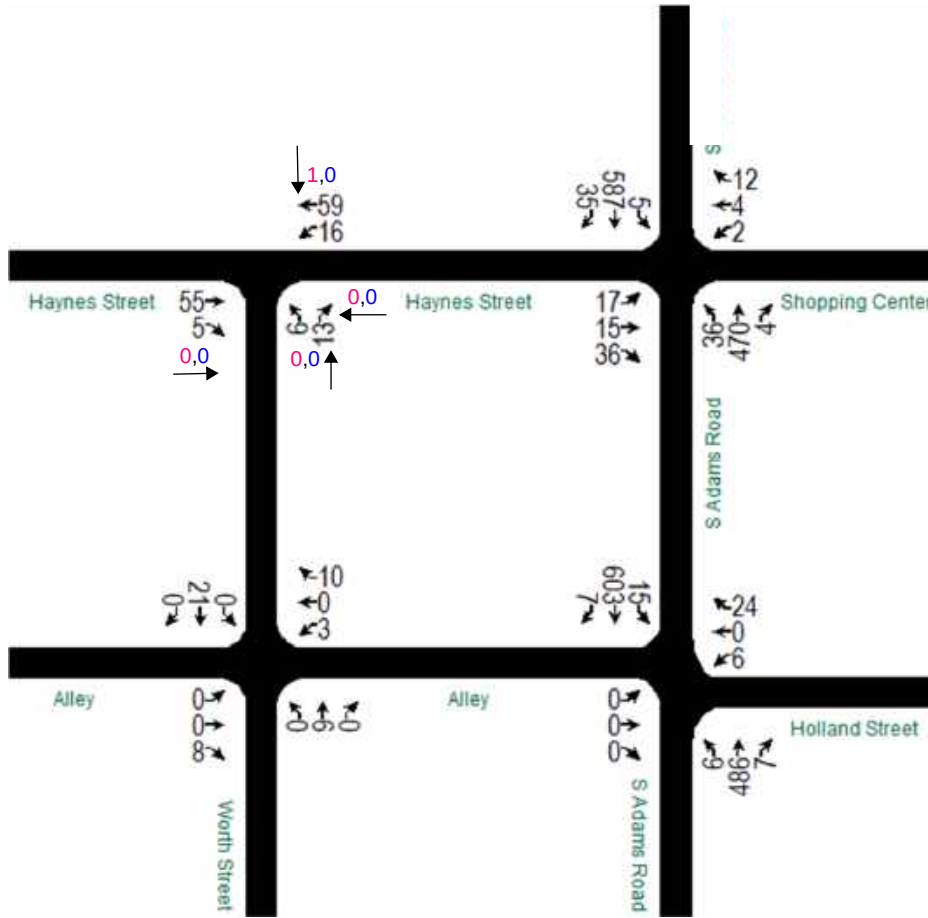
Large Firm Resources. Personal Attention.

**Project Location
770 S Adams Road TIS
Figure 1**

Not to scale – for illustrative purposes only

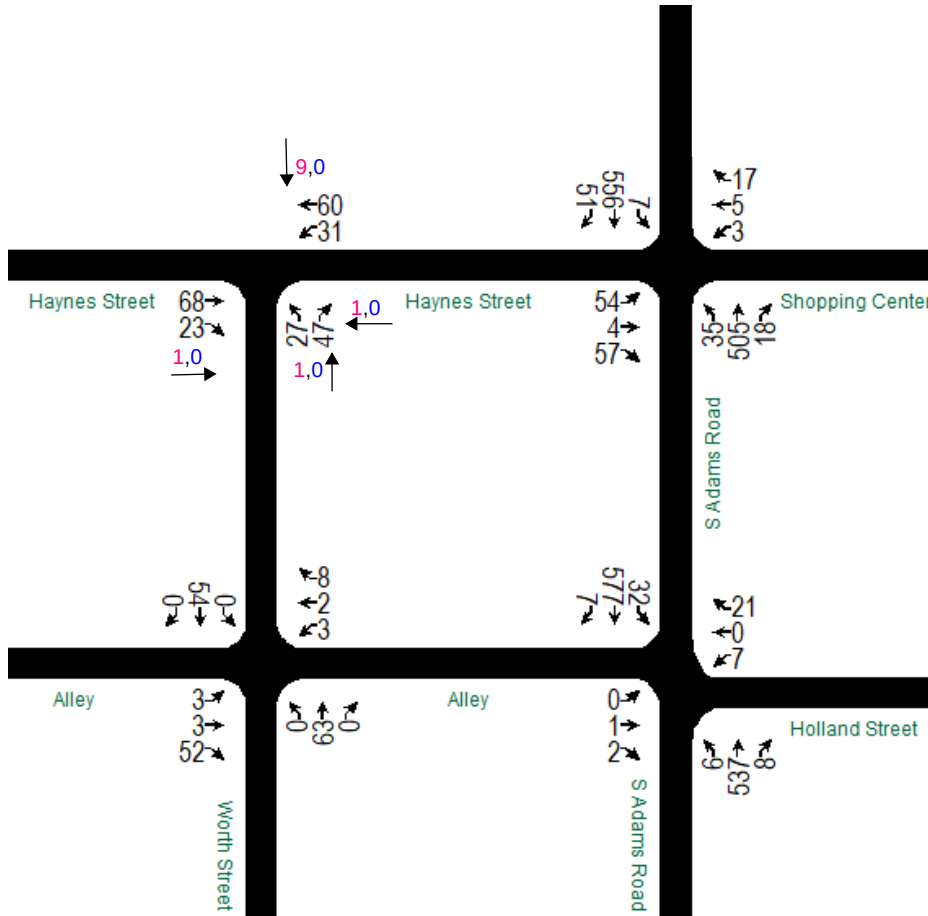
AM Peak Hour

Pedestrians
Bikes



PM Peak Hour

Pedestrians
Bikes



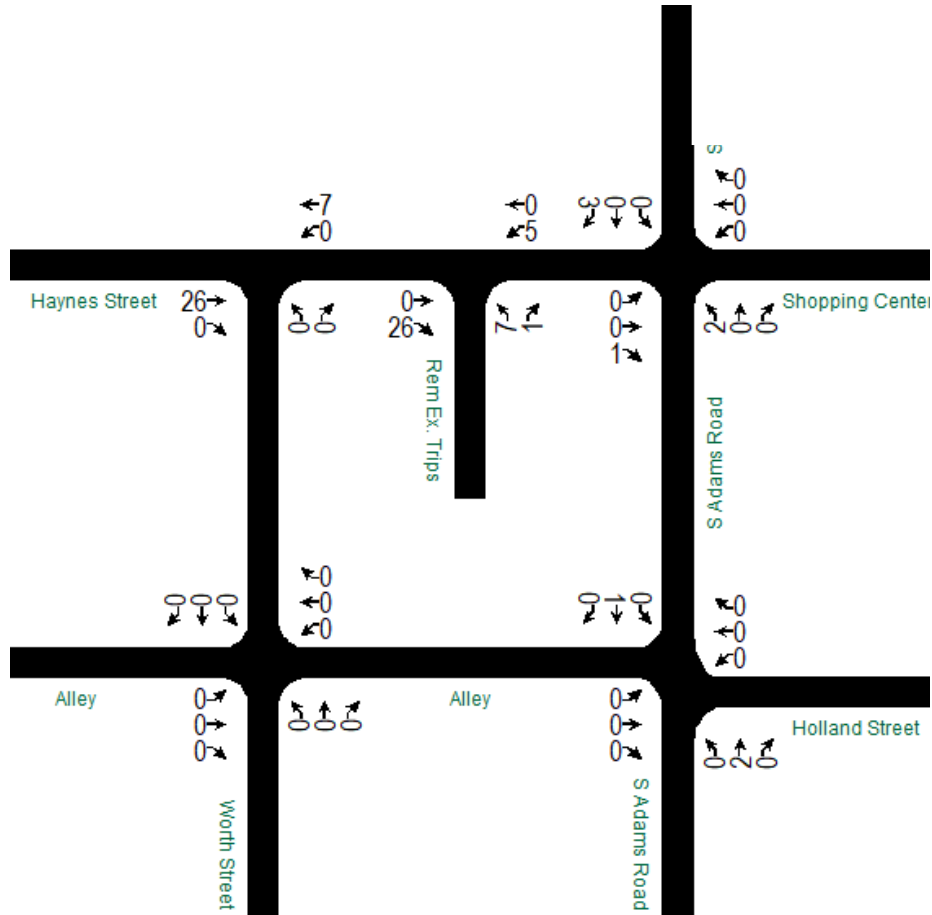
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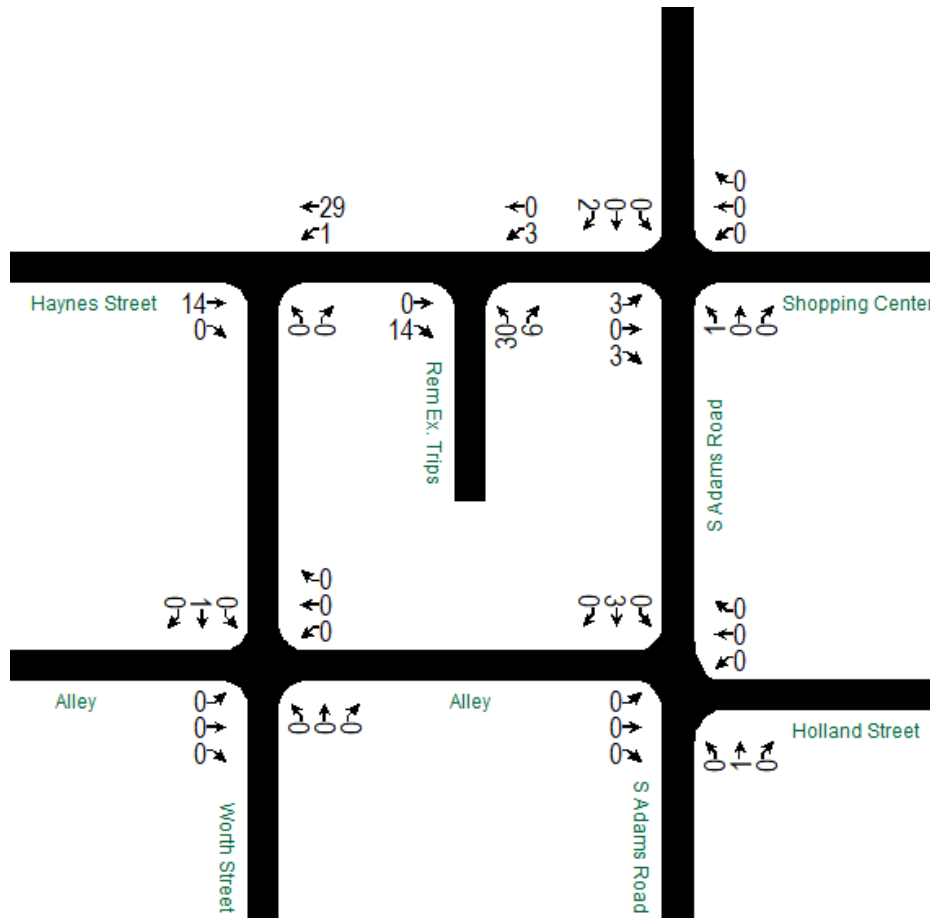
2021 Existing Conditions Volumes
770 S Adams Road TIS
Figure 2

Not to scale – for illustrative purposes only

AM Peak Hour



PM Peak Hour



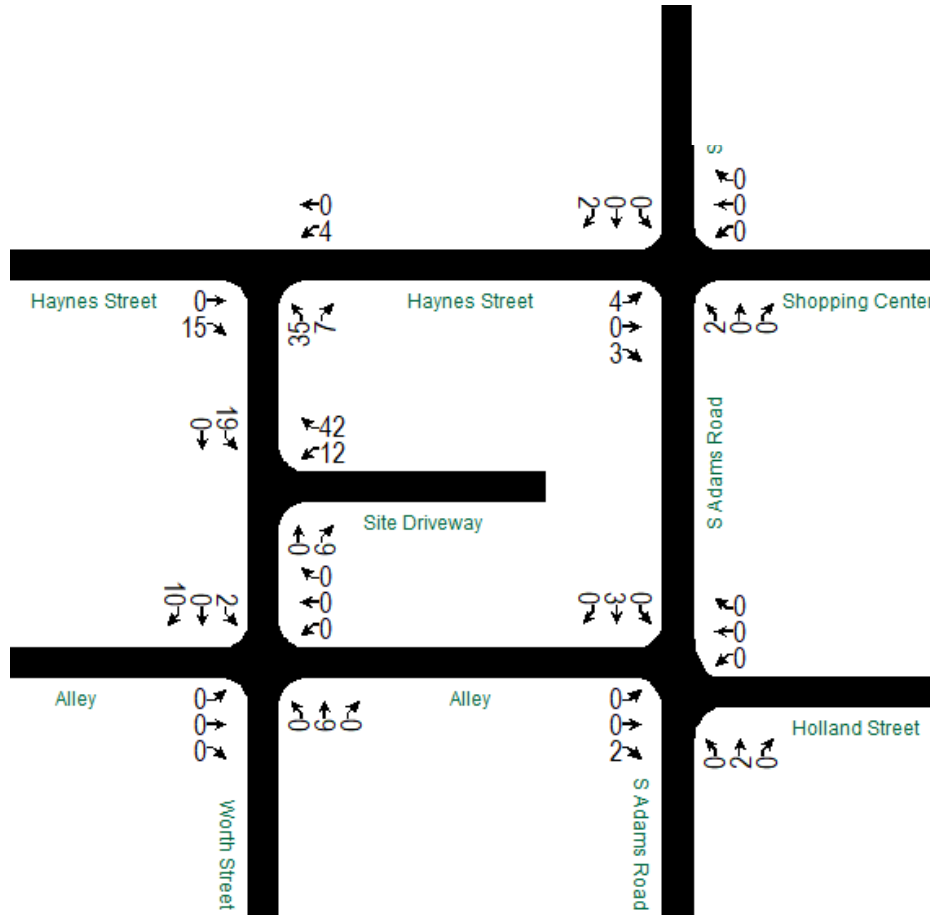
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Existing Building Removal Volumes
770 S Adams Road TIS
Figure 3

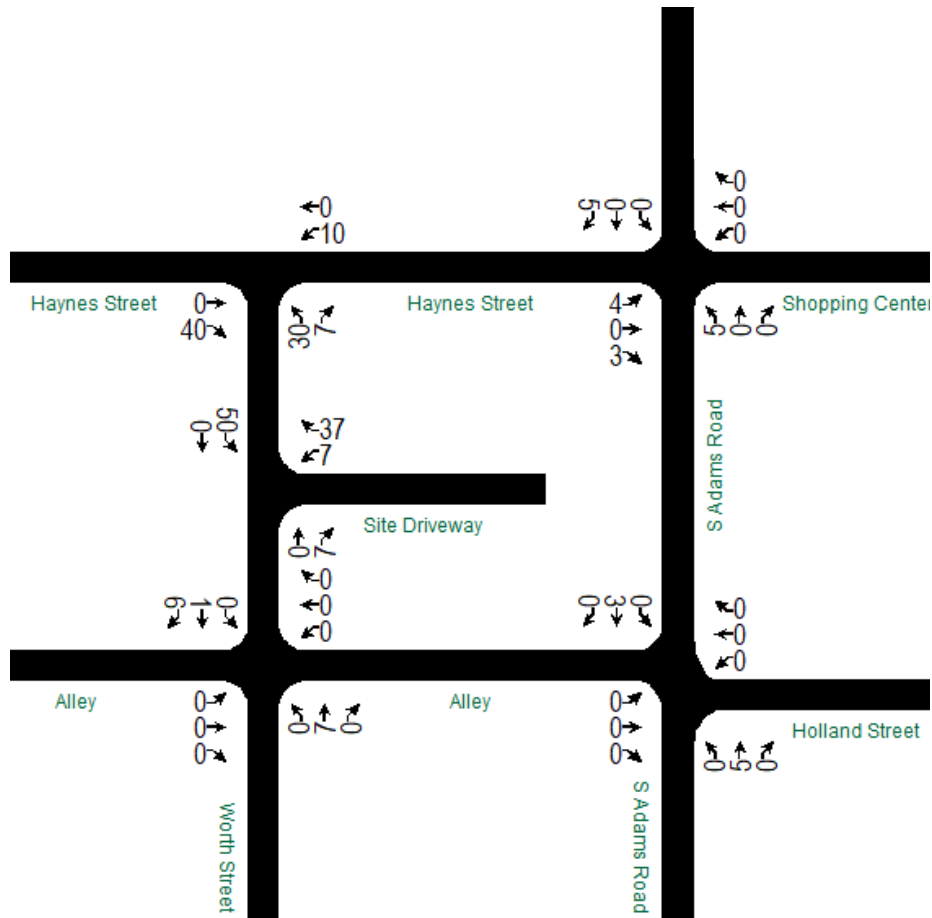
Not to scale – for illustrative purposes only

AM Peak Hour



Note: Pedestrian and Bike trips not included as industry standard does not give accurate way to anticipate trips

PM Peak Hour



Note: Pedestrian and Bike trips not included as industry standard does not give accurate way to anticipate trips



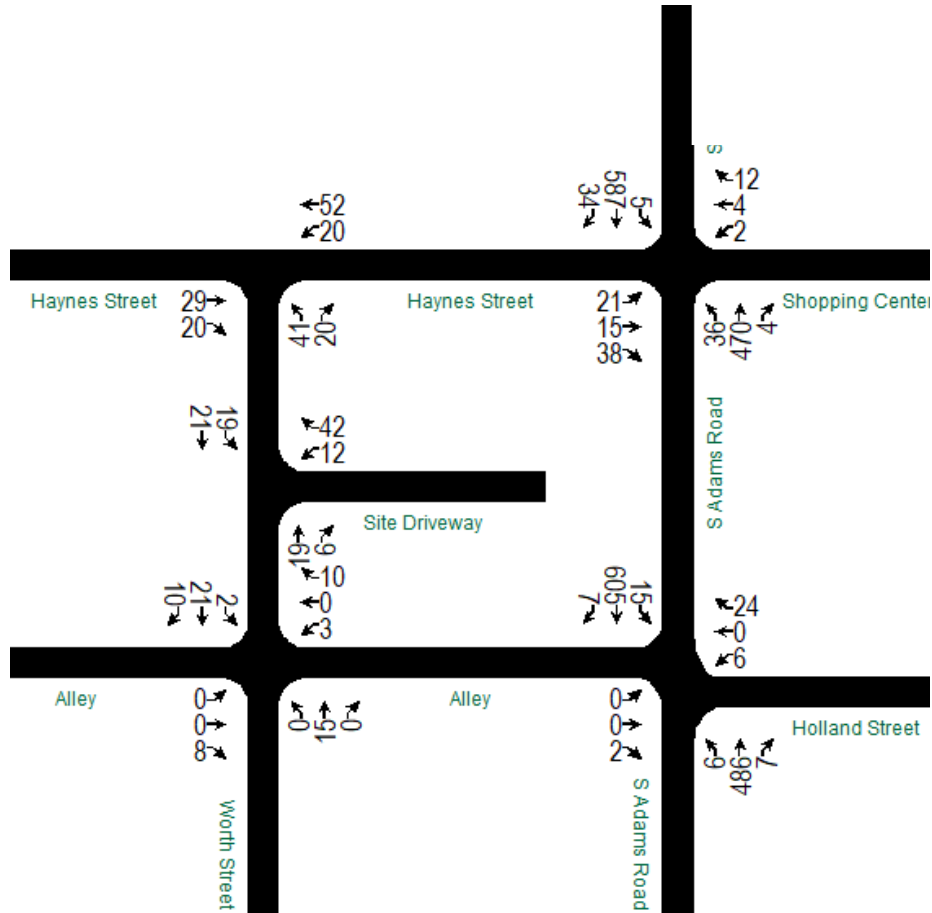
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Trip Generation Volumes
770 S Adams Road TIS
Figure 4

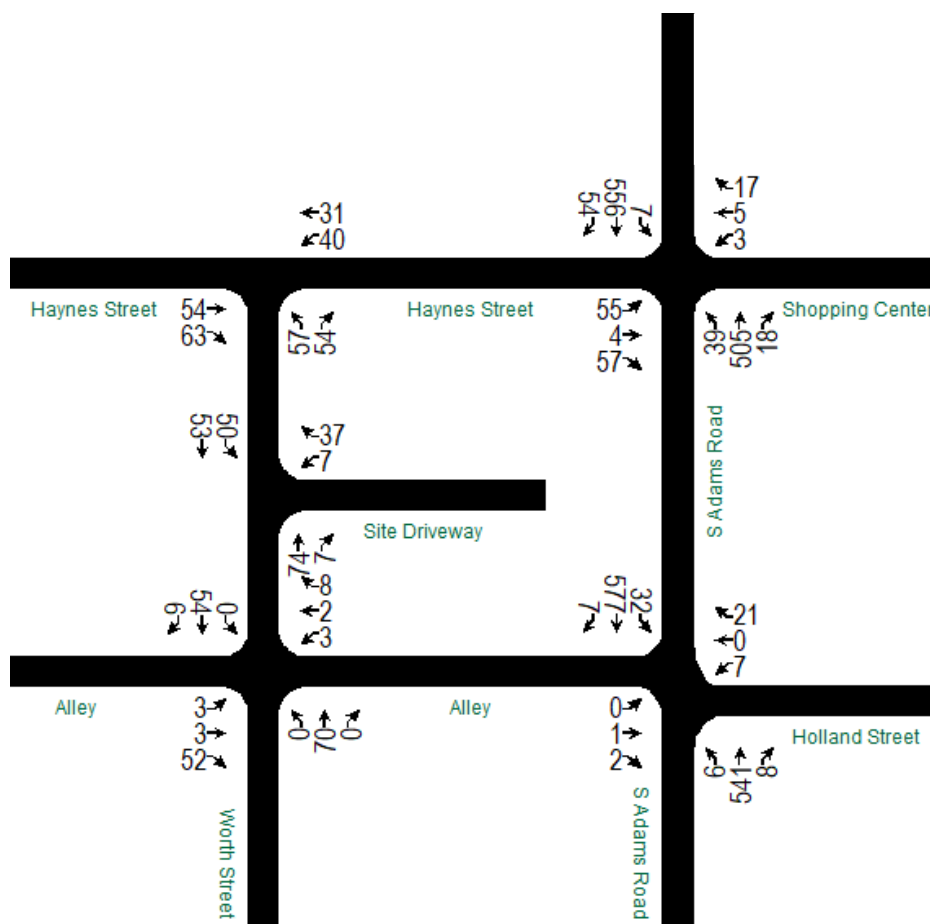
Not to scale – for illustrative purposes only

AM Peak Hour



Note: Pedestrian and Bike trips not included as industry standard does not give accurate way to anticipate trips

PM Peak Hour



Note: Pedestrian and Bike trips not included as industry standard does not give accurate way to anticipate trips



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2025 Future Conditions Volumes
770 S Adams Road TIS
Figure 5

Not to scale – for illustrative purposes only



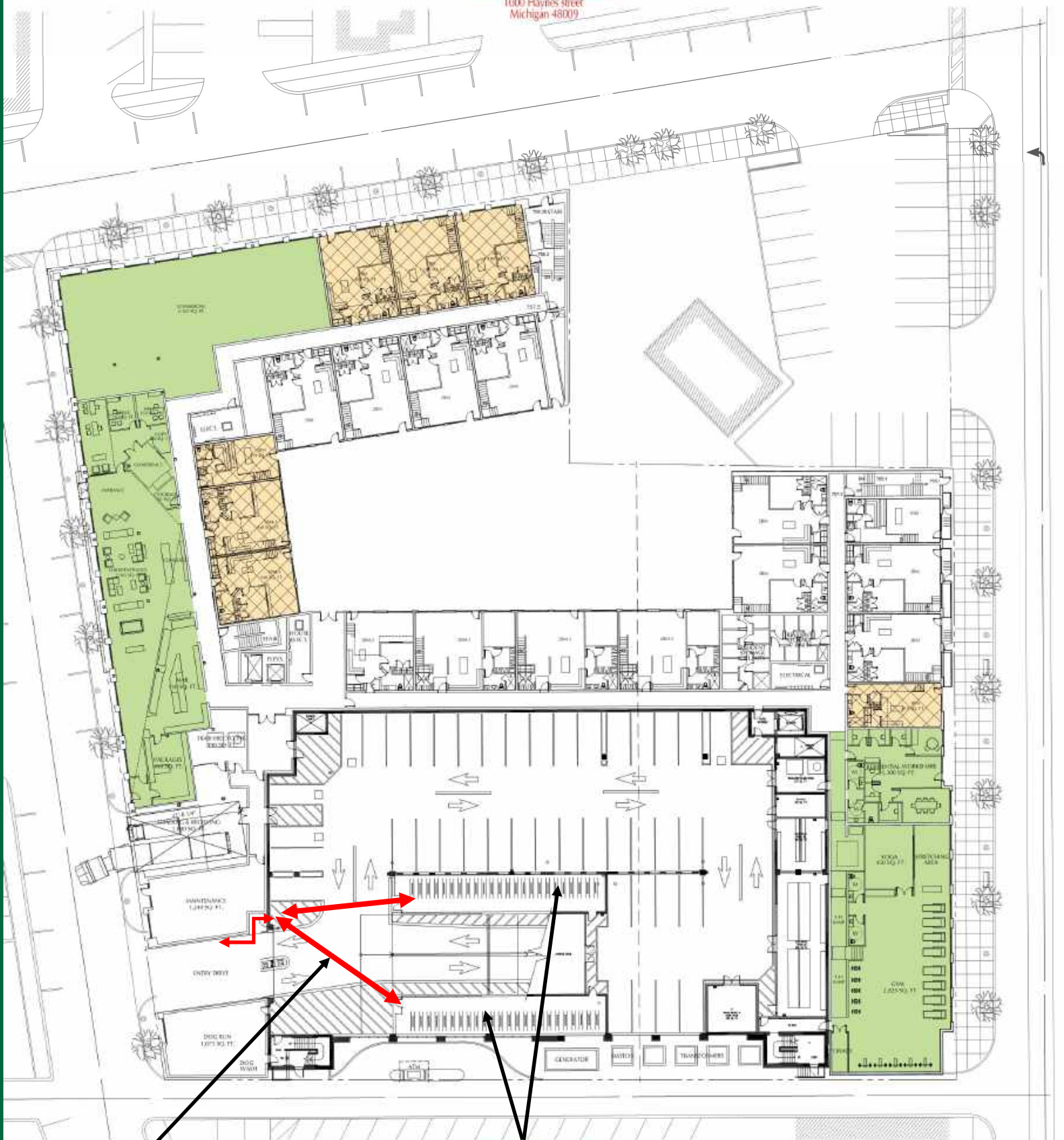
ROWE PROFESSIONAL
SERVICES COMPANY

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Pedestrian & Bicycle Routing
770 S Adams Road TIS
Figure 6

Not to scale – for illustrative purposes only

ADAMS/HAYNES DEVELOPMENT
1000 Haynes street
Michigan 48009



Bicycle Path

Proposed
Bicycle Parking

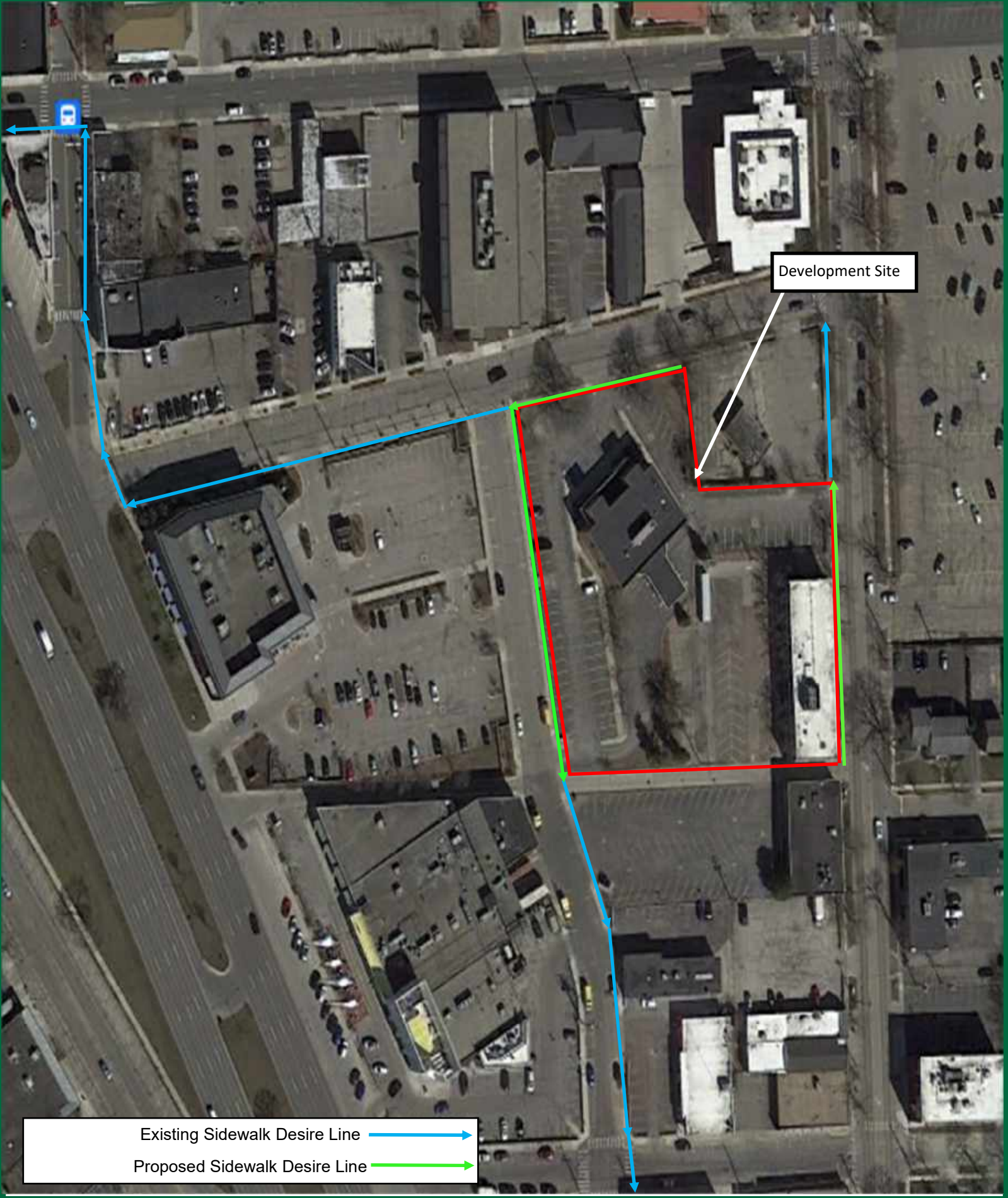


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Bicycle Routing - Parking Garage
770 S Adams Road TIS
Figure 7

Not to scale – for illustrative purposes only



Existing Sidewalk Desire Line 

Proposed Sidewalk Desire Line 



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**Existing and Proposed Sidewalk Pedestrian Routes
770 S Adams Road TIS**

Figure 8

Not to scale – for illustrative purposes only



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Pedestrian & Bicycle Routing 770 S Adams Road TIS

Figure 9

Not to scale – for illustrative purposes only



SINGLE UNIT DETAIL

PREPARED FOR:
Adams/Haynes Development
 Turning Movements – Single Unit SB
 Figure 10

**ROWE PROFESSIONAL
 SERVICES COMPANY**

27280 Haggerty Road, Suite C-2
 Farmington Hills, MI 48331
 O: (248) 675-1096
 F: (800) 974-1704
 www.rowepsc.com

PLAN NO. _____ N/A
 DATE: _____ March, 2022
 PROJECT MGR: _____ P. O'Meara
 REVIEWER: _____ H. Savola
 SCALE: _____ N/A SHEET NO: _____ 1



SINGLE UNIT DETAIL

PREPARED FOR:
Adams/Haynes Development
 Turning Movements – Single Unit NB
 Figure 11

ROWE PROFESSIONAL SERVICES COMPANY

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 Farmington Hills, MI 48331
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PLAN NO. _____ N/A
 DATE: _____ March, 2022
 PROJECT MGR: _____ P. O'Meara
 REVIEWER: _____ H. Savola
 SCALE: _____ N/A SHEET NO: _____ 2



GARBAGE TRUCK DETAIL

PREPARED FOR:
Adams/Haynes Development
 Turning Movements – Garbage Truck
 Figure 12



**ROWE PROFESSIONAL
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 PROJECT MGR: _____ P. O'Meara
 REVIEWER: _____ H. Savola
 SCALE: _____ N/A SHEET NO: _____ 3



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PREPARED FOR:
Adams/Haynes Development
Site Driveway Dimensions
Figure 13

PLAN NO. _____ N/A
DATE: _____ March, 2022
PROJECT MGR: _____ P. O'Meara
REVIEWER: _____ H. Savola
SCALE: _____ N/A SHEET NO: _____ 4

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
		2022	Existing Adj.	36	470	4	5	587	35	17	15	36	2	4	12
		2025	Background	36	470	4	5	587	35	17	15	36	2	4	12
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	36	470	4	5	587	35	17	15	36	2	4	12
			Site Generated	2					2	4		3			
			Rem Existing Trips	-2					-3			-1			
			Pass By												
			Total Site Gen	0	0	0	0	0	-1	4	0	2	0	0	0
			Total Future	36	470	4	5	587	34	21	15	38	2	4	12

Count Date: **Varies**
Count Year: **2019**
Existing Adj. Year: **2022**

Existing Adjustment Rate: **1.00**
Growth Rate: **0.0%**
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
		2022	Existing Adj.	6	486	7	15	603	7	0	0	0	6	0	24
		2025	Background	6	486	7	15	603	7	0	0	0	6	0	24
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	6	486	7	15	603	7	0	0	0	6	0	24
			Site Generated		2			3				2			
			Rem Existing Trips		-2			-1							
			Pass By												
			Total Site Gen	0	0	0	0	2	0	0	0	2	0	0	0
			Total Future	6	486	7	15	605	7	0	0	2	6	0	24

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
		2022	Existing Adj.	0	9	0	0	21	0	0	0	8	3	0	10
		2025	Background	0	9	0	0	21	0	0	0	8	3	0	10
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	0	9	0	0	21	0	0	0	8	3	0	10
			Site Generated		6		2		10						
			Rem Existing Trips												
			Pass By												
			Total Site Gen	0	6	0	2	0	10	0	0	0	0	0	0
			Total Future	0	15	0	2	21	10	0	0	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		
		2022	Existing Adj.	6		13				55	5	16	59		
		2025	Background	6		13				55	5	16	59		
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	6		13				55	5	16	59		
			Site Generated	35		7					15	4			
			Rem Existing Trips							-26			-7		
			Pass By												
			Total Site Gen	35		7				-26	15	4	-7		
			Total Future	41		20				29	20	20	52		

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						0.92		
			% Heavy	2%			2%						2%		
		2019	Existing	19	0	0	0	21					0		0
		2022	Existing Adj.	19	0	0	0	21					0		0
		2025	Background	19	0	0	0	21					0		0
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	19	0	0	0	21					0		0
			Site Generated			6	19						12		42
			Rem Existing Trips												
			Pass By												
			Total Site Gen		0	6	19	0					12		42
			Total Future		19	6	19	21					12		42

Intersection	Time period	Year	Movement	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
#200 - S Adams Road & Bowers Street (West)/Shopping Center	AM Peak 2019		PHF	0.83			0.94			0.69			0.65		
			% Heavy	3%			2%			2%			0%		
		2019	Existing	20	479	0	11	593	74	35	18	30	4	6	3
		2022	Existing Adj.	20	479	0	11	593	74	35	18	30	4	6	3
		2025	Background	20	479	0	11	593	74	35	18	30	4	6	3
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	20	479	0	11	593	74	35	18	30	4	6	3
			Site Generated		4			2							
			Rem Existing Trips					-3							
			Pass By												
			Total Site Gen	0	4	0	0	-1	0	0	0	0	0	0	0
			Total Future	20	483	0	11	592	74	35	18	30	4	6	3

Intersection	Time period	Year	Movement	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
#300 - S Adams Road & Bowers Street (West)/Shopping Center	AM Peak 2019		PHF	0.84			0.95						0.76		
			% Heavy	2%			2%						1%		
		2019	Existing		464	53	29	611					67		40
		2022	Existing Adj.		464	53	29	611					67		40
		2025	Background		464	53	29	611					67		40
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background		464	53	29	611					67		40
			Site Generated		4			2							
			Rem Existing Trips					-3							
			Pass By												
			Total Site Gen		4	0	0	-1					0		0
			Total Future		468	53	29	610					67		40

Intersection	Time period	Year	Movement	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
#500 - S Adams Road & E Lincoln Street	AM Peak 2019		PHF	0.88			0.94			0.90			0.86		
			% Heavy	2%			2%			2%			2%		
		2019	Existing	45	402	48	26	421	175	205	323	6	50	280	26
		2022	Existing Adj.	45	402	48	26	421	175	205	323	6	50	280	26
		2025	Background	45	402	48	26	421	175	205	323	6	50	280	26
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	45	402	48	26	421	175	205	323	6	50	280	26
			Site Generated		2			5							
			Rem Existing Trips		-2			-1							
			Pass By												
			Total Site Gen	0	0	0	0	4	0	0	0	0	0	0	0
			Total Future	45	402	48	26	425	175	205	323	6	50	280	26

Intersection	Time period	Year	Movement	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
#6 - Haynes Street & Ex Site	AM Peak 2019		PHF												
			% Heavy												
		2019	Existing												
		2022	Existing Adj.												
		2025	Background	0		0					0	0	0	0	
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	0		0					0	0	0	0	
			Site Generated												
			Rem Existing Trips	-7		-1					-26	-5			
			Pass By												
			Total Site Gen	-7		-1					0	-26	-5	0	
			Total Future	-7		-1					0	-26	-5	0	

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
		2022	Existing Adj.	35	505	18	7	556	51	54	4	57	3	5	17
		2025	Background	35	505	18	7	556	51	54	4	57	3	5	17
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	35	505	18	7	556	51	54	4	57	3	5	17
			Site Generated	5				5	4		3				
			Rem Existing Trips	-1				-2	-3		-3				
			Pass By												
			Total Site Gen	4	0	0	0	3	1	0	0	0	0	0	0
			Total Future	39	505	18	7	556	54	55	4	57	3	5	17

Count Date: **Varies**

Count Year: **2019**

Existing Adj. Year: **2022**

Existing Adjustment Rate: **1.01**

Growth Rate: **0.0%**

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
		2022	Existing Adj.	6	537	8	32	577	7	0	1	2	7	0	21
		2025	Background	6	537	8	32	577	7	0	1	2	7	0	21
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	6	537	8	32	577	7	0	1	2	7	0	21
			Site Generated		5			3							
			Rem Existing Trips		-1			-3							
			Pass By												
			Total Site Gen	0	4	0	0	0	0	0	0	0	0	0	0
			Total Future	6	541	8	32	577	7	0	1	2	7	0	21

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
		2022	Existing Adj.	0	63	0	0	54	0	3	3	52	3	2	8
		2025	Background	0	63	0	0	54	0	3	3	52	3	2	8
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	0	63	0	0	54	0	3	3	52	3	2	8
			Site Generated		7			1	6						
			Rem Existing Trips					-1							
			Pass By												
			Total Site Gen	0	7	0	0	0	6	0	0	0	0	0	0
			Total Future	0	70	0	0	54	6	3	3	52	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		
		2022	Existing Adj.	27		47				68	23	31	60		
		2025	Background	27		47				68	23	31	60		
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	27		47				68	23	31	60		
			Site Generated	30		7					40	10			
			Rem Existing Trips							-14		-1	-29		
			Pass By												
			Total Site Gen	30		7				-14	40	9	-29		
			Total Future	57		54				54	63	40	31		

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	74	0	0	54						0		0
		2022	Existing Adj.	74	0	0	54						0		0
		2025	Background	74	0	0	54						0		0
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	74	0	0	54						0		0
			Site Generated			7	50						7		37
			Rem Existing Trips					-1							
			Pass By												
			Total Site Gen		0	7	50	-1					7		37
			Total Future		74	7	50	53					7		37

Intersection	Time period	Year	Movement	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
#200 - S Adams Road & Bowers Street (West)/Shopping Center	PM Peak 2019		PHF	0.88			0.94			0.82			0.75		
			% Heavy	1%			1%			0%			0%		
		2019	Existing	32	543	1	13	552	76	58	30	50	12	34	8
		2022	Existing Adj.	32	543	1	13	552	76	58	30	50	12	34	8
		2025	Background	32	543	1	13	552	76	58	30	50	12	34	8
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	32	543	1	13	552	76	58	30	50	12	34	8
			Site Generated		4			5							
			Rem Existing Trips		-3			-2							
			Pass By												
			Total Site Gen	0	1	0	0	3	0	0	0	0	0	0	0
			Total Future	32	544	1	13	555	76	58	30	50	12	34	8

Intersection	Time period	Year	Movement	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
#300 - S Adams Road & Bowers Street (West)/Shopping Center	PM Peak 2019		PHF	0.89			0.92						0.83		
			% Heavy	1%			1%						1%		
		2019	Existing		521	88	49	578					63		67
		2022	Existing Adj.		521	88	49	578					63		67
		2025	Background		521	88	49	578					63		67
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background		521	88	49	578					63		67
			Site Generated		4			5							
			Rem Existing Trips		-3			-2							
			Pass By												
			Total Site Gen		1	0	0	3					0		0
			Total Future		522	88	49	581					63		67

Intersection	Time period	Year	Movement	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
#500 - S Adams Road & E Lincoln Street	PM Peak 2019		PHF	0.94			0.94			0.85			0.94		
			% Heavy	2%			2%			2%			2%		
		2019	Existing	69	425	51	18	443	164	142	340	10	52	328	23
		2022	Existing Adj.	69	425	51	18	443	164	142	340	10	52	328	23
		2025	Background	69	425	51	18	443	164	142	340	10	52	328	23
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	69	425	51	18	443	164	142	340	10	52	328	23
			Site Generated		5			3							
			Rem Existing Trips		-1			-3							
			Pass By												
			Total Site Gen	0	4	0	0	0	0	0	0	0	0	0	0
			Total Future	69	429	51	18	443	164	142	340	10	52	328	23

Intersection	Time period	Year	Movement	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
#6 - Haynes Street & Ex Site	PM Peak 2019		PHF												
			% Heavy												
		2019	Existing												
		2022	Existing Adj.												
		2025	Background	0		0					0	0	0	0	
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	0		0					0	0	0	0	
			Site Generated												
			Rem Existing Trips	-30		-6					-14	-3			
			Pass By												
			Total Site Gen	-30		-6					0	-14	-3	0	
			Total Future	-30		-6					0	-14	-3	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 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 : 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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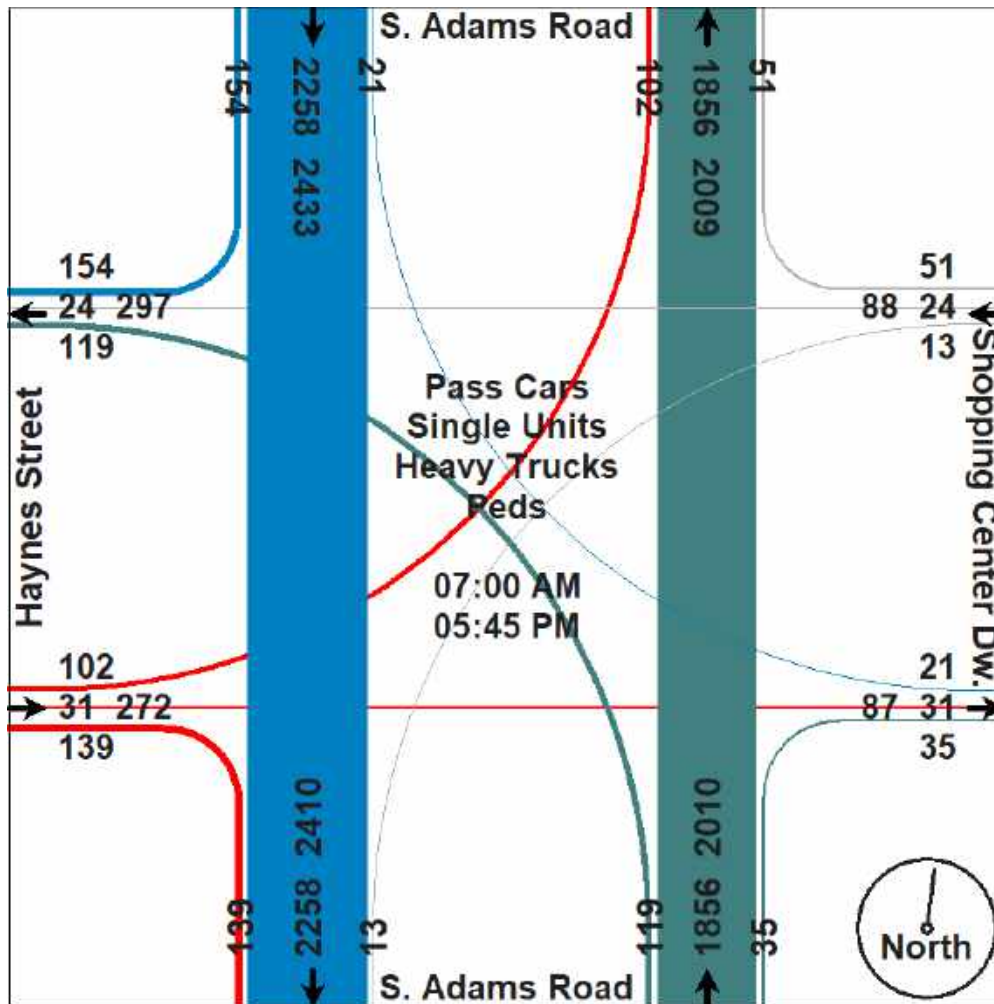
Traffic Study Performed For:

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: Miovision 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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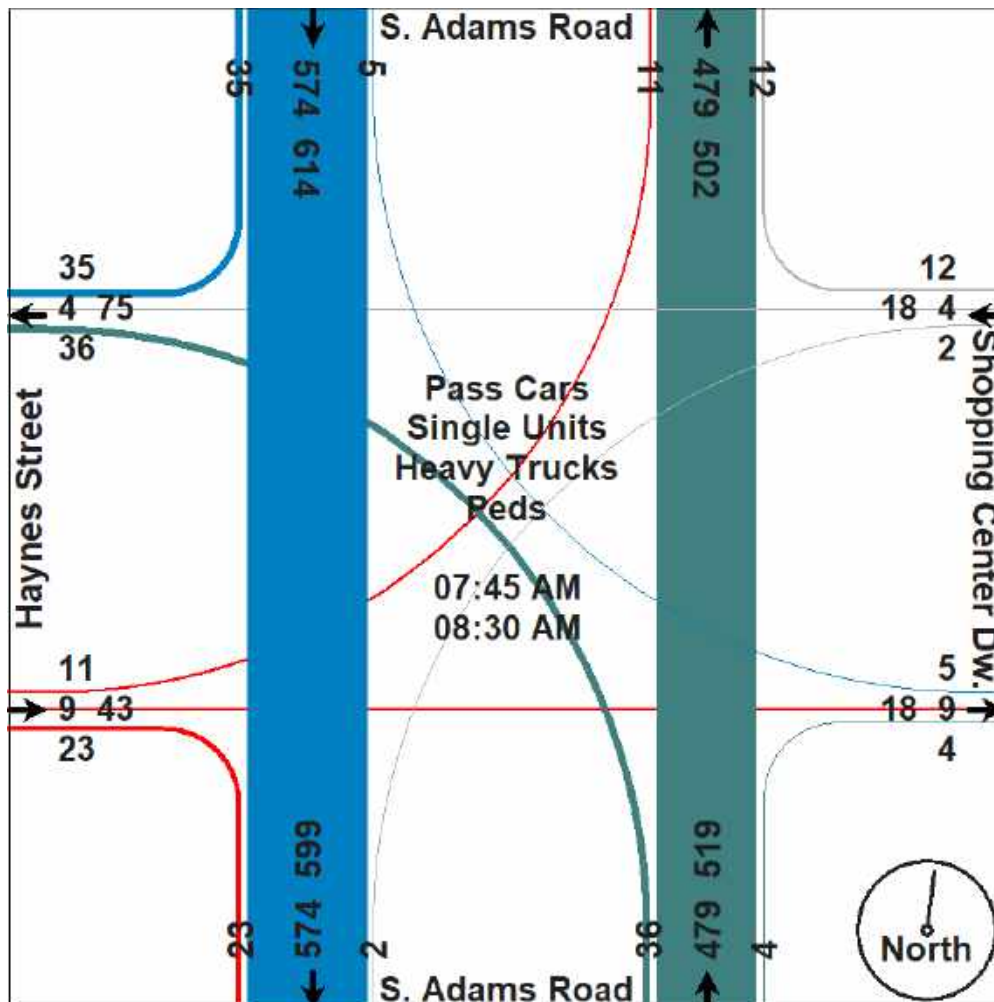
ROWE Professional Services Company



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:

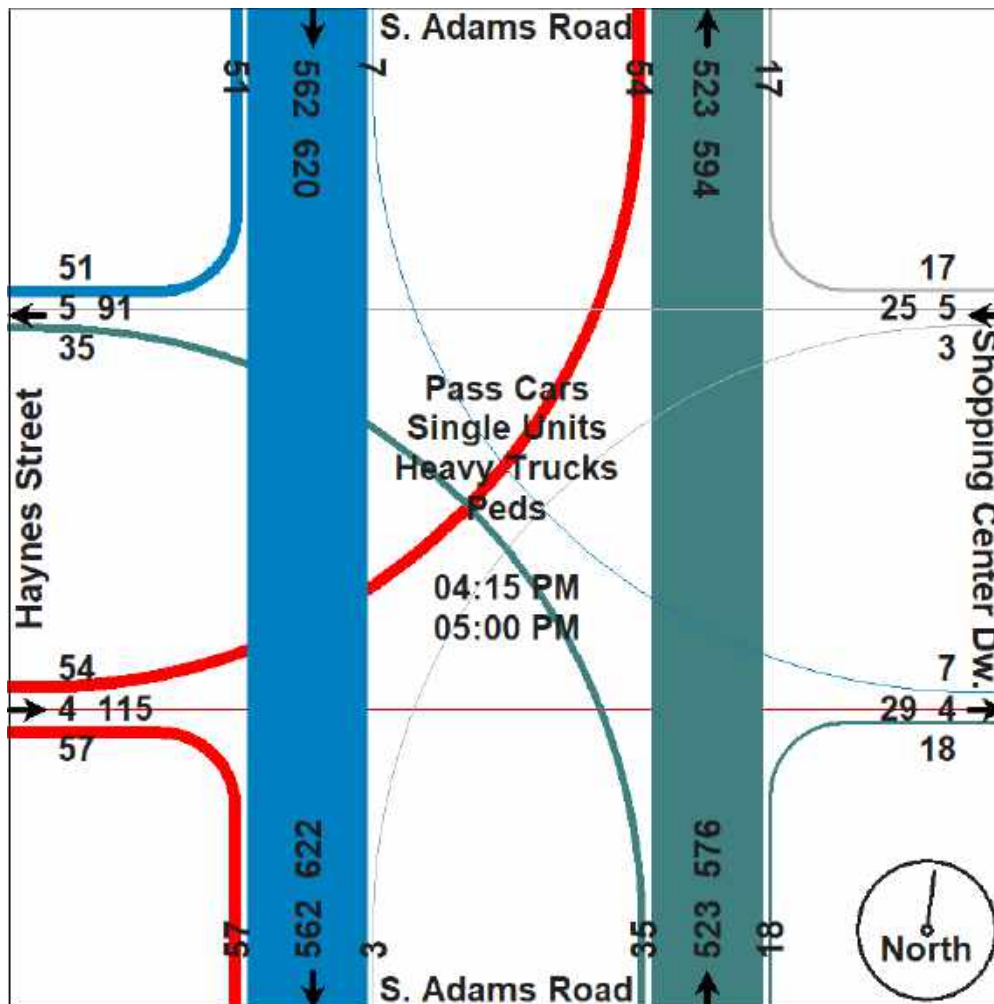
ROWE Professional Services Company



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

	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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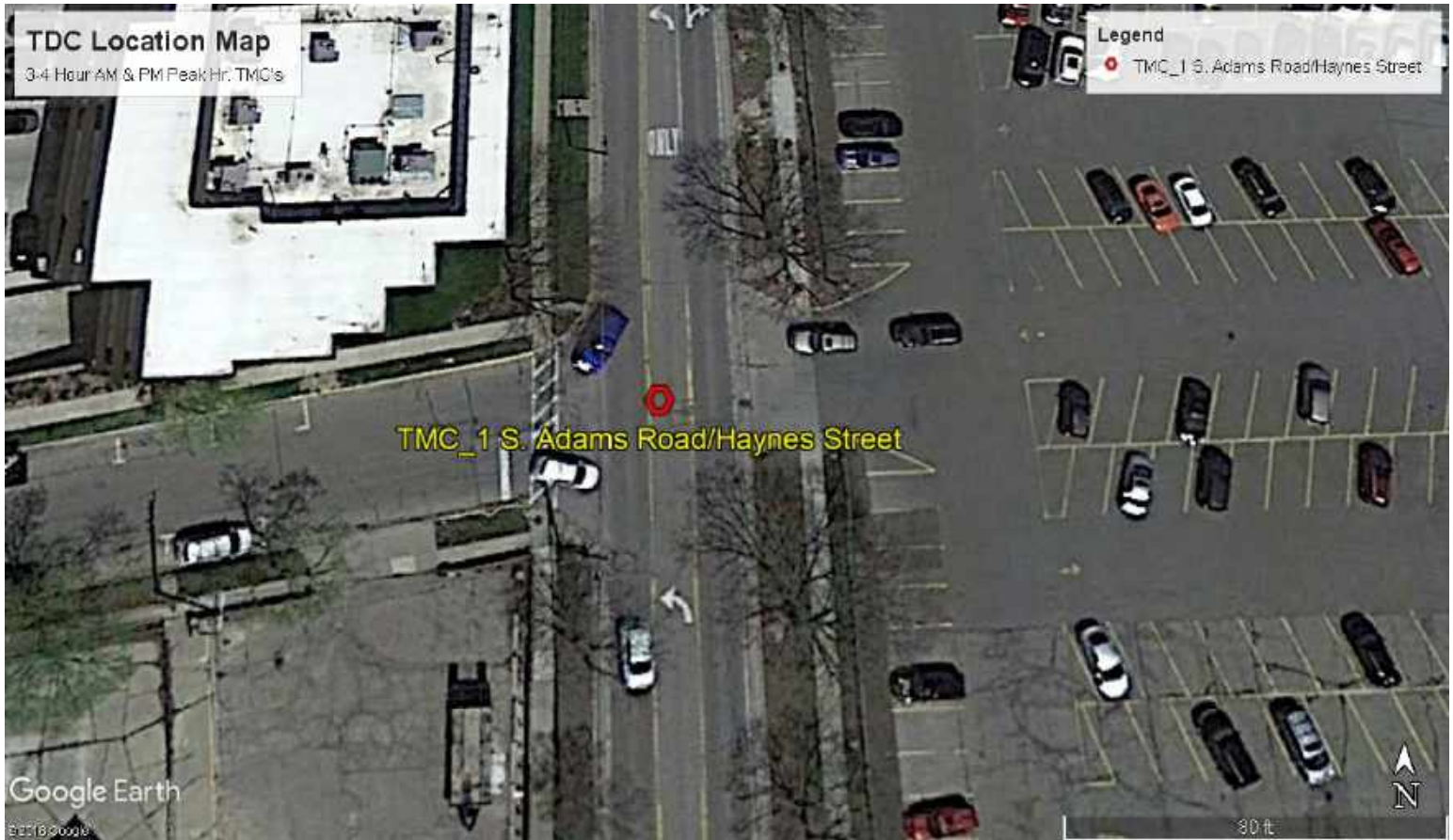
ROWE Professional Services Company



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 : 5

Aerial Photo



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Traffic Study Performed For:

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Project: Birmingham Traffic Impact Study
Study: 4 Hr. Video Turning Movement Count
Weather:: Sunny. Cldy. Dry Deg's 70s
Count By Miovision 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	1	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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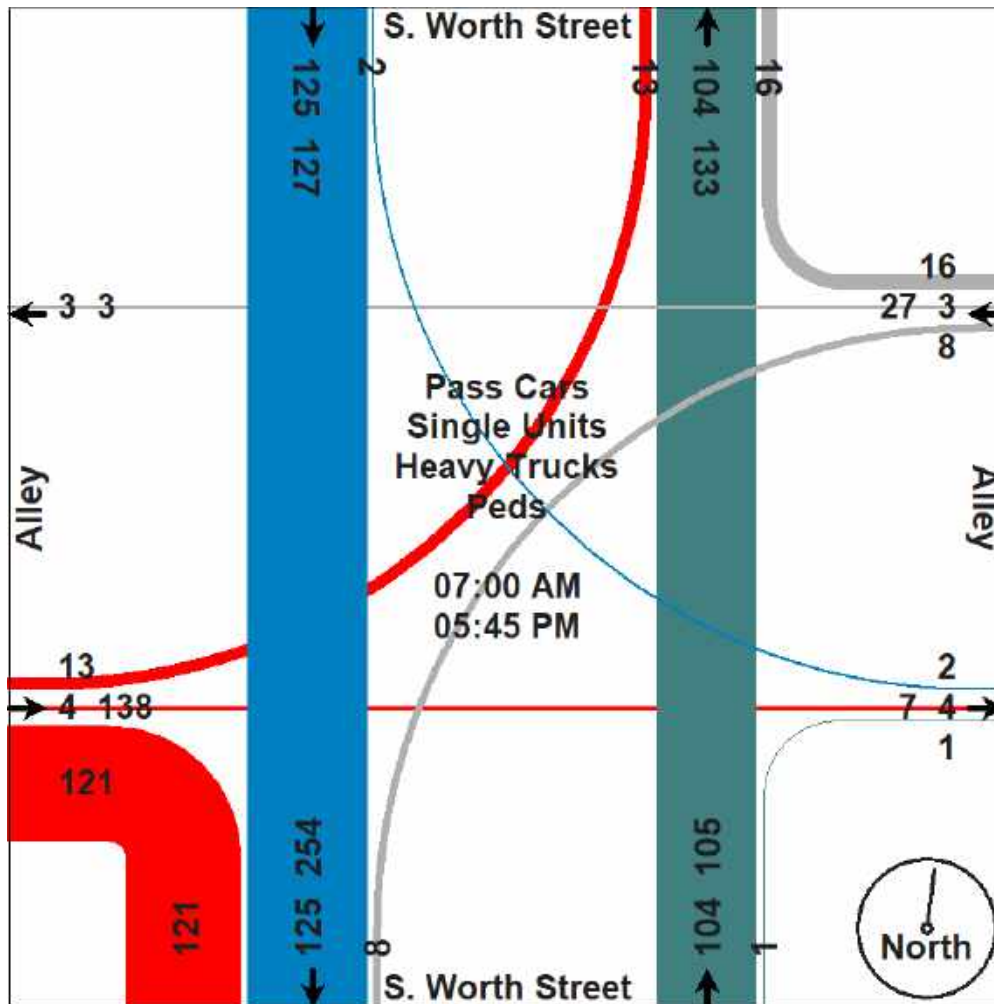
Traffic Study Performed For:

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 224 NE

File Name : TMC_2 Worth & Alley_9-11-19
Site Code : TMC_2
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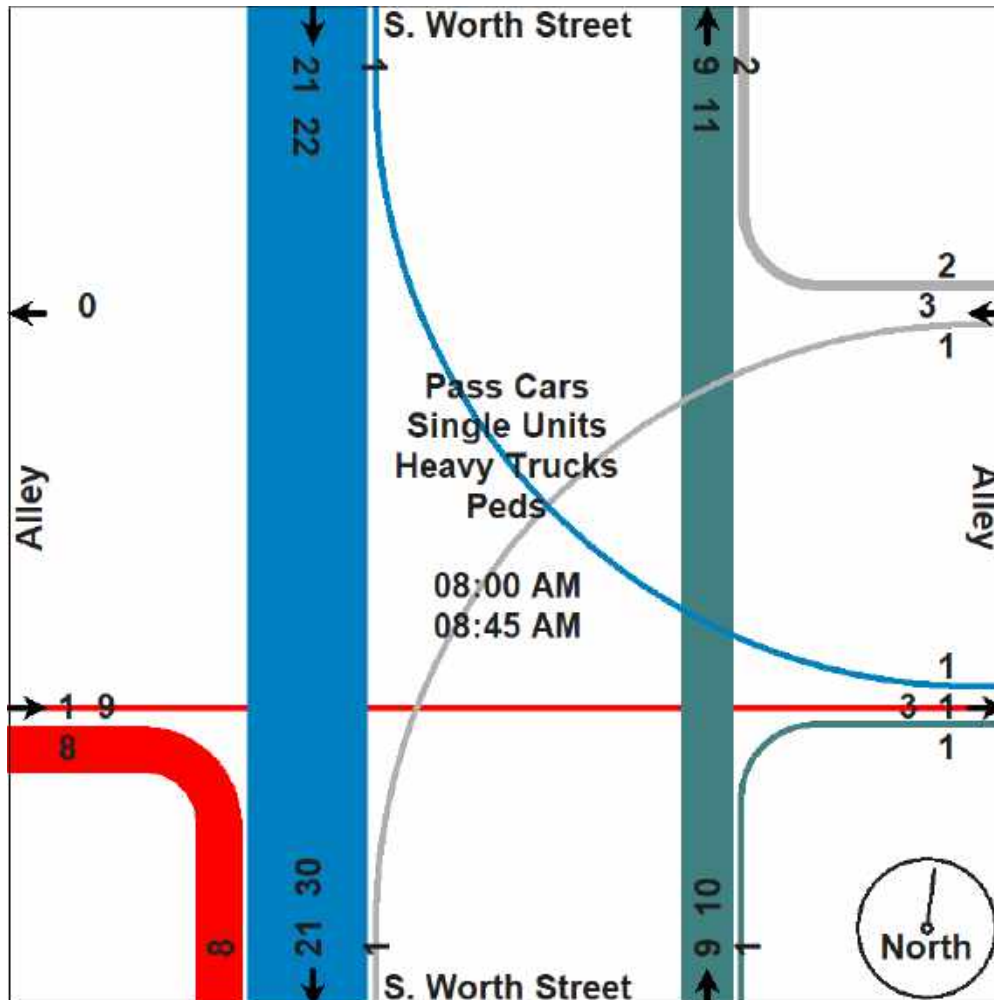
ROWE Professional Services Company



Project: Birmingham Traffic Impact Study
Study: 4 Hr. Video Turning Movement Count
Weather:: Sunny. Cldy. Dry Deg's 70s
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File Name : TMC_2 Worth & Alley_9-11-19
Site Code : TMC_2
Start Date : 9/11/2019
Page No : 3

	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:

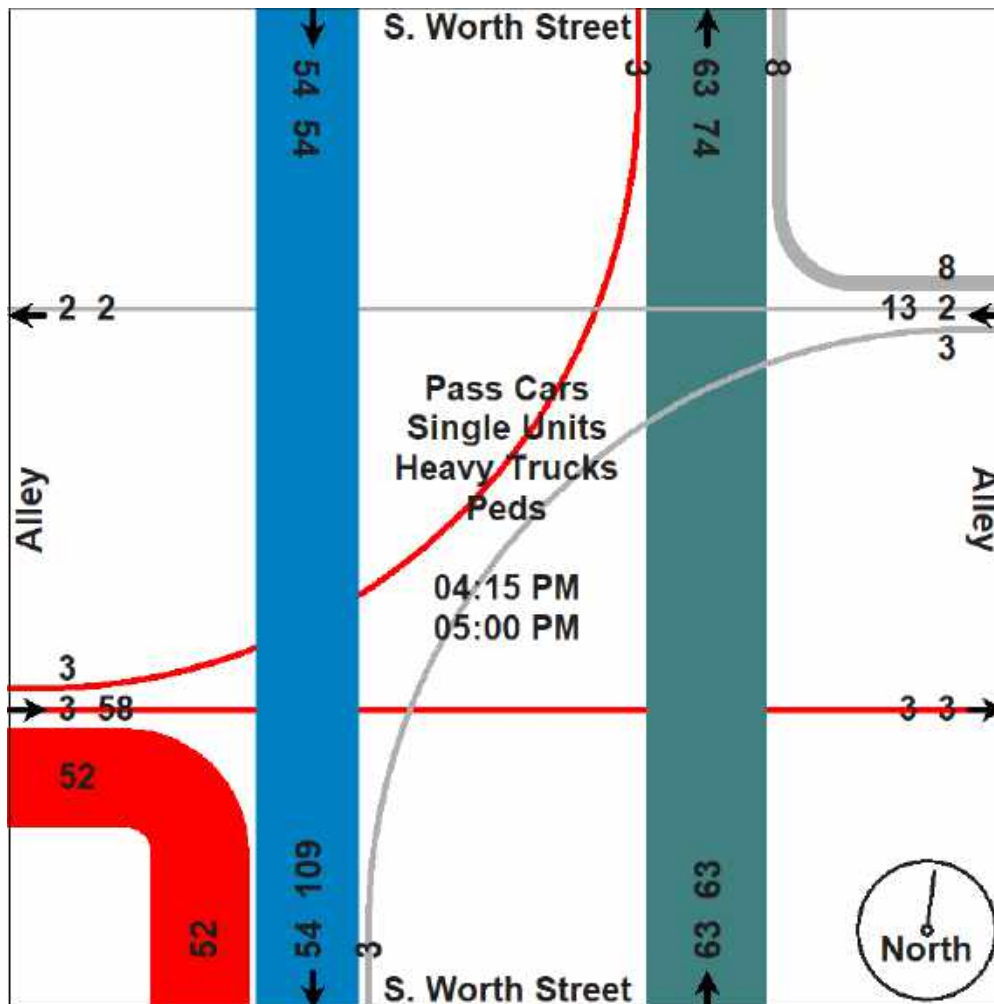
ROWE Professional Services Company



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

File Name : TMC_2 Worth & Alley_9-11-19
Site Code : TMC_2
Start Date : 9/11/2019
Page No : 4

	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



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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 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



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 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 : 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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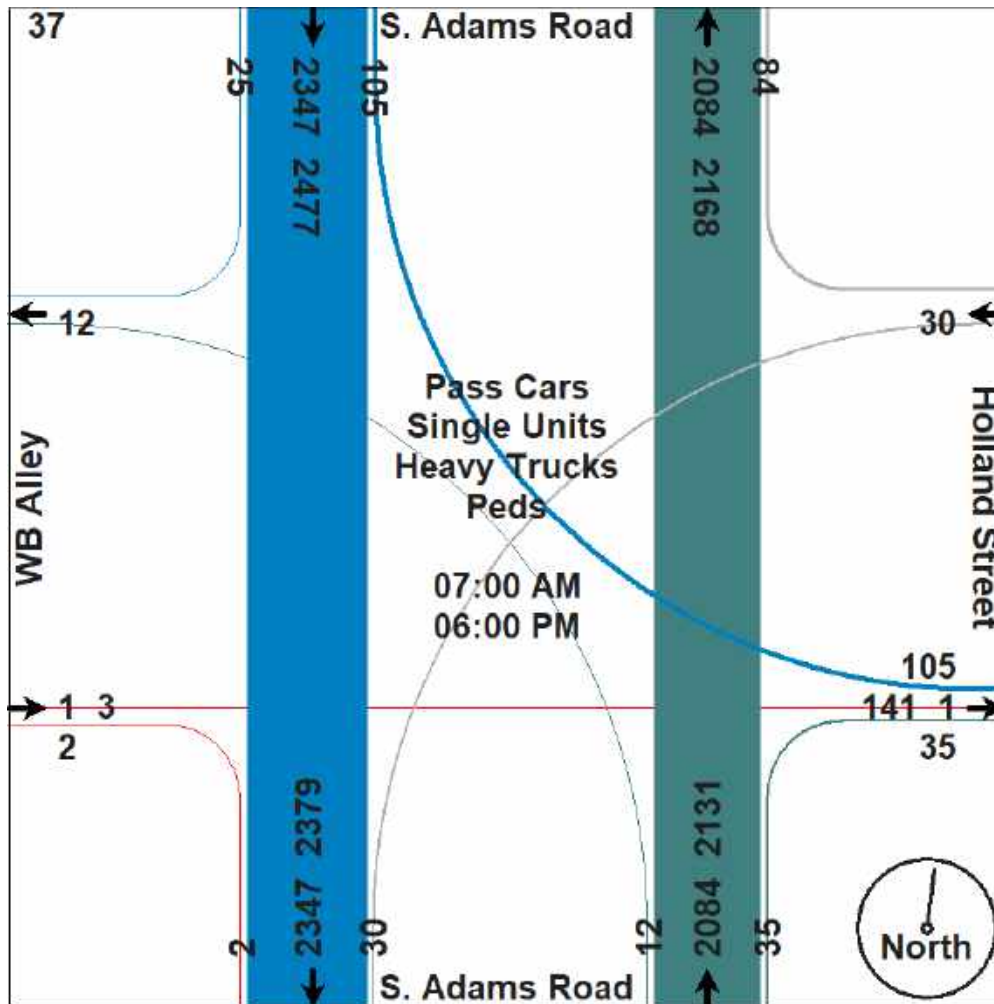
Traffic Study Performed For:

ROWE Professional Services Company



Project: Birmingham Traffic Impact Study
Study: 4 Hr. Video Turning Movement Count
Weather:: Sunny. Cldy. Dry Deg's 70s
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File Name : TMC_3 Adams & Holland_9-11-19
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Start Date : 9/11/2019
Page No : 2



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Traffic Study Performed For:

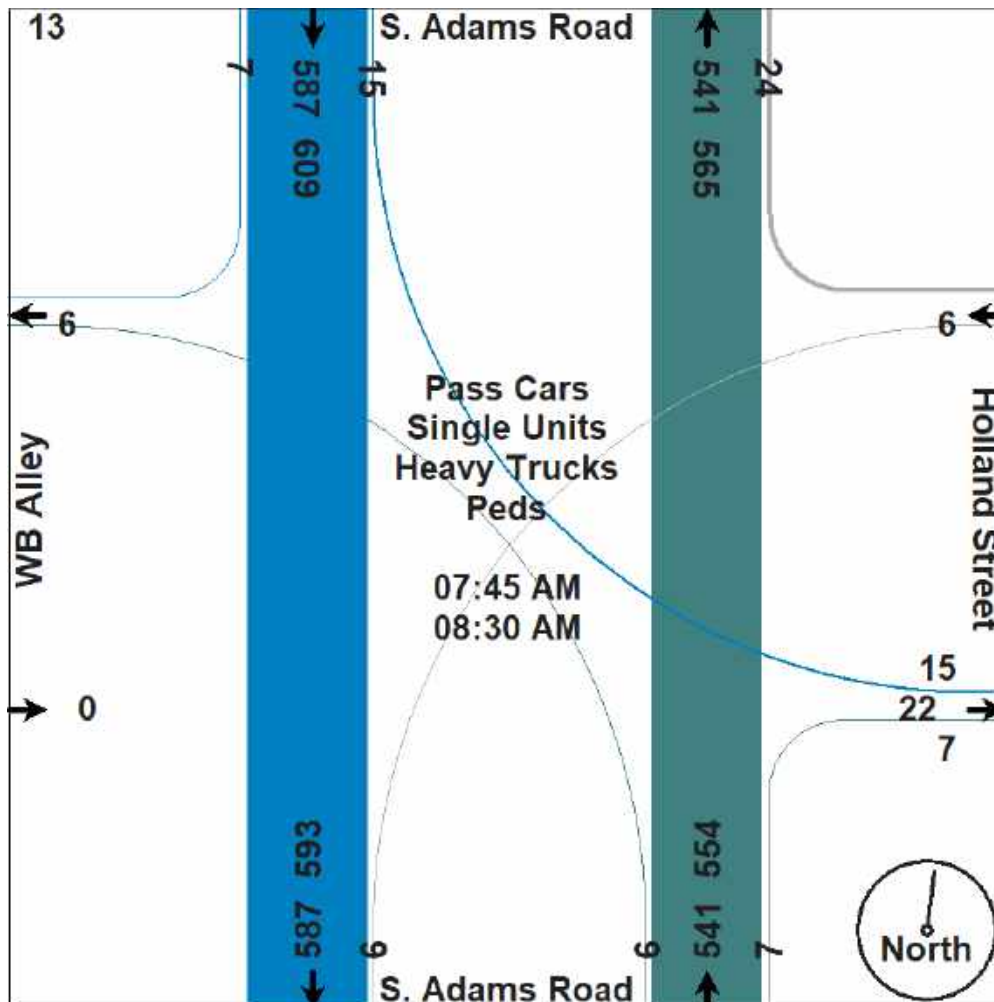
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File Name : TMC_3 Adams & Holland_9-11-19
Site Code : TMC_3
Start Date : 9/11/2019
Page No : 3

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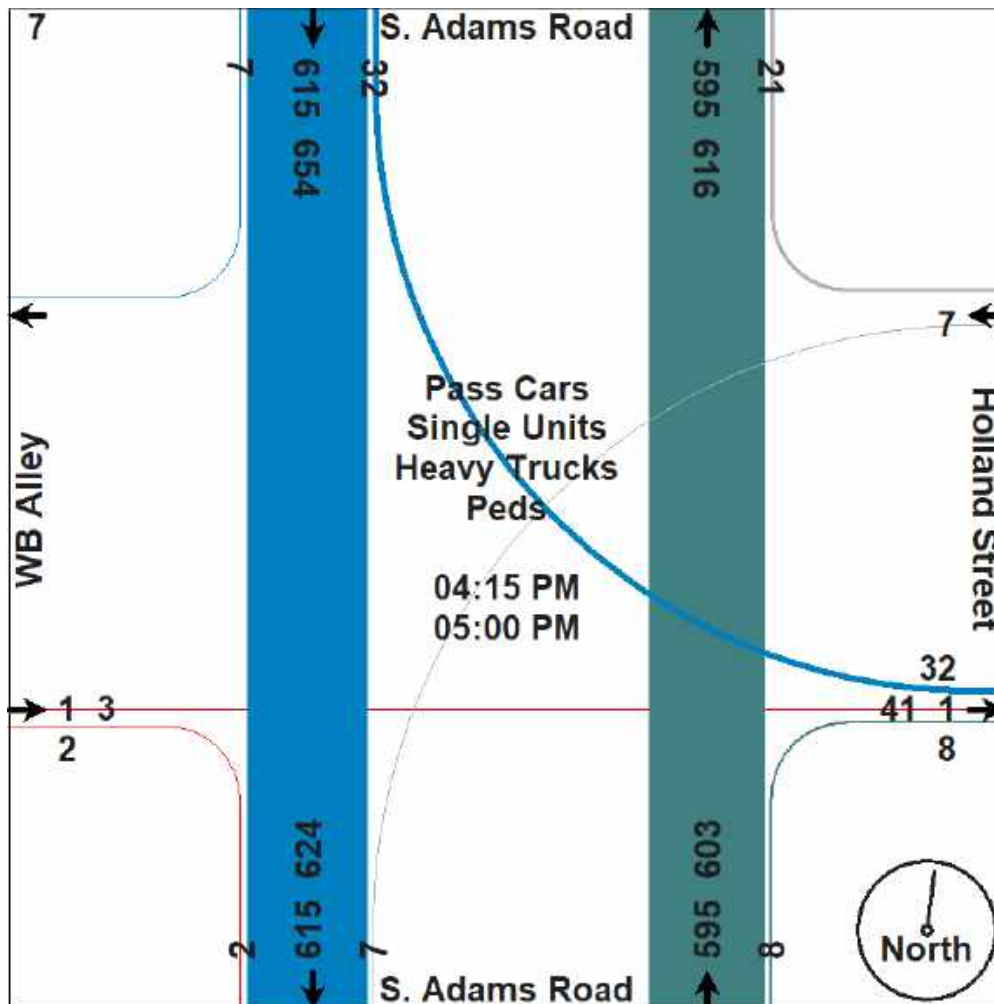
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File Name : TMC_3 Adams & Holland_9-11-19
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Start Date : 9/11/2019
Page No : 4

	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



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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

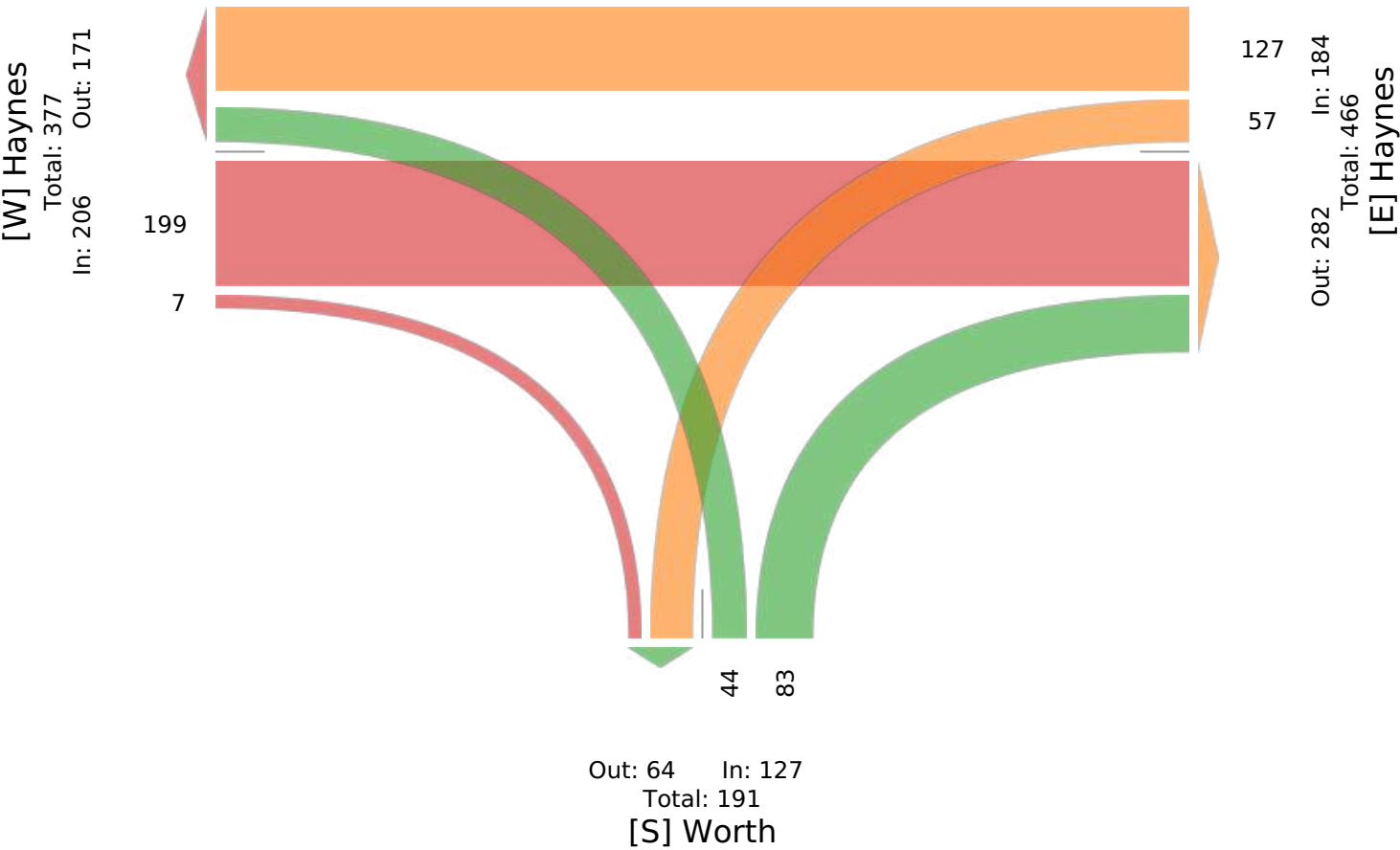


Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

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



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

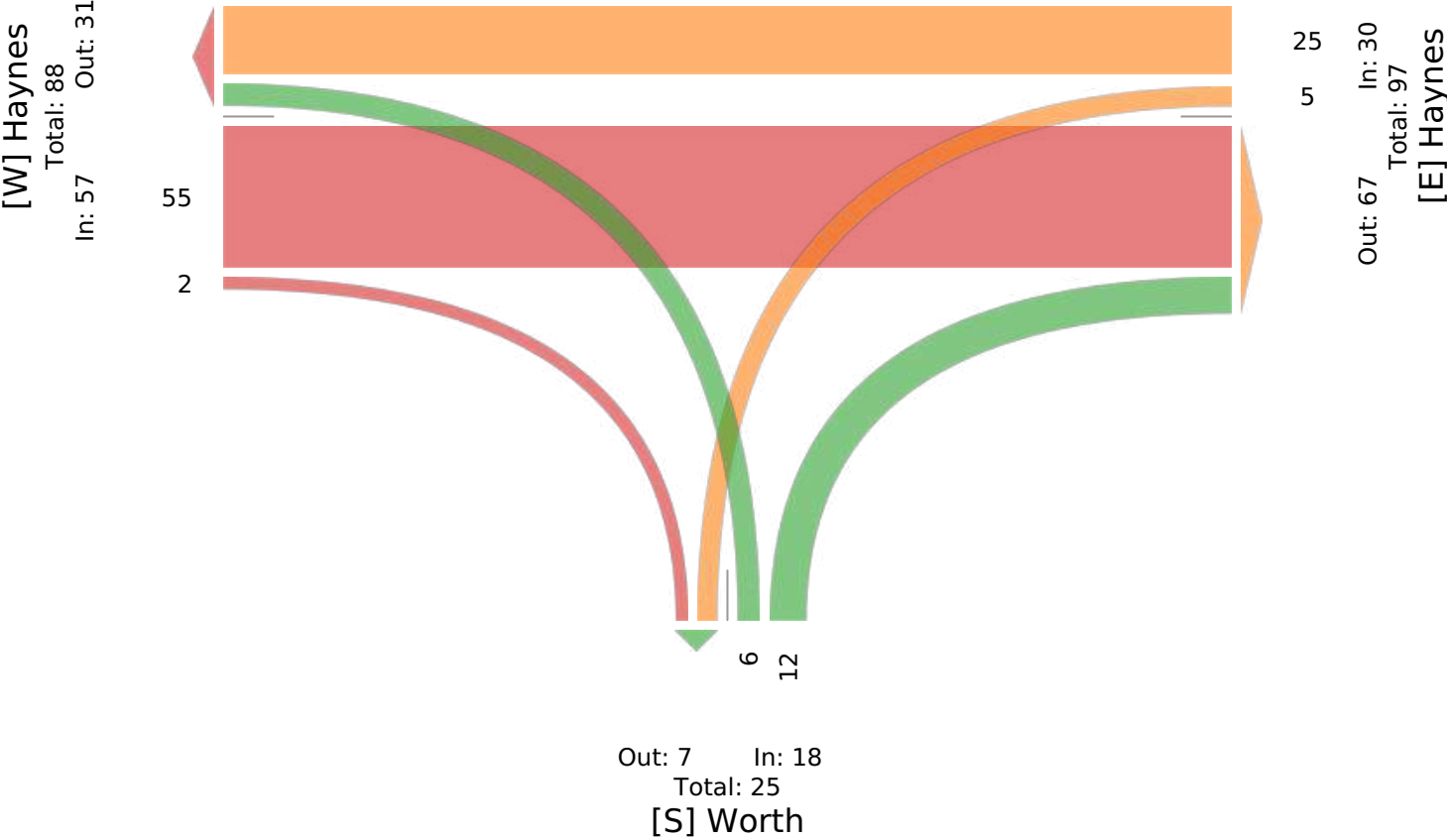


Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

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



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

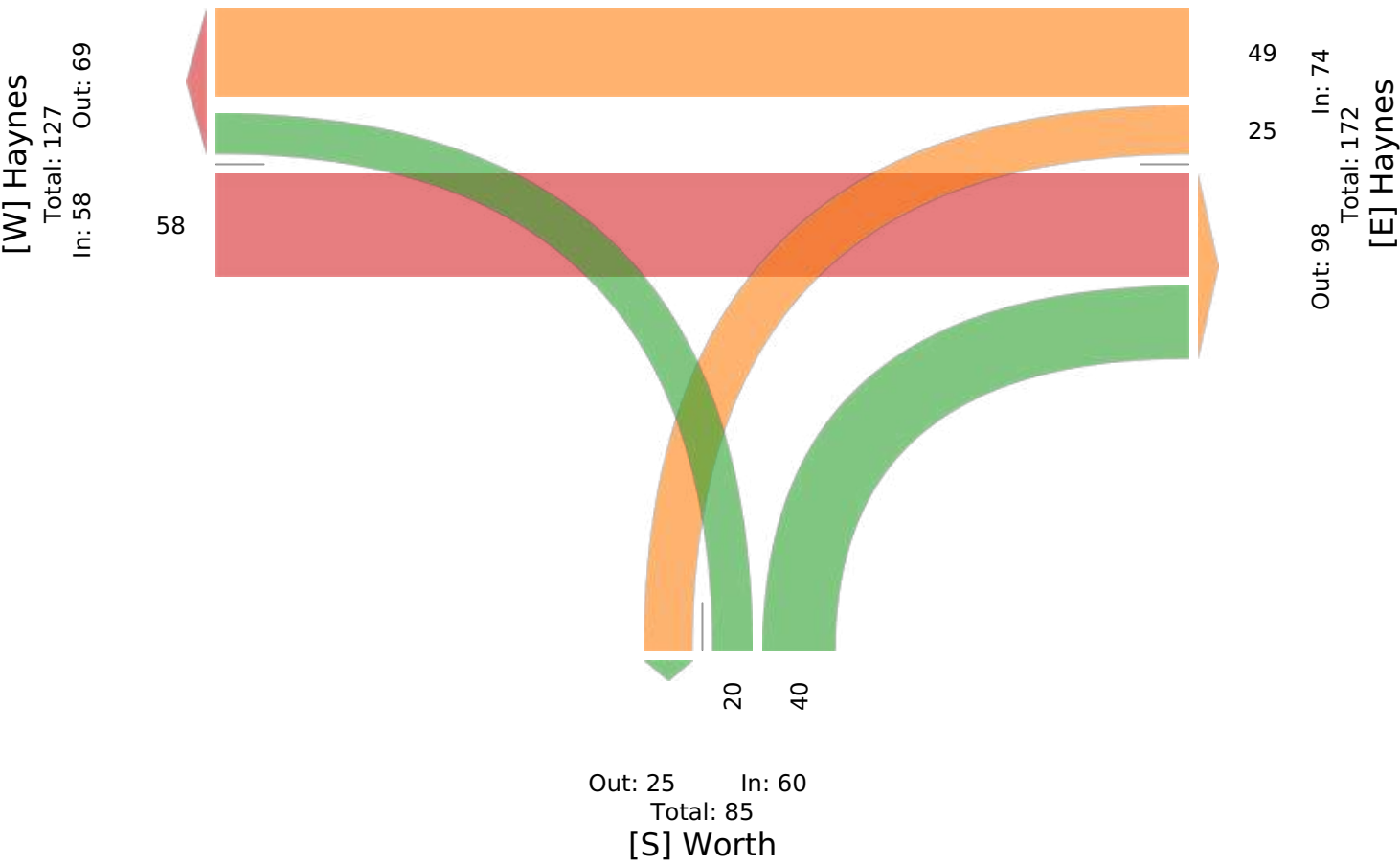


Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

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

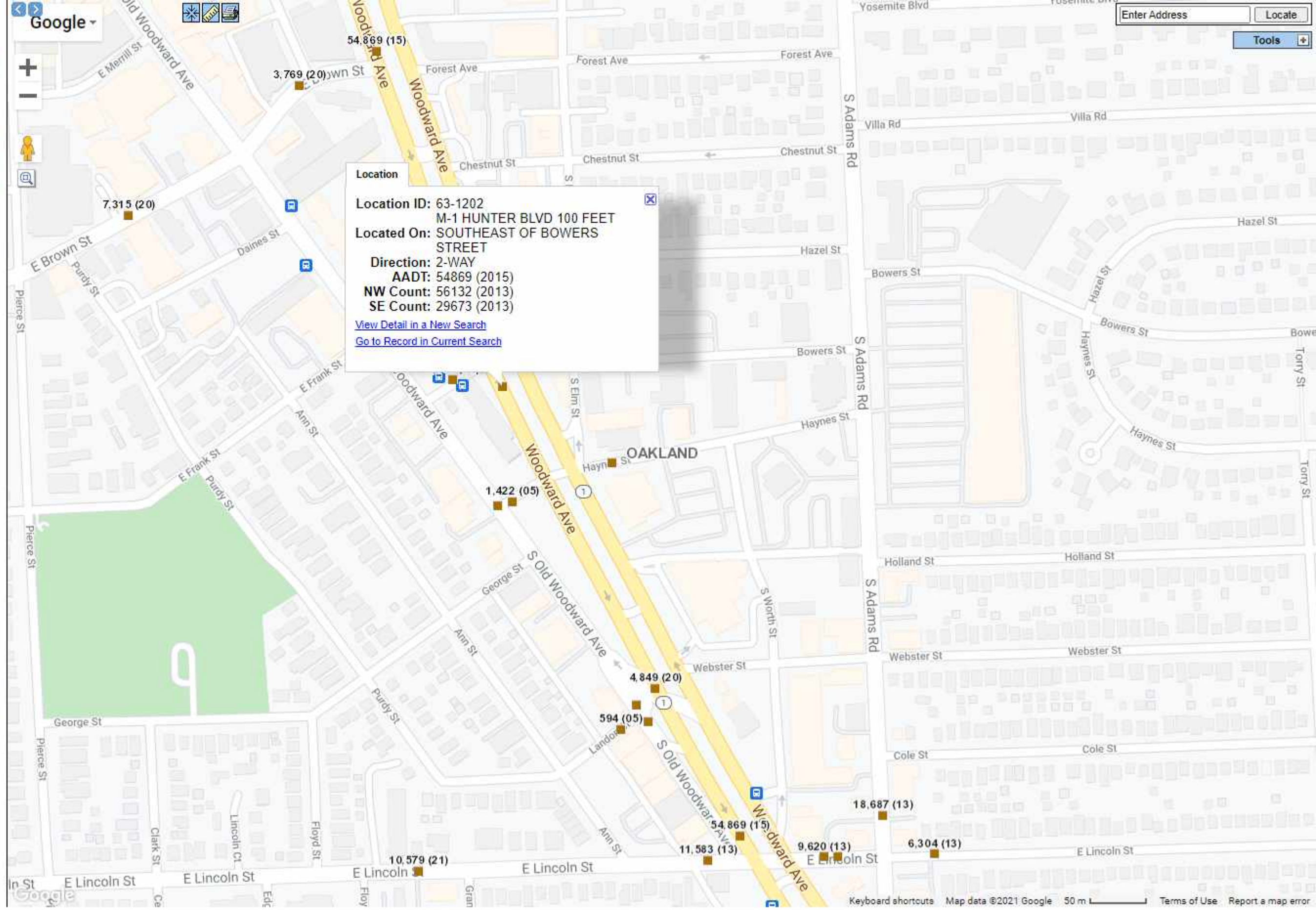


Volume Count Report

LOCATION INFO						
Location ID	63-1202					
Type	SPOT					
Funct'l Class	3					
Located On	M-1 HUNTER BLVD					
Loc On Alias	M 1					
Direction	2-WAY					
County	Oakland					
Community	BIRMINGHAM					
MPO ID	58781					
HPMS ID						
Agency	MDOT					

COUNT DATA INFO						
Count Status	Accepted					
Start Date	Tue 5/21/2013					
End Date	Wed 5/22/2013					
Start Time	10:00:00 AM					
End Time	10:00:00 AM					
Direction						
Notes						
Station						
Study						
Speed Limit						
Description						
Sensor Type	Axle/Tube					
Source						
Latitude,Longitude						

INTERVAL:15-MIN						
Time	15-min Interval				Hourly Count	
	1st	2nd	3rd	4th		
0:00-1:00	121	110	93	63	387	
1:00-2:00	48	49	45	30	172	
2:00-3:00	55	31	22	29	137	
3:00-4:00	20	22	30	23	95	
4:00-5:00	28	50	41	71	190	
5:00-6:00	98	194	253	281	826	
6:00-7:00	345	523	795	934	2,597	
7:00-8:00	1,097	1,375	1,629	1,959	6,060	
8:00-9:00	1,799	1,735	1,638	1,484	6,656	
9:00-10:00	1,194	1,145	1,124	1,110	4,573	
10:00-11:00	1,051	1,043	1,060	1,126	4,280	
11:00-12:00	1,096	1,155	1,249	1,187	4,687	
12:00-13:00	1,274	1,300	1,314	1,345	5,233	
13:00-14:00	1,256	1,276	1,319	1,351	5,202	
14:00-15:00	1,276	1,470	1,427	1,546	5,719	
15:00-16:00	1,471	1,555	1,626	1,529	6,181	
16:00-17:00	1,644	1,639	1,815	1,990	7,088	
17:00-18:00	2,120	2,126	2,028	1,856	8,130	
18:00-19:00	1,762	1,578	1,287	1,090	5,717	
19:00-20:00	1,045	1,008	975	897	3,925	
20:00-21:00	773	883	850	740	3,246	
21:00-22:00	754	661	557	516	2,488	
22:00-23:00	442	418	367	245	1,472	
23:00-24:00	222	178	176	168	744	
Total					85,805	
AM Peak					07:45-08:45 7,131	
PM Peak					16:45-17:45 8,264	



LOS OUTPUT REPORTS

HCM 6th TWSC
1: S Adams Road & Haynes Street/Shopping Center

2022 Existing Conditions
AM Peak Hour

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↔	↔		↔	↔	
Traffic Vol, veh/h	17	15	36	2	4	12	36	470	4	5	587	35
Future Vol, veh/h	17	15	36	2	4	12	36	470	4	5	587	35
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	-	-	25	-	-
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	24	21	50	3	6	19	46	603	5	5	618	37

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1357	1347	637	1380	1363	606	655	0	0	608	0	0
Stage 1	647	647	-	698	698	-	-	-	-	-	-	-
Stage 2	710	700	-	682	665	-	-	-	-	-	-	-
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	127	152	481	123	149	501	932	-	-	970	-	-
Stage 1	463	470	-	434	445	-	-	-	-	-	-	-
Stage 2	428	444	-	443	461	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	113	144	481	94	141	501	932	-	-	970	-	-
Mov Cap-2 Maneuver	113	144	-	94	141	-	-	-	-	-	-	-
Stage 1	440	468	-	413	423	-	-	-	-	-	-	-
Stage 2	386	422	-	377	459	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	36.5		21.6		0.6		0.1	
HCM LOS	E		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	932	-	-	206 245	970	-	-
HCM Lane V/C Ratio	0.05	-	-	0.458 0.115	0.005	-	-
HCM Control Delay (s)	9.1	-	-	36.5 21.6	8.7	-	-
HCM Lane LOS	A	-	-	E C	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	2.2 0.4	0	-	-

HCM 6th TWSC
2: S Adams Road & Alley/Holland Street

2022 Existing Conditions
AM Peak Hour

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	0	0	6	0	24	6	486	7	15	603	7
Future Vol, veh/h	0	0	0	6	0	24	6	486	7	15	603	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	-	-	-	-	-	-	75	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	83	83	83	82	82	82	93	93	93
Heavy Vehicles, %	2	2	2	3	3	3	2	2	2	2	2	2
Mvmt Flow	0	0	0	7	0	29	7	593	9	16	648	8

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1310	1300	652	1296	1300	598	656	0	0	602	0	0
Stage 1	684	684	-	612	612	-	-	-	-	-	-	-
Stage 2	626	616	-	684	688	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.13	6.53	6.23	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.527	4.027	3.327	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	136	161	468	138	160	500	931	-	-	975	-	-
Stage 1	439	449	-	479	482	-	-	-	-	-	-	-
Stage 2	472	482	-	437	445	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	126	157	468	136	156	500	931	-	-	975	-	-
Mov Cap-2 Maneuver	126	157	-	136	156	-	-	-	-	-	-	-
Stage 1	435	442	-	475	478	-	-	-	-	-	-	-
Stage 2	441	478	-	430	438	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	0		17.4		0.1		0.2	
HCM LOS	A		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	931	-	-	-	326	975	-
HCM Lane V/C Ratio	0.008	-	-	-	0.111	0.017	-
HCM Control Delay (s)	8.9	-	-	0	17.4	8.8	-
HCM Lane LOS	A	-	-	A	C	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.4	0.1	-

HCM 6th TWSC
3: S Worth Street & Alley

2022 Existing 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	0	0	8	3	0	10	0	9	0	0	21	0
Future Vol, veh/h	0	0	8	3	0	10	0	9	0	0	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	0	13	4	0	13	0	11	0	0	27	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	45	38	27	45	38	11	27	0	0	11	0	0
Stage 1	27	27	-	11	11	-	-	-	-	-	-	-
Stage 2	18	11	-	34	27	-	-	-	-	-	-	-
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	962	858	1054	962	858	1076	1536	-	-	1621	-	-
Stage 1	996	877	-	1015	890	-	-	-	-	-	-	-
Stage 2	1006	890	-	987	877	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	950	858	1054	949	858	1076	1536	-	-	1621	-	-
Mov Cap-2 Maneuver	950	858	-	949	858	-	-	-	-	-	-	-
Stage 1	996	877	-	1015	890	-	-	-	-	-	-	-
Stage 2	994	890	-	975	877	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	8.5		8.5		0		0	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1536	-	-	1054 1044	1621	-	-
HCM Lane V/C Ratio	-	-	-	0.013 0.017	-	-	-
HCM Control Delay (s)	0	-	-	8.5 8.5	0	-	-
HCM Lane LOS	A	-	-	A A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0 0.1	0	-	-

HCM 6th TWSC
4: S Worth Street & Haynes Street

2022 Existing Conditions
AM Peak Hour

Intersection						
Int Delay, s/veh	2.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	55	5	16	59	6	13
Future Vol, veh/h	55	5	16	59	6	13
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	83	60	60
Heavy Vehicles, %	2	2	0	0	11	11
Mvmt Flow	70	6	19	71	10	22
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	76	0	182	73
Stage 1	-	-	-	-	73	-
Stage 2	-	-	-	-	109	-
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	-	-	1536	-	787	964
Stage 1	-	-	-	-	928	-
Stage 2	-	-	-	-	894	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1536	-	777	964
Mov Cap-2 Maneuver	-	-	-	-	777	-
Stage 1	-	-	-	-	928	-
Stage 2	-	-	-	-	882	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.6		9.2	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1		EBT	EBR	WBL	WBT
Capacity (veh/h)	896		-	-	1536	-
HCM Lane V/C Ratio	0.035		-	-	0.013	-
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	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	88	50	52	52	30	10
Average Queue (ft)	37	14	13	4	2	0
95th Queue (ft)	70	41	40	32	14	7
Link Distance (ft)	337	279		337		134
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			100		25	
Storage Blk Time (%)				0	0	0
Queuing Penalty (veh)				0	2	0

Intersection: 2: S Adams Road & Alley/Holland Street

Movement	WB	NB	SB
Directions Served	LTR	L	L
Maximum Queue (ft)	60	9	25
Average Queue (ft)	19	1	4
95th Queue (ft)	48	5	19
Link Distance (ft)	475		
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		75	50
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: S Worth Street & Alley

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (ft)	26	19
Average Queue (ft)	7	6
95th Queue (ft)	25	21
Link Distance (ft)	297	264
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: S Worth Street & Haynes Street

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	23	53
Average Queue (ft)	1	15
95th Queue (ft)	10	45
Link Distance (ft)	337	281
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 200: S Adams Road & Bowers Street (West)/Shopping Center

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	109	43	95	180	66	159
Average Queue (ft)	43	9	20	116	10	79
95th Queue (ft)	87	34	65	184	40	142
Link Distance (ft)	487	465		134		158
Upstream Blk Time (%)				4		1
Queuing Penalty (veh)				21		4
Storage Bay Dist (ft)			75		75	
Storage Blk Time (%)			1	13		11
Queuing Penalty (veh)			4	3		1

Intersection: 300: S Adams Road & Bowers Street (West)

Movement	WB	NB	SB	SB
Directions Served	LR	TR	L	T
Maximum Queue (ft)	138	105	114	301
Average Queue (ft)	61	43	26	154
95th Queue (ft)	113	88	76	252
Link Distance (ft)	477	158		443
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			100	
Storage Blk Time (%)			0	14
Queuing Penalty (veh)			0	4

Intersection: 500: S Adams Road & E Lincoln Street

Movement	EB	EB	WB	WB	B9076	NB	NB	SB	SB
Directions Served	LT	TR	LT	TR	T	L	TR	L	TR
Maximum Queue (ft)	460	448	153	163	36	157	310	102	322
Average Queue (ft)	414	388	83	77	2	31	147	15	119
95th Queue (ft)	499	559	134	132	20	89	255	61	249
Link Distance (ft)	412	412	122	122	484		392		512
Upstream Blk Time (%)	73	50	2	1			0		
Queuing Penalty (veh)	0	0	0	0			0		
Storage Bay Dist (ft)						150		250	
Storage Blk Time (%)							6		1
Queuing Penalty (veh)							3		0

Zone Summary

Zone wide Queuing Penalty: 42

HCM 6th TWSC
1: S Adams Road & Haynes Street/Shopping Center

2022 Existing Conditions
PM Peak Hour

Intersection												
Int Delay, s/veh	7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↔	↔		↔	↔	
Traffic Vol, veh/h	54	4	57	3	5	17	35	505	18	7	556	51
Future Vol, veh/h	54	4	57	3	5	17	35	505	18	7	556	51
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	-	-	25	-	-
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	66	5	70	5	8	27	40	580	21	7	585	54

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1314	1307	612	1335	1324	591	639	0	0	601	0	0
Stage 1	626	626	-	671	671	-	-	-	-	-	-	-
Stage 2	688	681	-	664	653	-	-	-	-	-	-	-
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	134	159	491	132	157	511	950	-	-	981	-	-
Stage 1	470	475	-	449	458	-	-	-	-	-	-	-
Stage 2	435	449	-	453	467	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	117	151	491	106	149	511	950	-	-	981	-	-
Mov Cap-2 Maneuver	117	151	-	106	149	-	-	-	-	-	-	-
Stage 1	450	472	-	430	439	-	-	-	-	-	-	-
Stage 2	388	430	-	382	464	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	63.8		21.1		0.6		0.1	
HCM LOS	F		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	950	-	-	190	263	981	-
HCM Lane V/C Ratio	0.042	-	-	0.738	0.151	0.008	-
HCM Control Delay (s)	9	-	-	63.8	21.1	8.7	-
HCM Lane LOS	A	-	-	F	C	A	-
HCM 95th %tile Q(veh)	0.1	-	-	4.8	0.5	0	-

HCM 6th TWSC
2: S Adams Road & Alley/Holland Street

2022 Existing Conditions
PM Peak Hour

Intersection												
Int Delay, s/veh	0.9											
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	6	537	8	32	577	7
Future Vol, veh/h	0	1	2	7	0	21	6	537	8	32	577	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	-	-	-	-	-	-	75	-	-	50	-	-
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	7	617	9	35	627	8

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1350	1341	631	1340	1341	622	635	0	0	626	0	0
Stage 1	701	701	-	636	636	-	-	-	-	-	-	-
Stage 2	649	640	-	704	705	-	-	-	-	-	-	-
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	129	154	485	131	154	490	953	-	-	960	-	-
Stage 1	433	444	-	469	475	-	-	-	-	-	-	-
Stage 2	462	473	-	431	442	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	118	147	485	125	147	490	953	-	-	960	-	-
Mov Cap-2 Maneuver	118	147	-	125	147	-	-	-	-	-	-	-
Stage 1	430	428	-	466	472	-	-	-	-	-	-	-
Stage 2	433	470	-	411	426	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	18.3		19.6		0.1		0.5	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	953	-	-	275	283	960	-
HCM Lane V/C Ratio	0.007	-	-	0.018	0.127	0.036	-
HCM Control Delay (s)	8.8	-	-	18.3	19.6	8.9	-
HCM Lane LOS	A	-	-	C	C	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.4	0.1	-

HCM 6th TWSC
3: S Worth Street & Alley

2022 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	52	3	2	8	0	63	0	0	54	0
Future Vol, veh/h	3	3	52	3	2	8	0	63	0	0	54	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	87	5	3	12	0	84	0	0	60	0
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	152	144	60	190	144	84	60	0	0	84	0	0
Stage 1	60	60	-	84	84	-	-	-	-	-	-	-
Stage 2	92	84	-	106	60	-	-	-	-	-	-	-
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	820	751	1011	774	751	981	1556	-	-	1526	-	-
Stage 1	957	849	-	929	829	-	-	-	-	-	-	-
Stage 2	920	829	-	905	849	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	807	751	1011	704	751	981	1556	-	-	1526	-	-
Mov Cap-2 Maneuver	807	751	-	704	751	-	-	-	-	-	-	-
Stage 1	957	849	-	929	829	-	-	-	-	-	-	-
Stage 2	905	829	-	823	849	-	-	-	-	-	-	-
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	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1556	-	-	981	862	1526	-	-				
HCM Lane V/C Ratio	-	-	-	0.099	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: S Worth Street & Haynes Street

2022 Existing Conditions
PM Peak Hour

Intersection						
Int Delay, s/veh	3.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	68	23	31	60	27	47
Future Vol, veh/h	68	23	31	60	27	47
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	69	69	77	77	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	99	33	40	78	38	66
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	132	0	274	116
Stage 1	-	-	-	-	116	-
Stage 2	-	-	-	-	158	-
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	-	-	1466	-	720	942
Stage 1	-	-	-	-	914	-
Stage 2	-	-	-	-	875	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1466	-	699	942
Mov Cap-2 Maneuver	-	-	-	-	699	-
Stage 1	-	-	-	-	914	-
Stage 2	-	-	-	-	850	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2.6		9.9	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	836	-	-	1466	-	
HCM Lane V/C Ratio	0.125	-	-	0.027	-	
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	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	171	46	49	11	30	27
Average Queue (ft)	58	18	15	1	3	1
95th Queue (ft)	119	43	41	8	17	14
Link Distance (ft)	326	326		344		136
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			100		25	
Storage Blk Time (%)					1	0
Queuing Penalty (veh)					3	0

Intersection: 2: S Adams Road & Alley/Holland Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	L	L
Maximum Queue (ft)	30	66	10	37
Average Queue (ft)	4	22	1	8
95th Queue (ft)	19	52	5	27
Link Distance (ft)	268	792		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			75	50
Storage Blk Time (%)				0
Queuing Penalty (veh)				0

Intersection: 3: S Worth Street & Alley

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (ft)	50	19
Average Queue (ft)	24	6
95th Queue (ft)	45	20
Link Distance (ft)	286	268
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: S Worth Street & Haynes Street

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	31	64
Average Queue (ft)	3	31
95th Queue (ft)	19	49
Link Distance (ft)	326	286
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 200: S Adams Road & Bowers Street (West)/Shopping Center

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	138	101	99	176	30	160
Average Queue (ft)	66	35	23	102	7	76
95th Queue (ft)	121	78	65	162	27	141
Link Distance (ft)	656	465		136		152
Upstream Blk Time (%)				2		1
Queuing Penalty (veh)				11		4
Storage Bay Dist (ft)			75		75	
Storage Blk Time (%)			0	11		11
Queuing Penalty (veh)			2	4		1

Intersection: 300: S Adams Road & Bowers Street (East)

Movement	WB	NB	SB	SB
Directions Served	LR	TR	L	T
Maximum Queue (ft)	173	141	125	314
Average Queue (ft)	77	64	39	164
95th Queue (ft)	138	123	97	275
Link Distance (ft)	477	152		538
Upstream Blk Time (%)		0		
Queuing Penalty (veh)		1		
Storage Bay Dist (ft)			100	
Storage Blk Time (%)			0	15
Queuing Penalty (veh)			2	8

Intersection: 500: S Adams Road & E Lincoln Street

Movement	EB	EB	WB	WB	B9076	NB	NB	SB	SB
Directions Served	LT	TR	LT	TR	T	L	TR	L	TR
Maximum Queue (ft)	608	571	172	168	55	174	269	98	374
Average Queue (ft)	413	251	97	87	3	56	165	14	163
95th Queue (ft)	804	782	155	140	34	129	271	58	326
Link Distance (ft)	799	799	118	118	452		248		514
Upstream Blk Time (%)	15	12	4	2			3		0
Queuing Penalty (veh)	0	0	0	0			0		0
Storage Bay Dist (ft)						150		250	
Storage Blk Time (%)						0	9		3
Queuing Penalty (veh)						0	6		0

Zone Summary

Zone wide Queuing Penalty: 43

HCM 6th TWSC
1: S Adams Road & Haynes Street/Shopping Center

2025 Future 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	21	15	38	2	4	12	36	470	4	5	587	34
Future Vol, veh/h	21	15	38	2	4	12	36	470	4	5	587	34
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	-	-	25	-	-
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	29	21	53	3	6	19	46	603	5	5	618	36

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1356	1346	636	1381	1362	606	654	0	0	608	0	0
Stage 1	646	646	-	698	698	-	-	-	-	-	-	-
Stage 2	710	700	-	683	664	-	-	-	-	-	-	-
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	128	153	481	123	149	501	933	-	-	970	-	-
Stage 1	464	470	-	434	445	-	-	-	-	-	-	-
Stage 2	428	444	-	442	461	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	114	145	481	93	141	501	933	-	-	970	-	-
Mov Cap-2 Maneuver	114	145	-	93	141	-	-	-	-	-	-	-
Stage 1	441	468	-	413	423	-	-	-	-	-	-	-
Stage 2	386	422	-	374	459	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	40		21.7		0.6		0.1	
HCM LOS	E		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	933	-	-	202 244	970	-	-
HCM Lane V/C Ratio	0.049	-	-	0.509 0.115	0.005	-	-
HCM Control Delay (s)	9.1	-	-	40 21.7	8.7	-	-
HCM Lane LOS	A	-	-	E C	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	2.6 0.4	0	-	-

HCM 6th TWSC
2: S Adams Road & Alley/Holland Street

2025 Future Conditions
AM Peak Hour

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↖	↗		↖	↗	
Traffic Vol, veh/h	0	0	2	6	0	24	6	486	7	15	605	7
Future Vol, veh/h	0	0	2	6	0	24	6	486	7	15	605	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	-	-	-	-	-	-	75	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	83	83	83	82	82	82	93	93	93
Heavy Vehicles, %	2	2	2	3	3	3	2	2	2	2	2	2
Mvmt Flow	0	0	2	7	0	29	7	593	9	16	651	8

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1313	1303	655	1300	1303	598	659	0	0	602	0	0
Stage 1	687	687	-	612	612	-	-	-	-	-	-	-
Stage 2	626	616	-	688	691	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.13	6.53	6.23	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.527	4.027	3.327	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	135	161	466	138	160	500	929	-	-	975	-	-
Stage 1	437	447	-	479	482	-	-	-	-	-	-	-
Stage 2	472	482	-	435	444	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	125	157	466	135	156	500	929	-	-	975	-	-
Mov Cap-2 Maneuver	125	157	-	135	156	-	-	-	-	-	-	-
Stage 1	434	440	-	475	478	-	-	-	-	-	-	-
Stage 2	441	478	-	426	437	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.8		17.5		0.1		0.2	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	929	-	-	466	325	975	-
HCM Lane V/C Ratio	0.008	-	-	0.005	0.111	0.017	-
HCM Control Delay (s)	8.9	-	-	12.8	17.5	8.8	-
HCM Lane LOS	A	-	-	B	C	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.4	0.1	-

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	8	3	0	10	0	15	0	2	21	10
Future Vol, veh/h	0	0	8	3	0	10	0	15	0	2	21	10
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	0	13	4	0	13	0	18	0	3	27	13
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	65	58	34	64	64	18	40	0	0	18	0	0
Stage 1	40	40	-	18	18	-	-	-	-	-	-	-
Stage 2	25	18	-	46	46	-	-	-	-	-	-	-
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	934	837	1045	935	831	1066	1520	-	-	1612	-	-
Stage 1	980	866	-	1006	884	-	-	-	-	-	-	-
Stage 2	998	884	-	973	861	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	921	835	1045	922	829	1066	1520	-	-	1612	-	-
Mov Cap-2 Maneuver	921	835	-	922	829	-	-	-	-	-	-	-
Stage 1	980	864	-	1006	884	-	-	-	-	-	-	-
Stage 2	986	884	-	959	859	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	8.5		8.6			0			0.4			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1520	-	-	1045	1029	1612	-	-				
HCM Lane V/C Ratio	-	-	-	0.013	0.017	0.002	-	-				
HCM Control Delay (s)	0	-	-	8.5	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: S Worth Street & Haynes Street

2025 Future Conditions
AM Peak Hour

Intersection						
Int Delay, s/veh	4.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	29	20	20	52	41	20
Future Vol, veh/h	29	20	20	52	41	20
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	83	60	60
Heavy Vehicles, %	2	2	0	0	11	11
Mvmt Flow	37	25	24	63	68	33
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	62	0	161	50
Stage 1	-	-	-	-	50	-
Stage 2	-	-	-	-	111	-
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	-	-	1554	-	809	993
Stage 1	-	-	-	-	950	-
Stage 2	-	-	-	-	892	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1554	-	796	993
Mov Cap-2 Maneuver	-	-	-	-	796	-
Stage 1	-	-	-	-	950	-
Stage 2	-	-	-	-	878	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2		9.8	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	851	-	-	1554	-	
HCM Lane V/C Ratio	0.119	-	-	0.016	-	
HCM Control Delay (s)	9.8	-	-	7.4	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.4	-	-	0	-	

HCM 6th TWSC
5: S Worth Street & Site Driveway

2025 Future Conditions
AM Peak Hour

Intersection						
Int Delay, s/veh	5.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	12	42	19	6	19	21
Future Vol, veh/h	12	42	19	6	19	21
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	13	46	21	7	21	23
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	90	25	0	0	28	0
Stage 1	25	-	-	-	-	-
Stage 2	65	-	-	-	-	-
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	910	1051	-	-	1585	-
Stage 1	998	-	-	-	-	-
Stage 2	958	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	898	1051	-	-	1585	-
Mov Cap-2 Maneuver	898	-	-	-	-	-
Stage 1	998	-	-	-	-	-
Stage 2	946	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	8.8	0		3.5		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	1013	1585	-	
HCM Lane V/C Ratio	-	-	0.058	0.013	-	
HCM Control Delay (s)	-	-	8.8	7.3	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.2	0	-	

Intersection: 1: S Adams Road & Haynes Street/Shopping Center

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	94	41	42	88	24	5
Average Queue (ft)	39	11	12	11	3	0
95th Queue (ft)	76	36	36	53	16	4
Link Distance (ft)	337	279		337		134
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			100		25	
Storage Blk Time (%)				0	0	
Queuing Penalty (veh)				0	2	

Intersection: 2: S Adams Road & Alley/Holland Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	L	L
Maximum Queue (ft)	30	51	9	26
Average Queue (ft)	2	20	1	5
95th Queue (ft)	14	48	4	21
Link Distance (ft)	265	475		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			75	50
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: S Worth Street & Alley

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (ft)	27	20
Average Queue (ft)	5	7
95th Queue (ft)	23	22
Link Distance (ft)	297	265
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: S Worth Street & Haynes Street

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	25	78
Average Queue (ft)	1	33
95th Queue (ft)	10	64
Link Distance (ft)	337	218
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: S Worth Street & Site Driveway

Movement	WB
Directions Served	LR
Maximum Queue (ft)	52
Average Queue (ft)	26
95th Queue (ft)	47
Link Distance (ft)	166
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 200: S Adams Road & Bowers Street (West)/Shopping Center

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	108	42	96	186	30	150
Average Queue (ft)	38	9	18	118	6	80
95th Queue (ft)	83	33	57	194	26	140
Link Distance (ft)	487	465		134		158
Upstream Blk Time (%)				5		0
Queuing Penalty (veh)				25		2
Storage Bay Dist (ft)			75		75	
Storage Blk Time (%)			0	14		11
Queuing Penalty (veh)			1	3		1

Intersection: 300: S Adams Road & Bowers Street (West)

Movement	WB	NB	SB	SB
Directions Served	LR	TR	L	T
Maximum Queue (ft)	130	134	108	318
Average Queue (ft)	60	46	25	157
95th Queue (ft)	109	96	69	267
Link Distance (ft)	477	158		443
Upstream Blk Time (%)		0		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)			100	
Storage Blk Time (%)			0	14
Queuing Penalty (veh)			0	4

Intersection: 500: S Adams Road & E Lincoln Street

Movement	EB	EB	WB	WB	B9076	NB	NB	SB	SB
Directions Served	LT	TR	LT	TR	T	L	TR	L	TR
Maximum Queue (ft)	451	453	149	130	10	174	313	65	270
Average Queue (ft)	404	364	83	75	0	41	155	16	104
95th Queue (ft)	506	593	131	123	5	118	262	47	199
Link Distance (ft)	412	412	122	122	484		392		512
Upstream Blk Time (%)	69	48	2	1					
Queuing Penalty (veh)	0	0	0	0					
Storage Bay Dist (ft)						150		250	
Storage Blk Time (%)							7		0
Queuing Penalty (veh)							3		0

Zone Summary

Zone wide Queuing Penalty: 43

HCM 6th TWSC
1: S Adams Road & Haynes Street/Shopping Center

2025 Future Conditions
PM Peak Hour

Intersection												
Int Delay, s/veh	7.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↘		↗	↘	
Traffic Vol, veh/h	55	4	57	3	5	17	39	505	18	7	556	54
Future Vol, veh/h	55	4	57	3	5	17	39	505	18	7	556	54
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	-	-	25	-	-
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	67	5	70	5	8	27	45	580	21	7	585	57

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1326	1319	614	1346	1337	591	642	0	0	601	0	0
Stage 1	628	628	-	681	681	-	-	-	-	-	-	-
Stage 2	698	691	-	665	656	-	-	-	-	-	-	-
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	132	156	490	130	155	511	947	-	-	981	-	-
Stage 1	469	474	-	444	453	-	-	-	-	-	-	-
Stage 2	429	444	-	453	465	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	115	147	490	104	146	511	947	-	-	981	-	-
Mov Cap-2 Maneuver	115	147	-	104	146	-	-	-	-	-	-	-
Stage 1	446	471	-	423	431	-	-	-	-	-	-	-
Stage 2	380	423	-	382	462	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	67.2		21.4		0.6		0.1	
HCM LOS	F		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	947	-	-	187	259	981	-
HCM Lane V/C Ratio	0.047	-	-	0.756	0.153	0.008	-
HCM Control Delay (s)	9	-	-	67.2	21.4	8.7	-
HCM Lane LOS	A	-	-	F	C	A	-
HCM 95th %tile Q(veh)	0.1	-	-	5	0.5	0	-

HCM 6th TWSC
2: S Adams Road & Alley/Holland Street

2025 Future Conditions
PM Peak Hour

Intersection												
Int Delay, s/veh	0.9											
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	6	541	8	32	577	7
Future Vol, veh/h	0	1	2	7	0	21	6	541	8	32	577	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	-	-	-	-	-	-	75	-	-	50	-	-
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	7	622	9	35	627	8
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1355	1346	631	1345	1346	627	635	0	0	631	0	0
Stage 1	701	701	-	641	641	-	-	-	-	-	-	-
Stage 2	654	645	-	704	705	-	-	-	-	-	-	-
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	128	153	485	130	153	487	953	-	-	956	-	-
Stage 1	433	444	-	466	473	-	-	-	-	-	-	-
Stage 2	459	471	-	431	442	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	117	146	485	124	146	487	953	-	-	956	-	-
Mov Cap-2 Maneuver	117	146	-	124	146	-	-	-	-	-	-	-
Stage 1	430	428	-	463	470	-	-	-	-	-	-	-
Stage 2	430	468	-	411	426	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	18.4		19.7		0.1		0.5					
HCM LOS	C		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	953	-	-	273	281	956	-	-				
HCM Lane V/C Ratio	0.007	-	-	0.018	0.128	0.036	-	-				
HCM Control Delay (s)	8.8	-	-	18.4	19.7	8.9	-	-				
HCM Lane LOS	A	-	-	C	C	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0.4	0.1	-	-				

HCM 6th TWSC
3: S Worth Street & Alley

2025 Future Conditions
PM Peak Hour

Intersection												
Int Delay, s/veh	3.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	3	52	3	2	8	0	70	0	0	54	6
Future Vol, veh/h	3	3	52	3	2	8	0	70	0	0	54	6
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	87	5	3	12	0	93	0	0	60	7
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	165	157	64	203	160	93	67	0	0	93	0	0
Stage 1	64	64	-	93	93	-	-	-	-	-	-	-
Stage 2	101	93	-	110	67	-	-	-	-	-	-	-
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	804	739	1006	759	736	970	1547	-	-	1514	-	-
Stage 1	952	846	-	919	822	-	-	-	-	-	-	-
Stage 2	910	822	-	900	843	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	791	739	1006	690	736	970	1547	-	-	1514	-	-
Mov Cap-2 Maneuver	791	739	-	690	736	-	-	-	-	-	-	-
Stage 1	952	846	-	919	822	-	-	-	-	-	-	-
Stage 2	895	822	-	818	843	-	-	-	-	-	-	-
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	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1547	-	-	974	849	1514	-	-				
HCM Lane V/C Ratio	-	-	-	0.099	0.024	-	-	-				
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: S Worth Street & Haynes Street

2025 Future Conditions
PM Peak Hour

Intersection						
Int Delay, s/veh	4.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	54	63	40	31	57	54
Future Vol, veh/h	54	63	40	31	57	54
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	69	69	77	77	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	78	91	52	40	80	76
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	169	0	268	124
Stage 1	-	-	-	-	124	-
Stage 2	-	-	-	-	144	-
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	-	-	1421	-	726	932
Stage 1	-	-	-	-	907	-
Stage 2	-	-	-	-	888	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1421	-	699	932
Mov Cap-2 Maneuver	-	-	-	-	699	-
Stage 1	-	-	-	-	907	-
Stage 2	-	-	-	-	855	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		4.3		10.6	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	796	-	-	1421	-	
HCM Lane V/C Ratio	0.196	-	-	0.037	-	
HCM Control Delay (s)	10.6	-	-	7.6	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-	

HCM 6th TWSC
5: S Worth Street & Site Driveway

2025 Future Conditions
PM Peak Hour

Intersection						
Int Delay, s/veh	3.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	37	74	7	50	53
Future Vol, veh/h	7	37	74	7	50	53
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	8	40	80	8	54	58
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	250	84	0	0	88	0
Stage 1	84	-	-	-	-	-
Stage 2	166	-	-	-	-	-
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	739	975	-	-	1508	-
Stage 1	939	-	-	-	-	-
Stage 2	863	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	712	975	-	-	1508	-
Mov Cap-2 Maneuver	712	-	-	-	-	-
Stage 1	939	-	-	-	-	-
Stage 2	831	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9.1	0		3.6		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	921	1508	-	
HCM Lane V/C Ratio	-	-	0.052	0.036	-	
HCM Control Delay (s)	-	-	9.1	7.5	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-	

Intersection: 1: S Adams Road & Haynes Street/Shopping Center

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	146	51	47	26	30	22
Average Queue (ft)	58	18	17	1	3	1
95th Queue (ft)	110	45	44	16	17	9
Link Distance (ft)	326	326		344		136
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			100		25	
Storage Blk Time (%)					1	0
Queuing Penalty (veh)					5	0

Intersection: 2: S Adams Road & Alley/Holland Street

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	30	50	9	5	28	4
Average Queue (ft)	4	20	1	0	10	0
95th Queue (ft)	20	46	6	3	30	3
Link Distance (ft)	268	792		208		344
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			75		50	
Storage Blk Time (%)					0	
Queuing Penalty (veh)					0	

Intersection: 3: S Worth Street & Alley

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	47	19	12
Average Queue (ft)	24	7	1
95th Queue (ft)	44	21	7
Link Distance (ft)	286	268	2
Upstream Blk Time (%)			0
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: S Worth Street & Haynes Street

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	11	36	60
Average Queue (ft)	0	5	35
95th Queue (ft)	8	24	55
Link Distance (ft)	412	326	228
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: S Worth Street & Site Driveway

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	54	20	36
Average Queue (ft)	24	1	5
95th Queue (ft)	46	10	25
Link Distance (ft)	201	2	228
Upstream Blk Time (%)		0	
Queuing Penalty (veh)		0	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 200: S Adams Road & Bowers Street (West)/Shopping Center

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	163	95	100	177	65	156
Average Queue (ft)	72	34	25	102	12	74
95th Queue (ft)	134	75	69	171	44	135
Link Distance (ft)	656	465		136		152
Upstream Blk Time (%)				3		1
Queuing Penalty (veh)				16		4
Storage Bay Dist (ft)			75		75	
Storage Blk Time (%)			0	11	0	10
Queuing Penalty (veh)			1	4	0	1

Intersection: 300: S Adams Road & Bowers Street (East)

Movement	WB	NB	SB	SB
Directions Served	LR	TR	L	T
Maximum Queue (ft)	170	153	115	300
Average Queue (ft)	80	68	36	158
95th Queue (ft)	147	132	87	267
Link Distance (ft)	477	152		538
Upstream Blk Time (%)		0		
Queuing Penalty (veh)		3		
Storage Bay Dist (ft)			100	
Storage Blk Time (%)			0	14
Queuing Penalty (veh)			2	7

Intersection: 500: S Adams Road & E Lincoln Street

Movement	EB	EB	WB	WB	B9076	NB	NB	SB	SB
Directions Served	LT	TR	LT	TR	T	L	TR	L	TR
Maximum Queue (ft)	617	563	161	154	24	174	266	184	343
Average Queue (ft)	335	126	89	82	1	55	164	18	154
95th Queue (ft)	623	497	137	139	11	129	273	85	282
Link Distance (ft)	799	799	118	118	452		248		514
Upstream Blk Time (%)	0		3	3			2		
Queuing Penalty (veh)	0		0	0			0		
Storage Bay Dist (ft)						150		250	
Storage Blk Time (%)							9		2
Queuing Penalty (veh)							6		0

Zone Summary

Zone wide Queuing Penalty: 49

HCM 6th TWSC
1: S Adams Road & Haynes Street/Shopping Center

2025 Future Conditions Imp
AM Peak Hour

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱	↰	↱		↰	↱	
Traffic Vol, veh/h	21	15	38	2	4	12	36	470	4	5	587	34
Future Vol, veh/h	21	15	38	2	4	12	36	470	4	5	587	34
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	-	-	25	-	-
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	29	21	53	3	6	19	46	603	5	5	618	36

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1356	1346	636	1381	1362	606	654	0	0	608	0	0
Stage 1	646	646	-	698	698	-	-	-	-	-	-	-
Stage 2	710	700	-	683	664	-	-	-	-	-	-	-
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	128	153	481	123	149	501	933	-	-	970	-	-
Stage 1	464	470	-	434	445	-	-	-	-	-	-	-
Stage 2	428	444	-	442	461	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	114	145	481	93	141	501	933	-	-	970	-	-
Mov Cap-2 Maneuver	114	145	-	93	141	-	-	-	-	-	-	-
Stage 1	441	468	-	413	423	-	-	-	-	-	-	-
Stage 2	386	422	-	374	459	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	32.1		21.7		0.6		0.1	
HCM LOS	D		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	933	-	-	125	481	244	970	-	-
HCM Lane V/C Ratio	0.049	-	-	0.4	0.11	0.115	0.005	-	-
HCM Control Delay (s)	9.1	-	-	51.8	13.4	21.7	8.7	-	-
HCM Lane LOS	A	-	-	F	B	C	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	1.7	0.4	0.4	0	-	-

Intersection: 1: S Adams Road & Haynes Street/Shopping Center

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	LT	R	LTR	L	TR	L	TR
Maximum Queue (ft)	58	51	42	53	80	24	4
Average Queue (ft)	21	23	13	11	10	2	0
95th Queue (ft)	50	46	38	34	46	14	3
Link Distance (ft)	335		279		325		134
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		100		100		25	
Storage Blk Time (%)					0	0	0
Queuing Penalty (veh)					0	1	0

HCM 6th TWSC
1: S Adams Road & Haynes Street/Shopping Center

2025 Future Conditions Imp
PM Peak Hour

Intersection												
Int Delay, s/veh	5.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱	↰	↱		↰	↱	
Traffic Vol, veh/h	55	4	57	3	5	17	39	505	18	7	556	54
Future Vol, veh/h	55	4	57	3	5	17	39	505	18	7	556	54
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	-	-	25	-	-
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	67	5	70	5	8	27	45	580	21	7	585	57

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1326	1319	614	1346	1337	591	642	0	0	601	0	0
Stage 1	628	628	-	681	681	-	-	-	-	-	-	-
Stage 2	698	691	-	665	656	-	-	-	-	-	-	-
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	132	156	490	130	155	511	947	-	-	981	-	-
Stage 1	469	474	-	444	453	-	-	-	-	-	-	-
Stage 2	429	444	-	453	465	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	115	147	490	104	146	511	947	-	-	981	-	-
Mov Cap-2 Maneuver	115	147	-	104	146	-	-	-	-	-	-	-
Stage 1	446	471	-	423	431	-	-	-	-	-	-	-
Stage 2	380	423	-	382	462	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	45.2		21.4		0.6		0.1	
HCM LOS	E		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	947	-	-	117	490	259	981	-	-
HCM Lane V/C Ratio	0.047	-	-	0.615	0.142	0.153	0.008	-	-
HCM Control Delay (s)	9	-	-	75.7	13.6	21.4	8.7	-	-
HCM Lane LOS	A	-	-	F	B	C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	3.1	0.5	0.5	0	-	-

Intersection: 1: S Adams Road & Haynes Street/Shopping Center

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	LT	R	LTR	L	TR	L	TR
Maximum Queue (ft)	103	70	47	50	51	30	17
Average Queue (ft)	40	32	17	16	4	3	1
95th Queue (ft)	80	60	44	42	26	18	7
Link Distance (ft)	324		326		332		136
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		100		100		25	
Storage Blk Time (%)	1	0			0	1	0
Queuing Penalty (veh)	0	0			0	5	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 SCHEDULES



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
460	4:50AM	4:55AM	5:01AM	5:03AM	5:08AM	5:14AM	5:24AM	-	-
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
460	5:50PM	5:56PM	6:03PM	6:06PM	6:12PM	6:19PM	6:30PM	-	-
450	6:20PM	6:26PM	-	6:32PM	6:38PM	6:45PM	-	6:58PM	7:08PM
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	-	-
450	8:20PM	8:25PM	-	8:31PM	8:37PM	8:44PM	-	8:56PM	9:06PM
460	8:50PM	8:55PM	9:02PM	9:05PM	9:10PM	9:17PM	9:27PM	-	-
450	9:20PM	9:25PM	-	9:31PM	9:37PM	9:44PM	-	9:56PM	10:06PM
460	9:50PM	9:55PM	10:02PM	10:05PM	10:10PM	10:17PM	10:27PM	-	-
450	10:20PM	10:25PM	-	10:31PM	10:37PM	10:44PM	-	10:56PM	11:06PM
460	10:50PM	10:55PM	11:02PM	11:04PM	11:09PM	11:14PM	11:23PM	-	-
450	11:20PM	11:25PM	-	11:31PM	11:37PM	11:44PM	-	11:56PM	12:06AM



450/460 WOODWARD LOCAL Southbound for Weekday

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
450	4:31AM	4:39AM	-	4:50AM	4:55AM	5:00AM	-	5:05AM	5:10AM
460	-	-	5:10AM	5:17AM	5:22AM	5:27AM	5:29AM	5:35AM	5:40AM
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
460	-	-	8:00AM	8:12AM	8:18AM	8:25AM	8:28AM	8:35AM	8:40AM
450	8:26AM	8:36AM	-	8:47AM	8:53AM	9:00AM	-	9:05AM	9:10AM
460	-	-	9:00AM	9:12AM	9:18AM	9:25AM	9:28AM	9:35AM	9:40AM
450	9:26AM	9:36AM	-	9:47AM	9:53AM	10:00AM	-	10:05AM	10:10AM
460	-	-	10:00AM	10:12AM	10:18AM	10:25AM	10:28AM	10:35AM	10:40AM
450	10:26AM	10:36AM	-	10:47AM	10:53AM	11:00AM	-	11:05AM	11:10AM
460	-	-	11:00AM	11:12AM	11:18AM	11:25AM	11:28AM	11:35AM	11:40AM
450	11:25AM	11:35AM	-	11:46AM	11:52AM	11:59AM	-	12:05PM	12:10PM
460	-	-	11:57AM	12:11PM	12:17PM	12:24PM	12:27PM	12:35PM	12:40PM
450	12:21PM	12:33PM	-	12:46PM	12:52PM	12:59PM	-	1:05PM	1:10PM
460	-	-	12:58PM	1:11PM	1:17PM	1:24PM	1:27PM	1:35PM	1:40PM
450	1:21PM	1:33PM	-	1:46PM	1:52PM	1:59PM	-	2:05PM	2:10PM
460	-	-	1:58PM	2:11PM	2:17PM	2:24PM	2:27PM	2:35PM	2:40PM
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460	-	-	3:58PM	4:11PM	4:17PM	4:24PM	4:27PM	4:35PM	4:40PM
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460	-	-	4:58PM	5:11PM	5:17PM	5:24PM	5:27PM	5:35PM	5:40PM
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460	-	-	5:58PM	6:11PM	6:17PM	6:24PM	6:27PM	6:35PM	6:40PM
450	6:21PM	6:33PM	-	6:46PM	6:52PM	6:59PM	-	7:05PM	7:10PM
460	-	-	6:58PM	7:11PM	7:17PM	7:24PM	7:27PM	7:35PM	7:40PM
450	7:24PM	7:35PM	-	7:48PM	7:54PM	8:00PM	-	8:05PM	8:10PM
460	-	-	8:00PM	8:12PM	8:18PM	8:24PM	8:27PM	8:35PM	8:40PM
450	8:26PM	8:37PM	-	8:50PM	8:56PM	9:02PM	-	9:07PM	9:12PM
460	-	-	9:01PM	9:13PM	9:19PM	9:25PM	9:28PM	9:35PM	9:40PM
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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 Saturday

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	4:50AM	4:55AM	5:01AM	5:03AM	5:08AM	5:14AM	5:24AM	-	-
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
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450	5:20PM	5:26PM	-	5:32PM	5:38PM	5:45PM	-	5:58PM	6:08PM
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450	6:20PM	6:26PM	-	6:32PM	6:38PM	6:45PM	-	6:58PM	7:08PM
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	-	-
450	8:20PM	8:25PM	-	8:31PM	8:37PM	8:44PM	-	8:56PM	9:06PM
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460	10:50PM	10:55PM	11:02PM	11:04PM	11:09PM	11:14PM	11:23PM	-	-
450	11:20PM	11:25PM	-	11:31PM	11:37PM	11:44PM	-	11:56PM	12:06AM



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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
450	4:31AM	4:39AM	-	4:50AM	4:55AM	5:00AM	-	5:05AM	5:10AM
460	-	-	5:10AM	5:17AM	5:22AM	5:27AM	5:29AM	5:35AM	5:40AM
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
460	-	-	8:00AM	8:12AM	8:18AM	8:25AM	8:28AM	8:35AM	8:40AM
450	8:26AM	8:36AM	-	8:47AM	8:53AM	9:00AM	-	9:05AM	9:10AM
460	-	-	9:00AM	9:12AM	9:18AM	9:25AM	9:28AM	9:35AM	9:40AM
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450	11:25AM	11:35AM	-	11:46AM	11:52AM	11:59AM	-	12:05PM	12:10PM
460	-	-	11:57AM	12:11PM	12:17PM	12:24PM	12:27PM	12:35PM	12:40PM
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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	-	-



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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
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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

Memorandum

To: Timothy Andres, AIA
From: Paul T. O'Meara, PE and Alyssa M. Wambold, PE
Date: February 16, 2022
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 4,035 square feet (SF) of retail and 157 dwelling units (DU) 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 consultants.

TRAFFIC IMPACT STUDY

Study Area

The subject property is currently occupied by a 20,574 SF office building (770 S. Adams Rd.) and a 6,700 SF two-story office building that contains a bank with two drive-through teller windows and a drive-through ATM station. The property is currently zoned B-2 (General Business). All of the surrounding properties are also zoned B-2, with the exception of the property at the northeast corner of Adams Road and Holland Street, which is zoned O-2. The property also is in an overlay zoning district in accordance with the Triangle District Master Plan, wherein the section closest to Adams Road is zoned MU-3, and the section closest to Worth Street is zoned MU-5.

Existing Conditions

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

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 subject property has frontage on three streets and one public alley. Adams Road is a three-lane principal arterial serving the region. Traffic flow on S Adams Road adjacent to the proposed site is controlled by signals at Bowers Street and E Lincoln Street. The roadways on the north (Haynes Street) and west (Worth Street) sides of the property are two-lane local streets with on-street parking available on both sides. Both of the studied intersections on Haynes Street are T-intersections with STOP control on the non-through street only. All streets in the vicinity of the proposed project operate at 25 mph and are under the jurisdiction of the City of Birmingham. Grades are mild in the immediate area and do not introduce any traffic concerns.

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

Master Plan Review

The subject property is contained within the area known as the Triangle District. The Master Plan for this area was prepared in 2007. The building has been designed to take advantage of the overlay zoning that calls for mixed uses. The Triangle District Master Plan calls for the creation of a park on Worth Street that would take a significant portion of the west side of the subject parcel. The City has not actively pursued acquiring the property that would be needed to create this park as proposed in the Master Plan. Reducing the size of the studied parcel to the extent required to create this park would drastically alter the size and scope of the proposed development, and make the proposed development infeasible. However, the applicant is in support of a Worth Park of reduced size using the land that is currently available for this purpose and has designed the proposed building to help activate this corridor if and when the city chooses to pursue the construction of this park, which may or may not include minor realignment of Worth Street. The addition of the park would not change the conclusions of this study.

A review of the City's Multi-Modal Transportation Plan was also conducted. The plan calls for the installation of Shared Use pavement markings on the adjacent segment of Adams Road. No elements of the proposed development conflict with the goals of the Multi-Modal Transportation Plan. Additional Multi-Modal information related to the proposed development can be found in the *Trip Generation* section below.

Proposed Development

The proposed mixed-use building will contain 157 DU, 4,035 SF of commercial space, and 268 parking spaces located in an on-site parking structure. The building has also dedicated significant square footage on the first floor to amenities dedicated for the use of the residents, such as a gym, dog run, and meeting rooms for home office/remote work use. The building has been designed to reflect the current trend toward working from home. Final building completion is planned for 2025 and the development will be constructed in a single phase.

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

In addition, the city and their consultants provided TMCs that were collected in 2019 at the intersections of:

- S Adams Road and Bowers Street (East)
- S Adams Road and Bowers Street/Shopping Center (West)
- S Adams Road and E Lincoln Street

Due to the impact of COVID-19, current traffic volume data may not be representative of typical operations. At the direction of the city and their consultants, the TMCs collected in 2019 were not adjusted and used in the study as-is.

Subsequently, a comparison was drawn between the 2019 counts and the counts collected in 2021. The traffic volumes collected in 2021 were adjusted proportionally to balance to the counts taken in 2019.

In addition, heavy vehicle percentages were reviewed at the studied intersections. Heavy vehicle percentages varied between 0% and 3% at the studied intersections, which is typical for urban/suburban areas. A summary of all peak hour TMCs, including heavy vehicle percentages by approach, are attached to this memorandum.

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. A single historical traffic count from 2013 was found in the vicinity of the study area, located on S Adams Road north of E Lincoln Street. A comparison was completed between the 2013 count and the counts completed in 2019 at the intersection of S Adams Road and E Lincoln Street. The results of this analysis revealed that traffic volumes had decreased by an average of 2.13% and 1.60% in the NB and SB directions respectively between the hours of 7 a.m. and 6 p.m. In addition, community profiles were reviewed on the Southeast Michigan Council of Government's (SEMCOG) website. The population forecast for the City of Birmingham revealed that a small decrease in population is expected between 2020 and 2030 (21,813 to 21,732). Population forecasts for the City of Troy and Bloomfield Township were reviewed as S Adams Road is a commonly used route between these communities and Birmingham. The analysis revealed a decrease between 2020 and 2030 (87,294 to 83,409 and 44,253 to 41,212 respectively). Based on this review and conversations with the city and their consultants, it was agreed upon that no background growth rate should be applied to this project.

No other developments were identified that are currently under construction or planned in the immediate area. Likewise, no changes to the public streets are anticipated, other than the addition

of shared pavement markings on S Adams Street and potential changes to Worth Street if the city were to construct a park, as noted in the *Master Plan Review* section above. With no background growth of existing traffic volumes and no known background developments, 2025 background models were not completed, as the results would be the same as the existing models for each peak hour.

Trip Generation

There are currently two buildings on the proposed property, a 20,574 SF office building at 770 S Adams Road and a 6,700 SF building at 1000 Haynes Street with a bank, two drive-through teller lanes, and one drive-through ATM station on the first floor and offices on the second floor. The traffic associated with these buildings will be removed from the future models and analysis. It was assumed that the office building at 770 S Adams Road was operating at 50% capacity when the TMCs were collected in 2019. Additionally, it is recognized that the ITE trip generation for LUC 912 – Drive-In Bank is based on data collected in the 2000s and 2010s. This data likely does not represent the significant increase of online and mobile banking, which reduces the amount of traffic generated by a physical bank building. In order to account for this change in trip generation characteristics, it was assumed that a bank in 2022 would generate 50% of the traffic of a bank in the 2000s and 2010s (which the ITE trip generation is based on). 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 existing buildings. The results of the trip generation forecasts for the existing building are provided below in Table 2.

Table 2: Trip Generation for Existing Buildings

Land Use	Units		Land Use Code	AM Peak Hour			PM Peak Hour			Weekday
				In	Out	Total	In	Out	Total	
General Office Building (770 S Adams) ¹	20,574	SF	710	19	3	22	4	19	23	147
Small Office Building (1000 Haynes)	3,350	SF	712	5	1	6	2	5	7	48
Drive-In Bank (1000 Haynes) ¹	3,350	SF	912	10	7	17	17	18	35	168
Total	-	-	-	34	10	44	23	42	65	363
Pass-By Rates, LUC 912: 29% AM, 35% PM				3	2	5	6	6	12	-
Total New Trips				31	8	39	17	36	53	363

¹Trip generation calculations were completed using the full size of the building, which were then reduced by 50%

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. The 4,035SF of commercial space does not have a defined tenant; however, the developer has stated that a variety of uses could occupy that space including but not limited to a retail use, an office use, and a fine dining (bistro) use. Land Use Codes (LUC) 712 – Small Office Building, LUC 822 – Strip Retail Plaza (<40k), and LUC 931 – Fine Dining Restaurant were compared. The results of the trip generation analysis revealed that LUC 822 generated the greatest number of new trips (trip generation minus internal capture minus pass-by rates) out of the three LUCs that were reviewed. LUC 822 was used to provide a conservative analysis. Additionally, 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 – Multifamily Housing (Mid-Rise) and LUC 822 was determined to be a better fit for this development.

Finally, the proposed development will include a single ATM along the Alley that will be designed to accommodate one (1) vehicle at the ATM and one (1) additional vehicle queueing outside of the Alley. This ATM will replace the existing ATM at the Citizens Bank. Due to a lack of data for a standalone ATM in the ITE Trip Generation manual, Citizens Bank provided transaction data between August 2020 to July 2021 for the existing ATM. The average weekday saw 47 transactions per day, the majority of which occurred during the operating hours of the bank (9 am – 5 pm). This equates to approximately 6 transactions per hour during the AM and PM peak hours.

The results of the trip generation forecasts are provided below in Table 3.

Table 3: Trip Generation for Proposed Development

Land Use	Land Use Code	Units	AM Peak Hour			PM Peak Hour			Weekday
			In	Out	Total	In	Out	Total	
Multifamily Housing (Mid-Rise)	221	157 DU	13	44	57	38	24	62	713
Strip Retail Plaza (<40k)	822	4,035 SF	6	4	10	20	21	41	400
Citizen's Bank ATM ¹	-	1 ATM	6	6	12	6	6	12	47
Total	-	-	25	54	79	64	51	115	1,160
Internal Capture Reductions: 12% PM (11% In, 14% Out)			-	-	-	7	7	14	-
Total External Trips			25	54	79	57	44	101	1,160

¹Trip generation data provided by Citizen's Bank

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 12% (11% in, 14% 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 79 external trips during the AM peak hour (25 inbound and 54 outbound) and 101 external trips during the PM peak hour (57 inbound and 44 outbound).

The vehicle trips in Table 3 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* and community profile data provided on SEMCOG's website. Additionally, the city and their consultants identified that previous studies in the Triangle District revealed a minimum walking mode share of 4%. Finally, it was agreed upon with the city and their consultants that an ATM is designed for vehicle use only, and it would not be appropriate to apply a mode share to the trips generated by the ATM. The vehicle mode splits and vehicle occupancy rates for the studies developed for this project are provided in Table 4 below.

Table 4 : Vehicle Occupancy and Mode Share

Land Use	Land Use Code	Mode Share					Vehicle Occupancy		
		Vehicle	Walking	Cycling	Transit	WFH ¹	AM Peak Hour	PM Peak Hour	Weekday
Multifamily (Mid-Rise)	221	0.85	0.04	0.002	0.002	0.106	1.13	1.15	1.14
Strip Retail Plaza (>40k)	822	0.94	0.04	0.01	0.01	0.00	1.17	1.21	1.19
ATM ²	-	1.00	0.00	0.00	0.00	0.00	1.14	1.14	1.14

¹Work From Home

²Data for a bank was utilized. No AM peak hour or Weekday data was available, PM peak hour data was used for all analysis periods

Appendix B of the *Trip Generation Handbook, 3rd Edition* specifies weekday average vehicle occupancy rates of 1.13 (AM peak hour), 1.15 (PM peak hour), and 1.14 (Weekday) for LUC 221 vehicle-based trips, weekday average vehicle occupancy rates of 1.17 (AM peak hour), 1.21 (PM peak hour), and 1.19 (Weekday) for LUC 822 vehicle-based trips, and weekday average vehicle occupancy rates of 1.14 (all analysis periods) for ATM vehicle-based trips. Appendix B also specifies a *minimum* vehicle mode share of 96% for the LUC 822 and ATM person-trips. Therefore, it was assumed that the remaining 4% of person-trips were made via walking (2%), cycling (1%), and transit (1%). Finally, to increase the walking mode share to 4% based on data available for the Triangle District, the vehicle mode share was reduced to 94%. For the residential uses, 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%, walking mode share of 1.7%, cycling/transit mode shares of 0.2% each, and a 10.6% work from home (WFH) mode share. The vehicle mode share was then reduced to 85% in order to increase the walking mode share to 4%. 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 5, Table 6, and Table 7 for LUC 221, LUC 822, and the ATM development components, respectively. Next, the Internal Capture reductions were applied to the person-trip generation by applying the aforementioned factors. These calculations are shown in Table 8, Table 9, and Table 10 for the LUC 221, LUC 822, and the ATM 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 11, Table 12, and Table 13 for the LUC 22, LUC 822, and the ATM development components, respectively.

Table 5: Person-Trip Generation - LUC 221 (Prior to Internal Capture Reductions)

Land Use	Land Use Code	Units	AM Peak Hour			PM Peak Hour			Weekday
			In	Out	Total	In	Out	Total	
Multifamily Housing (Mid-Rise)	221	157 DU	15	49	64	43	28	71	813

Table 6: Person-Trip Generation - LUC 882 (Prior to Internal Capture Reductions)

Land Use	Land Use Code	Units	AM Peak Hour			PM Peak Hour			Weekday
			In	Out	Total	In	Out	Total	
Strip Retail Plaza (<40k)	822	4,035 SF	7	5	12	25	25	50	476

Table 7: Person-Trip Generation - ATM (Prior to Internal Capture Reductions)

Land Use	Land Use Code	Units	AM Peak Hour			PM Peak Hour			Weekday
			In	Out	Total	In	Out	Total	
Citizen's Bank ATM	-	1 ATM	7	7	14	7	7	14	54

Table 8: Person-Trip Generation - LUC 221 (After Internal Capture Reductions)

Land Use	Land Use Code	Units	AM Peak Hour			PM Peak Hour			Weekday
			In	Out	Total	In	Out	Total	
Multifamily Housing (Mid-Rise)	221	157 DU	15	49	64	38	25	63	813

Table 9: Person-Trip Generation - LUC 822 (After Internal Capture Reductions)

Land Use	Land Use Code	Units	AM Peak Hour			PM Peak Hour			Weekday
			In	Out	Total	In	Out	Total	
Strip Retail Plaza (<40k)	822	4,035 SF	7	5	12	21	20	41	476

Table 10: Person-Trip Generation - ATM (After Internal Capture Reductions)

Land Use	Land Use Code	Units	AM Peak Hour			PM Peak Hour			Weekday
			In	Out	Total	In	Out	Total	
Citizen's Bank ATM	-	1 ATM	7	7	14	7	7	14	54

Table 11: Person-Trip Generation by Travel Mode- LUC 221

Travel Mode	Land Use Code	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	
Vehicle	221	12	42	54	33	21	54	691
Walking	221	1	2	3	1	1	2	32
Cycling	221	0	0	0	0	0	0	2
Transit	221	0	0	0	0	0	0	2
Work From Home	221	2	5	7	4	3	7	86
Total New Person-Trips		15	49	64	38	25	63	813

Table 12: Person-Trip Generation by Travel Mode- LUC 822

Travel Mode	Land Use Code	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	
Vehicle	822	7	4	11	20	19	39	447
Walking	822	0	1	1	1	1	2	21
Cycling	822	0	0	0	0	0	0	4
Transit	822	0	0	0	0	0	0	4
Total New Person-Trips		7	5	12	21	20	41	476

Table 13: Person-Trip Generation by Travel Mode- ATM

Travel Mode	Land Use Code	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	
Vehicle	-	7	7	14	7	7	14	54
Walking	-	0	0	0	0	0	0	0
Cycling	-	0	0	0	0	0	0	0
Transit	-	0	0	0	0	0	0	0
Total New Person-Trips		7	7	14	7	7	14	54

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 14 shows the result of this analysis.

Table 14: 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 3 and Figure 4 attached to this memorandum. The volumes associated with the existing buildings were subtracted from the existing traffic volumes. It was assumed for the purpose of this study that all of these trips originated or were destined to the entrance along Haynes Street. These volumes were then combined with the proposed site generated traffic volumes to obtain the total future traffic volumes, which are shown in Figure 5 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 15 presents the criteria for defining the various LOS for unsignalized intersections. LOS D is considered acceptable in urban/suburban areas.

Table 15: LOS Criteria – Unsignalized Intersection

LOS	Average Stopped Delay/Vehicle (seconds)
A	≤ 10
B	$> 10 \text{ and } \leq 15$
C	$> 15 \text{ and } \leq 25$
D	$> 25 \text{ and } \leq 35$
E	$> 35 \text{ and } \leq 50$
F	> 50

The results of the LOS analyses for the intersection listed above are summarized in Table 16 through Table 17. Full LOS output reports are attached to this memorandum.

In addition, SimTraffic simulations were reviewed to identify any potential queueing issues. The city and their consultants required that the following intersections be included in the model for simulations purposes only (no LOS analysis was completed):

- S Adams Road and Bowers Street (East)
- S Adams Road and Bowers Street (West)/Shopping Center
- S Adams Road and E Lincoln Street

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.

95th percentile queue lengths were reviewed at the studied intersections. No significant queue lengths were observed in the simulations. Northbound queues on S Adams Road will occasionally block the intersection of S Adams Road and Haynes Street/Shopping Center, however these queues dissipate within one cycle length of the signal at S Adams Road and Bowers Street. 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 119 feet (5 vehicles) in the PM peak hour.

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

Table 16: LOS Analysis for Existing Conditions

Intersection	Control Type	Approach	Movement	AM Peak	PM Peak
S Adams Road & Haynes Street/Shopping Center	Stop	Eastbound	LTR	E 36.5	F 63.8
		Westbound	LTR	C 21.6	C 21.1
	Free	Northbound	L	A 9.1	A 9.0
			TR	A 0.0	A 0.0
			Approach	A 0.6	A 0.6
		Southbound	L	A 8.7	A 8.7
			TR	A 0.0	A 0.0
			Approach	A 0.1	A 0.1
Two-Way Stop Control	Overall		C 3.1	A 7.0	
S Adams Road & Holland Street/Alley	Stop	Eastbound	LTR	A 0.0	C 18.3
		Westbound	LTR	C 17.4	C 19.6
	Free	Northbound	L	A 8.9	A 8.8
			TR	A 0.0	A 0.0
			Approach	A 0.1	A 0.1
		Southbound	L	A 8.8	A 8.9
			TR	A 0.0	A 0.0
			Approach	A 0.2	A 0.5
Two-Way Stop Control	Overall		A 0.6	A 0.9	
Worth Street & Alley	Stop	Eastbound	LTR	A 8.5	A 9.1
		Westbound	LTR	A 8.5	A 9.3
	Free	Northbound	LTR	A 0.0	A 0.0
		Southbound	LTR	A 0.0	A 0.0
	Two-Way Stop Control	Overall		A 3.8	A 4.1
Haynes Street & Worth Street	Free	Eastbound	TR	A 0.0	A 0.0
		Westbound	LT	A 1.6	A 2.6
	Stop	Northbound	LR	A 9.2	A 9.9
	Two-Way Stop Control	Overall		A 2.2	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.

95th percentile queue lengths were reviewed at the studied intersections. No significant queue lengths were observed in the simulations. Northbound queues on S Adams Road will continue to occasionally block the intersection of S Adams Road and Haynes Street/Shopping Center, however these queues dissipate within one cycle length of the signal at S Adams Road and Bowers Street. At the intersection of S Adams Road and Haynes Street/Shopping Center, queues on the eastbound approach do not exceed 76 feet (3 vehicles) in the AM peak hour and 110 feet (4 vehicles) in the PM peak hour.

The operational results for future conditions are presented in Table 17.

Table 17: LOS Analysis for Future Conditions

Intersection	Control Type	Approach	Movement	AM Peak	PM Peak
S Adams Road & Haynes Street/Shopping Center	Stop	Eastbound	LTR	E 40.0	F 67.2
		Westbound	LTR	C 21.7	C 21.4
	Free	Northbound	L	A 9.1	A 9.0
			TR	A 0.0	A 0.0
			Approach	A 0.6	A 0.6
		Southbound	L	A 8.7	A 8.7
			TR	A 0.0	A 0.0
			Approach	A 0.1	A 0.1
	Two-Way Stop Control	Overall		C 3.6	A 7.3
S Adams Road & Holland Street/Alley	Stop	Eastbound	LTR	B 12.8	C 18.4
		Westbound	LTR	C 17.5	C 19.7
	Free	Northbound	L	A 8.9	A 8.8
			TR	A 0.0	A 0.0
			Approach	A 0.1	A 0.1
		Southbound	L	A 8.8	A 8.9
			TR	A 0.0	A 0.0
			Approach	A 0.2	A 0.5
	Two-Way Stop Control	Overall		A 0.6	A 0.9
Worth Street & Alley	Stop	Eastbound	LTR	A 8.5	A 9.1
		Westbound	LTR	A 8.6	A 9.3
	Free	Northbound	LTR	A 0.0	A 0.0
		Southbound	LTR	A 0.4	A 0.0
	Two-Way Stop Control	Overall		A 3.1	A 3.9
Haynes Street & Worth Street	Free	Eastbound	TR	A 0.0	A 0.0
		Westbound	LT	A 2.0	A 4.3
	Stop	Northbound	LR	A 9.8	B 10.6
	Two-Way Stop Control	Overall		A 4.7	A 4.9
Worth Street & Site Driveway	Stop	Westbound	LR	A 8.8	A 9.1
	Free	Northbound	TR	A 0.0	A 0.0
		Southbound	LT	A 3.5	A 3.6
	TWSC	Overall		A 5.2	A 3.4

XX.X Average seconds of delay per vehicle

For the adjacent traffic movement of most concern (eastbound Haynes St. at Adams Rd.), the estimated increase in delay for this movement during the AM and PM Peak Hours is 3.5 seconds or less.

Future Conditions Improvements

Improvements to the eastbound approach at the intersection of S Adams Road and Haynes Street/Shopping Center were investigated. The eastbound approach currently operates at LOS E and LOS F in the AM and PM peak hours, respectively. With the addition of the site generated traffic, these delays will increase slightly, however the LOS values will remain the same. To reduce delays on this approach the addition of an eastbound right turn lane was modeled.

The results of the LOS analysis for future conditions improvements reveals that the eastbound approach would operate at LOS D and E in the AM and PM peak hours respectively. The Left/Through movement would operate at LOS F in the AM and PM peak hours.

95th percentile queue lengths were reviewed. Northbound queues on S Adams Road will continue to occasionally block the intersection of S Adams Road and Haynes Street/Shopping Center, however these queues dissipate within one cycle length of the signal at S Adams Road and Bowers Street. At the intersection of S Adams Road and Haynes Street/Shopping Center, queues on the eastbound approach do not exceed 50 feet (2 vehicles) in the AM peak hour and 80 feet (3 vehicles) in the PM peak hour, which is a reduction of 26 feet (1 vehicle) in the AM peak hour and 30 feet (1 vehicle) in the PM peak hour.

The addition of a right turn lane on the eastbound approach at the intersection of S Adams Road and Haynes Street/Shopping Center would impact adjacent on-street parking and require the removal of existing on-street parking spaces. Additionally, the poor LOS is present under existing traffic conditions, and will be only minimally impacted by the proposed development. The city should continue to monitor this intersection to determine if the city should install a right turn lane at some point in the future.

The operational results for future conditions are presented in Table 17.

Table 18: LOS Analysis for Future Conditions Improvements

Intersection	Control Type	Approach	Movement	AM Peak	PM Peak
S Adams Road & Haynes Street/Shopping Center	Stop	Eastbound	LT	F 51.8	F 75.7
			R	B 13.4	B 13.6
			Approach	D 32.1	E 45.2
		Westbound	LTR	C 21.7	C 21.4
	Free	Northbound	L	A 9.1	A 8.7
			TR	A 0.0	A 0.0
			Approach	A 0.6	A 0.6
		Southbound	L	A 8.7	A 8.7
			TR	A 0.0	A 0.0
			Approach	A 0.1	A 0.1
	Two-Way Stop Control	Overall		C 3.0	A 75.2

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 47 feet (2 vehicles) in the AM peak hour and 46 feet (2 vehicles) in the PM peak hour. On northbound Worth Street, no queue lengths were observed in the AM peak hour and queue lengths did not exceed 10 feet (1 vehicle) in the PM peak hour. On southbound Worth Street, no queue lengths were observed in the AM peak hour and queue lengths did not exceed 25 feet (1 vehicle) in the PM peak hour. Vehicle queues entering or exiting the site will not impact the intersection of Worth Street & Alley.

Site Circulation and Parking

This development includes an above grade multi-level parking structure with 268 proposed spaces. A majority of these spaces will be for resident use. Two spaces in the parking structure will be dedicated for use by the tenant of the retail space. Additionally, The Triangle District Master Plan allows for the use of existing public parking spaces by the proposed development. Traffic generated by the retail component can utilize the 15 parallel parking spaces along Haynes Street. The parking structure is being designed to allow for 10% of the parking spaces to accommodate electric vehicle charging on opening day, with the ability to increase that percentage over time. Traffic to/from the commercial component and residential visitors also have the option to utilize existing on-street parking.

Review of the zoning ordinance indicated that the amount of parking proposed will be in excess of what is required. However, the applicant intends to offer the proposed parking to the residents and tenants of the building only; there will not be sufficient surplus to offer any shared parking with other adjacent properties.

As is often the case with urban developments and urban parking structures, the single site driveway access and the adjacent alley to the south will have limited sight distance when vehicles exit the garage and the alley on to Worth Street. It is recommended that the project implement audible and visual warning systems to alert pedestrians using the Worth Street sidewalk that caution should be exercised when crossing these driveways.

For loading and trash handling functions, a two-bay loading garage will be provided with access to Worth Street. One bay is required by ordinance. The property operations team will arrange loading times that are in accordance with the ordinance and coordinate vehicles to minimize obstructions of the Worth Street sidewalk. A separate trash storage room will also be constructed adjacent to the two-bay loading garage, so that all trash storage from the building can be accommodated indoors, and out of sight of the public.

ATM Queuing Analysis

Based on current usage patterns, the ATM forecast indicates that 6 total vehicles (inbound and outbound) during the AM or PM peak hour will utilize the ATM.

The following variables were used in the ATM queuing analysis to represent the conservative scenario wherein maximum estimated service time (180 seconds/3 minutes for a ATM transaction) was reached for all vehicles:

Arrival Rate	λ	6 veh./hr.
Service Rate	μ	180 s./veh. (20 veh./hr.)
Number of Servers	s	1 ATM Lane
Intensity	ρ	$\lambda/\mu = 0.300$

The average number of vehicles in the system is given by the following formula:

$$L_q = \frac{\rho^2}{1 - \rho}$$

Therefore, $L_q = 0.1286$ vehicles. On average, there is less than one vehicle in the system (the sum of all vehicles being actively served and all queued vehicles awaiting service).

The average amount of time that a vehicle will spend in the queue is given by the following formula:

$$W_q = \frac{L_q}{\lambda}$$

Therefore, $W_q = 0.0214$ hours, or 77 seconds. The average vehicle will spend 77 seconds in the queue, waiting to be served.

The average amount of time that a vehicle will spend in the system (queue time and service time) is given by the following formula:

$$W = \frac{L_q}{\lambda} + \frac{1}{\mu}$$

Therefore, $W = 0.0714$ hours, or 257 seconds. The average vehicle during the peak hour will spend 2577 seconds being queue and served, assuming a conservative service time of 180 seconds per customer.

The average number of vehicles in the queue is given by the following formula:

$$L = \lambda W$$

Therefore, $L = 0.4286$ vehicles. On average, there will be zero vehicles in the queue.

The probability that the ATM area contains no vehicles (system is empty) is given by the following formula:

$$P_0 = 1 - \rho$$

Therefore, $P_0 = 0.5714 = 58\%$. The probability that ATM will, at any given time, be idle (not in use) is 58%.

Finally, the probability of any given number of vehicles in the system at a single time was calculated. This is shown in Table 19.

Table 19: Queue Length Probability

Vehicles in System	Probability of Vehicles in System	Cumulative Probability of Vehicles in System
n	P(n)	ΣP(n)
0	57.14%	57.141%
1	34.28%	91.426%
2	8.57%	100.000%
3	0.00%	100.000%
4	0.00%	100.000%
5	0.00%	100.000%

The ATM is capable of serving two vehicles simultaneously without queue spillback into the adjacent alley. The probability of the presence of *two or less* vehicles in the ATM driveway at one time is 100%. It is highly unlikely that the ATM queue will spill back into the adjacent alley.

Multimodal Considerations

Cyclists

Bicycle parking will be provided for residents in the parking structure. These facilities can

accommodate 96 bicycles. Residents using the bike parking facility will have the opportunity to walk their bike in/out of the parking structure via a doorway just north of the vehicle entrance. In addition, public bike racks that can accommodate 10 bicycles will be provided at two different locations within the Haynes Street right-of-way. 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. All streets that are contained in the area studied for multimodal impacts have existing sidewalks on both sides of the roadway, except for the Alley. 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 Holland Street.

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 pedestrian traffic on the east and west sides on the intersection. The majority of these sidewalk ramps are outside of the scope of this project, and are not the responsibility of the developer. 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 Alley does not currently include any accommodations for pedestrians.

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. Existing sidewalk is available to access the bus stops from the proposed development. No additional bus stops, routes, or sidewalk 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 6 and Figure 7 attached to this memorandum. These routes

will utilize the existing pedestrian facilities and crosswalks.

Crash/Safety Analysis

A crash analysis was conducted for all intersections included in this study. Traffic crash data was reviewed for the most recently 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 the studied segments.

Of these 23 crashes, there were no fatal or serious injury (A) crashes, 1 minor injury (B) crash, 4 potential injury (C) crashes, and 18 property damage only (PDO) crashes. None of these crashes involved alcohol, drugs, pedestrians, or bicyclists.

A breakdown of all crashes by crash type and severity is shown in Table 20 and a breakdown by contributing circumstance and severity is shown in Table 21.

Table 20 : 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%

Table 21 : Overall Crash Summary - Contributing Circumstances

Contributing Circumstance	Number of Crashes by Severity						Percentage
	Fatal	A-Level	B-Level	C-Level	PDO	Total	
Backing	-	-	-	-	1	1	4%
Parking/Parked Cars	-	-	-	-	2	2	9%
Traffic Congestion	-	-	1	4	15	20	87%
Total	-	-	1	4	18	23	100%

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

Crash data was also separated by intersection and roadway segment. There were no crashes within 250' of the following intersections:

- S Adams Road & Holland Street/Alley
- Worth Street & Alley
- Haynes Street & Worth Street

A breakdown of by location, crash type, and severity is shown in Table 22 and a breakdown by location, contributing circumstance, and severity is shown in Table 23.

Table 22 : Location Crash Summary – Crash Type

Location	Total Crashes	Crash Type	Number of Crashes by Severity					
			Fatal	A-Level	B-Level	C-Level	PDO	Total
S Adams Rd & Haynes St/Shopping Center	5	Angle	-	-	-	-	2	2
		Backing	-	-	-	-	1	1
		Other	-	-	-	-	1	1
		Sideswipe Opposite Direction	-	-	-	-	1	1
			-	-	-	-	5	5
S Adams Rd	19	Rear End	-	-	1	4	8	13
		Angle	-	-	-	-	3	3
		Backing	-	-	-	-	1	1
		Other	-	-	-	-	1	1
		Sideswipe Opposite Direction	-	-	-	-	1	1
Haynes St	2	Rear End	-	-	-	-	1	1
		Angle	-	-	-	-	1	1
Worth St	2	Sideswipe Same Direction	-	-	-	-	1	1
		Unknown	-	-	-	-	1	1
		Total	-	-	1	4	18	23

Table 23 : Location Crash Summary – Contributing Circumstances

Location	Total Crashes	Contributing Circumstance	Number of Crashes by Severity					
			Fatal	A-Level	B-Level	C-Level	PDO	Total
S Adams Rd & Haynes St/Shopping Center	5	Backing	-	-	-	-	1	1
		Traffic Congestion	-	-	-	-	4	4
			-	-	-	-	5	5
S Adams Rd	19	Traffic Congestion	-	-	1	4	14	19
Haynes St	2	Traffic Congestion	-	-	-	-	2	2
Worth St	2	Parking/Parked Cars	-	-	-	-	2	2
			-	-	1	4	18	23

Based on the methodologies described in the SEMCOG Traffic Safety Manual ((SEMCOG), 2016), crash frequencies (average number of crashes per year) and crash rates (number of crashes per million entering vehicles) were determined for each studied intersection and roadway segment. The calculated values were then compared to average values and critical values for roadways of similar characteristics in the SEMCOG region. The results of these analyses are shown in Table 24 and Table 25 below.

Table 24: Crash Data by Location

	Studied Area			Average Values - SEMCOG Region ¹		
	Total Crashes	Crash Frequency ²	Crash Rate ³	Crash Frequency ²	Critical Crash Frequency	Crash Rate ³
S Adams Rd & Haynes St/Shopping Center	5	1.0	0.08	2.36	4.71	0.46
S Adams Rd	19	3.8	0.30	9.77	18.09	5.73
Haynes St	2	0.4	0.1	5.35	11.82	6.30
Worth St	2	0.4	0.1	5.35	11.82	6.30

¹SEMCOG Traffic Safety Manual 2016 Chapter 3

²Average number of crashes per year

³Crashes per million entering vehicles

Table 25: Injury Crash Data by Location

	Studied Area				Average Values – SEMCOG Region ¹	
	B-Level	C-Level	PDO	Casualty Ratio ²	Casualty Ratio ²	Critical Casualty Ratio ²
S Adams Rd & Haynes St/Shopping Center	-	-	5	0.0	.22	.46
S Adams Rd	1	4	14	0.26	.23	.39
Haynes St	-	-	2	0.0	.22	.44
Worth St	-	-	2	0.0	.22	.44

¹SEMCOG Traffic Safety Manual 2016 Chapter 3

²Casualty ratio is the number of injury and fatal crashes divided by the total number of crashes

The crash frequency and crash rate at all studied locations are lower than the average rate for locations of similar characteristics. The casualty ratio along S Adams Road is greater than the average casualty for road segments of similar characteristics. However, the casualty ratio is below the critical casualty ratio for road segments of similar characteristics. A summary of the crash data is attached to this memorandum.

As noted above, the majority of the crashes on these streets are related to existing congestion on Adams Road. Since the project is predicted to only slightly increase the overall number of AM and PM peak hour trips and will remove an existing driveway on to Adams Road, it is predicted that the project will have a net reduction to the overall crash rate in this corridor. By moving all site generated traffic to Worth Street, vehicle turns will be dispersed away from Adams Road.

By avoiding the construction of a new driveway on to Adams Road, but rather keeping all turning movements on Worth Street, the development will not be a detriment to the existing operations of S Adams Road.

Conclusions and Recommendations for the Traffic Impact Study

The proposed project consists of a mixed-use development located on the west side of S Adams Road between Haynes Street and the Alley in Birmingham, MI. The current site plan shows 4,035 SF of commercial space and 157 DU 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 79 new trips during the AM peak hour (25 inbound and 54 outbound from the site) and 101 new trips during the PM peak hour (57 inbound and 44 outbound from the site). When trips from the previous uses of the two sites are considered, actual new trips from this development drops to 40 new trips during the AM peak hour and 48 new trips during the PM peak hour.

An operational analysis was performed for existing 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 and F in the AM and PM peak hours, respectively. With the addition of the site generated traffic, this approach would continue operate at LOS E and F in the AM and PM peak hours, respectively. However, 95th percentile queue lengths were reviewed on this approach, and no queue length exceeds 76 feet (3 vehicles) in the AM peak hour and 157 110 feet (4 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 to be constructed at this time.

Overall, the proposed project has a minimal impact at the studied intersections or on the surrounding road network. No transportation improvements will be required to support the development on opening day.

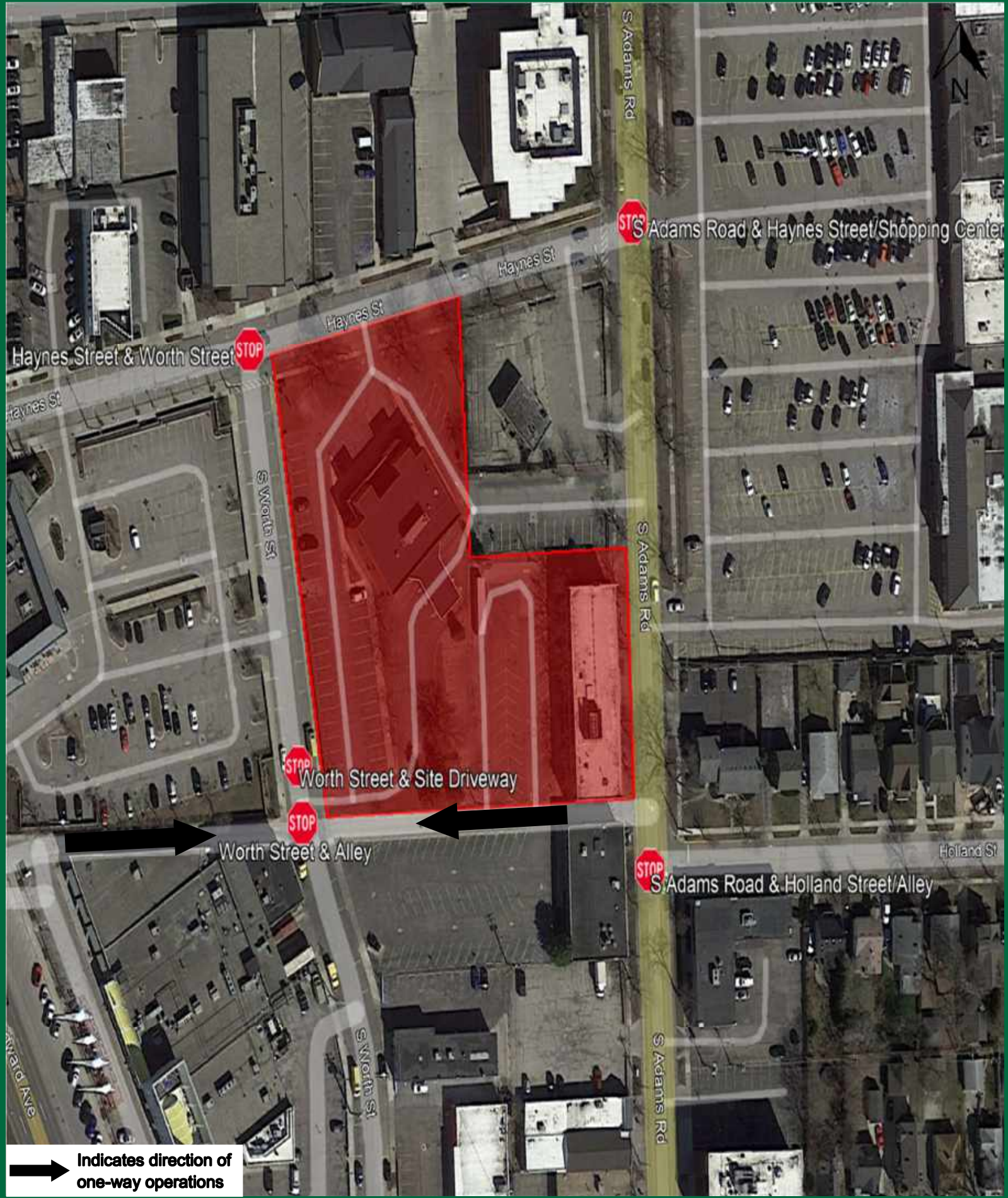
Attachments

R:\Projects\21F0086\Docs\Design\TIA\21F0086 770 S Adams TIS.docx

SITE PLAN

UNIT DATA								
Type	S.F.	# of Units						
		Lvl 1	Lvl 2	Lvl 3	Lvl 4	Lvl 5	Lvl 6	Total
6-2	568	0	1	1	0	0	0	2
1B	677	0	1	1	1	1	1	5
1B	756	0	1	1	6	1	3	12
1B-D	888	0	15	15	8	6	4	48
1B-D-2	1,080	0	1	1	1	1	1	5
1B-M	819	0	1	0	0	0	0	1
1B-M	782	0	1	1	1	1	1	5
1B-D-C	925	0	1	0	0	0	1	2
2B	1102	0	5	5	7	1	7	25
2B-2	1343	0	1	1	1	1	1	5
2B-2	1336	0	5	5	5	0	0	20
2B-D-2	1544	0	1	1	1	0	0	3
2B-M	1,143	12	0	0	0	0	0	11
2B-M-2	948	3	0	0	0	0	0	3
2B-M-3	1608	3	0	0	0	0	0	3
2B-D-C	1165	0	1	1	1	0	0	3
3B	1734	0	1	1	1	1	0	4
Total	-	19	34	34	32	19	19	157

REPORT FIGURES



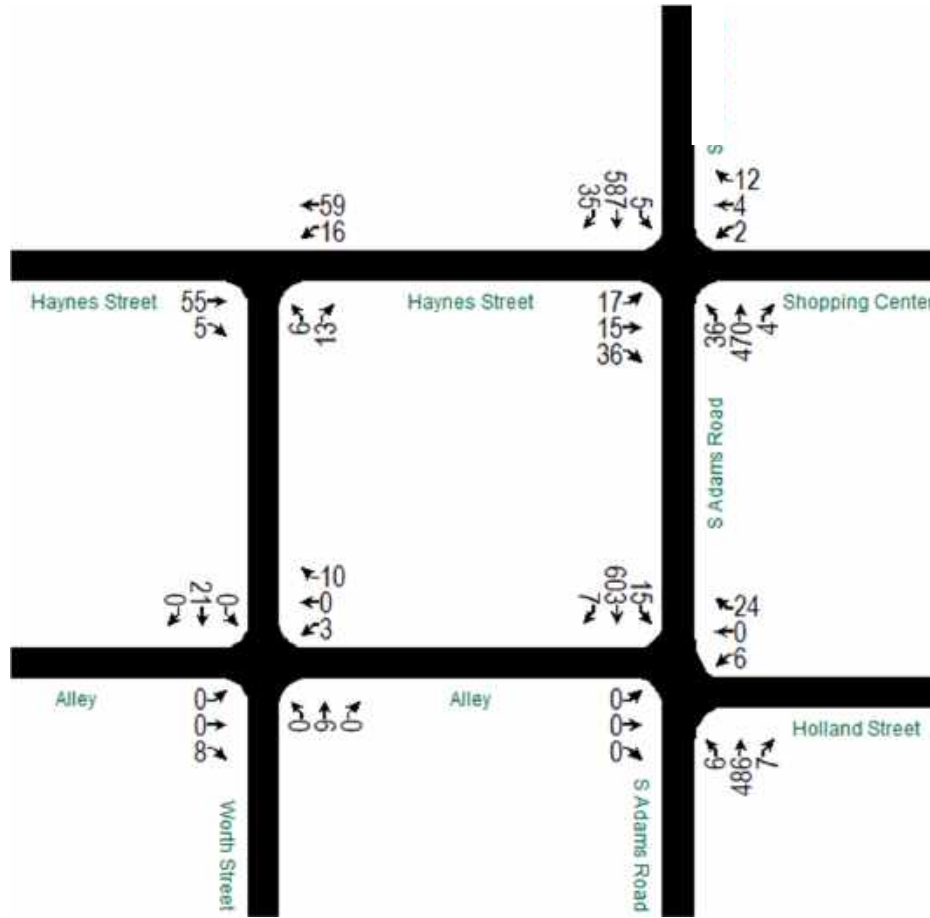
**ROWE PROFESSIONAL
SERVICES COMPANY**

Large Firm Resources. Personal Attention.

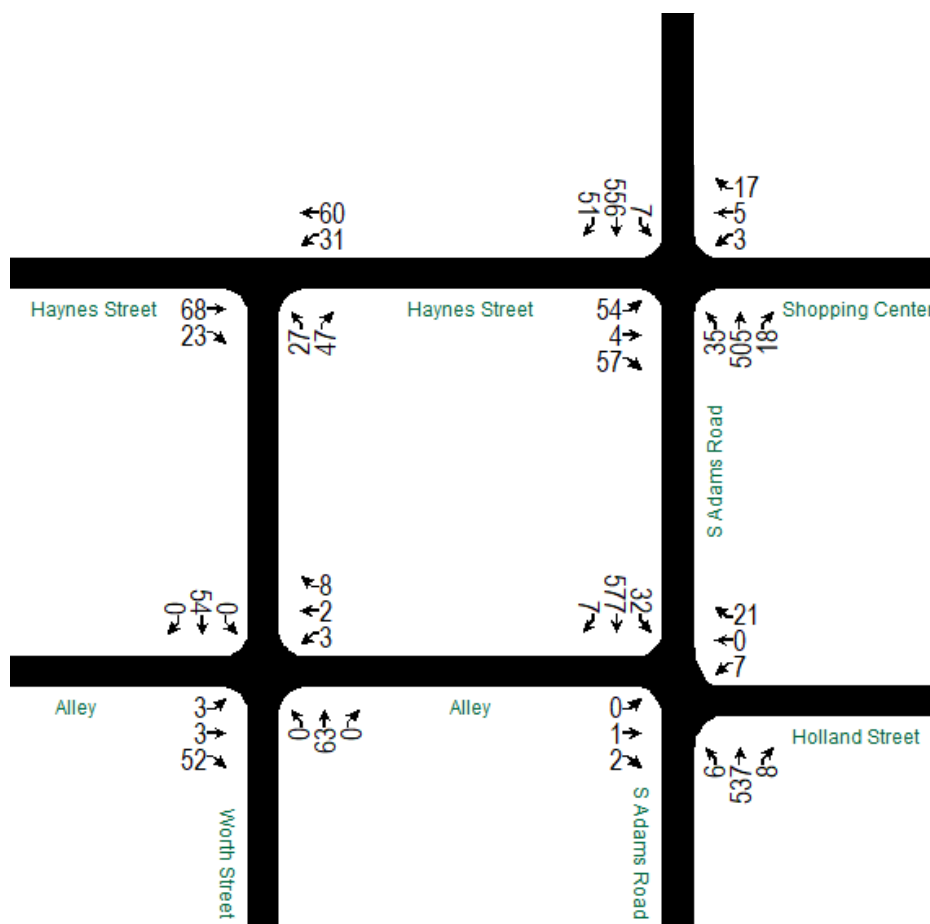
**Project Location
770 S Adams Road TIS
Figure 1**

Not to scale – for illustrative purposes only

AM Peak Hour



PM Peak Hour



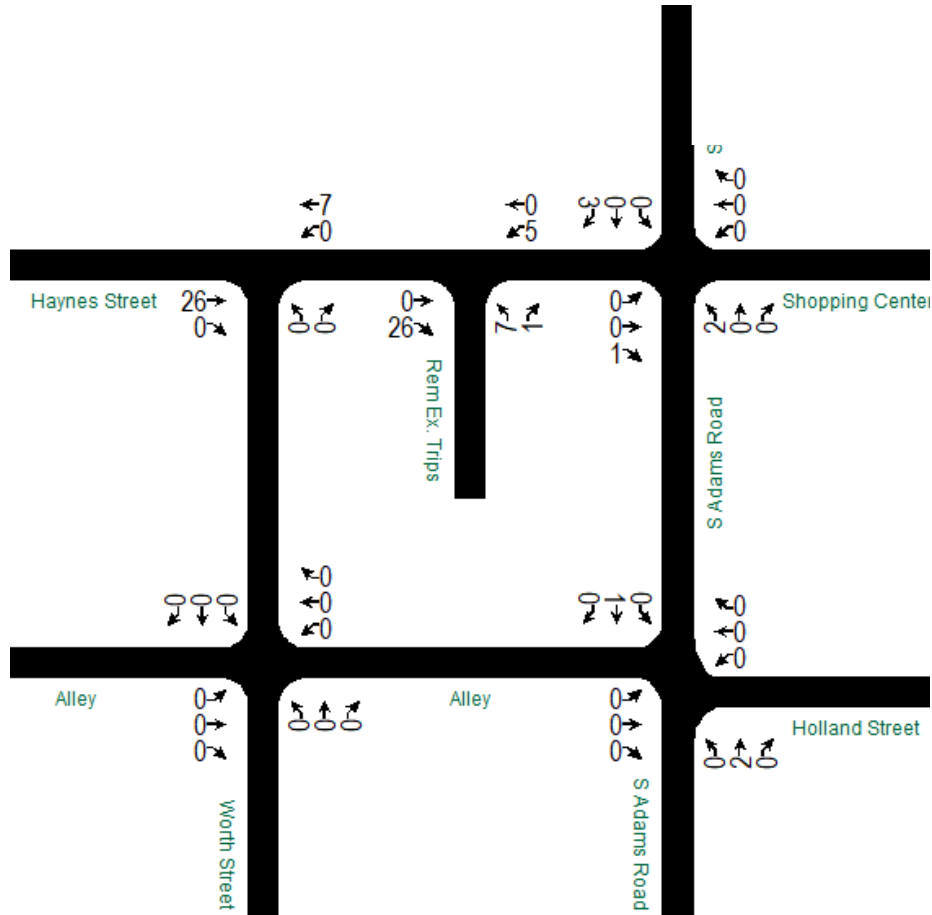
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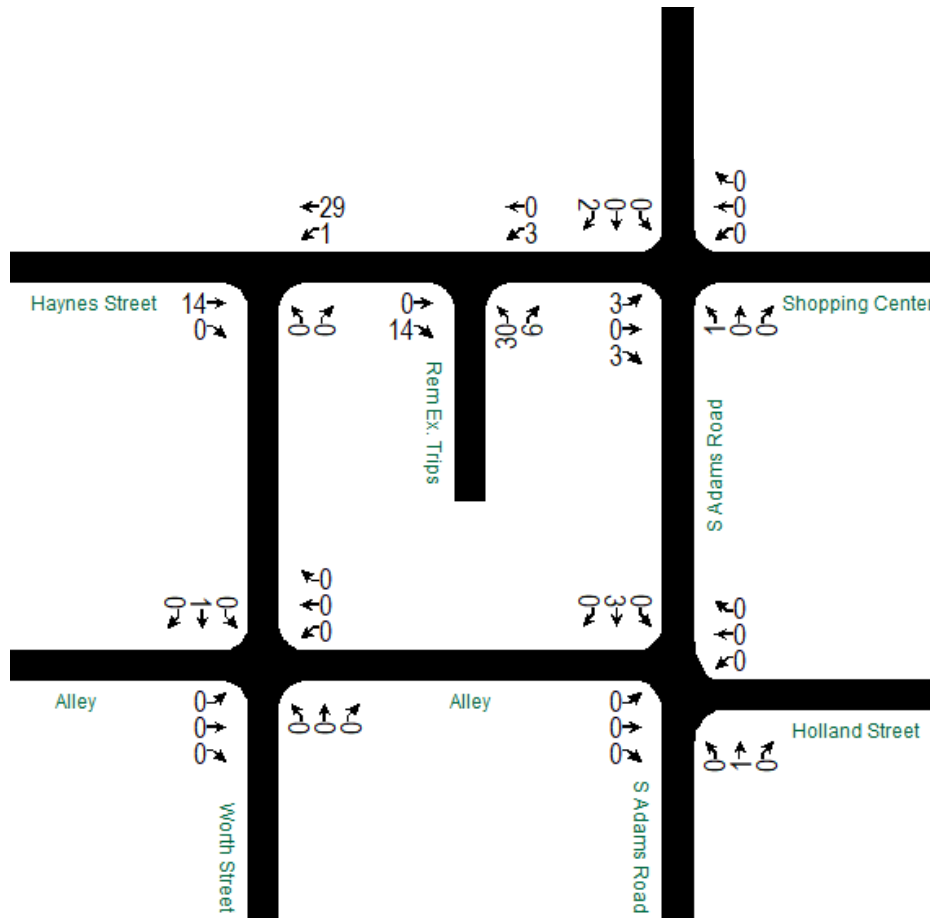
2021 Existing Conditions Volumes
770 S Adams Road TIS
Figure 2

Not to scale – for illustrative purposes only

AM Peak Hour



PM Peak Hour



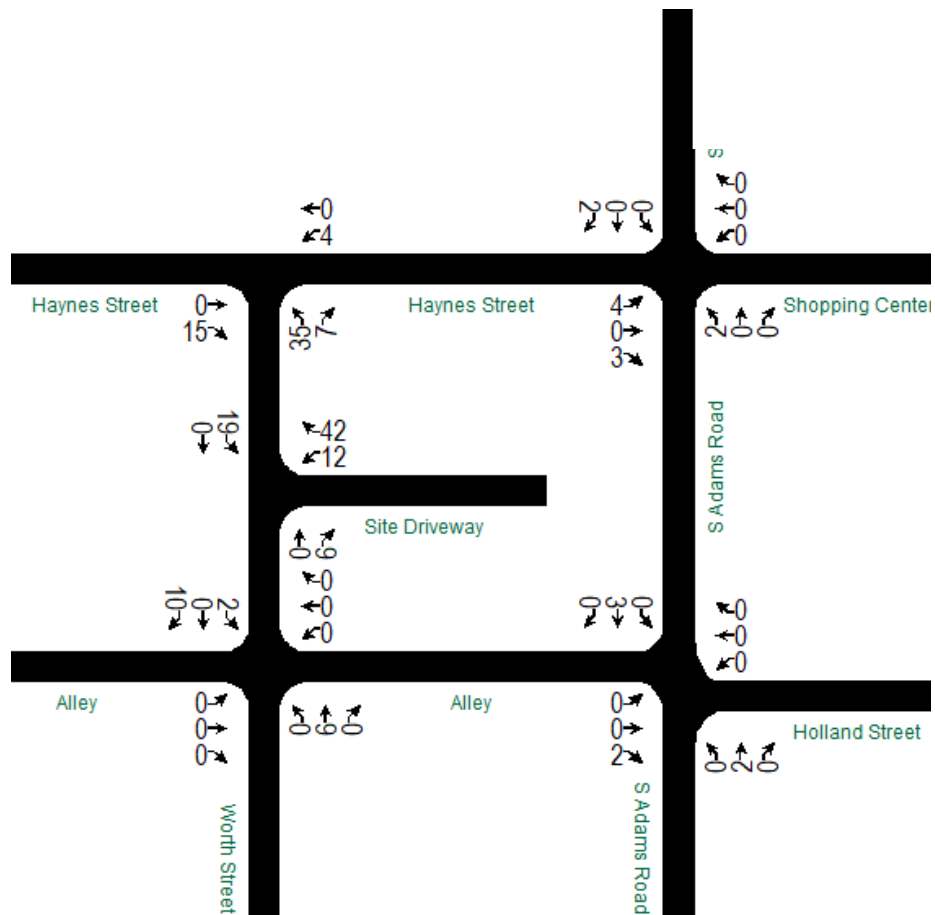
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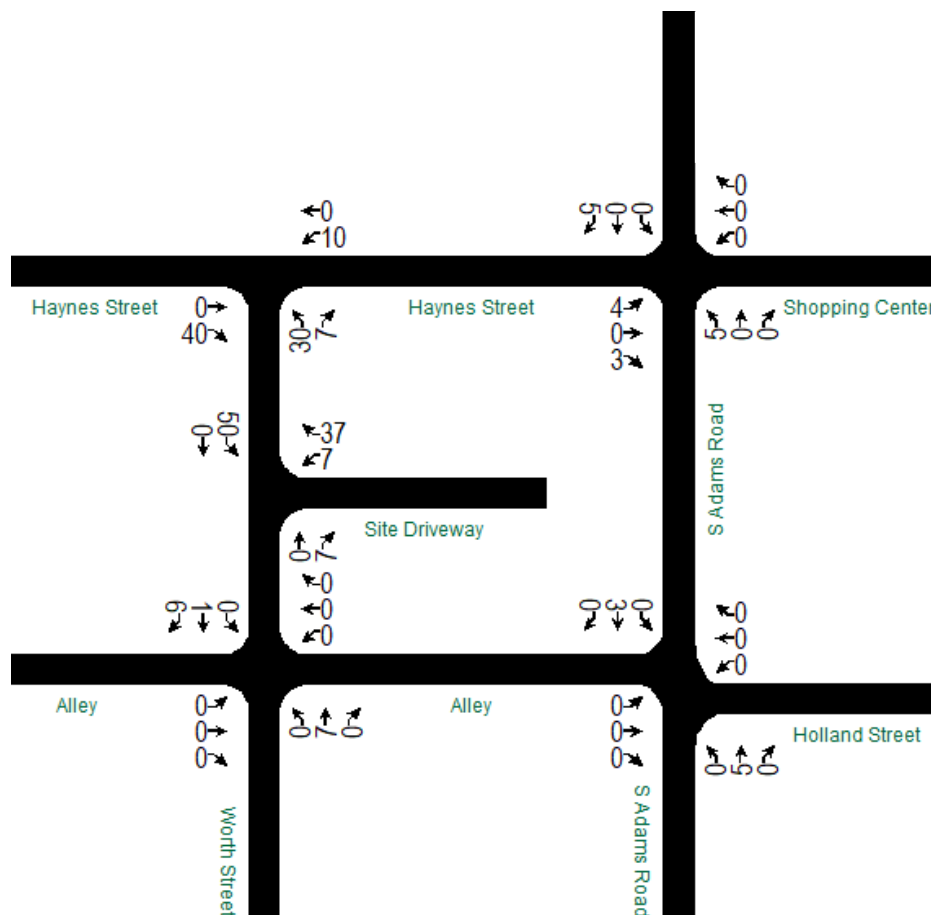
Existing Building Removal Volumes
770 S Adams Road TIS
Figure 3

Not to scale – for illustrative purposes only

AM Peak Hour



PM Peak Hour



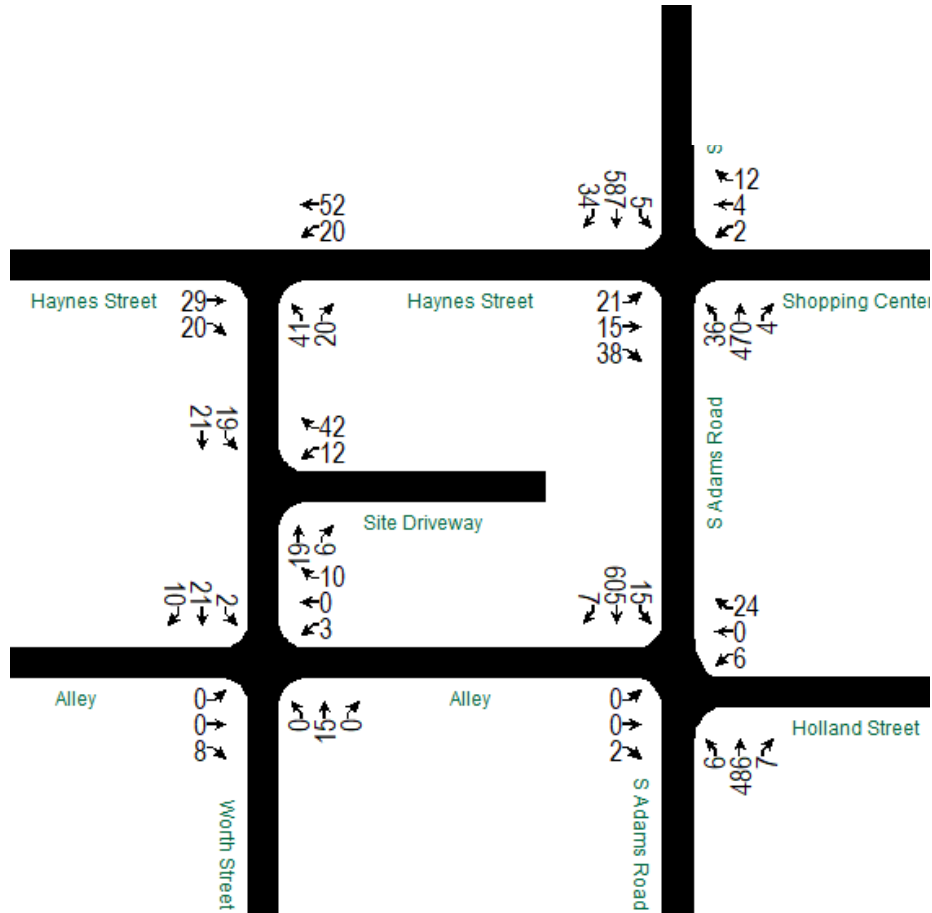
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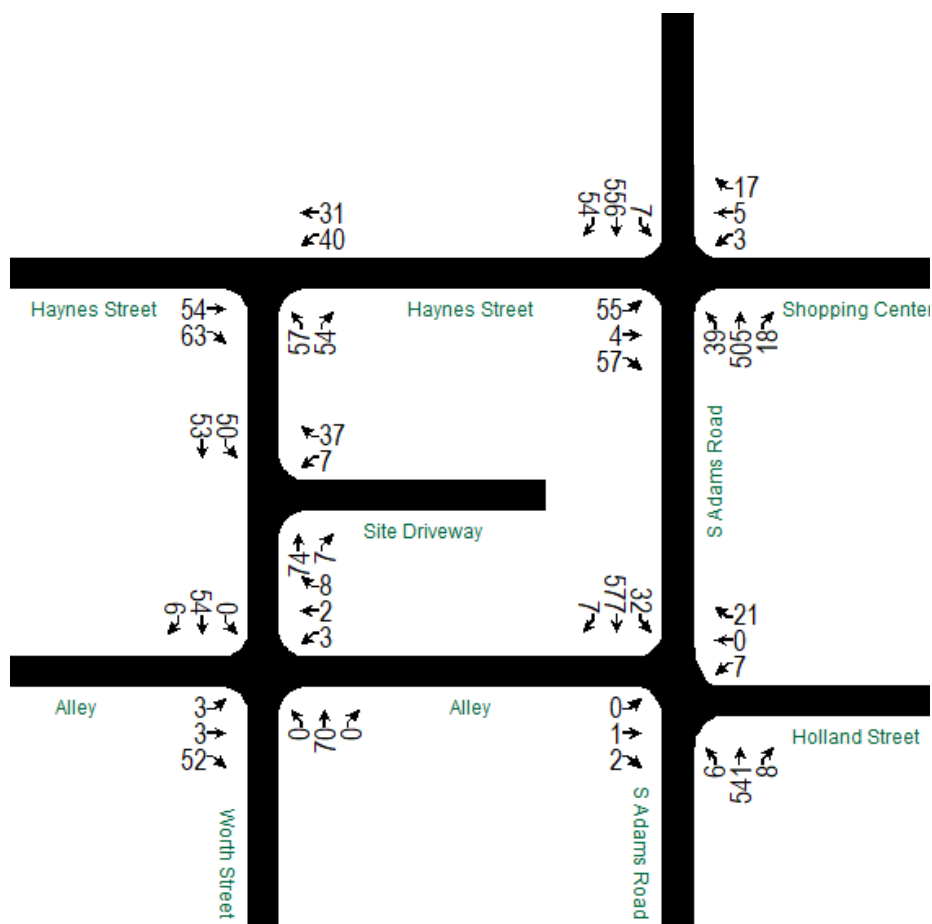
**Trip Generation Volumes
770 S Adams Road TIS
Figure 4**

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 5

Not to scale – for illustrative purposes only



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Pedestrian & Bicycle Routing
770 S Adams Road TIS
Figure 6

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
		2022	Existing Adj.	36	470	4	5	587	35	17	15	36	2	4	12
		2025	Background	36	470	4	5	587	35	17	15	36	2	4	12
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	36	470	4	5	587	35	17	15	36	2	4	12
			Site Generated	2					2	4		3			
			Rem Existing Trips	-2					-3			-1			
			Pass By												
			Total Site Gen	0	0	0	0	0	-1	4	0	2	0	0	0
			Total Future	36	470	4	5	587	34	21	15	38	2	4	12

Count Date: **Varies**
Count Year: **2019**
Existing Adj. Year: **2022**
Existing Adjustment Rate: **1.00**
Growth Rate: **0.0%**
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
		2022	Existing Adj.	6	486	7	15	603	7	0	0	0	6	0	24
		2025	Background	6	486	7	15	603	7	0	0	0	6	0	24
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	6	486	7	15	603	7	0	0	0	6	0	24
			Site Generated		2			3				2			
			Rem Existing Trips		-2			-1							
			Pass By												
			Total Site Gen	0	0	0	0	2	0	0	0	2	0	0	0
			Total Future	6	486	7	15	605	7	0	0	2	6	0	24

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
		2022	Existing Adj.	0	9	0	0	21	0	0	0	8	3	0	10
		2025	Background	0	9	0	0	21	0	0	0	8	3	0	10
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	0	9	0	0	21	0	0	0	8	3	0	10
			Site Generated		6		2		10						
			Rem Existing Trips												
			Pass By												
			Total Site Gen	0	6	0	2	0	10	0	0	0	0	0	0
			Total Future	0	15	0	2	21	10	0	0	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		
		2022	Existing Adj.	6		13				55	5	16	59		
		2025	Background	6		13				55	5	16	59		
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	6		13				55	5	16	59		
			Site Generated	35		7					15	4			
			Rem Existing Trips							-26			-7		
			Pass By												
			Total Site Gen	35		7				-26	15	4	-7		
			Total Future	41		20				29	20	20	52		

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						0.92		
			% Heavy	2%			2%						2%		
		2019	Existing	19	0	0	0	21					0		0
		2022	Existing Adj.	19	0	0	0	21					0		0
		2025	Background	19	0	0	0	21					0		0
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	19	0	0	0	21					0		0
			Site Generated			6	19						12		42
			Rem Existing Trips												
			Pass By												
			Total Site Gen		0	6	19	0					12		42
			Total Future		19	6	19	21					12		42

Intersection	Time period	Year	Movement	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
#200 - S Adams Road & Bowers Street (West)/Shopping Center	AM Peak 2019		PHF	0.83			0.94			0.69			0.65		
			% Heavy	3%			2%			2%			0%		
		2019	Existing	20	479	0	11	593	74	35	18	30	4	6	3
		2022	Existing Adj.	20	479	0	11	593	74	35	18	30	4	6	3
		2025	Background	20	479	0	11	593	74	35	18	30	4	6	3
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	20	479	0	11	593	74	35	18	30	4	6	3
			Site Generated		4			2							
			Rem Existing Trips					-3							
			Pass By												
			Total Site Gen	0	4	0	0	-1	0	0	0	0	0	0	0
			Total Future	20	483	0	11	592	74	35	18	30	4	6	3

Intersection	Time period	Year	Movement	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
#300 - S Adams Road & Bowers Street (West)/Shopping Center	AM Peak 2019		PHF	0.84			0.95						0.76		
			% Heavy	2%			2%						1%		
		2019	Existing		464	53	29	611					67		40
		2022	Existing Adj.		464	53	29	611					67		40
		2025	Background		464	53	29	611					67		40
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background		464	53	29	611					67		40
			Site Generated		4			2							
			Rem Existing Trips					-3							
			Pass By												
			Total Site Gen		4	0	0	-1					0		0
			Total Future		468	53	29	610					67		40

Intersection	Time period	Year	Movement	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
#500 - S Adams Road & E Lincoln Street	AM Peak 2019		PHF	0.88			0.94			0.90			0.86		
			% Heavy	2%			2%			2%			2%		
		2019	Existing	45	402	48	26	421	175	205	323	6	50	280	26
		2022	Existing Adj.	45	402	48	26	421	175	205	323	6	50	280	26
		2025	Background	45	402	48	26	421	175	205	323	6	50	280	26
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	45	402	48	26	421	175	205	323	6	50	280	26
			Site Generated		2			5							
			Rem Existing Trips		-2			-1							
			Pass By												
			Total Site Gen	0	0	0	0	4	0	0	0	0	0	0	0
			Total Future	45	402	48	26	425	175	205	323	6	50	280	26

Intersection	Time period	Year	Movement	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
#6 - Haynes Street & Ex Site	AM Peak 2019		PHF												
			% Heavy												
		2019	Existing												
		2022	Existing Adj.												
		2025	Background	0		0					0	0	0	0	
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	0		0					0	0	0	0	
			Site Generated												
			Rem Existing Trips	-7		-1					-26	-5			
			Pass By												
			Total Site Gen	-7		-1					0	-26	-5	0	
			Total Future	-7		-1					0	-26	-5	0	

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
		2022	Existing Adj.	35	505	18	7	556	51	54	4	57	3	5	17
		2025	Background	35	505	18	7	556	51	54	4	57	3	5	17
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	35	505	18	7	556	51	54	4	57	3	5	17
			Site Generated	5				5	4		3				
			Rem Existing Trips	-1				-2	-3		-3				
			Pass By												
			Total Site Gen	4	0	0	0	3	1	0	0	0	0	0	0
			Total Future	39	505	18	7	556	54	55	4	57	3	5	17

Count Date: **Varies**

Count Year: **2019**

Existing Adj. Year: **2022**

Existing Adjustment Rate: **1.01**

Growth Rate: **0.0%**

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
		2022	Existing Adj.	6	537	8	32	577	7	0	1	2	7	0	21
		2025	Background	6	537	8	32	577	7	0	1	2	7	0	21
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	6	537	8	32	577	7	0	1	2	7	0	21
			Site Generated		5			3							
			Rem Existing Trips		-1			-3							
			Pass By												
			Total Site Gen	0	4	0	0	0	0	0	0	0	0	0	0
			Total Future	6	541	8	32	577	7	0	1	2	7	0	21

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
		2022	Existing Adj.	0	63	0	0	54	0	3	3	52	3	2	8
		2025	Background	0	63	0	0	54	0	3	3	52	3	2	8
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	0	63	0	0	54	0	3	3	52	3	2	8
			Site Generated		7			1	6						
			Rem Existing Trips					-1							
			Pass By												
			Total Site Gen	0	7	0	0	0	6	0	0	0	0	0	0
			Total Future	0	70	0	0	54	6	3	3	52	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		
		2022	Existing Adj.	27		47				68	23	31	60		
		2025	Background	27		47				68	23	31	60		
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	27		47				68	23	31	60		
			Site Generated	30		7					40	10			
			Rem Existing Trips							-14		-1	-29		
			Pass By												
			Total Site Gen	30		7				-14	40	9	-29		
			Total Future	57		54				54	63	40	31		

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	74	0	0	54						0		0
		2022	Existing Adj.	74	0	0	54						0		0
		2025	Background	74	0	0	54						0		0
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	74	0	0	54						0		0
			Site Generated			7	50						7		37
			Rem Existing Trips					-1							
			Pass By												
			Total Site Gen		0	7	50	-1					7		37
			Total Future		74	7	50	53					7		37

Intersection	Time period	Year	Movement	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
#200 - S Adams Road & Bowers Street (West)/Shopping Center	PM Peak 2019		PHF	0.88			0.94			0.82			0.75		
			% Heavy	1%			1%			0%			0%		
		2019	Existing	32	543	1	13	552	76	58	30	50	12	34	8
		2022	Existing Adj.	32	543	1	13	552	76	58	30	50	12	34	8
		2025	Background	32	543	1	13	552	76	58	30	50	12	34	8
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	32	543	1	13	552	76	58	30	50	12	34	8
			Site Generated		4			5							
			Rem Existing Trips		-3			-2							
			Pass By												
			Total Site Gen	0	1	0	0	3	0	0	0	0	0	0	0
			Total Future	32	544	1	13	555	76	58	30	50	12	34	8

Intersection	Time period	Year	Movement	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
#300 - S Adams Road & Bowers Street (West)/Shopping Center	PM Peak 2019		PHF	0.89			0.92						0.83		
			% Heavy	1%			1%						1%		
		2019	Existing		521	88	49	578					63		67
		2022	Existing Adj.		521	88	49	578					63		67
		2025	Background		521	88	49	578					63		67
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background		521	88	49	578					63		67
			Site Generated		4			5							
			Rem Existing Trips		-3			-2							
			Pass By												
			Total Site Gen		1	0	0	3					0		0
			Total Future		522	88	49	581					63		67

Intersection	Time period	Year	Movement	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
#500 - S Adams Road & E Lincoln Street	PM Peak 2019		PHF	0.94			0.94			0.85			0.94		
			% Heavy	2%			2%			2%			2%		
		2019	Existing	69	425	51	18	443	164	142	340	10	52	328	23
		2022	Existing Adj.	69	425	51	18	443	164	142	340	10	52	328	23
		2025	Background	69	425	51	18	443	164	142	340	10	52	328	23
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	69	425	51	18	443	164	142	340	10	52	328	23
			Site Generated		5			3							
			Rem Existing Trips		-1			-3							
			Pass By												
			Total Site Gen	0	4	0	0	0	0	0	0	0	0	0	0
			Total Future	69	429	51	18	443	164	142	340	10	52	328	23

Intersection	Time period	Year	Movement	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
#6 - Haynes Street & Ex Site	PM Peak 2019		PHF												
			% Heavy												
		2019	Existing												
		2022	Existing Adj.												
		2025	Background	0		0					0	0	0	0	
			Bckgrd. Dev. A												
			Bckgrd. Dev. B												
			Bckgrd. Dev. C												
			Total Background	0		0					0	0	0	0	
			Site Generated												
			Rem Existing Trips	-30		-6					-14	-3			
			Pass By												
			Total Site Gen	-30		-6					0	-14	-3	0	
			Total Future	-30		-6					0	-14	-3	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 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 : 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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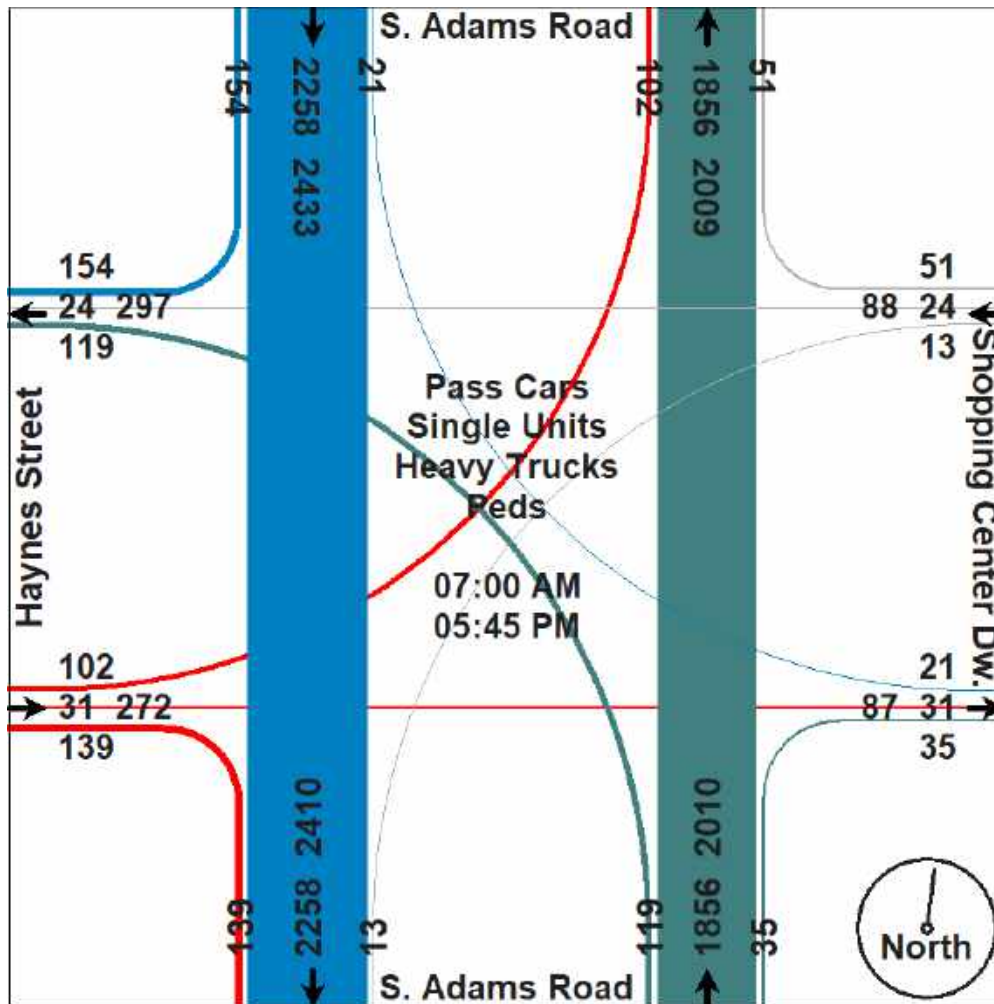
Traffic Study Performed For:

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: 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 : 2



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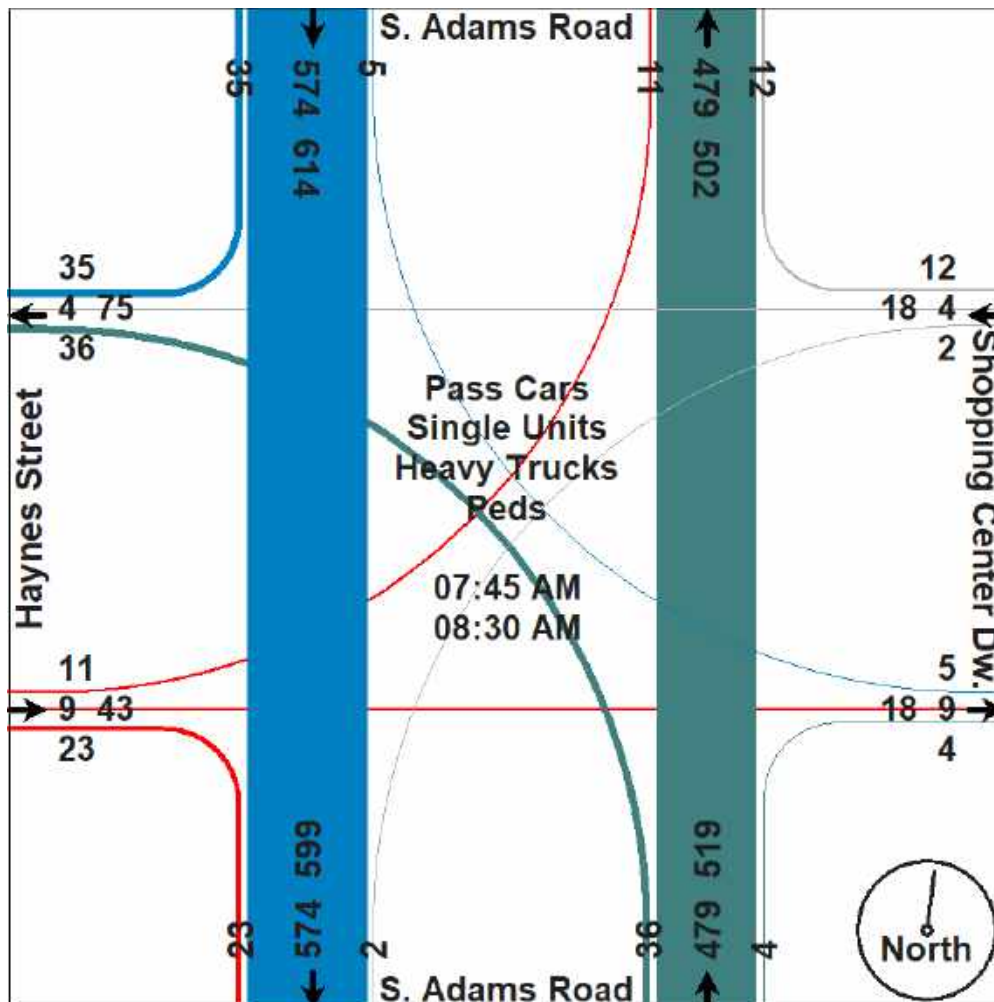
ROWE Professional Services Company



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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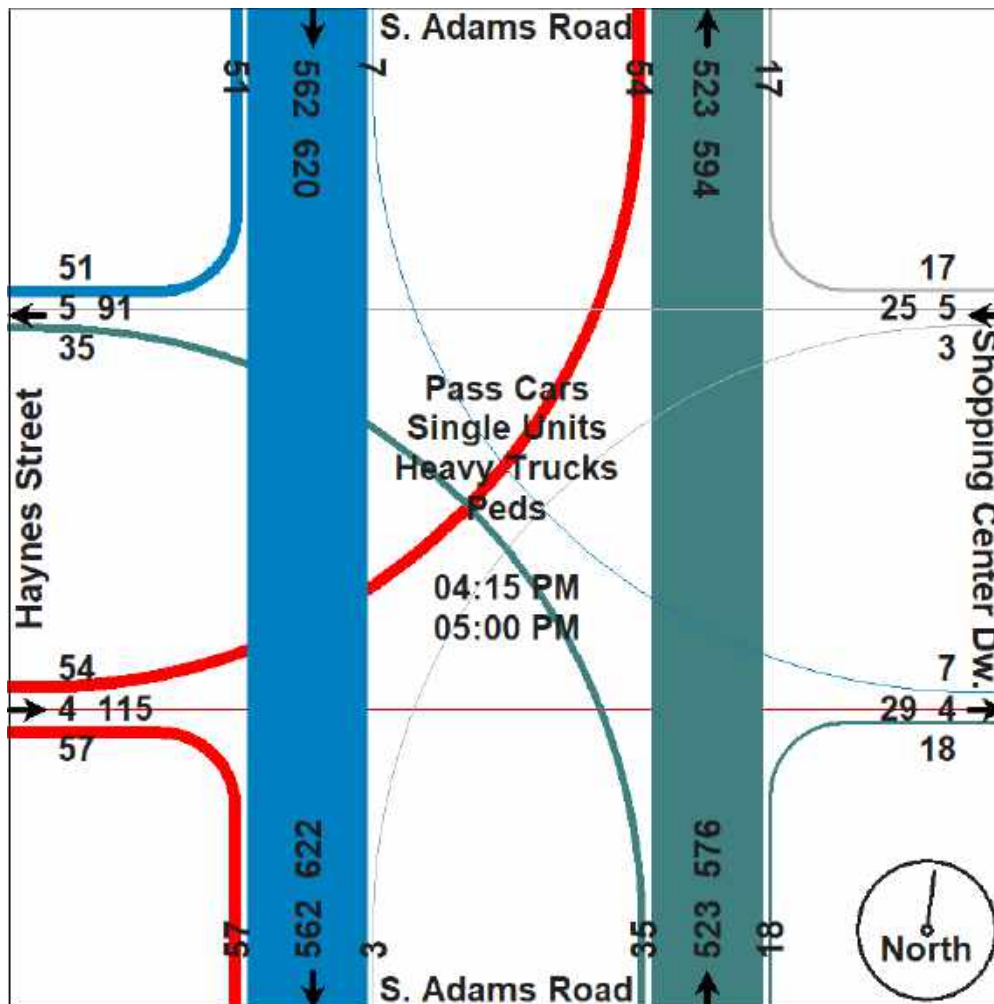
ROWE Professional Services Company



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 : 4

	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:

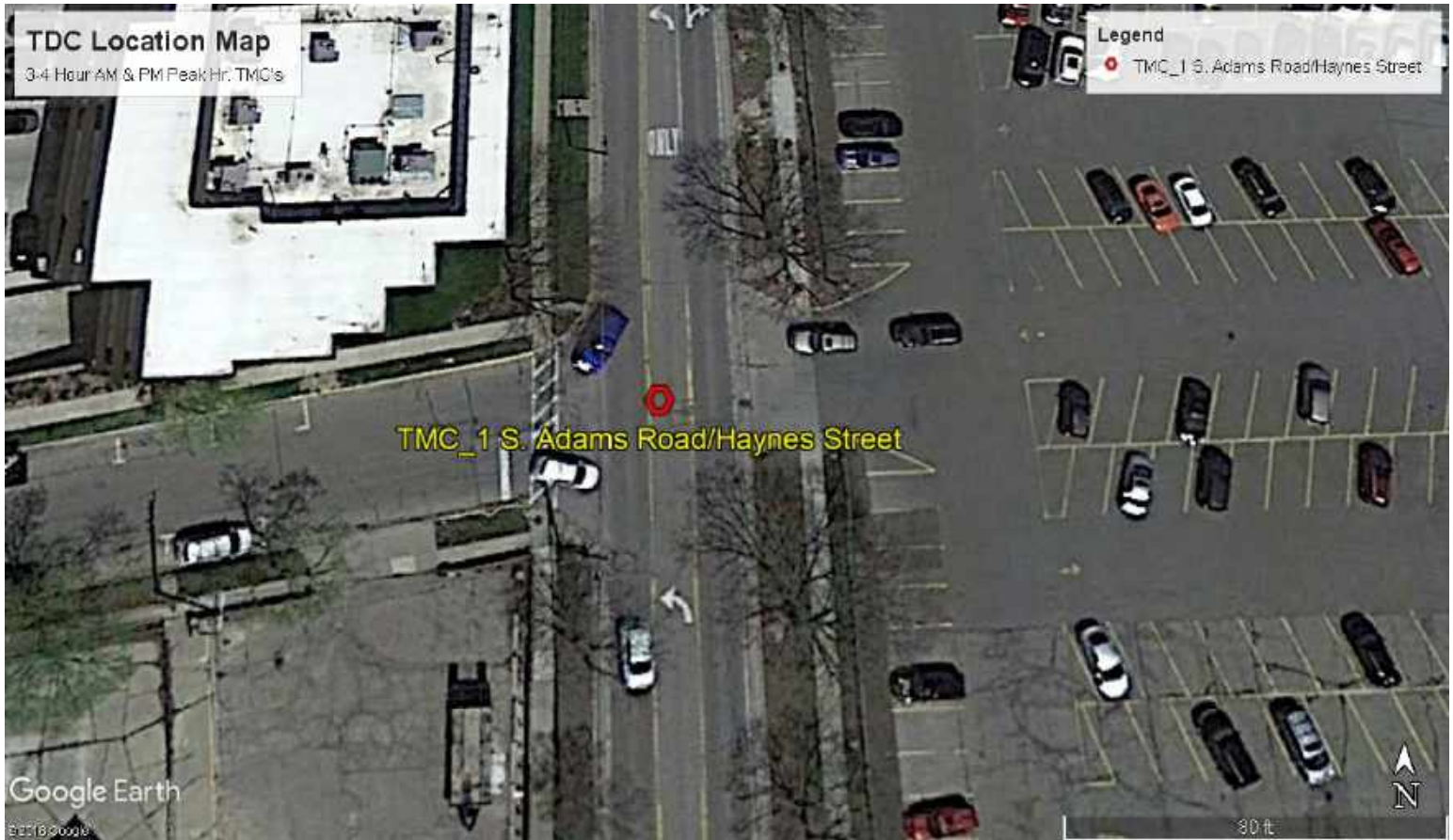
ROWE Professional Services Company



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
Site Code : TMC_1
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 Miovision 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	1	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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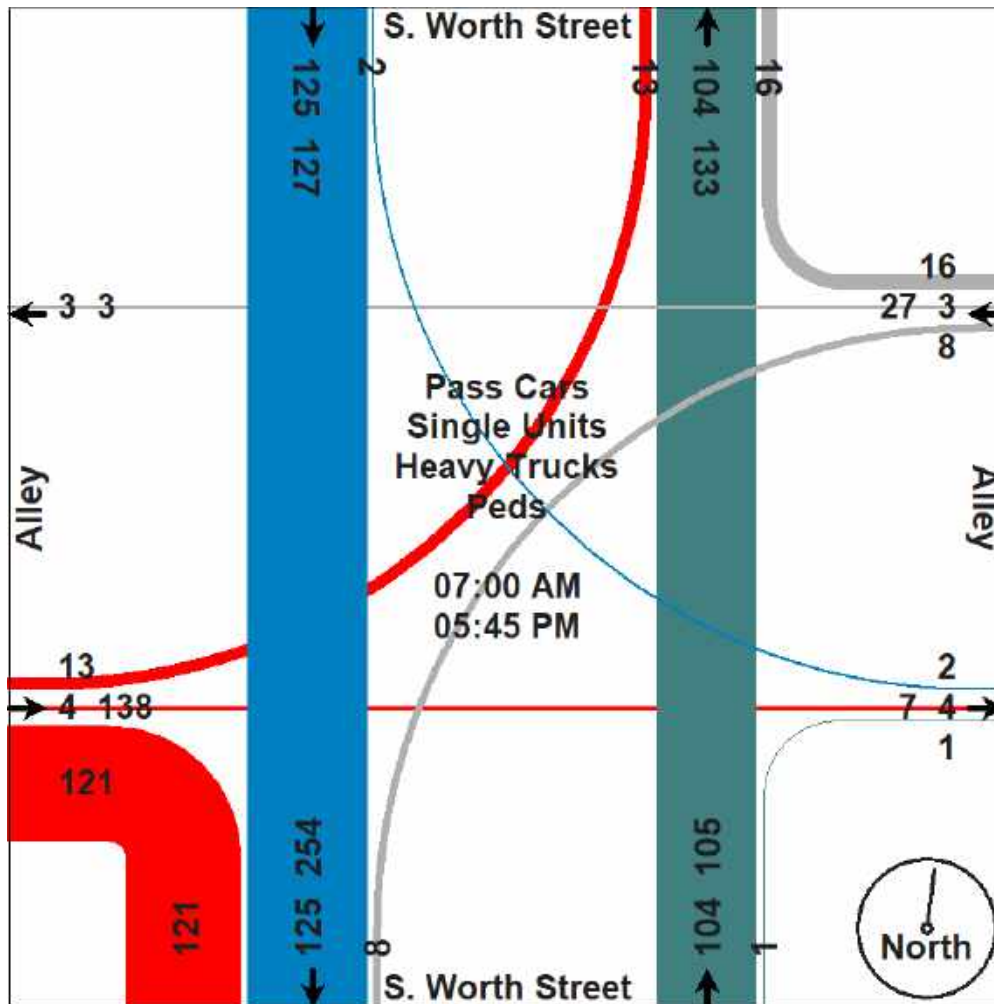
Traffic Study Performed For:

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 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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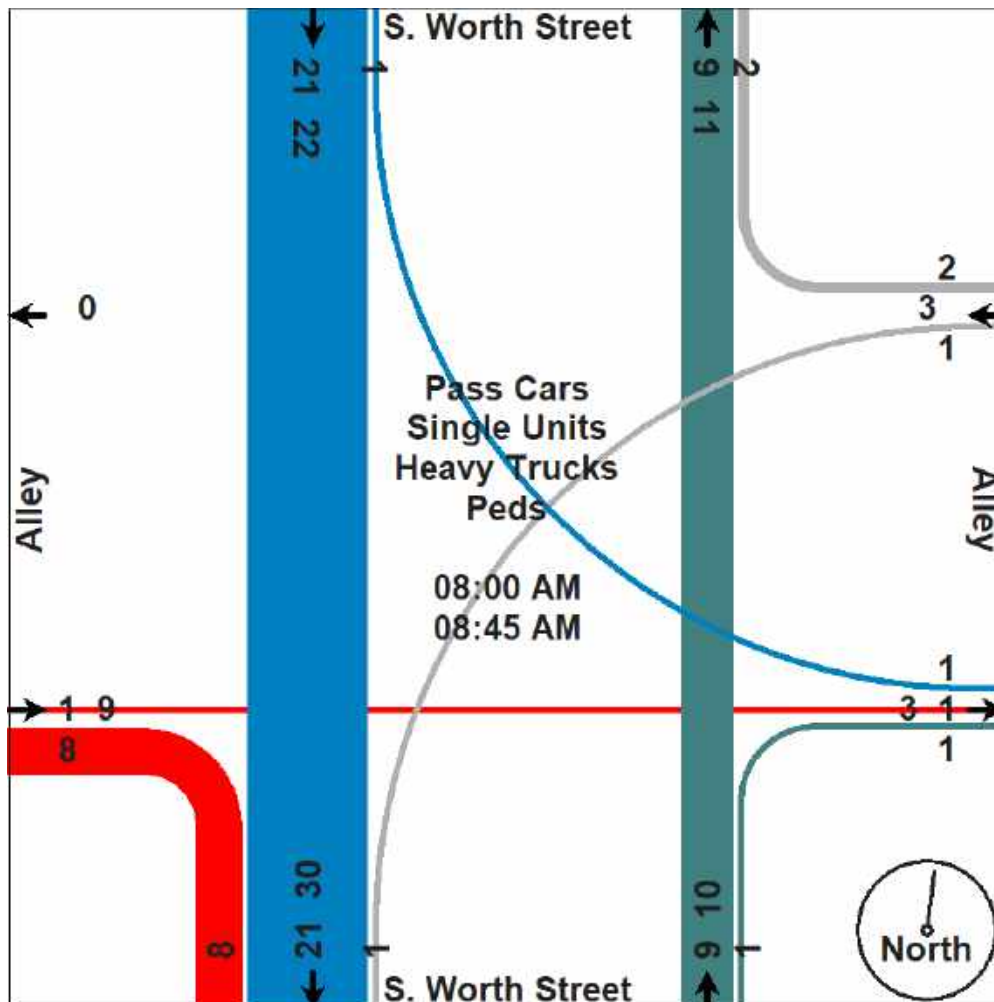
ROWE Professional Services Company



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

File Name : TMC_2 Worth & Alley_9-11-19
Site Code : TMC_2
Start Date : 9/11/2019
Page No : 3

	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:

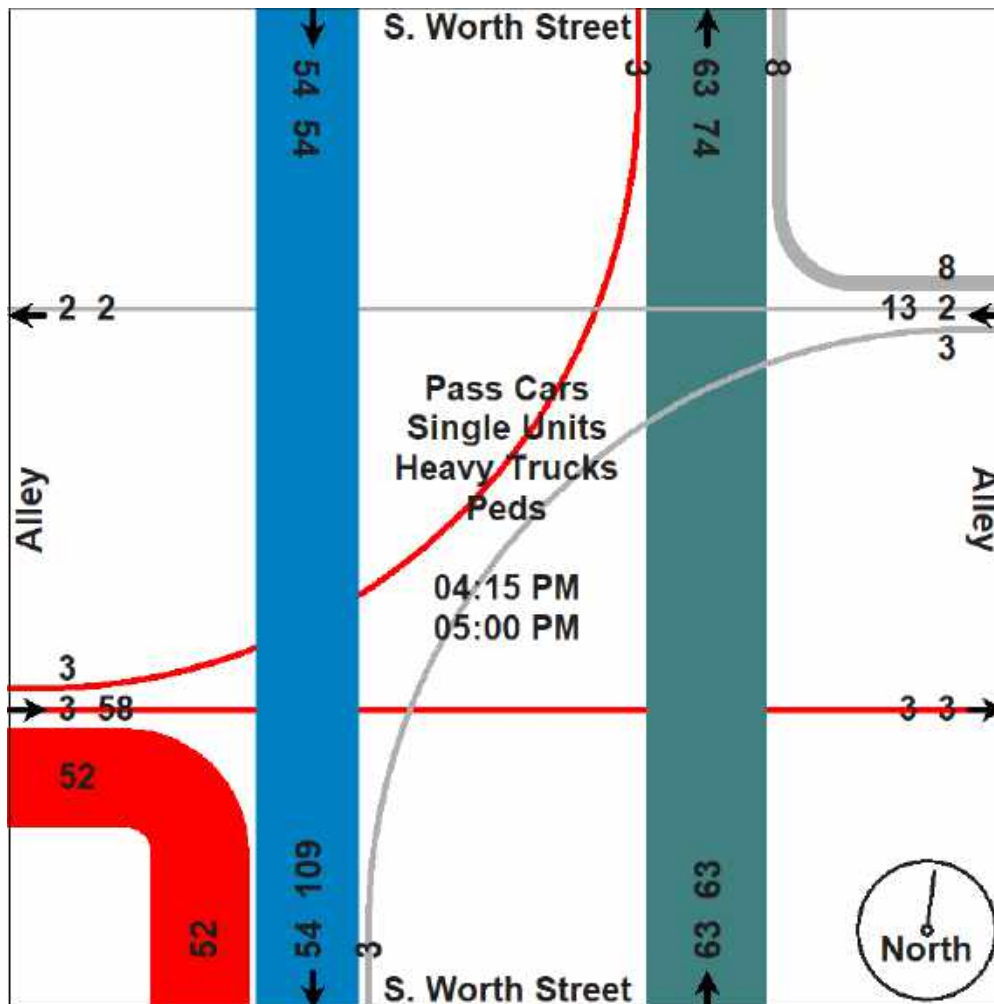
ROWE Professional Services Company



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

File Name : TMC_2 Worth & Alley_9-11-19
Site Code : TMC_2
Start Date : 9/11/2019
Page No : 4

	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



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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 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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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 : 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.

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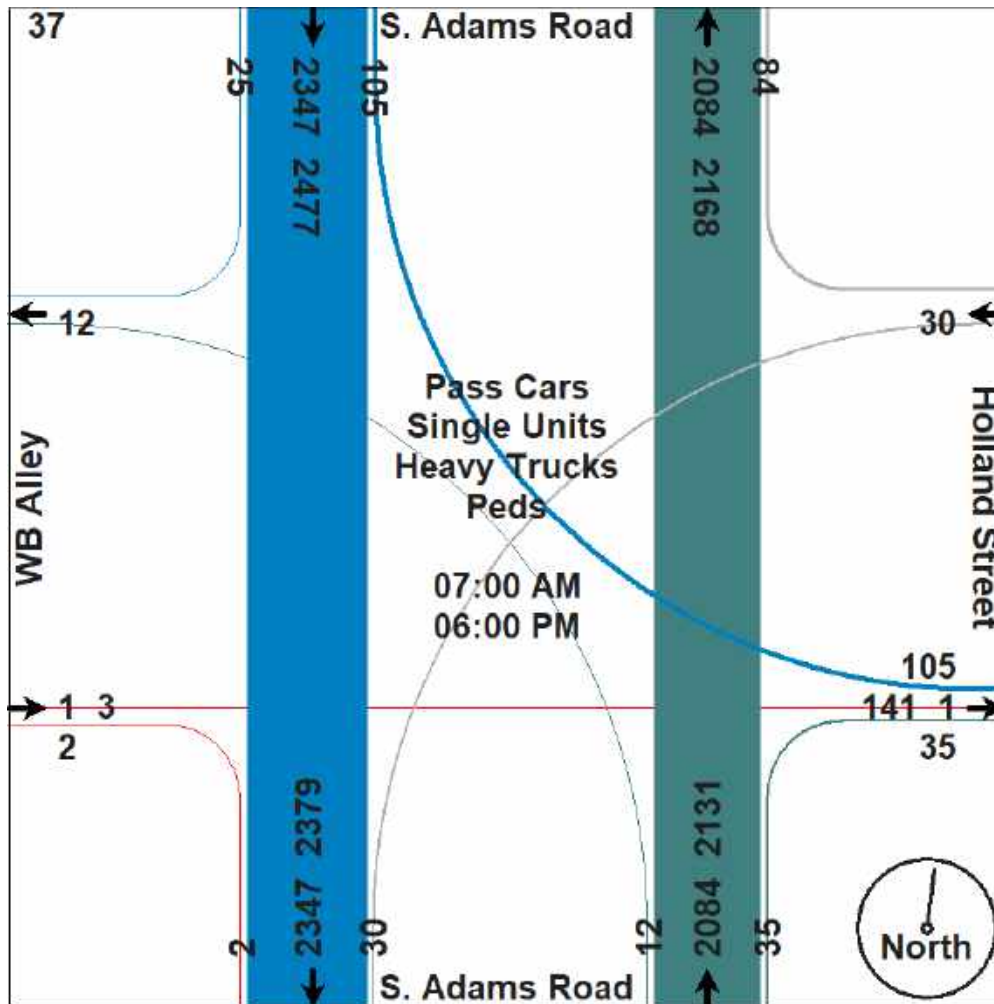
Traffic Study Performed For:

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 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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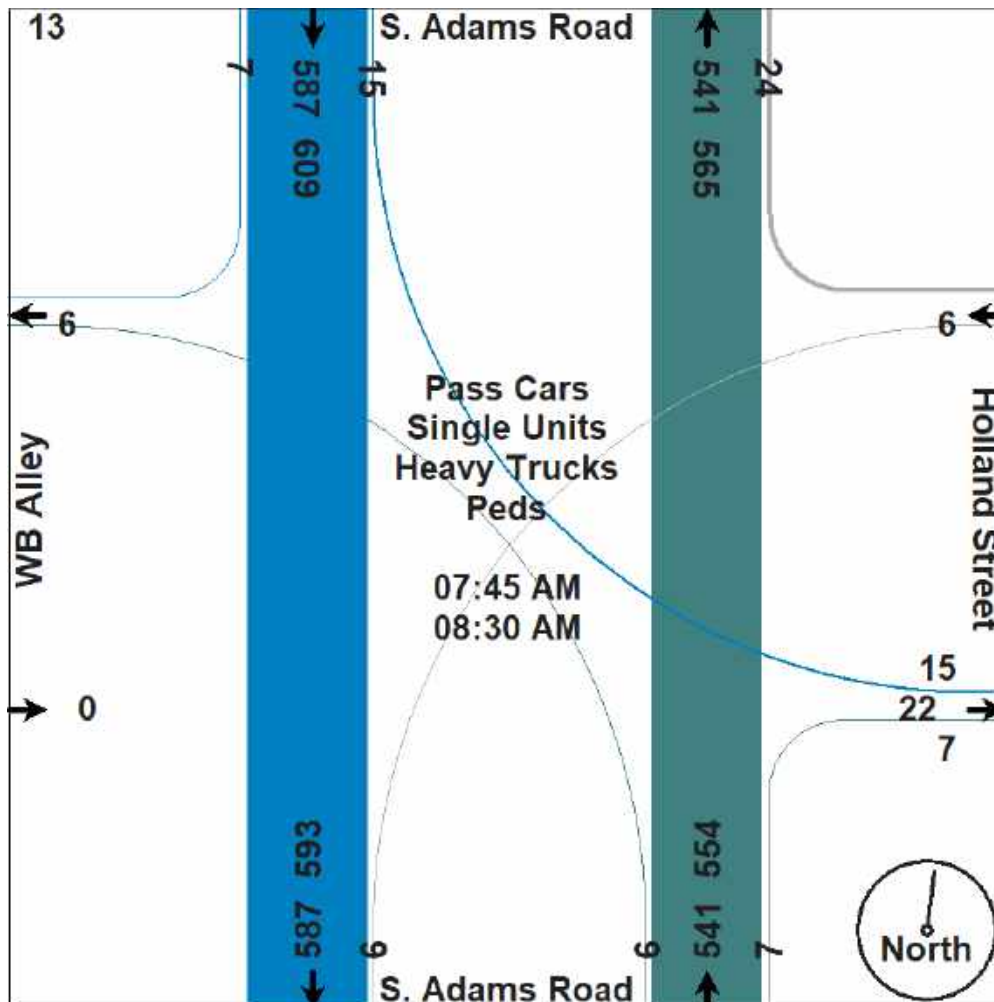
ROWE Professional Services Company



Project: Birmingham Traffic Impact Study
Study: 4 Hr. Video Turning Movement Count
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File Name : TMC_3 Adams & Holland_9-11-19
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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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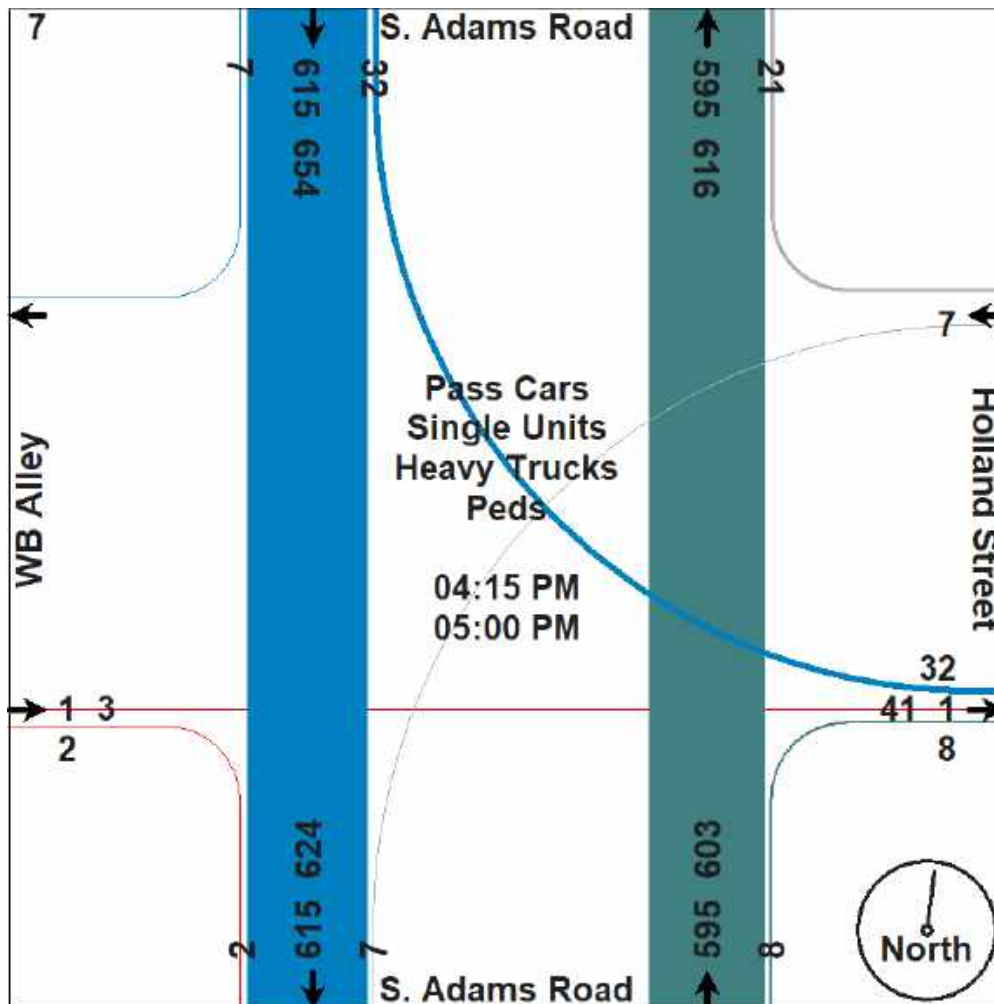
ROWE Professional Services Company



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 : 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



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Traffic Study Performed For:

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Project: Birmingham Traffic Impact Study
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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

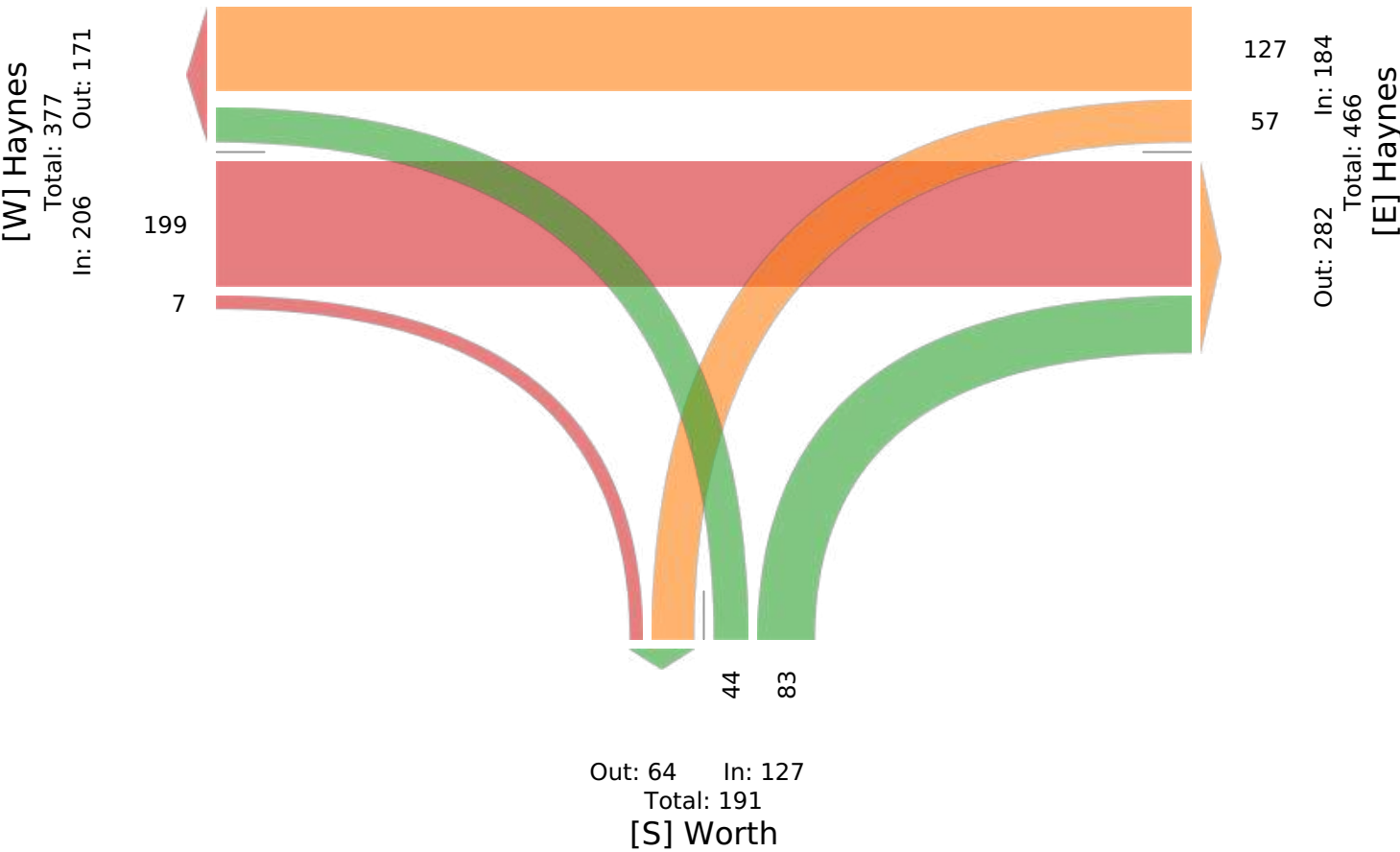


Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

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



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)

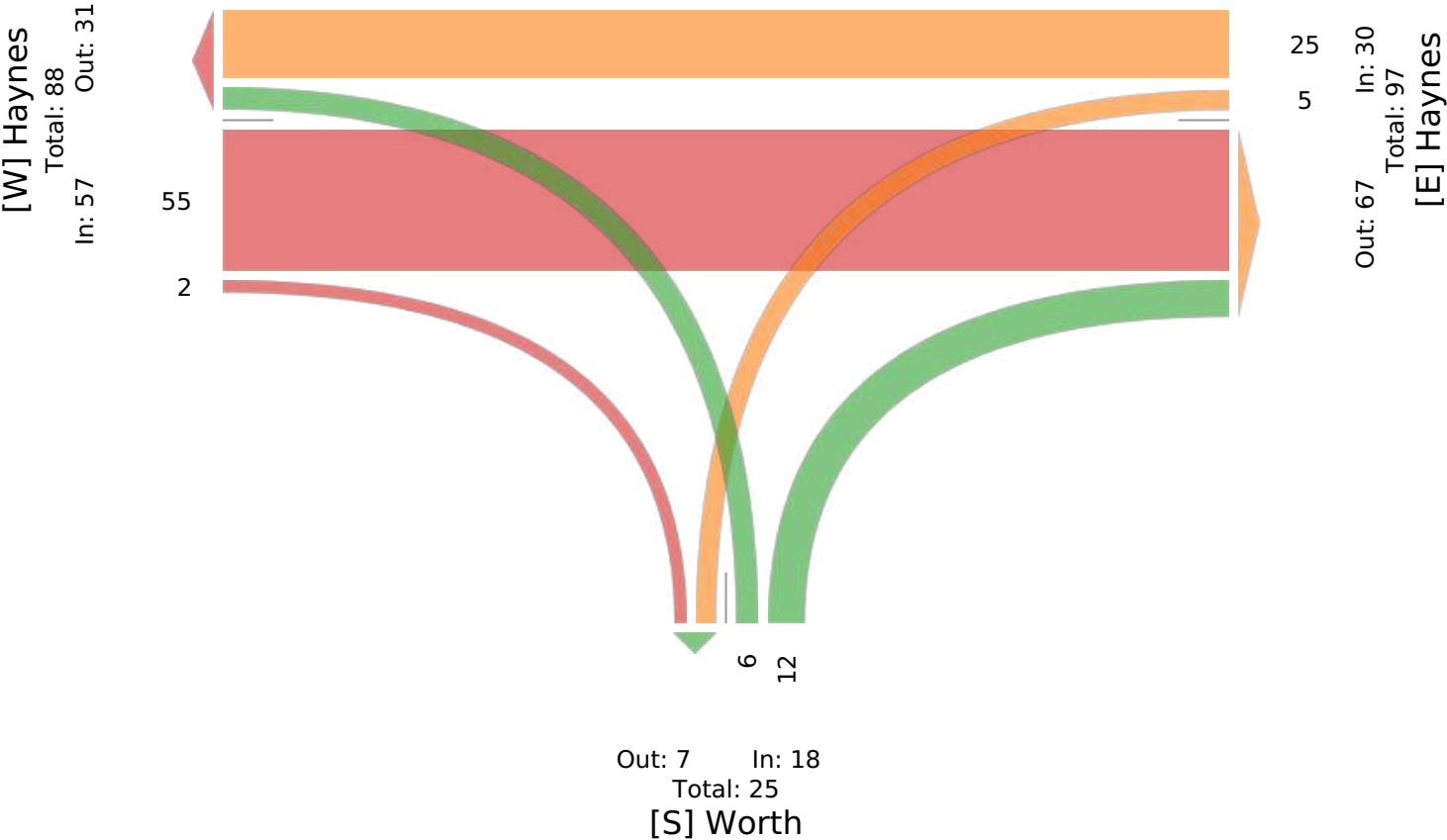
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

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

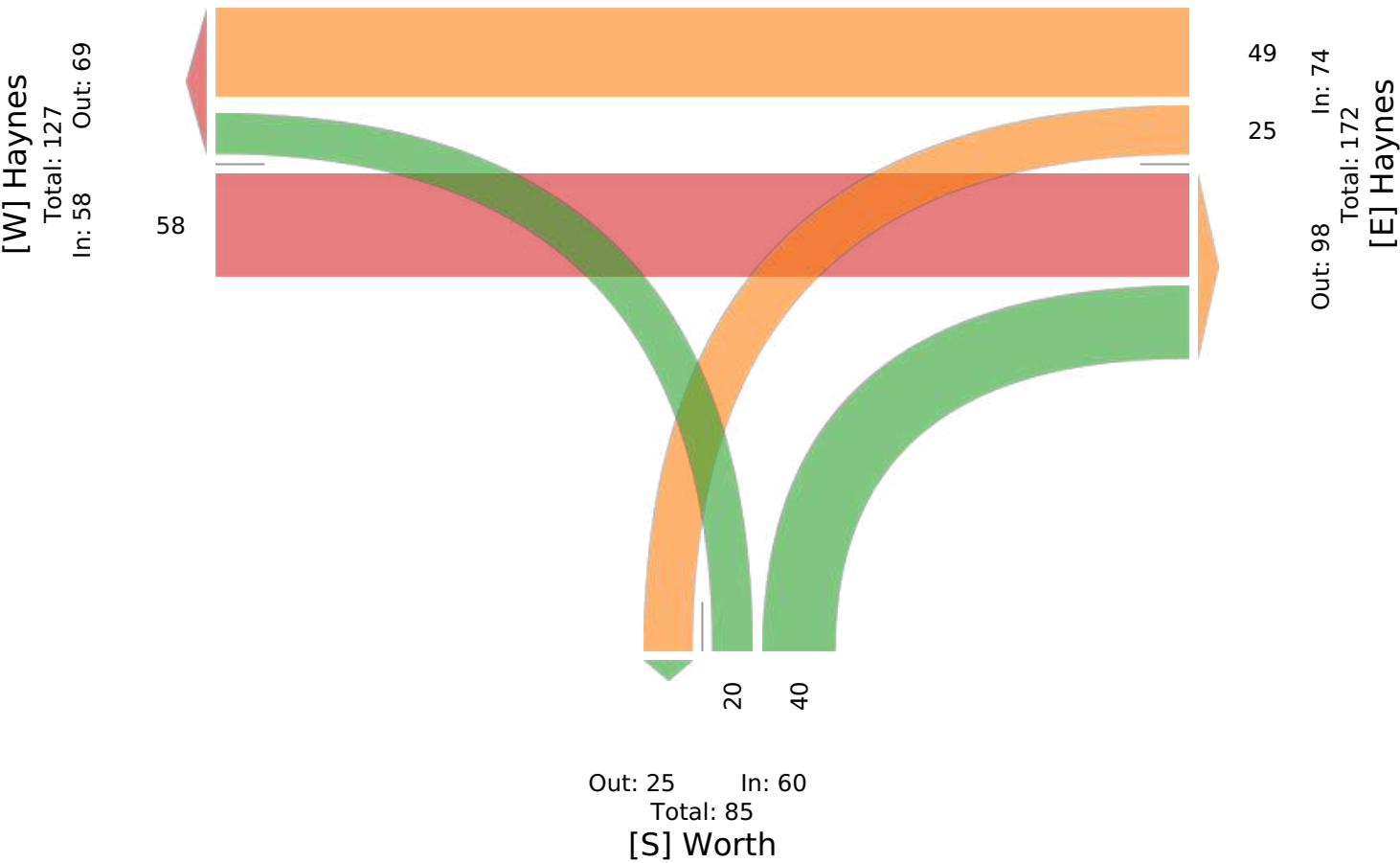


Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

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

[Home](#)[TMC](#)[TCL](#)[TTDS](#)[RSMS](#)[NMDS](#)[WOTS](#)[RTTV](#)

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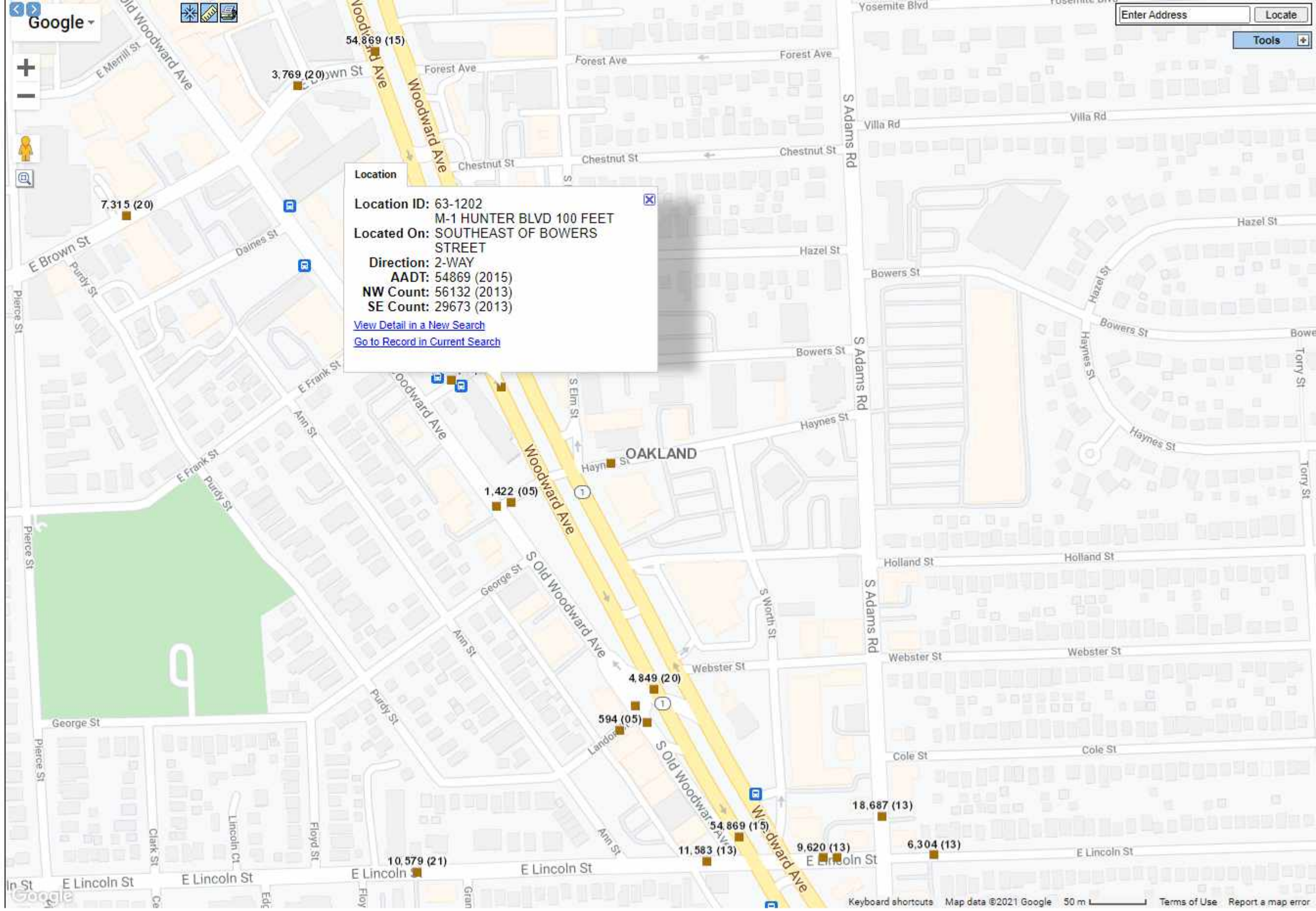
[Auto-Locate OFF](#)

Volume Count Report

LOCATION INFO						
Location ID	63-1202					
Type	SPOT					
Funct'l Class	3					
Located On	M-1 HUNTER BLVD					
Loc On Alias	M 1					
Direction	2-WAY					
County	Oakland					
Community	BIRMINGHAM					
MPO ID	58781					
HPMS ID						
Agency	MDOT					

COUNT DATA INFO						
Count Status	Accepted					
Start Date	Tue 5/21/2013					
End Date	Wed 5/22/2013					
Start Time	10:00:00 AM					
End Time	10:00:00 AM					
Direction						
Notes						
Station						
Study						
Speed Limit						
Description						
Sensor Type	Axle/Tube					
Source						
Latitude,Longitude						

INTERVAL:15-MIN						
Time	15-min Interval				Hourly Count	
	1st	2nd	3rd	4th		
0:00-1:00	121	110	93	63	387	
1:00-2:00	48	49	45	30	172	
2:00-3:00	55	31	22	29	137	
3:00-4:00	20	22	30	23	95	
4:00-5:00	28	50	41	71	190	
5:00-6:00	98	194	253	281	826	
6:00-7:00	345	523	795	934	2,597	
7:00-8:00	1,097	1,375	1,629	1,959	6,060	
8:00-9:00	1,799	1,735	1,638	1,484	6,656	
9:00-10:00	1,194	1,145	1,124	1,110	4,573	
10:00-11:00	1,051	1,043	1,060	1,126	4,280	
11:00-12:00	1,096	1,155	1,249	1,187	4,687	
12:00-13:00	1,274	1,300	1,314	1,345	5,233	
13:00-14:00	1,256	1,276	1,319	1,351	5,202	
14:00-15:00	1,276	1,470	1,427	1,546	5,719	
15:00-16:00	1,471	1,555	1,626	1,529	6,181	
16:00-17:00	1,644	1,639	1,815	1,990	7,088	
17:00-18:00	2,120	2,126	2,028	1,856	8,130	
18:00-19:00	1,762	1,578	1,287	1,090	5,717	
19:00-20:00	1,045	1,008	975	897	3,925	
20:00-21:00	773	883	850	740	3,246	
21:00-22:00	754	661	557	516	2,488	
22:00-23:00	442	418	367	245	1,472	
23:00-24:00	222	178	176	168	744	
Total					85,805	
AM Peak					07:45-08:45 7,131	
PM Peak					16:45-17:45 8,264	



LOS OUTPUT REPORTS

HCM 6th TWSC
1: S Adams Road & Haynes Street/Shopping Center

2022 Existing Conditions
AM Peak Hour

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	17	15	36	2	4	12	36	470	4	5	587	35
Future Vol, veh/h	17	15	36	2	4	12	36	470	4	5	587	35
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	-	-	25	-	-
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	24	21	50	3	6	19	46	603	5	5	618	37

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1357	1347	637	1380	1363	606	655	0	0	608	0	0
Stage 1	647	647	-	698	698	-	-	-	-	-	-	-
Stage 2	710	700	-	682	665	-	-	-	-	-	-	-
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	127	152	481	123	149	501	932	-	-	970	-	-
Stage 1	463	470	-	434	445	-	-	-	-	-	-	-
Stage 2	428	444	-	443	461	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	113	144	481	94	141	501	932	-	-	970	-	-
Mov Cap-2 Maneuver	113	144	-	94	141	-	-	-	-	-	-	-
Stage 1	440	468	-	413	423	-	-	-	-	-	-	-
Stage 2	386	422	-	377	459	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	36.5		21.6		0.6		0.1	
HCM LOS	E		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	932	-	-	206 245	970	-	-
HCM Lane V/C Ratio	0.05	-	-	0.458 0.115	0.005	-	-
HCM Control Delay (s)	9.1	-	-	36.5 21.6	8.7	-	-
HCM Lane LOS	A	-	-	E C	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	2.2 0.4	0	-	-

HCM 6th TWSC
2: S Adams Road & Alley/Holland Street

2022 Existing Conditions
AM Peak Hour

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↔	↔		↔	↔	
Traffic Vol, veh/h	0	0	0	6	0	24	6	486	7	15	603	7
Future Vol, veh/h	0	0	0	6	0	24	6	486	7	15	603	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	-	-	-	-	-	-	75	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	83	83	83	82	82	82	93	93	93
Heavy Vehicles, %	2	2	2	3	3	3	2	2	2	2	2	2
Mvmt Flow	0	0	0	7	0	29	7	593	9	16	648	8

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1310	1300	652	1296	1300	598	656	0	0	602	0	0
Stage 1	684	684	-	612	612	-	-	-	-	-	-	-
Stage 2	626	616	-	684	688	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.13	6.53	6.23	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.527	4.027	3.327	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	136	161	468	138	160	500	931	-	-	975	-	-
Stage 1	439	449	-	479	482	-	-	-	-	-	-	-
Stage 2	472	482	-	437	445	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	126	157	468	136	156	500	931	-	-	975	-	-
Mov Cap-2 Maneuver	126	157	-	136	156	-	-	-	-	-	-	-
Stage 1	435	442	-	475	478	-	-	-	-	-	-	-
Stage 2	441	478	-	430	438	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	0		17.4		0.1		0.2	
HCM LOS	A		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	931	-	-	-	326	975	-
HCM Lane V/C Ratio	0.008	-	-	-	0.111	0.017	-
HCM Control Delay (s)	8.9	-	-	0	17.4	8.8	-
HCM Lane LOS	A	-	-	A	C	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.4	0.1	-

HCM 6th TWSC
3: S Worth Street & Alley

2022 Existing 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	0	0	8	3	0	10	0	9	0	0	21	0
Future Vol, veh/h	0	0	8	3	0	10	0	9	0	0	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	0	13	4	0	13	0	11	0	0	27	0
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	45	38	27	45	38	11	27	0	0	11	0	0
Stage 1	27	27	-	11	11	-	-	-	-	-	-	-
Stage 2	18	11	-	34	27	-	-	-	-	-	-	-
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	962	858	1054	962	858	1076	1536	-	-	1621	-	-
Stage 1	996	877	-	1015	890	-	-	-	-	-	-	-
Stage 2	1006	890	-	987	877	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	950	858	1054	949	858	1076	1536	-	-	1621	-	-
Mov Cap-2 Maneuver	950	858	-	949	858	-	-	-	-	-	-	-
Stage 1	996	877	-	1015	890	-	-	-	-	-	-	-
Stage 2	994	890	-	975	877	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	8.5		8.5			0			0			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1536	-	-	1054	1044	1621	-	-				
HCM Lane V/C Ratio	-	-	-	0.013	0.017	-	-	-				
HCM Control Delay (s)	0	-	-	8.5	8.5	0	-	-				
HCM Lane LOS	A	-	-	A	A	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-				

HCM 6th TWSC
4: S Worth Street & Haynes Street

2022 Existing Conditions
AM Peak Hour

Intersection						
Int Delay, s/veh	2.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	55	5	16	59	6	13
Future Vol, veh/h	55	5	16	59	6	13
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	83	60	60
Heavy Vehicles, %	2	2	0	0	11	11
Mvmt Flow	70	6	19	71	10	22
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	76	0	182	73
Stage 1	-	-	-	-	73	-
Stage 2	-	-	-	-	109	-
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	-	-	1536	-	787	964
Stage 1	-	-	-	-	928	-
Stage 2	-	-	-	-	894	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1536	-	777	964
Mov Cap-2 Maneuver	-	-	-	-	777	-
Stage 1	-	-	-	-	928	-
Stage 2	-	-	-	-	882	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	1.6		9.2		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	896	-	-	1536	-	
HCM Lane V/C Ratio	0.035	-	-	0.013	-	
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	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	88	50	52	52	30	10
Average Queue (ft)	37	14	13	4	2	0
95th Queue (ft)	70	41	40	32	14	7
Link Distance (ft)	337	279		337		134
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			100		25	
Storage Blk Time (%)				0	0	0
Queuing Penalty (veh)				0	2	0

Intersection: 2: S Adams Road & Alley/Holland Street

Movement	WB	NB	SB
Directions Served	LTR	L	L
Maximum Queue (ft)	60	9	25
Average Queue (ft)	19	1	4
95th Queue (ft)	48	5	19
Link Distance (ft)	475		
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		75	50
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: S Worth Street & Alley

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (ft)	26	19
Average Queue (ft)	7	6
95th Queue (ft)	25	21
Link Distance (ft)	297	264
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: S Worth Street & Haynes Street

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	23	53
Average Queue (ft)	1	15
95th Queue (ft)	10	45
Link Distance (ft)	337	281
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 200: S Adams Road & Bowers Street (West)/Shopping Center

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	109	43	95	180	66	159
Average Queue (ft)	43	9	20	116	10	79
95th Queue (ft)	87	34	65	184	40	142
Link Distance (ft)	487	465		134		158
Upstream Blk Time (%)				4		1
Queuing Penalty (veh)				21		4
Storage Bay Dist (ft)			75		75	
Storage Blk Time (%)			1	13		11
Queuing Penalty (veh)			4	3		1

Intersection: 300: S Adams Road & Bowers Street (West)

Movement	WB	NB	SB	SB
Directions Served	LR	TR	L	T
Maximum Queue (ft)	138	105	114	301
Average Queue (ft)	61	43	26	154
95th Queue (ft)	113	88	76	252
Link Distance (ft)	477	158		443
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			100	
Storage Blk Time (%)			0	14
Queuing Penalty (veh)			0	4

Intersection: 500: S Adams Road & E Lincoln Street

Movement	EB	EB	WB	WB	B9076	NB	NB	SB	SB
Directions Served	LT	TR	LT	TR	T	L	TR	L	TR
Maximum Queue (ft)	460	448	153	163	36	157	310	102	322
Average Queue (ft)	414	388	83	77	2	31	147	15	119
95th Queue (ft)	499	559	134	132	20	89	255	61	249
Link Distance (ft)	412	412	122	122	484		392		512
Upstream Blk Time (%)	73	50	2	1			0		
Queuing Penalty (veh)	0	0	0	0			0		
Storage Bay Dist (ft)						150		250	
Storage Blk Time (%)							6		1
Queuing Penalty (veh)							3		0

Zone Summary

Zone wide Queuing Penalty: 42

HCM 6th TWSC
1: S Adams Road & Haynes Street/Shopping Center

2022 Existing Conditions
PM Peak Hour

Intersection												
Int Delay, s/veh	7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↔	↔		↔	↔	
Traffic Vol, veh/h	54	4	57	3	5	17	35	505	18	7	556	51
Future Vol, veh/h	54	4	57	3	5	17	35	505	18	7	556	51
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	-	-	25	-	-
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	66	5	70	5	8	27	40	580	21	7	585	54

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1314	1307	612	1335	1324	591	639	0	0	601	0	0
Stage 1	626	626	-	671	671	-	-	-	-	-	-	-
Stage 2	688	681	-	664	653	-	-	-	-	-	-	-
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	134	159	491	132	157	511	950	-	-	981	-	-
Stage 1	470	475	-	449	458	-	-	-	-	-	-	-
Stage 2	435	449	-	453	467	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	117	151	491	106	149	511	950	-	-	981	-	-
Mov Cap-2 Maneuver	117	151	-	106	149	-	-	-	-	-	-	-
Stage 1	450	472	-	430	439	-	-	-	-	-	-	-
Stage 2	388	430	-	382	464	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	63.8		21.1		0.6		0.1	
HCM LOS	F		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	950	-	-	190	263	981	-
HCM Lane V/C Ratio	0.042	-	-	0.738	0.151	0.008	-
HCM Control Delay (s)	9	-	-	63.8	21.1	8.7	-
HCM Lane LOS	A	-	-	F	C	A	-
HCM 95th %tile Q(veh)	0.1	-	-	4.8	0.5	0	-

HCM 6th TWSC
2: S Adams Road & Alley/Holland Street

2022 Existing Conditions
PM Peak Hour

Intersection												
Int Delay, s/veh	0.9											
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	6	537	8	32	577	7
Future Vol, veh/h	0	1	2	7	0	21	6	537	8	32	577	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	-	-	-	-	-	-	75	-	-	50	-	-
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	7	617	9	35	627	8
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1350	1341	631	1340	1341	622	635	0	0	626	0	0
Stage 1	701	701	-	636	636	-	-	-	-	-	-	-
Stage 2	649	640	-	704	705	-	-	-	-	-	-	-
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	129	154	485	131	154	490	953	-	-	960	-	-
Stage 1	433	444	-	469	475	-	-	-	-	-	-	-
Stage 2	462	473	-	431	442	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	118	147	485	125	147	490	953	-	-	960	-	-
Mov Cap-2 Maneuver	118	147	-	125	147	-	-	-	-	-	-	-
Stage 1	430	428	-	466	472	-	-	-	-	-	-	-
Stage 2	433	470	-	411	426	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	18.3		19.6		0.1		0.5					
HCM LOS	C		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	953	-	-	275	283	960	-	-				
HCM Lane V/C Ratio	0.007	-	-	0.018	0.127	0.036	-	-				
HCM Control Delay (s)	8.8	-	-	18.3	19.6	8.9	-	-				
HCM Lane LOS	A	-	-	C	C	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0.4	0.1	-	-				

HCM 6th TWSC
3: S Worth Street & Alley

2022 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	52	3	2	8	0	63	0	0	54	0
Future Vol, veh/h	3	3	52	3	2	8	0	63	0	0	54	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	87	5	3	12	0	84	0	0	60	0
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	152	144	60	190	144	84	60	0	0	84	0	0
Stage 1	60	60	-	84	84	-	-	-	-	-	-	-
Stage 2	92	84	-	106	60	-	-	-	-	-	-	-
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	820	751	1011	774	751	981	1556	-	-	1526	-	-
Stage 1	957	849	-	929	829	-	-	-	-	-	-	-
Stage 2	920	829	-	905	849	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	807	751	1011	704	751	981	1556	-	-	1526	-	-
Mov Cap-2 Maneuver	807	751	-	704	751	-	-	-	-	-	-	-
Stage 1	957	849	-	929	829	-	-	-	-	-	-	-
Stage 2	905	829	-	823	849	-	-	-	-	-	-	-
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	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1556	-	-	981	862	1526	-	-				
HCM Lane V/C Ratio	-	-	-	0.099	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: S Worth Street & Haynes Street

2022 Existing Conditions
PM Peak Hour

Intersection						
Int Delay, s/veh	3.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	68	23	31	60	27	47
Future Vol, veh/h	68	23	31	60	27	47
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	69	69	77	77	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	99	33	40	78	38	66
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	132	0	274	116
Stage 1	-	-	-	-	116	-
Stage 2	-	-	-	-	158	-
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	-	-	1466	-	720	942
Stage 1	-	-	-	-	914	-
Stage 2	-	-	-	-	875	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1466	-	699	942
Mov Cap-2 Maneuver	-	-	-	-	699	-
Stage 1	-	-	-	-	914	-
Stage 2	-	-	-	-	850	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2.6		9.9	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	836	-	-	1466	-	
HCM Lane V/C Ratio	0.125	-	-	0.027	-	
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	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	171	46	49	11	30	27
Average Queue (ft)	58	18	15	1	3	1
95th Queue (ft)	119	43	41	8	17	14
Link Distance (ft)	326	326		344		136
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			100		25	
Storage Blk Time (%)					1	0
Queuing Penalty (veh)					3	0

Intersection: 2: S Adams Road & Alley/Holland Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	L	L
Maximum Queue (ft)	30	66	10	37
Average Queue (ft)	4	22	1	8
95th Queue (ft)	19	52	5	27
Link Distance (ft)	268	792		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			75	50
Storage Blk Time (%)				0
Queuing Penalty (veh)				0

Intersection: 3: S Worth Street & Alley

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (ft)	50	19
Average Queue (ft)	24	6
95th Queue (ft)	45	20
Link Distance (ft)	286	268
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: S Worth Street & Haynes Street

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	31	64
Average Queue (ft)	3	31
95th Queue (ft)	19	49
Link Distance (ft)	326	286
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 200: S Adams Road & Bowers Street (West)/Shopping Center

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	138	101	99	176	30	160
Average Queue (ft)	66	35	23	102	7	76
95th Queue (ft)	121	78	65	162	27	141
Link Distance (ft)	656	465		136		152
Upstream Blk Time (%)				2		1
Queuing Penalty (veh)				11		4
Storage Bay Dist (ft)			75		75	
Storage Blk Time (%)			0	11		11
Queuing Penalty (veh)			2	4		1

Intersection: 300: S Adams Road & Bowers Street (East)

Movement	WB	NB	SB	SB
Directions Served	LR	TR	L	T
Maximum Queue (ft)	173	141	125	314
Average Queue (ft)	77	64	39	164
95th Queue (ft)	138	123	97	275
Link Distance (ft)	477	152		538
Upstream Blk Time (%)		0		
Queuing Penalty (veh)		1		
Storage Bay Dist (ft)			100	
Storage Blk Time (%)			0	15
Queuing Penalty (veh)			2	8

Intersection: 500: S Adams Road & E Lincoln Street

Movement	EB	EB	WB	WB	B9076	NB	NB	SB	SB
Directions Served	LT	TR	LT	TR	T	L	TR	L	TR
Maximum Queue (ft)	608	571	172	168	55	174	269	98	374
Average Queue (ft)	413	251	97	87	3	56	165	14	163
95th Queue (ft)	804	782	155	140	34	129	271	58	326
Link Distance (ft)	799	799	118	118	452		248		514
Upstream Blk Time (%)	15	12	4	2			3		0
Queuing Penalty (veh)	0	0	0	0			0		0
Storage Bay Dist (ft)						150		250	
Storage Blk Time (%)						0	9		3
Queuing Penalty (veh)						0	6		0

Zone Summary

Zone wide Queuing Penalty: 43

HCM 6th TWSC
1: S Adams Road & Haynes Street/Shopping Center

2025 Future 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	21	15	38	2	4	12	36	470	4	5	587	34
Future Vol, veh/h	21	15	38	2	4	12	36	470	4	5	587	34
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	-	-	25	-	-
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	29	21	53	3	6	19	46	603	5	5	618	36

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1356	1346	636	1381	1362	606	654	0	0	608	0	0
Stage 1	646	646	-	698	698	-	-	-	-	-	-	-
Stage 2	710	700	-	683	664	-	-	-	-	-	-	-
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	128	153	481	123	149	501	933	-	-	970	-	-
Stage 1	464	470	-	434	445	-	-	-	-	-	-	-
Stage 2	428	444	-	442	461	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	114	145	481	93	141	501	933	-	-	970	-	-
Mov Cap-2 Maneuver	114	145	-	93	141	-	-	-	-	-	-	-
Stage 1	441	468	-	413	423	-	-	-	-	-	-	-
Stage 2	386	422	-	374	459	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	40		21.7		0.6		0.1	
HCM LOS	E		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	933	-	-	202 244	970	-	-
HCM Lane V/C Ratio	0.049	-	-	0.509 0.115	0.005	-	-
HCM Control Delay (s)	9.1	-	-	40 21.7	8.7	-	-
HCM Lane LOS	A	-	-	E C	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	2.6 0.4	0	-	-

HCM 6th TWSC
2: S Adams Road & Alley/Holland Street

2025 Future Conditions
AM Peak Hour

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	0	2	6	0	24	6	486	7	15	605	7
Future Vol, veh/h	0	0	2	6	0	24	6	486	7	15	605	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	-	-	-	-	-	-	75	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	83	83	83	82	82	82	93	93	93
Heavy Vehicles, %	2	2	2	3	3	3	2	2	2	2	2	2
Mvmt Flow	0	0	2	7	0	29	7	593	9	16	651	8

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1313	1303	655	1300	1303	598	659	0	0	602	0	0
Stage 1	687	687	-	612	612	-	-	-	-	-	-	-
Stage 2	626	616	-	688	691	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.13	6.53	6.23	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.527	4.027	3.327	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	135	161	466	138	160	500	929	-	-	975	-	-
Stage 1	437	447	-	479	482	-	-	-	-	-	-	-
Stage 2	472	482	-	435	444	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	125	157	466	135	156	500	929	-	-	975	-	-
Mov Cap-2 Maneuver	125	157	-	135	156	-	-	-	-	-	-	-
Stage 1	434	440	-	475	478	-	-	-	-	-	-	-
Stage 2	441	478	-	426	437	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.8		17.5		0.1		0.2	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	929	-	-	466	325	975	-
HCM Lane V/C Ratio	0.008	-	-	0.005	0.111	0.017	-
HCM Control Delay (s)	8.9	-	-	12.8	17.5	8.8	-
HCM Lane LOS	A	-	-	B	C	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.4	0.1	-

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	8	3	0	10	0	15	0	2	21	10
Future Vol, veh/h	0	0	8	3	0	10	0	15	0	2	21	10
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	0	13	4	0	13	0	18	0	3	27	13
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	65	58	34	64	64	18	40	0	0	18	0	0
Stage 1	40	40	-	18	18	-	-	-	-	-	-	-
Stage 2	25	18	-	46	46	-	-	-	-	-	-	-
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	934	837	1045	935	831	1066	1520	-	-	1612	-	-
Stage 1	980	866	-	1006	884	-	-	-	-	-	-	-
Stage 2	998	884	-	973	861	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	921	835	1045	922	829	1066	1520	-	-	1612	-	-
Mov Cap-2 Maneuver	921	835	-	922	829	-	-	-	-	-	-	-
Stage 1	980	864	-	1006	884	-	-	-	-	-	-	-
Stage 2	986	884	-	959	859	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	8.5		8.6			0			0.4			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1520	-	-	1045 1029	1612	-	-					
HCM Lane V/C Ratio	-	-	-	0.013 0.017	0.002	-	-					
HCM Control Delay (s)	0	-	-	8.5 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: S Worth Street & Haynes Street

2025 Future Conditions
AM Peak Hour

Intersection						
Int Delay, s/veh	4.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	29	20	20	52	41	20
Future Vol, veh/h	29	20	20	52	41	20
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	83	60	60
Heavy Vehicles, %	2	2	0	0	11	11
Mvmt Flow	37	25	24	63	68	33
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	62	0	161	50
Stage 1	-	-	-	-	50	-
Stage 2	-	-	-	-	111	-
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	-	-	1554	-	809	993
Stage 1	-	-	-	-	950	-
Stage 2	-	-	-	-	892	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1554	-	796	993
Mov Cap-2 Maneuver	-	-	-	-	796	-
Stage 1	-	-	-	-	950	-
Stage 2	-	-	-	-	878	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2		9.8	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	851	-	-	1554	-	
HCM Lane V/C Ratio	0.119	-	-	0.016	-	
HCM Control Delay (s)	9.8	-	-	7.4	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.4	-	-	0	-	

HCM 6th TWSC
5: S Worth Street & Site Driveway

2025 Future Conditions
AM Peak Hour

Intersection						
Int Delay, s/veh	5.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	12	42	19	6	19	21
Future Vol, veh/h	12	42	19	6	19	21
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	13	46	21	7	21	23
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	90	25	0	0	28	0
Stage 1	25	-	-	-	-	-
Stage 2	65	-	-	-	-	-
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	910	1051	-	-	1585	-
Stage 1	998	-	-	-	-	-
Stage 2	958	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	898	1051	-	-	1585	-
Mov Cap-2 Maneuver	898	-	-	-	-	-
Stage 1	998	-	-	-	-	-
Stage 2	946	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	8.8	0		3.5		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	1013	1585	-	
HCM Lane V/C Ratio	-	-	0.058	0.013	-	
HCM Control Delay (s)	-	-	8.8	7.3	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.2	0	-	

Intersection: 1: S Adams Road & Haynes Street/Shopping Center

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	94	41	42	88	24	5
Average Queue (ft)	39	11	12	11	3	0
95th Queue (ft)	76	36	36	53	16	4
Link Distance (ft)	337	279		337		134
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			100		25	
Storage Blk Time (%)				0	0	
Queuing Penalty (veh)				0	2	

Intersection: 2: S Adams Road & Alley/Holland Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	L	L
Maximum Queue (ft)	30	51	9	26
Average Queue (ft)	2	20	1	5
95th Queue (ft)	14	48	4	21
Link Distance (ft)	265	475		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			75	50
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: S Worth Street & Alley

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (ft)	27	20
Average Queue (ft)	5	7
95th Queue (ft)	23	22
Link Distance (ft)	297	265
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: S Worth Street & Haynes Street

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	25	78
Average Queue (ft)	1	33
95th Queue (ft)	10	64
Link Distance (ft)	337	218
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: S Worth Street & Site Driveway

Movement	WB
Directions Served	LR
Maximum Queue (ft)	52
Average Queue (ft)	26
95th Queue (ft)	47
Link Distance (ft)	166
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 200: S Adams Road & Bowers Street (West)/Shopping Center

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	108	42	96	186	30	150
Average Queue (ft)	38	9	18	118	6	80
95th Queue (ft)	83	33	57	194	26	140
Link Distance (ft)	487	465		134		158
Upstream Blk Time (%)				5		0
Queuing Penalty (veh)				25		2
Storage Bay Dist (ft)			75		75	
Storage Blk Time (%)			0	14		11
Queuing Penalty (veh)			1	3		1

Intersection: 300: S Adams Road & Bowers Street (West)

Movement	WB	NB	SB	SB
Directions Served	LR	TR	L	T
Maximum Queue (ft)	130	134	108	318
Average Queue (ft)	60	46	25	157
95th Queue (ft)	109	96	69	267
Link Distance (ft)	477	158		443
Upstream Blk Time (%)		0		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)			100	
Storage Blk Time (%)			0	14
Queuing Penalty (veh)			0	4

Intersection: 500: S Adams Road & E Lincoln Street

Movement	EB	EB	WB	WB	B9076	NB	NB	SB	SB
Directions Served	LT	TR	LT	TR	T	L	TR	L	TR
Maximum Queue (ft)	451	453	149	130	10	174	313	65	270
Average Queue (ft)	404	364	83	75	0	41	155	16	104
95th Queue (ft)	506	593	131	123	5	118	262	47	199
Link Distance (ft)	412	412	122	122	484		392		512
Upstream Blk Time (%)	69	48	2	1					
Queuing Penalty (veh)	0	0	0	0					
Storage Bay Dist (ft)						150		250	
Storage Blk Time (%)							7		0
Queuing Penalty (veh)							3		0

Zone Summary

Zone wide Queuing Penalty: 43

HCM 6th TWSC
1: S Adams Road & Haynes Street/Shopping Center

2025 Future Conditions
PM Peak Hour

Intersection												
Int Delay, s/veh	7.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↘		↗	↘	
Traffic Vol, veh/h	55	4	57	3	5	17	39	505	18	7	556	54
Future Vol, veh/h	55	4	57	3	5	17	39	505	18	7	556	54
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	-	-	25	-	-
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	67	5	70	5	8	27	45	580	21	7	585	57

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1326	1319	614	1346	1337	591	642	0	0	601	0	0
Stage 1	628	628	-	681	681	-	-	-	-	-	-	-
Stage 2	698	691	-	665	656	-	-	-	-	-	-	-
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	132	156	490	130	155	511	947	-	-	981	-	-
Stage 1	469	474	-	444	453	-	-	-	-	-	-	-
Stage 2	429	444	-	453	465	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	115	147	490	104	146	511	947	-	-	981	-	-
Mov Cap-2 Maneuver	115	147	-	104	146	-	-	-	-	-	-	-
Stage 1	446	471	-	423	431	-	-	-	-	-	-	-
Stage 2	380	423	-	382	462	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	67.2		21.4		0.6		0.1	
HCM LOS	F		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	947	-	-	187	259	981	-
HCM Lane V/C Ratio	0.047	-	-	0.756	0.153	0.008	-
HCM Control Delay (s)	9	-	-	67.2	21.4	8.7	-
HCM Lane LOS	A	-	-	F	C	A	-
HCM 95th %tile Q(veh)	0.1	-	-	5	0.5	0	-

HCM 6th TWSC
2: S Adams Road & Alley/Holland Street

2025 Future Conditions
PM Peak Hour

Intersection												
Int Delay, s/veh	0.9											
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	6	541	8	32	577	7
Future Vol, veh/h	0	1	2	7	0	21	6	541	8	32	577	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	-	-	-	-	-	-	75	-	-	50	-	-
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	7	622	9	35	627	8
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1355	1346	631	1345	1346	627	635	0	0	631	0	0
Stage 1	701	701	-	641	641	-	-	-	-	-	-	-
Stage 2	654	645	-	704	705	-	-	-	-	-	-	-
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	128	153	485	130	153	487	953	-	-	956	-	-
Stage 1	433	444	-	466	473	-	-	-	-	-	-	-
Stage 2	459	471	-	431	442	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	117	146	485	124	146	487	953	-	-	956	-	-
Mov Cap-2 Maneuver	117	146	-	124	146	-	-	-	-	-	-	-
Stage 1	430	428	-	463	470	-	-	-	-	-	-	-
Stage 2	430	468	-	411	426	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	18.4		19.7		0.1		0.5					
HCM LOS	C		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	953	-	-	273	281	956	-	-				
HCM Lane V/C Ratio	0.007	-	-	0.018	0.128	0.036	-	-				
HCM Control Delay (s)	8.8	-	-	18.4	19.7	8.9	-	-				
HCM Lane LOS	A	-	-	C	C	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0.4	0.1	-	-				

HCM 6th TWSC
3: S Worth Street & Alley

2025 Future Conditions
PM Peak Hour

Intersection												
Int Delay, s/veh	3.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	3	52	3	2	8	0	70	0	0	54	6
Future Vol, veh/h	3	3	52	3	2	8	0	70	0	0	54	6
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	87	5	3	12	0	93	0	0	60	7
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	165	157	64	203	160	93	67	0	0	93	0	0
Stage 1	64	64	-	93	93	-	-	-	-	-	-	-
Stage 2	101	93	-	110	67	-	-	-	-	-	-	-
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	804	739	1006	759	736	970	1547	-	-	1514	-	-
Stage 1	952	846	-	919	822	-	-	-	-	-	-	-
Stage 2	910	822	-	900	843	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	791	739	1006	690	736	970	1547	-	-	1514	-	-
Mov Cap-2 Maneuver	791	739	-	690	736	-	-	-	-	-	-	-
Stage 1	952	846	-	919	822	-	-	-	-	-	-	-
Stage 2	895	822	-	818	843	-	-	-	-	-	-	-
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	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1547	-	-	974	849	1514	-	-				
HCM Lane V/C Ratio	-	-	-	0.099	0.024	-	-	-				
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: S Worth Street & Haynes Street

2025 Future Conditions
PM Peak Hour

Intersection						
Int Delay, s/veh	4.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	54	63	40	31	57	54
Future Vol, veh/h	54	63	40	31	57	54
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	69	69	77	77	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	78	91	52	40	80	76
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	169	0	268	124
Stage 1	-	-	-	-	124	-
Stage 2	-	-	-	-	144	-
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	-	-	1421	-	726	932
Stage 1	-	-	-	-	907	-
Stage 2	-	-	-	-	888	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1421	-	699	932
Mov Cap-2 Maneuver	-	-	-	-	699	-
Stage 1	-	-	-	-	907	-
Stage 2	-	-	-	-	855	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	4.3		10.6		
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	796	-	-	1421	-	
HCM Lane V/C Ratio	0.196	-	-	0.037	-	
HCM Control Delay (s)	10.6	-	-	7.6	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-	

HCM 6th TWSC
5: S Worth Street & Site Driveway

2025 Future Conditions
PM Peak Hour

Intersection						
Int Delay, s/veh	3.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	37	74	7	50	53
Future Vol, veh/h	7	37	74	7	50	53
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	8	40	80	8	54	58
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	250	84	0	0	88	0
Stage 1	84	-	-	-	-	-
Stage 2	166	-	-	-	-	-
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	739	975	-	-	1508	-
Stage 1	939	-	-	-	-	-
Stage 2	863	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	712	975	-	-	1508	-
Mov Cap-2 Maneuver	712	-	-	-	-	-
Stage 1	939	-	-	-	-	-
Stage 2	831	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9.1	0		3.6		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	921	1508	-	
HCM Lane V/C Ratio	-	-	0.052	0.036	-	
HCM Control Delay (s)	-	-	9.1	7.5	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-	

Intersection: 1: S Adams Road & Haynes Street/Shopping Center

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	146	51	47	26	30	22
Average Queue (ft)	58	18	17	1	3	1
95th Queue (ft)	110	45	44	16	17	9
Link Distance (ft)	326	326		344		136
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			100		25	
Storage Blk Time (%)					1	0
Queuing Penalty (veh)					5	0

Intersection: 2: S Adams Road & Alley/Holland Street

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	30	50	9	5	28	4
Average Queue (ft)	4	20	1	0	10	0
95th Queue (ft)	20	46	6	3	30	3
Link Distance (ft)	268	792		208		344
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			75		50	
Storage Blk Time (%)					0	
Queuing Penalty (veh)					0	

Intersection: 3: S Worth Street & Alley

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	47	19	12
Average Queue (ft)	24	7	1
95th Queue (ft)	44	21	7
Link Distance (ft)	286	268	2
Upstream Blk Time (%)			0
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: S Worth Street & Haynes Street

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	11	36	60
Average Queue (ft)	0	5	35
95th Queue (ft)	8	24	55
Link Distance (ft)	412	326	228
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: S Worth Street & Site Driveway

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	54	20	36
Average Queue (ft)	24	1	5
95th Queue (ft)	46	10	25
Link Distance (ft)	201	2	228
Upstream Blk Time (%)		0	
Queuing Penalty (veh)		0	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 200: S Adams Road & Bowers Street (West)/Shopping Center

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	163	95	100	177	65	156
Average Queue (ft)	72	34	25	102	12	74
95th Queue (ft)	134	75	69	171	44	135
Link Distance (ft)	656	465		136		152
Upstream Blk Time (%)				3		1
Queuing Penalty (veh)				16		4
Storage Bay Dist (ft)			75		75	
Storage Blk Time (%)			0	11	0	10
Queuing Penalty (veh)			1	4	0	1

Intersection: 300: S Adams Road & Bowers Street (East)

Movement	WB	NB	SB	SB
Directions Served	LR	TR	L	T
Maximum Queue (ft)	170	153	115	300
Average Queue (ft)	80	68	36	158
95th Queue (ft)	147	132	87	267
Link Distance (ft)	477	152		538
Upstream Blk Time (%)		0		
Queuing Penalty (veh)		3		
Storage Bay Dist (ft)			100	
Storage Blk Time (%)			0	14
Queuing Penalty (veh)			2	7

Intersection: 500: S Adams Road & E Lincoln Street

Movement	EB	EB	WB	WB	B9076	NB	NB	SB	SB
Directions Served	LT	TR	LT	TR	T	L	TR	L	TR
Maximum Queue (ft)	617	563	161	154	24	174	266	184	343
Average Queue (ft)	335	126	89	82	1	55	164	18	154
95th Queue (ft)	623	497	137	139	11	129	273	85	282
Link Distance (ft)	799	799	118	118	452		248		514
Upstream Blk Time (%)	0		3	3			2		
Queuing Penalty (veh)	0		0	0			0		
Storage Bay Dist (ft)						150		250	
Storage Blk Time (%)							9		2
Queuing Penalty (veh)							6		0

Zone Summary

Zone wide Queuing Penalty: 49

HCM 6th TWSC
1: S Adams Road & Haynes Street/Shopping Center

2025 Future Conditions Imp
AM Peak Hour

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱	↰	↱		↰	↱	
Traffic Vol, veh/h	21	15	38	2	4	12	36	470	4	5	587	34
Future Vol, veh/h	21	15	38	2	4	12	36	470	4	5	587	34
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	-	-	25	-	-
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	29	21	53	3	6	19	46	603	5	5	618	36

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1356	1346	636	1381	1362	606	654	0	0	608	0	0
Stage 1	646	646	-	698	698	-	-	-	-	-	-	-
Stage 2	710	700	-	683	664	-	-	-	-	-	-	-
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	128	153	481	123	149	501	933	-	-	970	-	-
Stage 1	464	470	-	434	445	-	-	-	-	-	-	-
Stage 2	428	444	-	442	461	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	114	145	481	93	141	501	933	-	-	970	-	-
Mov Cap-2 Maneuver	114	145	-	93	141	-	-	-	-	-	-	-
Stage 1	441	468	-	413	423	-	-	-	-	-	-	-
Stage 2	386	422	-	374	459	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	32.1		21.7		0.6		0.1	
HCM LOS	D		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	933	-	-	125	481	244	970	-	-
HCM Lane V/C Ratio	0.049	-	-	0.4	0.11	0.115	0.005	-	-
HCM Control Delay (s)	9.1	-	-	51.8	13.4	21.7	8.7	-	-
HCM Lane LOS	A	-	-	F	B	C	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	1.7	0.4	0.4	0	-	-

Intersection: 1: S Adams Road & Haynes Street/Shopping Center

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	LT	R	LTR	L	TR	L	TR
Maximum Queue (ft)	58	51	42	53	80	24	4
Average Queue (ft)	21	23	13	11	10	2	0
95th Queue (ft)	50	46	38	34	46	14	3
Link Distance (ft)	335		279		325		134
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		100		100		25	
Storage Blk Time (%)					0	0	0
Queuing Penalty (veh)					0	1	0

HCM 6th TWSC
1: S Adams Road & Haynes Street/Shopping Center

2025 Future Conditions Imp
PM Peak Hour

Intersection												
Int Delay, s/veh	5.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱	↰	↱		↰	↱	
Traffic Vol, veh/h	55	4	57	3	5	17	39	505	18	7	556	54
Future Vol, veh/h	55	4	57	3	5	17	39	505	18	7	556	54
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	-	-	25	-	-
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	67	5	70	5	8	27	45	580	21	7	585	57

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1326	1319	614	1346	1337	591	642	0	0	601	0	0
Stage 1	628	628	-	681	681	-	-	-	-	-	-	-
Stage 2	698	691	-	665	656	-	-	-	-	-	-	-
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	132	156	490	130	155	511	947	-	-	981	-	-
Stage 1	469	474	-	444	453	-	-	-	-	-	-	-
Stage 2	429	444	-	453	465	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	115	147	490	104	146	511	947	-	-	981	-	-
Mov Cap-2 Maneuver	115	147	-	104	146	-	-	-	-	-	-	-
Stage 1	446	471	-	423	431	-	-	-	-	-	-	-
Stage 2	380	423	-	382	462	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	45.2		21.4		0.6		0.1	
HCM LOS	E		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	947	-	-	117	490	259	981	-	-
HCM Lane V/C Ratio	0.047	-	-	0.615	0.142	0.153	0.008	-	-
HCM Control Delay (s)	9	-	-	75.7	13.6	21.4	8.7	-	-
HCM Lane LOS	A	-	-	F	B	C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	3.1	0.5	0.5	0	-	-

Intersection: 1: S Adams Road & Haynes Street/Shopping Center

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	LT	R	LTR	L	TR	L	TR
Maximum Queue (ft)	103	70	47	50	51	30	17
Average Queue (ft)	40	32	17	16	4	3	1
95th Queue (ft)	80	60	44	42	26	18	7
Link Distance (ft)	324		326		332		136
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		100		100		25	
Storage Blk Time (%)	1	0			0	1	0
Queuing Penalty (veh)	0	0			0	5	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
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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	-	-
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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:

- 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:

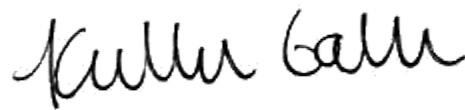
PM Environmental, Inc.



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

TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
1.1:	Property Overview.....	1
1.2:	Purpose and Scope of Services	1
1.3:	Significant Assumptions	1
1.4:	Limitations, Deviations, and Special Terms and Conditions.....	2
2.0	USER PROVIDED INFORMATION	2
2.1:	Recorded Land Title Records.....	3
2.2:	Reason for Performing this Phase I ESA.....	3
3.0	PHYSICAL SETTING	4
4.0	RECORDS REVIEW	4
4.1:	Aerial Photographs and Sanborn Maps	4
4.2:	Local Street Directories	6
4.3:	Assessing Department	9
4.4:	Building Department.....	9
4.5:	Fire Department	10
4.6:	Health Department	10
4.7:	Utilities	10
4.7.1:	Municipal Water/Water Wells.....	10
4.7.2:	Sanitary Sewer/Septic System.....	10
4.7.3:	Heat Source.....	10
4.8:	Underground Storage Tank (UST) Systems	10
4.9:	Previous Environmental Reports	11
4.10:	Environmental Liens, Activity and Use Limitations, and Government Institutional and Engineering Controls	11
5.0	INTERVIEWS.....	11
6.0	SUMMARY OF HISTORICAL USE.....	12
7.0	SUBJECT PROPERTY RECONNAISSANCE	12
7.1:	Subject Property Observations	13
7.1.1:	Current Operations	14
8.0	ADJOINING PROPERTIES	14
9.0	REGULATORY RECORDS REVIEW	15
9.1:	Subject Property and Occupant Listings.....	16
9.2:	Adjoining and Nearby Sites	16
10.0	NON-ASTM SCOPE CONSIDERATIONS	17
11.0	FINDINGS, OPINIONS AND CONCLUSIONS.....	18
11.1:	Significant Data Gaps.....	18
11.2:	Recognized Environmental Conditions (RECs).....	18
11.3:	Historical Recognized Environmental Conditions (HRECs).....	18
11.4:	De Minimis Conditions.....	18
11.5:	Recommendations	19
12.0	SIGNATURE OF ENVIRONMENTAL PROFESSIONAL.....	19
13.0	REFERENCES.....	20

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:

- The type of database on which the site is identified.
- The topographic position of the identified site relative to the subject property.
- The direction and distance of the identified site from the subject property.
- Local soil conditions in the subject property area.
- The known or inferred groundwater flow direction in the subject property area.
- The status of the respective regulatory agency-required investigation(s) of the identified site, if any.
- 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:

- 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 inquiries 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.

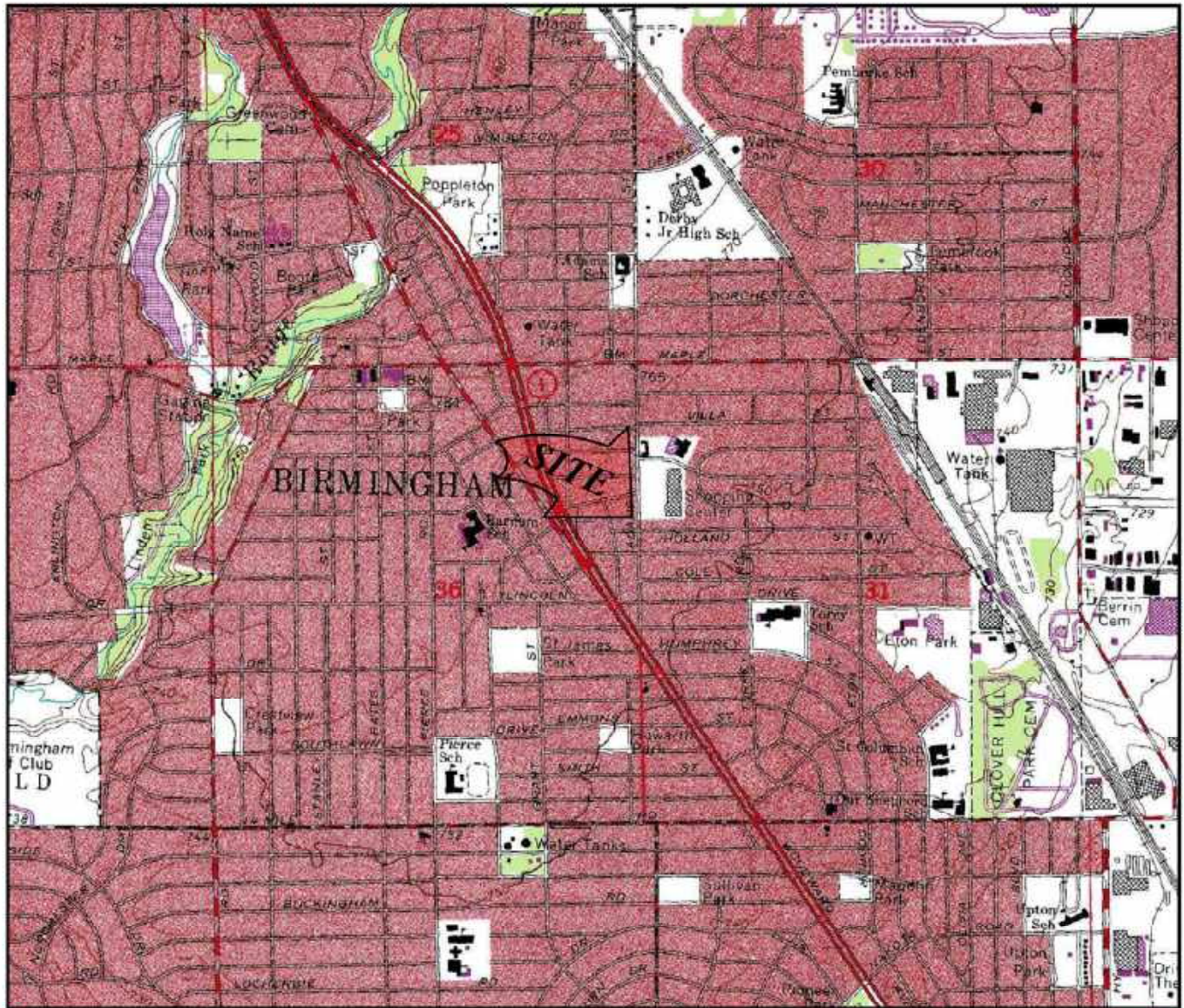
Kevin M. Kruszewski, P.G.
V.P. – Environmental Risk Management

13.0 REFERENCES

The following published sources were utilized during completion of this Phase I ESA:

- *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, ASTM, ASTM Designation E 1527-05, Published November 2005.
- R.L. Polk's Directories, obtained from the State of Michigan Library in Lansing, Michigan. City: Birmingham. Years: 1937-1951.
- Bresser's Cross-Index City Directories, Bresser's in Detroit, Michigan. City: Birmingham. Years: 1955-2012.
- United States Geological Survey Division (U.S.G.S.) 7.5 Minute Topographic Map Birmingham, Michigan Quadrangle, 1968 (photo-revised 1981).
- *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
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1 MILE 1/2 MILE

1 MILE

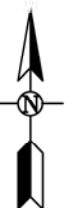


MICHIGAN QUADRANGLE LOCATION

FIGURE 1

PROPERTY VICINITY MAP
USGS, 7.5 MINUTE SERIES

BIRMINGHAM, MI QUADRANGLE, 1968. PHOTO REVISED 1973 & 1980.



Environmental
& Engineering
Services

PROJ: OFFICE BUILDING
770 SOUTH ADAMS ROAD
BIRMINGHAM, MI

THIS IS NOT A LEGAL
SURVEY

VERIFY SCALE

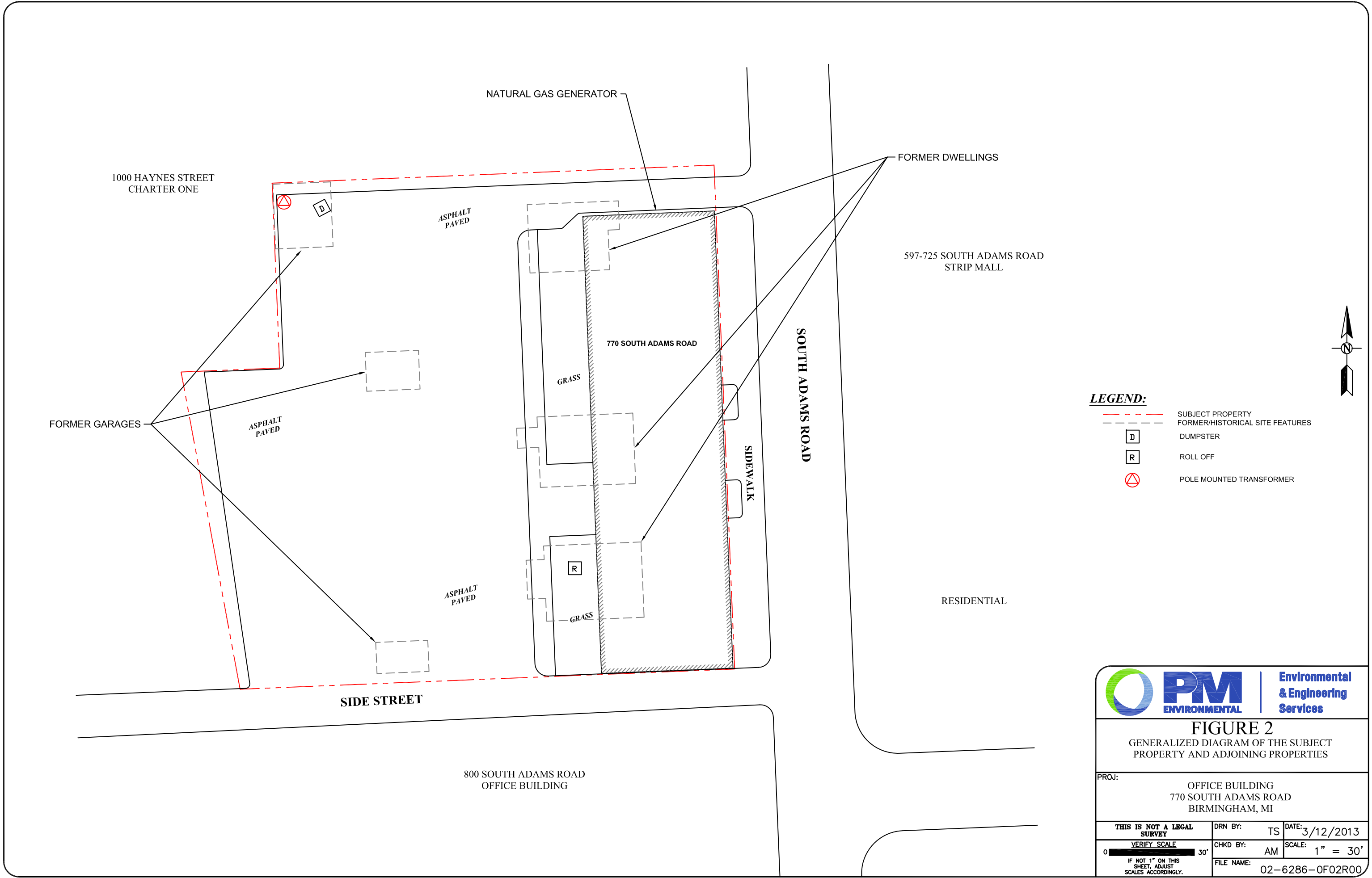
0 2,000'

IF NOT 1" ON THIS
SHEET, ADJUST
SCALES ACCORDINGLY.

DRN BY: TS DATE: 3/12/2013

CHKD BY: AM SCALE: 1" = 2,000'

FILE NAME: 02-6286-0F01R00



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



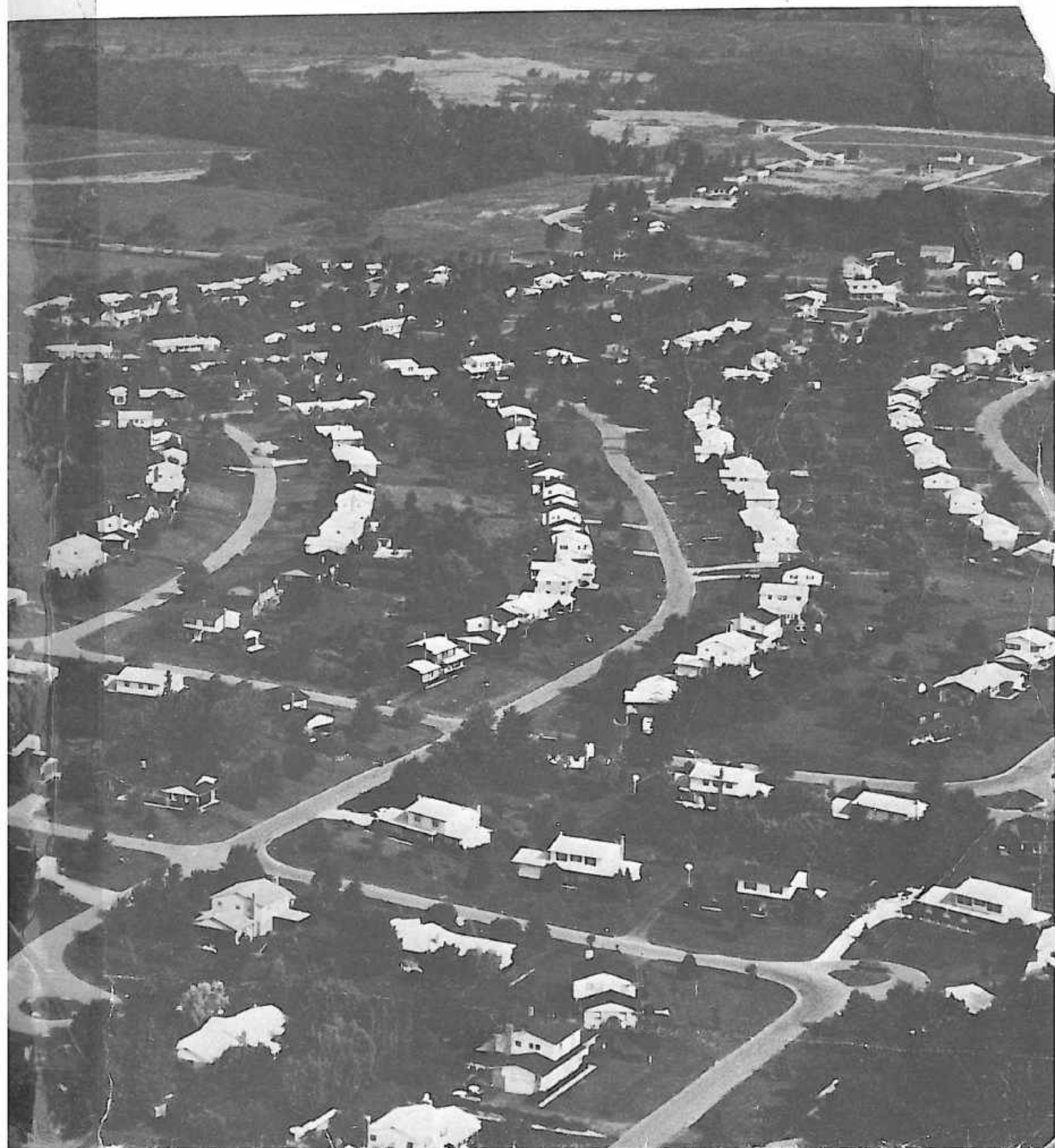
The south adjoining property, occupied by an office building

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



Contents

Index to soil map units	iv	Woodland management and productivity	49
Summary of tables	v	Environmental plantings	50
Foreword	vii	Recreation	52
General nature of the survey area	2	Wildlife habitat	53
History and development	2	Engineering	54
Climate	2	Soil properties	59
Industry and transportation	3	Engineering index properties	59
Lakes and streams	4	Physical and chemical properties	59
How this survey was made	4	Soil and water features	61
General soil map units	5	Classification of the soils	63
Soil descriptions	5	Soil series and their morphology	63
Broad land use considerations	10	Formation of the soils	83
Detailed soil map units	11	Factors of soil formation	83
Soil descriptions	11	Processes of soil formation	84
Prime farmland	45	References	87
Use and management of the soils	47	Glossary	89
Crops and pasture	47	Tables	97

Soil series

Adrian series	63	Matherton series	73
Arkport series	64	Metamora series	73
Blount series	64	Metea series	74
Boyer series	65	Napoleon series	74
Brookston series	65	Oakville series	74
Capac series	66	Ormas series	75
Cohoctah series	67	Oshtemo series	75
Colwood series	67	Owosso series	76
Dixboro series	68	Riddles series	76
Fox series	68	Sebewa series	77
Gilford series	69	Selfridge series	77
Glynwood series	69	Sisson series	78
Granby series	69	Sloan series	78
Houghton series	70	Spinks series	79
Kibbie series	70	Tedrow series	79
Lenawee series	71	Thetford series	80
Leoni series	71	Thomas series	80
Marlette series	72	Wasepi series	80

Issued March 1982

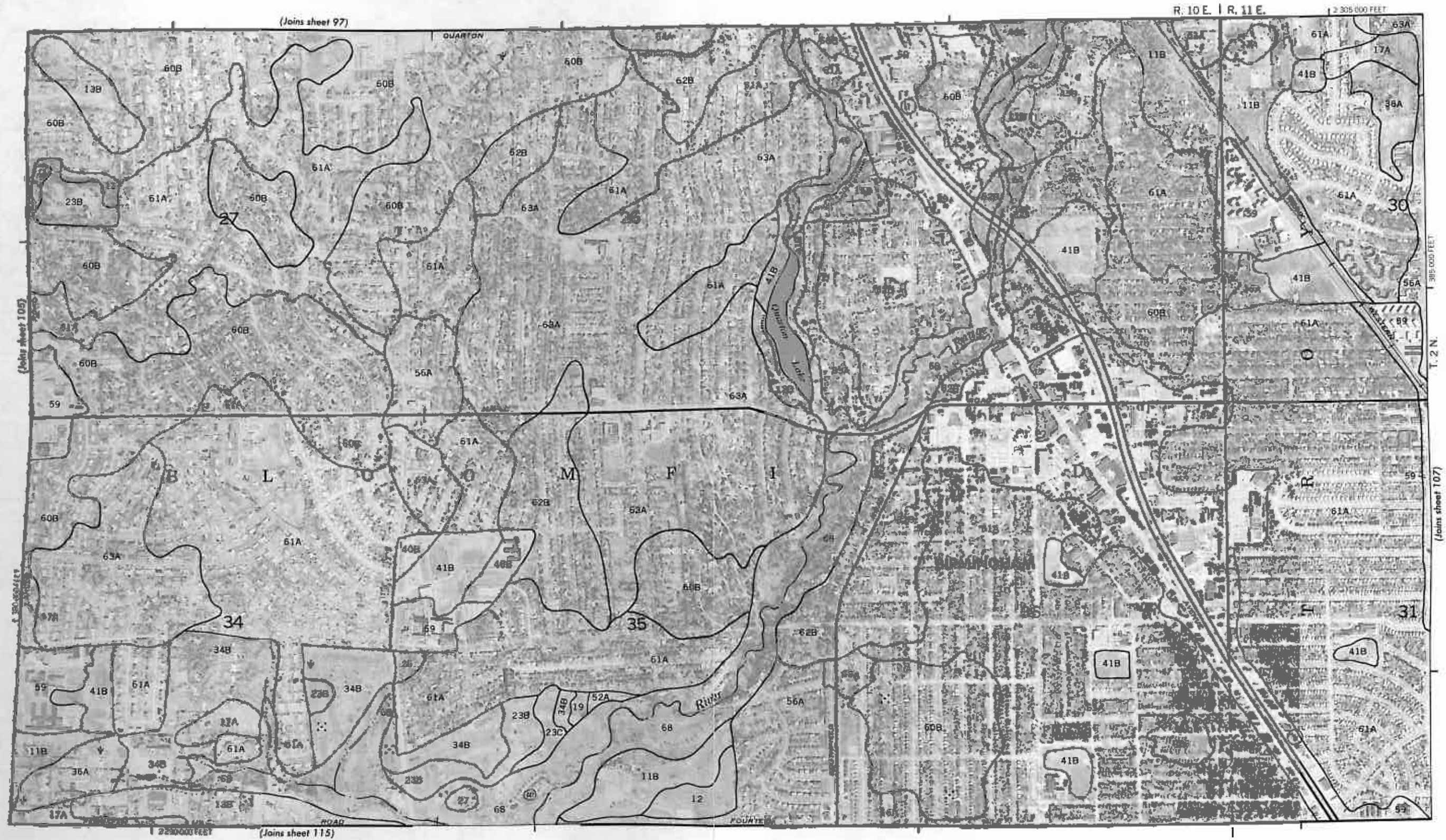
106



1 Mile
5 000 Feet

Scale 1:15 840

0 1 000 2 000 3 000 4 000 5 000



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.
- B2t—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.

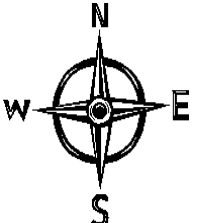
The Ap horizon has value of 3 or 4 and chroma of 2 or 3. The value dry is 6. Wooded areas have a thin A1 horizon having value of 2 or 3 and chroma of 1 or 2. The A2 horizon, if present, has hue of 10YR, value of 5 or 6, and chroma of 2 or 3. The A horizon is dominantly sandy loam or loam, but the range 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.

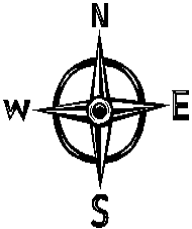
The C horizon has value of 4 to 6 and chroma of 2 or 3. It is loam or clay loam.

AERIAL PHOTOGRAPHS

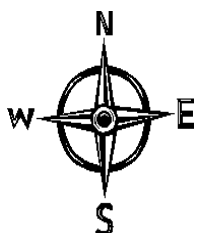


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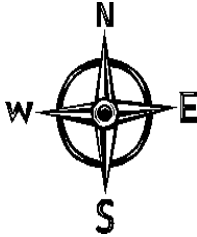


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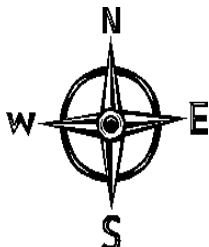


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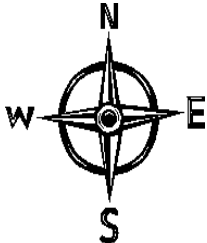


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	Location: 770 South Adams Road, Birmingham, Michigan	
	PM Project No. 02-6286-0	
	Aerial Year: 1990	
	Source: Oakland County Planning and Economic Development Services	



	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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Cross Street:
P.O. # 02-6286-0
Project: 02-6286-0
Certification # 10D0-429D-A108



Sanborn® Library search results
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Maps Provided:

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1949
1931
1926
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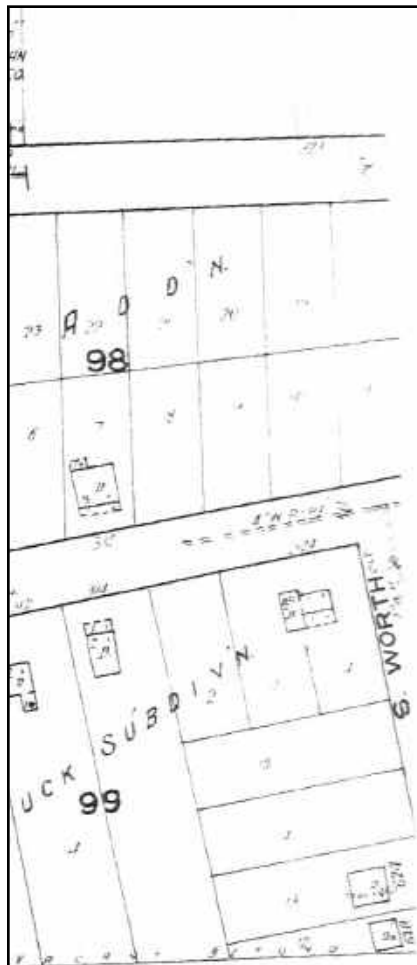
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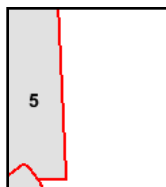
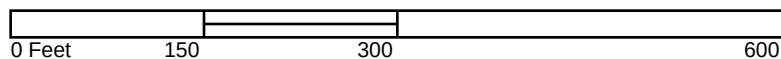
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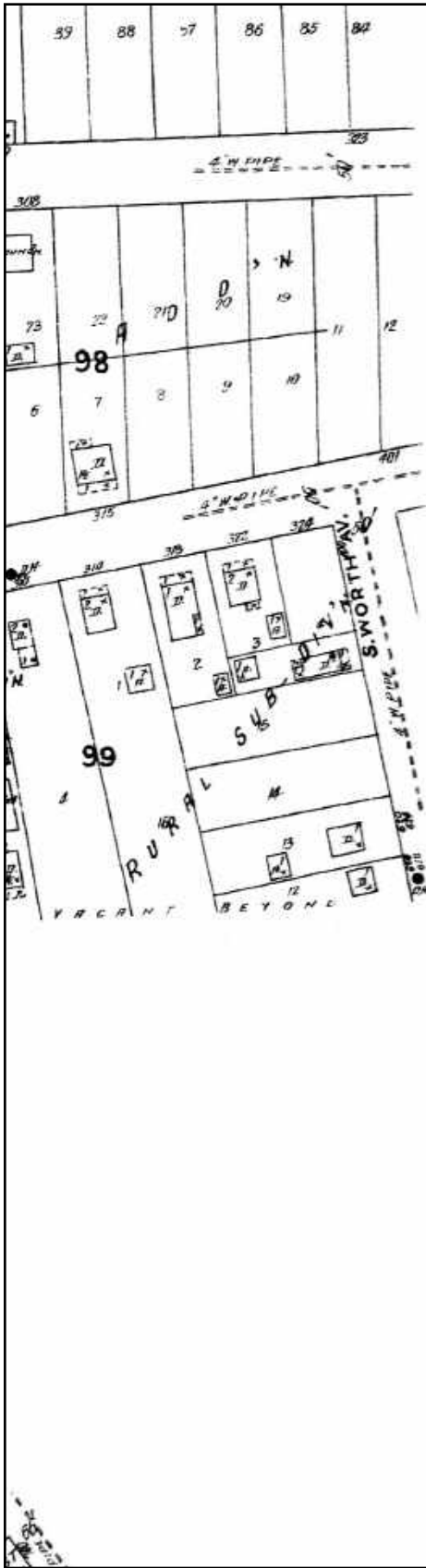
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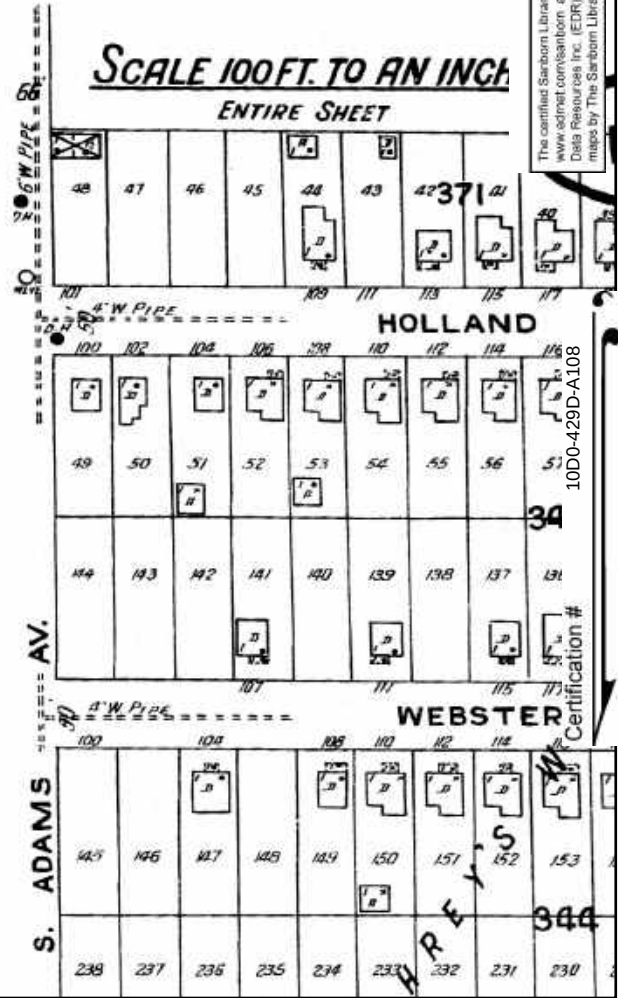
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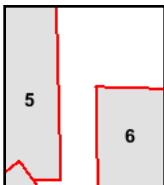
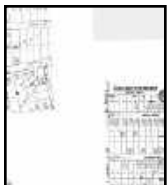
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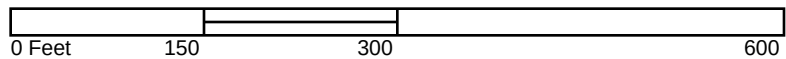
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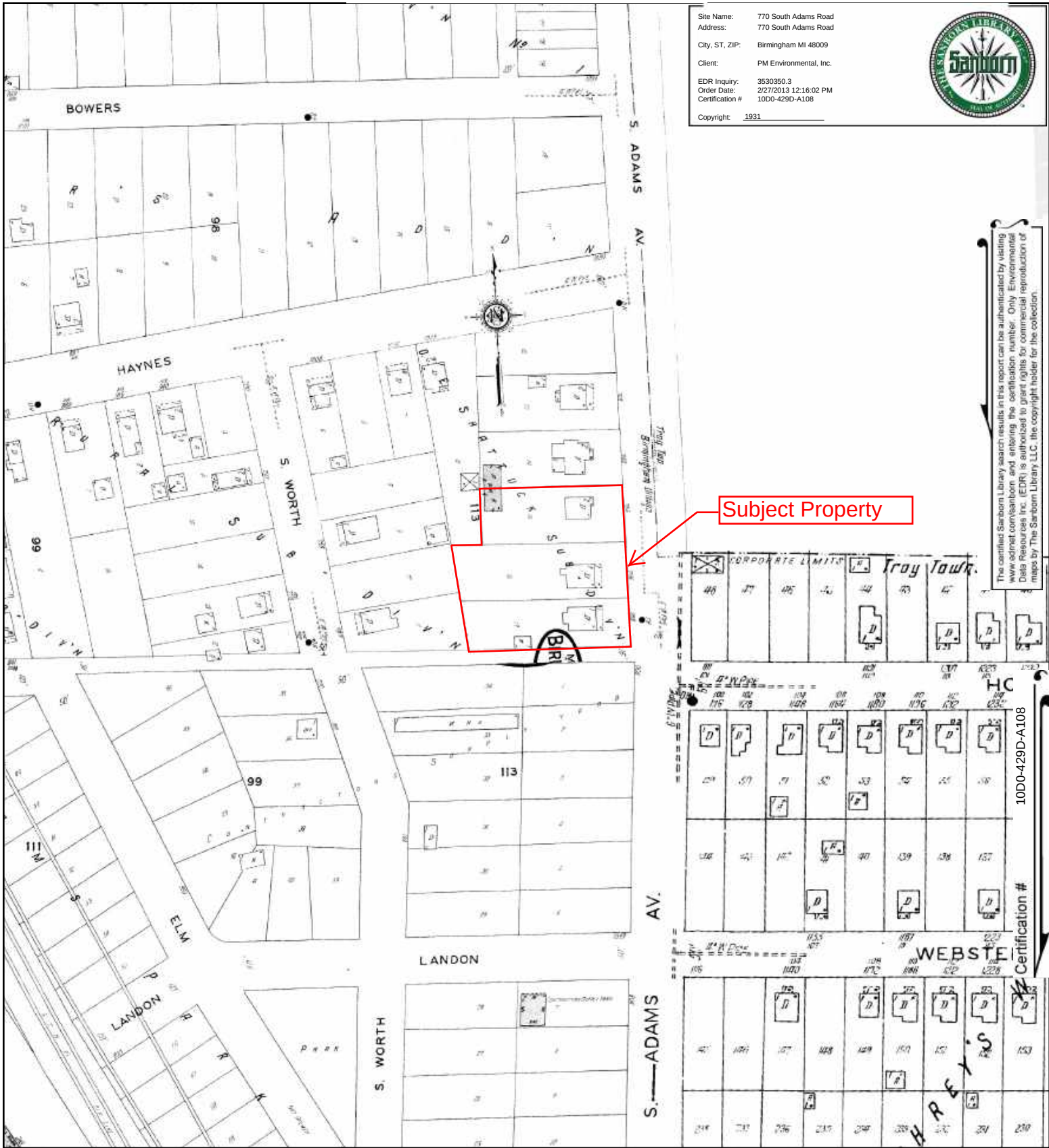


Volume 1, Sheet 5
 Volume 1, Sheet 6



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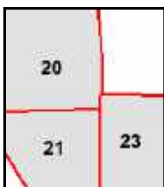
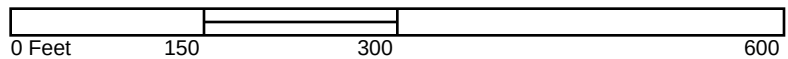
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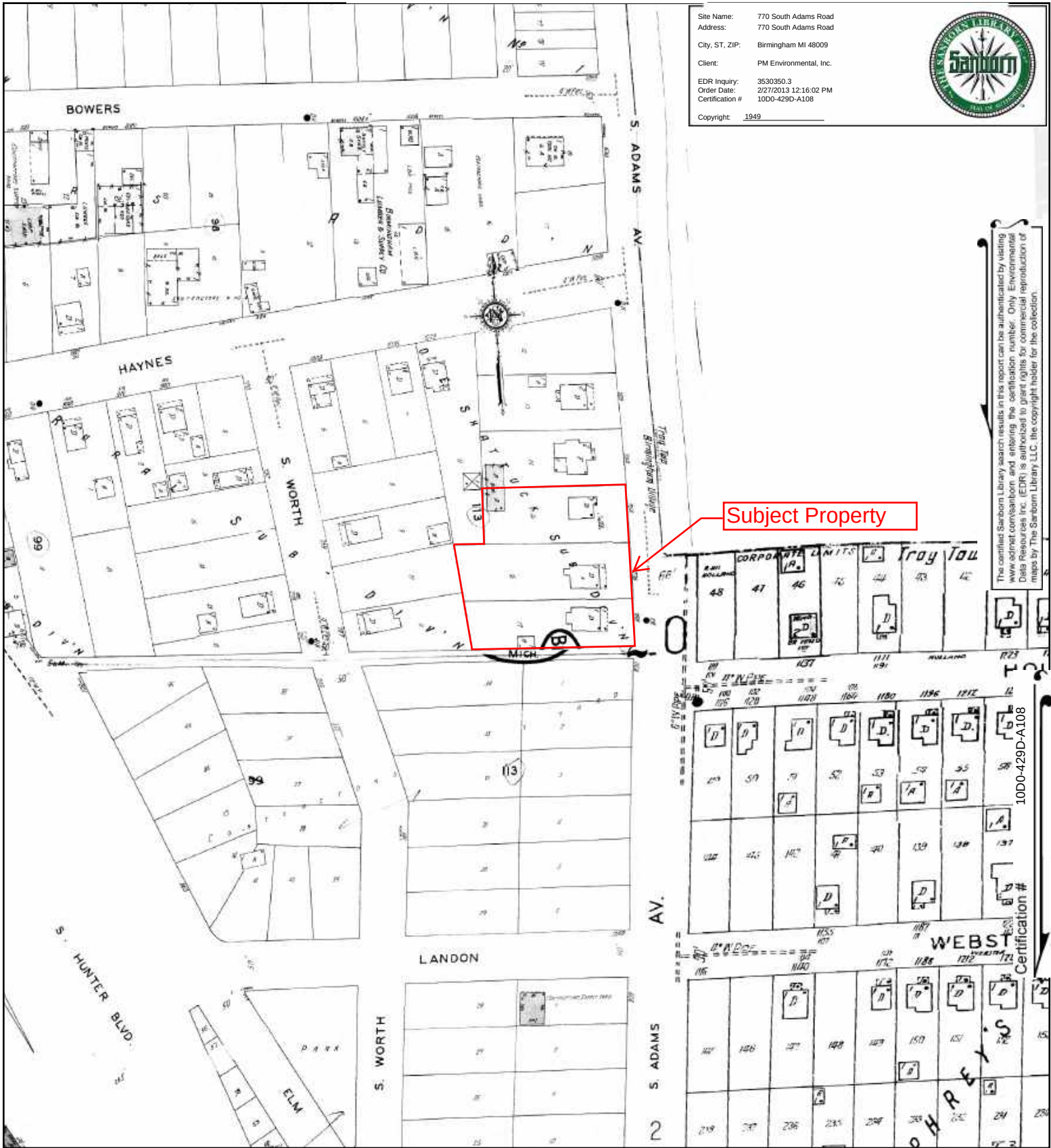
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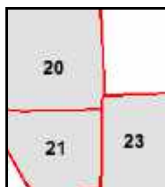
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 Volume 1, Sheet 21
 Volume 1, Sheet 23



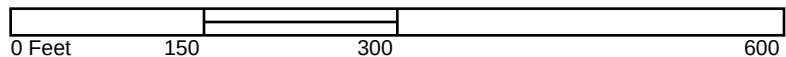
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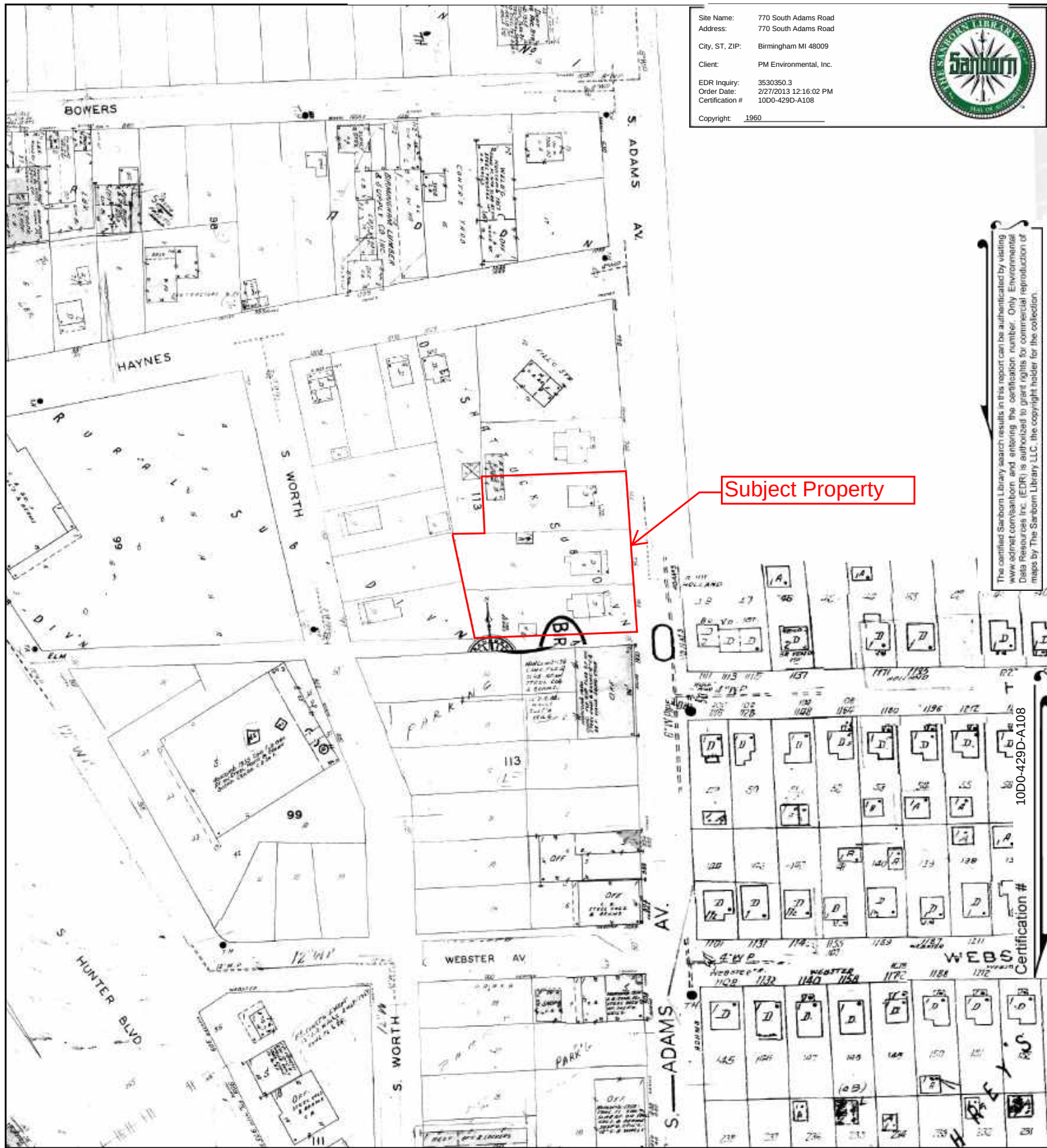
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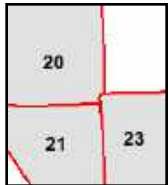
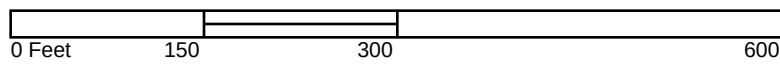


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Volume 1, Sheet 20
 Volume 1, Sheet 21
 Volume 1, Sheet 23



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/TPA: 178.07																																											
Description T2N, R10E, SEC 36 D 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 Depth</th> <th>Rate</th> <th>%Adj.</th> <th>Reason</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>COM/IND RA w/nse .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="7">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 w/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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		X	Dirt Road	< 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 colspan="6">Commercial/Industrial Local Cost Land Improvements</td> </tr> <tr> <th>Description</th> <th>Rate</th> <th>CountyMult.</th> <th>Size</th> <th>%Good</th> <th>%Arch.Mult</th> <th>Cash Value</th> </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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X	Gravel Road																																												
X	Paved Road																																												
X	Storm Sewer																																												
X	Sidewalk																																												
X	Water																																												
X	Sewer																																												
X	Electric																																												
X	Gas																																												
X	Curb																																												
		Street Lights			Topography of Site <table border="1"> <thead> <tr> <th>Year</th> <th>Land Value</th> <th>Building Value</th> <th>Assessed Value</th> <th>Board of Review</th> <th>Tribunal/Other</th> <th>Taxable Value</th> </tr> </thead> <tbody> <tr> <td>2012</td> <td>608,410</td> <td>620,260</td> <td>1,228,670</td> <td></td> <td></td> <td>718,090C</td> </tr> <tr> <td>2011</td> <td>676,020</td> <td>690,660</td> <td>1,366,680</td> <td></td> <td></td> <td>699,220C</td> </tr> <tr> <td>2010</td> <td>793,580</td> <td>750,350</td> <td>1,543,930</td> <td></td> <td></td> <td>687,540C</td> </tr> <tr> <td>2009</td> <td>881,760</td> <td>1,146,590</td> <td>2,028,350</td> <td></td> <td></td> <td>689,610C</td> </tr> </tbody> </table>						Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value	2012	608,410	620,260	1,228,670			718,090C	2011	676,020	690,660	1,366,680			699,220C	2010	793,580	750,350	1,543,930			687,540C	2009	881,760	1,146,590	2,028,350			689,610C
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	Underground Utils.																																												
The Equalizer. Copyright (c) 1999 - 2000. Licensed to: Oakland County Equalization.		Who When What																																											
		028 10/16/2009 Building																																											
		043 04/11/2002 Other																																											
		010 10/20/1997 Other																																											

Desc. of Bldg/Section: Building 1, Section 1 Calculator Occupancy: Office Building				<<<< 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%;">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	
High	Above Ave.	Ave.	X	Low						
Depr. Table: 2% Effective Age: 33 Physical %Good: 51 Func. %Good: 100 Economic %Good: 100		** ** 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		(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						
1964 Year Built Remodeled	*** Basement Info *** Area: 6900 Perimeter: 392 Type: Basement Units Heat: Hot Water, Baseboard/Radiators		2 Stories Average Height per Story: 12 Ave. Floor Area: 6,900 Perimeter: 392 Basement Area: 6,900 Perimeter: 392 Basement Height: 12 Refined Square Foot Cost for Upper Floors: 86.65 Refined Square Foot Cost for Basement: 57.57							
Comments:		* Mezzanine Info * Area #1: Type #1: Area #2: Type #2:		Number of Stories Multiplier: 1.000 Height per Story Multiplier: 1.000 Perim. Multiplier: 0.996 Basement Perim. Multiplier: 0.996 Basement Height Multiplier: 1.000 County Multiplier: 1.46, Final Square Foot Cost for Upper Floors = 126.512 for Basement = 84.050						
* Sprinkler Info * Area: 1449 Type: Average		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 COP) 0.830 => TCV of Bldg: 1 = 1,223,947 Replacement Cost/Floor Area= 169.13 Est. TCV/Floor Area= 88.68								

(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	Many Unfinished Typical	Few Average	Many Unfinished Typical	(40) Exterior Wall: Thickness Bsmnt Insul.			
(3) Frame:			Total Fixtures 3-Piece Baths 2-Piece Baths Shower Stalls Toilets			Urinals Wash Bowls Water Heaters Wash Fountains Water Softeners			Flex Conduit Rigid Conduit Armored Cable Non-Metallic Bus Duct				
(4) Floor Structure:			(9) Sprinklers:			Incandescent Fluorescent Mercury Sodium Vapor Transformer			(13) Roof Structure: Slope=0				
(5) Floor Cover:			(10) Heating and Cooling:			Gas Oil			Coal Stoker				
(6) Ceiling:			Hand Fired Boiler			(14) Roof Cover:							

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 of 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



L. BROOKS PATTERSON, OAKLAND COUNTY EXECUTIVE

Department of Health & Human Services

Kathleen Forzley, RS, MPA, Manager
HEALTH DIVISION

oakgov.com/health

February 28, 2013

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

NORTH OAKLAND HEALTH CENTER
1200 NORTH TELEGRAPH ROAD
PONTIAC MICHIGAN 48341-0432
General Information 248-858-1280

SOUTH OAKLAND HEALTH CENTER
27725 GREENFIELD ROAD
SOUTHFIELD MICHIGAN 48076-3663
General Information 248-424-7000

- (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

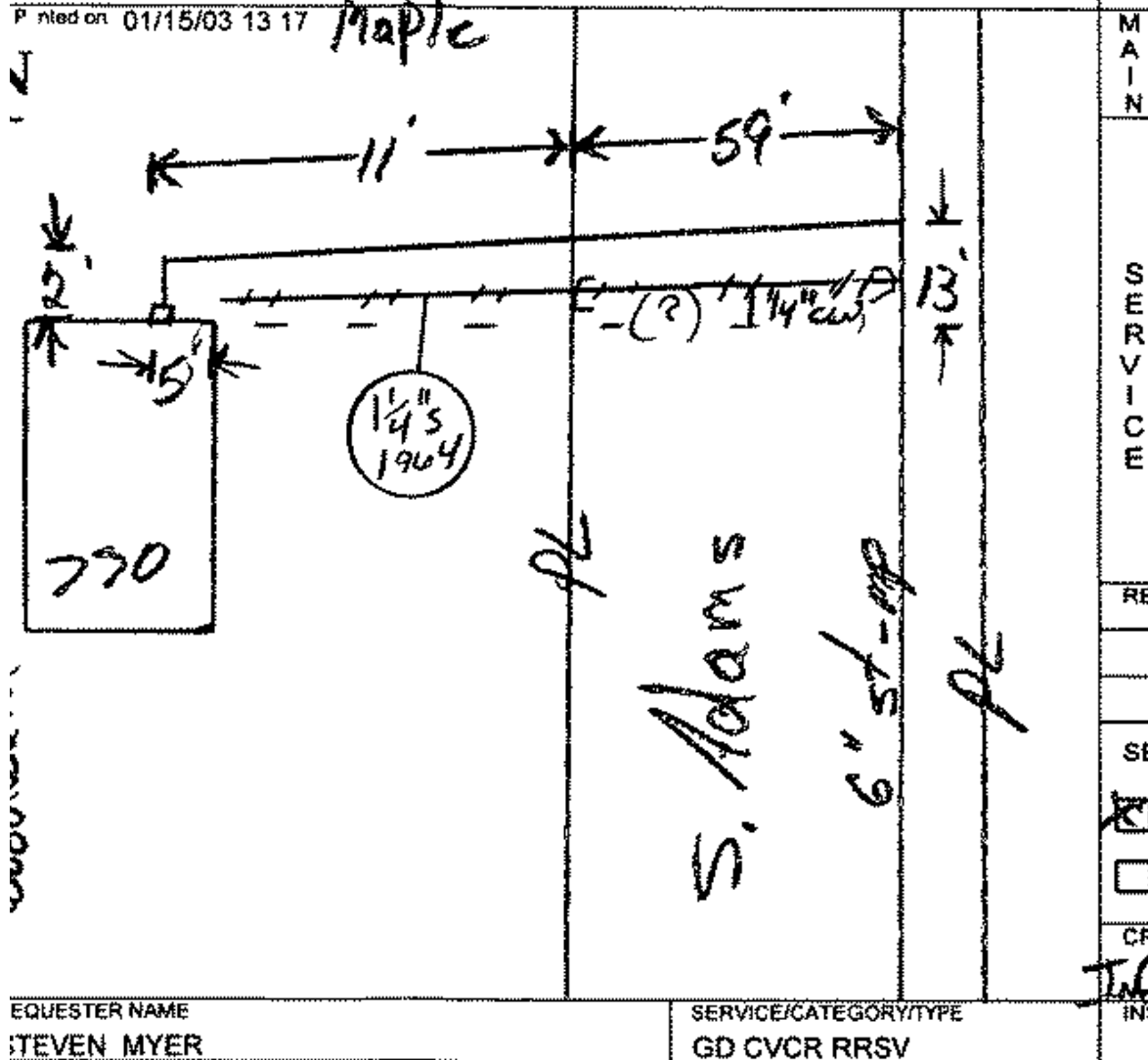
cc: Anthony Drautz, R.S., M.S.A., Administrator, Environmental Health Services

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

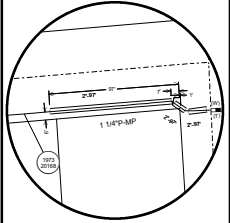
ALL LOCATIONS ARE APPROXIMATE.
SERVICES ARE NOT SHOWN. LOCATIONS
WILL BE VERIFIED BY STAKING UPON REQUEST.

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.

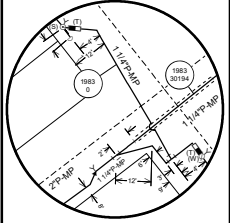
DETAILS

ELEVATIONAL DETAILS ARE NOT TO BE SHOWN
IN THIS SPACE. THEY WILL BE SHOWN ON
THE MAP, NEAR THE AREA BEING DETAILED.

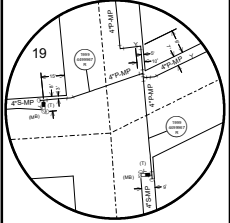
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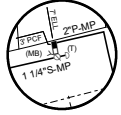
DETAIL "B"



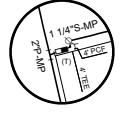
DETAIL "C"



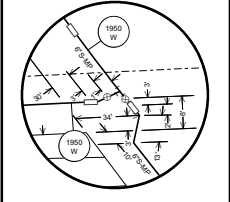
DETAIL "D"



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

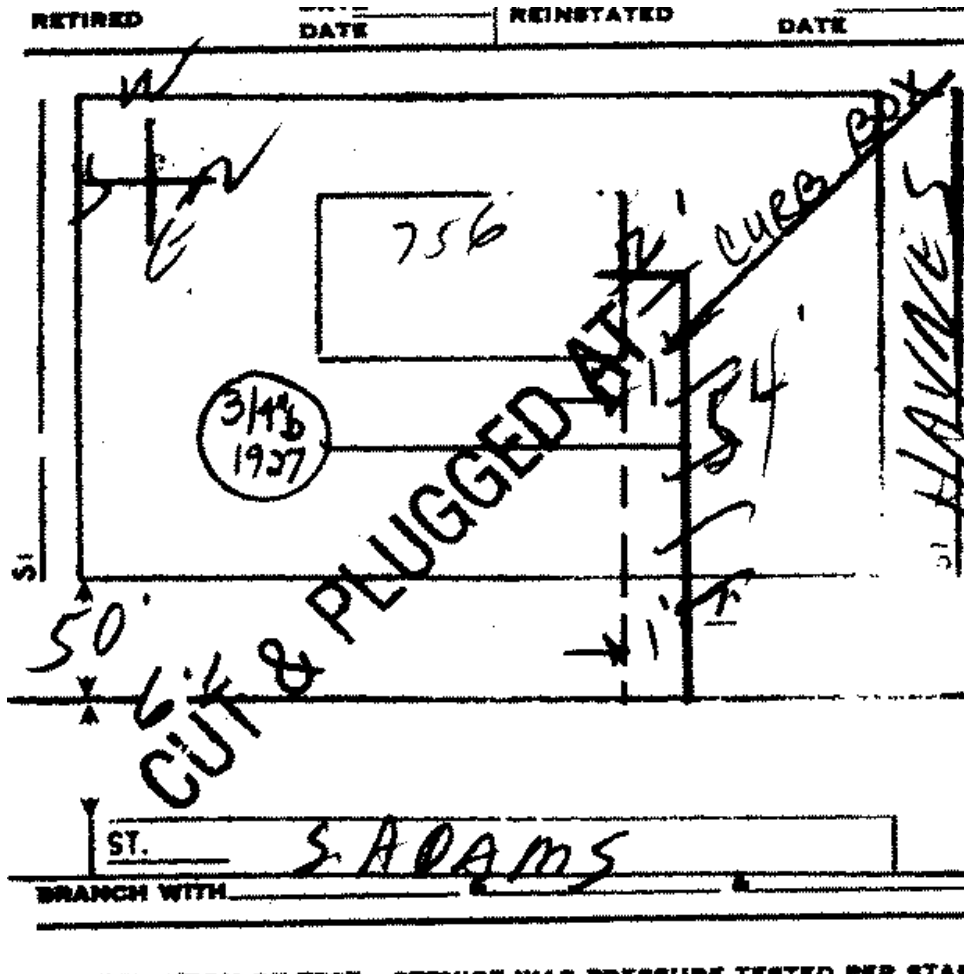


02-61-31-2

02-60-36-4

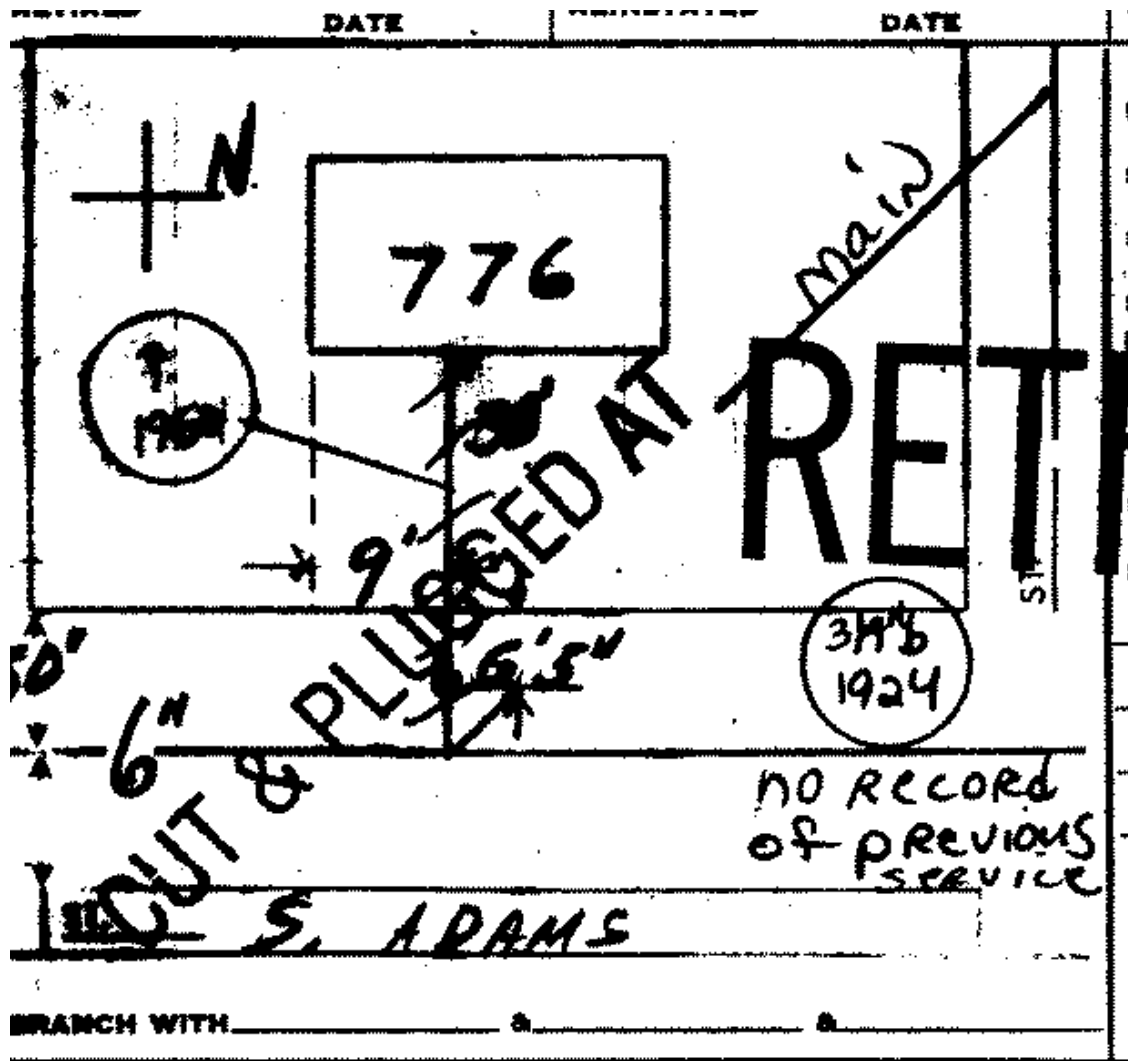
WINE PATTERNS/SECTIONS 8 5 4 3 2 1 7 2 9 10 1 12 18 17 16 15 14 13 19 20 21 22 23 24 30 3 28 27 4 25 31 32 33 34 35 36	Consumers Energy Information Management TOWNSHIP: BLOOMFIELD COUNTY: OAKLAND HEADQUARTERS: OAKLAND	SCALE: Varies EXCEPT FOR DETAILS	QUARTER SECTION MAP TOWN RANGE SECTION 1-14 02-60-36-1 REQUEST DATE 08-09-12 REQUESTED BY PMK
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This map has been plotted and approved by the GIM Conversion Team: by

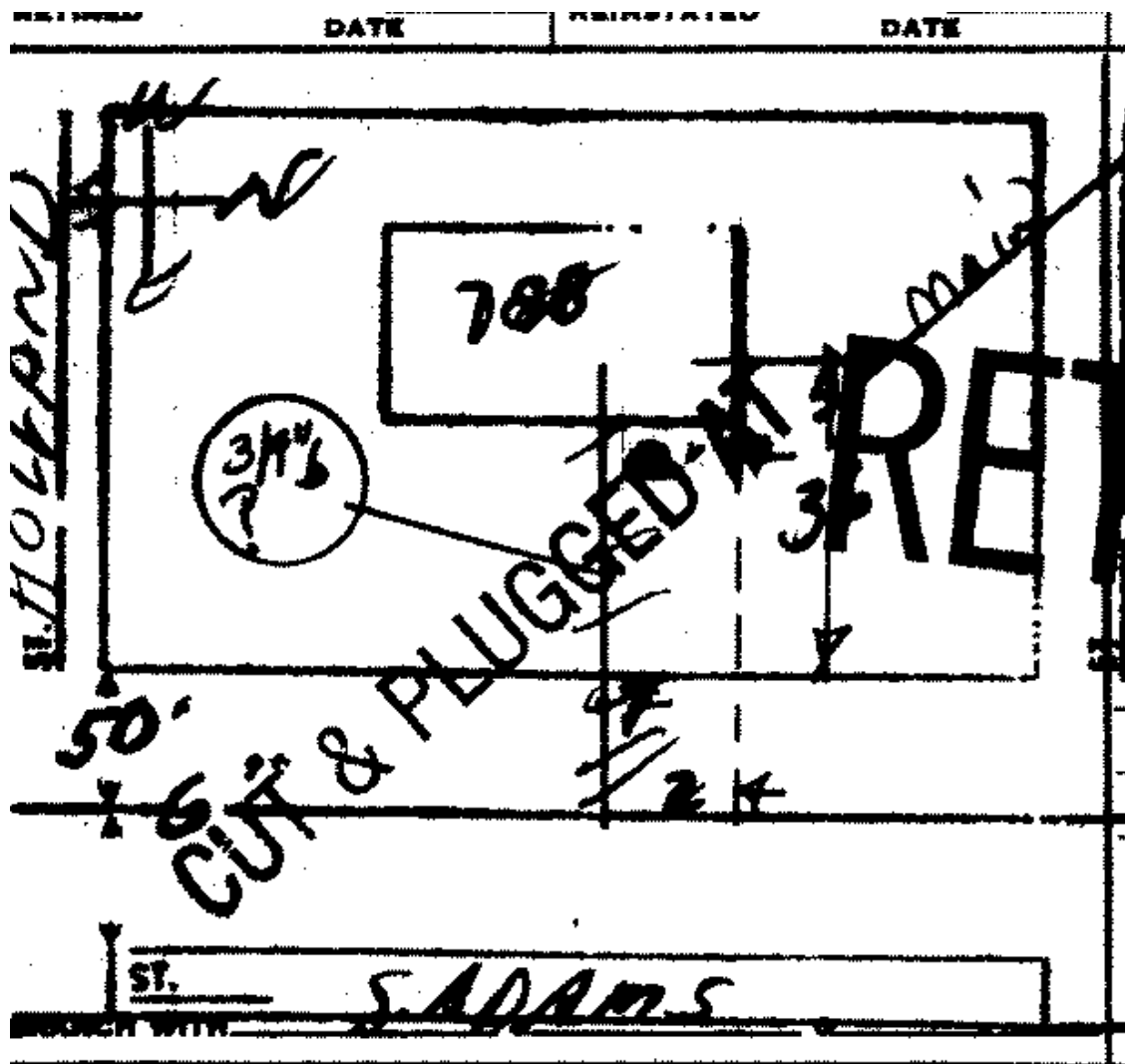
**SIMS Web****On-Line**[Distribution Map](#)[Address Search](#)[Help](#)[E-mail](#)[Logout](#)Address: **756 S ADAMS ST, BIRMINGHAM**Gas Service Extension: **None** , Inserted: **None** , Year Installed:[Printer Friendly](#)[Distribution Map](#)[Previous](#)

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

TABLE OF CONTENTS

		Page
1.0	SUMMARY	1-1
2.0	INTRODUCTION	2-1
3.0	SITE DESCRIPTION AND SITE VISIT INFORMATION	3-1
4.0	RECORDS REVIEW	4-1
4.1	Environmental Regulatory Agencies	4-1
4.1.1	Environmental Regulatory Database Review	4-1
4.1.2	Local Regulatory Agency	4-6
4.2	Historical Use Information	4-6
4.2.1	City Directories	4-6
4.2.2	Aerial Photographs	4-7
4.2.3	Sanborn Fire Insurance Maps	4-7
5.0	ASBESTOS CONTAINING MATERIALS SURVEY	5-1
5.1	Survey Methodology	5-1
5.2	Observations	5-2
5.3	Sample Results	5-2
5.4	Assessments and Recommendations	5-2
6.0	FINDINGS AND CONCLUSIONS	6-1
7.0	SIGNATURES OF ENVIRONMENTAL PROFESSIONALS	7-1
8.0	QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS	8-1

LIST OF FIGURES

Figure No.	Description	Following Page
1-1	Site Location	2-1
1-2	Site Plan	3-1

TABLE OF CONTENTS
(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.

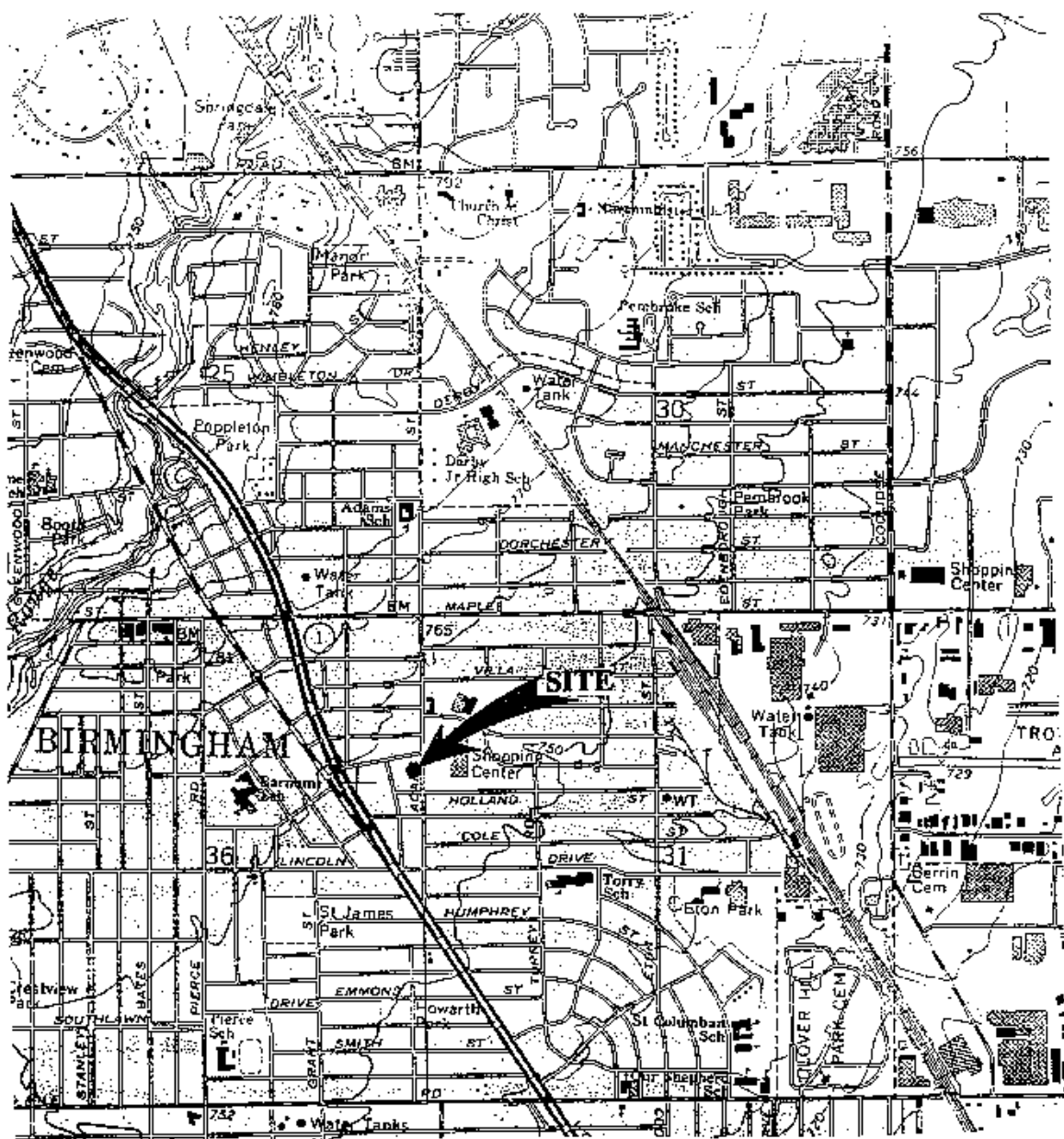
This Phase I Site Assessment report includes:

- 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.



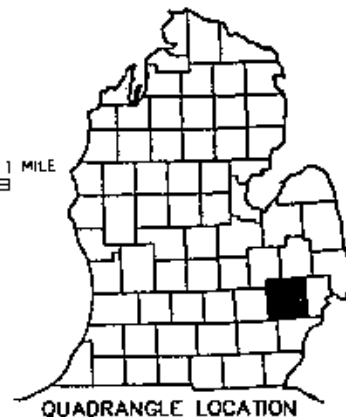
BIRMINGHAM QUADRANGLE
MICHIGAN-OAKLAND CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

1968
 PHOTOREVISED 1981
 DMA 4369 II SW-SERIES V862

SCALE 1:24,000



CONTOUR INTERVAL 10 FEET
 NATIONAL GEODETIC VERTICAL DATUM OF 1929



QUADRANGLE LOCATION

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MALCOLM
PIRNIE

SHANNON PROPERTIES, INC.
 BIRMINGHAM, MICHIGAN
 SITE LOCATION MAP

MALCOLM PIRNIE ENGINEERS

FIGURE 1-1

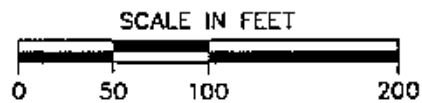
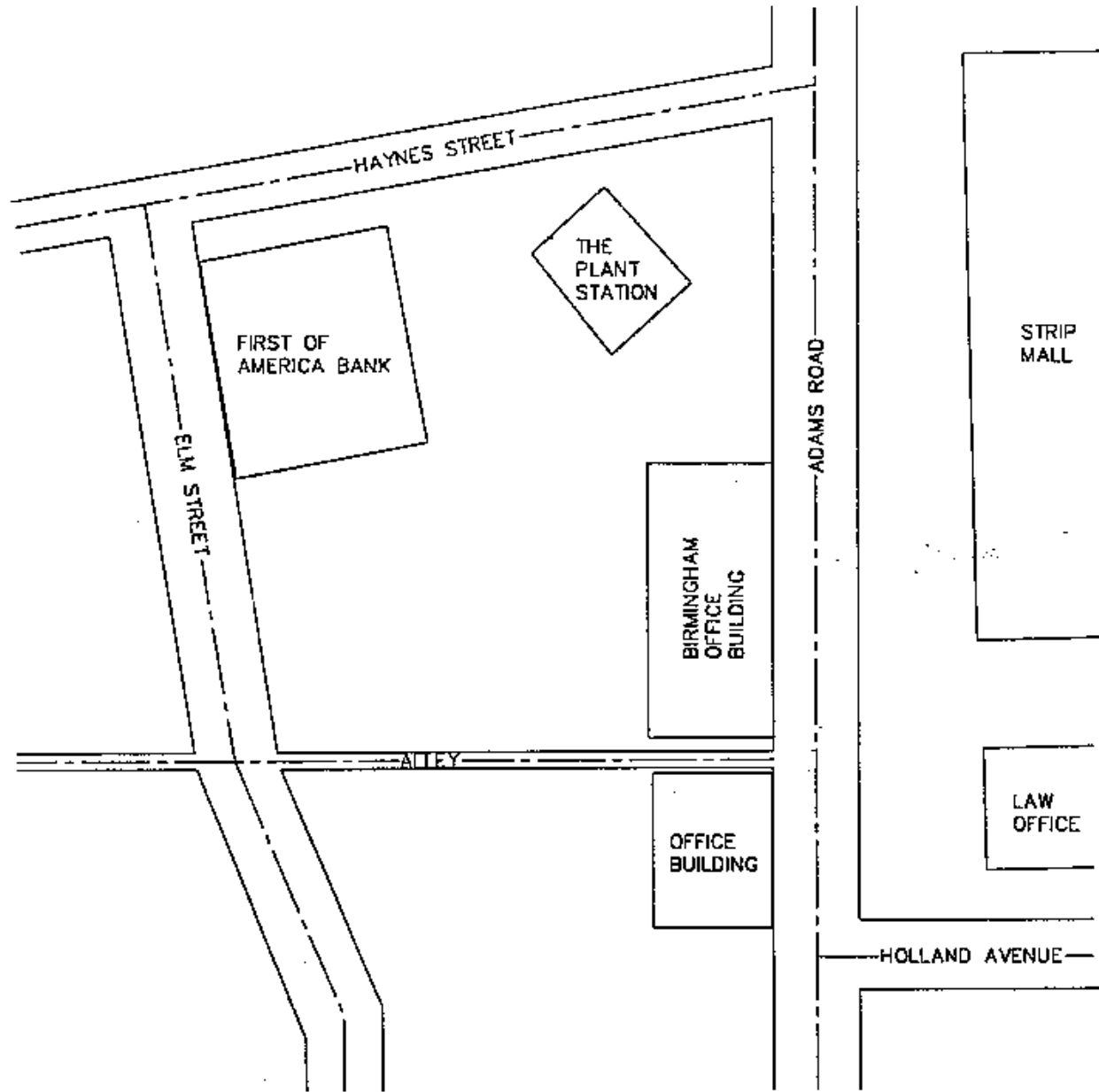
3.0 SITE DESCRIPTION AND SITE VISIT INFORMATION

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, 1/2-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

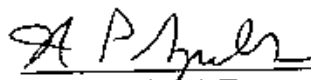
the time of the inspection, and therefore are not considered a likely environmental hazard in their present condition. No ACM abatement or response activities to the existing ACM are recommended at this time if the materials are left in place and undisturbed. However, any future renovations or repairs 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

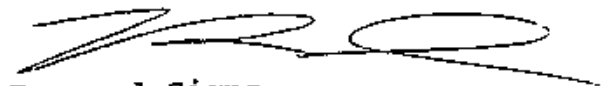
**RE: ASBESTOS MANAGEMENT SERVICES
ASBESTOS MATERIALS SURVEY AND ASSESSMENT
OFFICE FACILITY
BIRMINGHAM, MICHIGAN**

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.

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

Fibertec

Environmental
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:

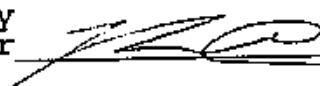
770 ADAMS, BIRMINGHAM, MI, 7 BULK SAMPLE ANALYSIS.

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 Hartzell

PAGE 1 OF 1

APPENDIX E

QUALIFICATIONS 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)

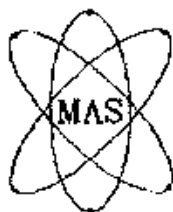
1986 to Date

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 I.D. : CEILING TILE LOWER SUITE, 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.

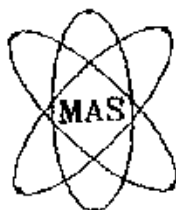
- 1. Reports shall not be reproduced, except in full, without written approval of Midwest Analytical Services, Inc.*
- 2. N/D=Not detected above Estimated Quantitative Limit. N/A=Not applicable*
- 3. Results relate only to the items tested.*
- 4. mg/l, mg/kg, mg/kg(dry weight) equal ppm(parts per million)
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

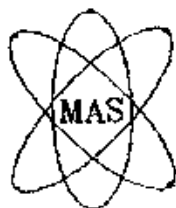
DATE ANALYZED: 12/13/95
METHOD #: EPA-600/R-93/116

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

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



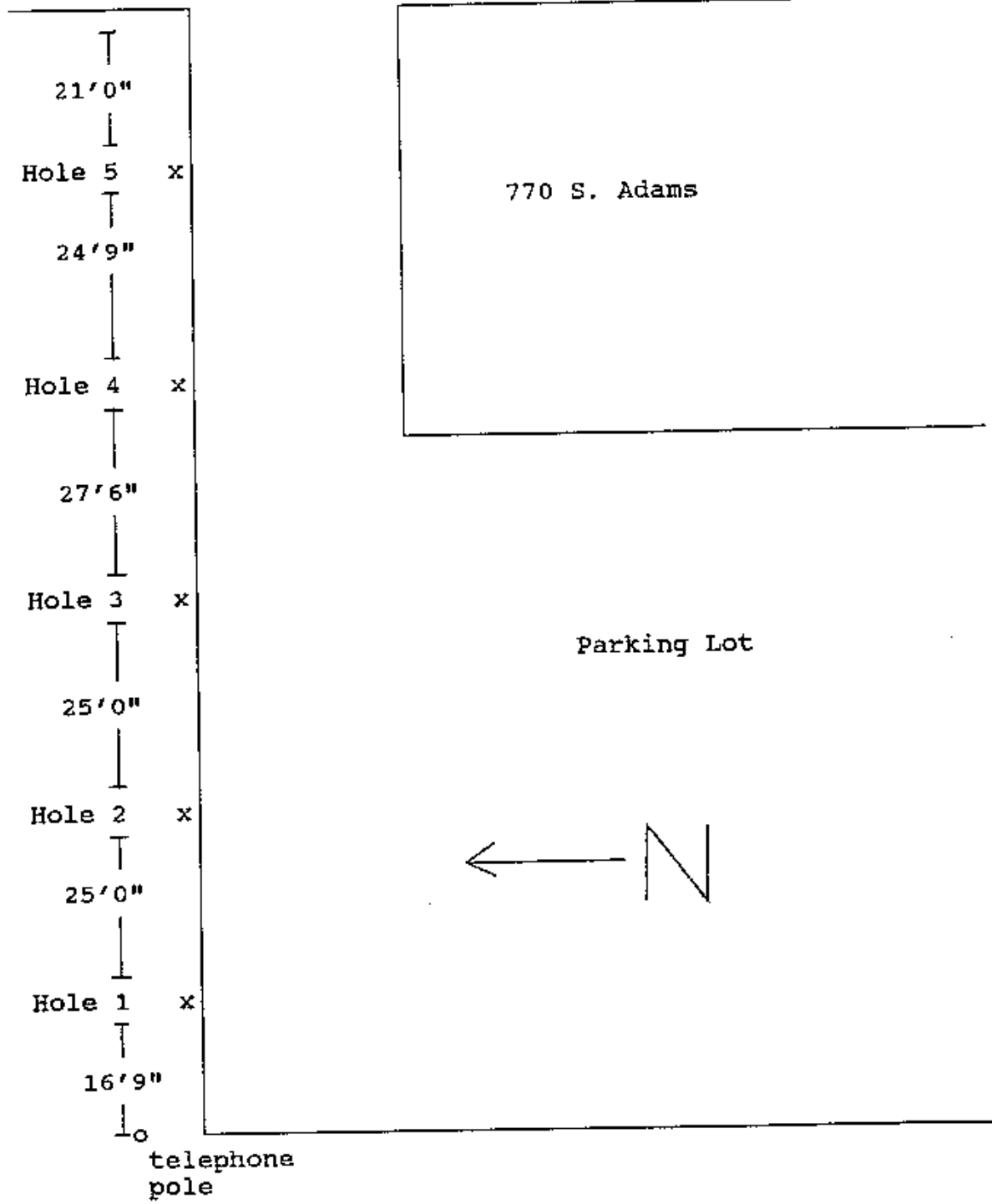
of soil. It is in this area that contaminants, if present, are most likely to have migrated. The analytical results reported for the samples submitted for GC screening and laboratory analysis indicated "non-detect" for BTEX and PNA. The data for each of the samples is also attached.

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	W
			10'	Topsoil	
			2	Topsoil, gravel	
			5	Clay	
			10		
			15		
			20		
			25		
			30		

Job No. 5-6200

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	W
			6"	Topsoil	
			2'	Small gravel and 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:

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

Boring Type	REC	Blow Count	In Feet	SOIL DESCRIPTION	WT
			6"	Topsoil	
			1'	Topsoil - Gravel	
				Interspersed topsoil gravel	
			5'	Clay	
				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:

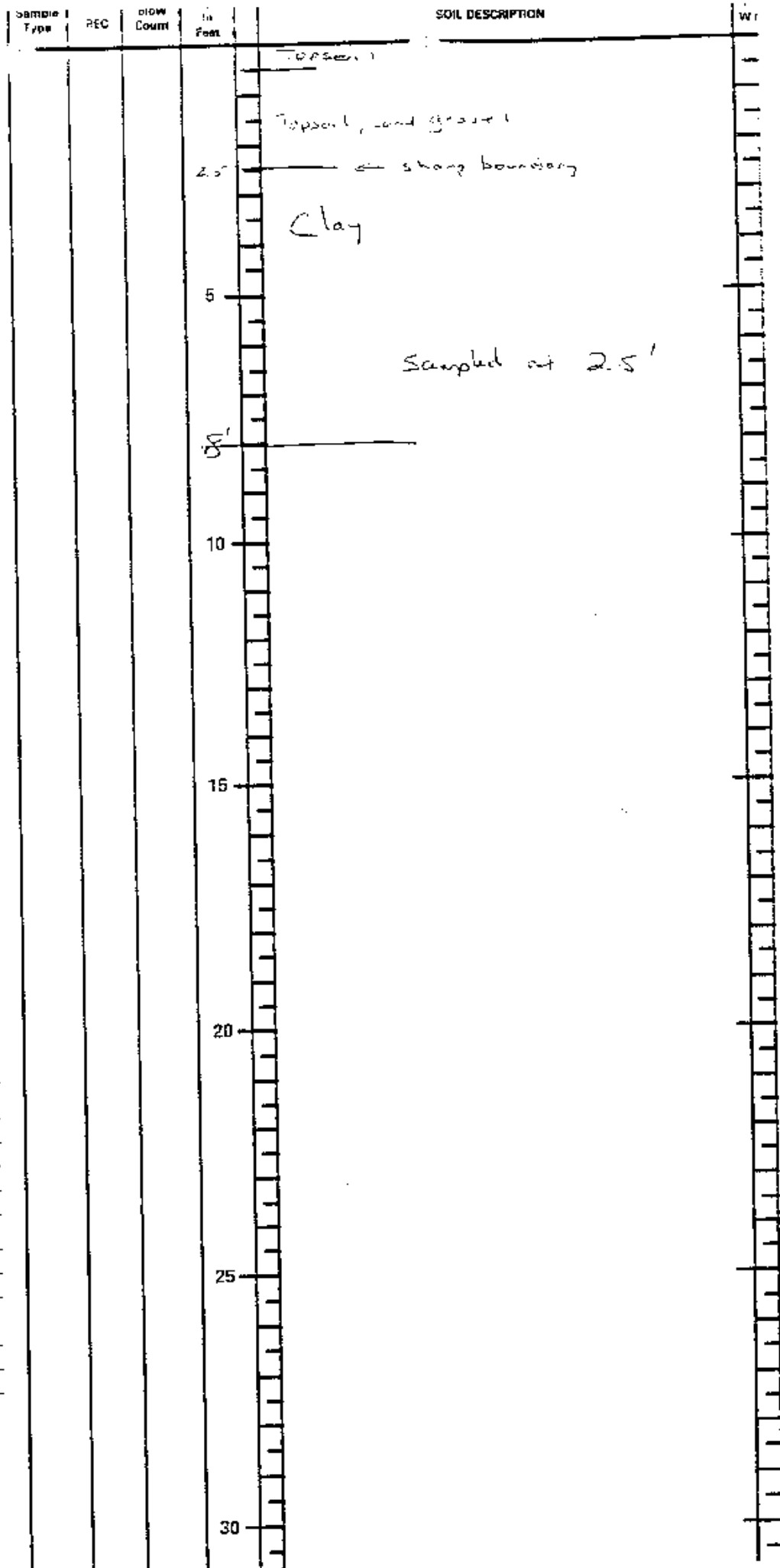
BlowCount/Blows per 6"
w/140# hammer x 30" drop

SS - 2" Split Spoon Sampler

LS - Brass Liner Sample

ST - Shelby Tube Sample

SNR - Sample not recovered



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

Type	REC	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	MTBE	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 - MTBE, 10PPB - BTEX
WATER 50PPB - MTBE, 1PPB - BTEX
unless otherwise stated

ANALYTICAL RESULTS

Fibertec
Environmental
Services

DATE ANALYZED: 12-29-95
METHODS: USEPA 3550, 8270
FIBERTEC PROJECT #: 101509-2

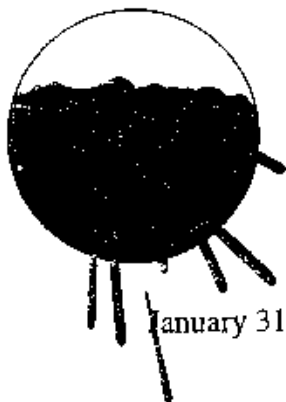
CLIENT: Geodynamics
PROJECT SITE:
Office Plaza
Birmingham, MI

ANALYTE	SAMPLE IDENTIFICATION									
	State 1 soil 2.1'	State 2 soil 2.0'	State 3 soil 2.0'	State 4 soil 2.1'	State 5 soil 2.1'					CONTROL LIMITS
Naphthalene	<330	<330	<330	<330	<330					
Acenaphthylene	<330	<330	<330	<330	<330					
Acenaphthene	<330	<330	<330	<330	<330					
Fluorene	<330	<330	<330	<330	<330					
Phenanthrene	<330	<330	<330	<330	<330					
Anthracene	<330	<330	<330	<330	<330					
Fluoranthene	<330	<330	<330	<330	<330					
Pyrene	<330	<330	<330	<330	<330					
Benzo(a)anthracene	<330	<330	<330	<330	<330					
Chrysene	<330	<330	<330	<330	<330					
Benzo(b)fluoranthene	<330	<330	<330	<330	<330					
Benzo(k)fluoranthene	<330	<330	<330	<330	<330					
Benzo(e)pyrene	<330	<330	<330	<330	<330					
Dibenzo(a,h)anthracene	<330	<330	<330	<330	<330					
Benzo(ghi)perylene	<330	<330	<330	<330	<330					
Indeno(1,2,3-cd)pyrene	<330	<330	<330	<330	<330					
SURROGATE RECOVERY										30-130
** HIGH SURROGATE RECOVERY DUE TO MATRIX INTERFERENCE										

UNITS ARE UG/L (WATER) AND UG/G (SOIL)
DETECTION LIMITS: 1 UG/L (WATER), 130 UG/KG (SOIL)
unless otherwise noted

FIELD CHEMIST

QA/QC REVIEWER



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 Gacioch

Sherry Gacioch
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.

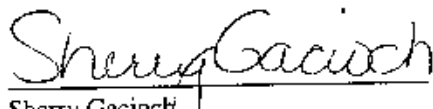
Throughout the removal process, ETC conducted air sampling in the work areas and in surrounding areas to determine if any contamination was occurring that could affect either the contractors or building owners employees. The results of this sampling have been summarized on the sample result sheets that 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 Gacinch
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 Burtram, 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 = 1.0086
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, & packed my equipment
and left at 2430.

Contractor: SSI

Project Hours from 5:30 am through 12:00 am

Page of

Client: SSI

Facility: Birmingham office Plaza Building B'ham office Plaza Area: Mechanical Rm

Hygienist(s) Signature (1) Jon Burtram

Date: 1-24-96

ETC Project #: X1356

SITE SCHEMATICS

LEGEND

PS - Personnel Sample
EX - Excursion Sample
WA - Work Area Sample
EA - HEPA Exhaust Air

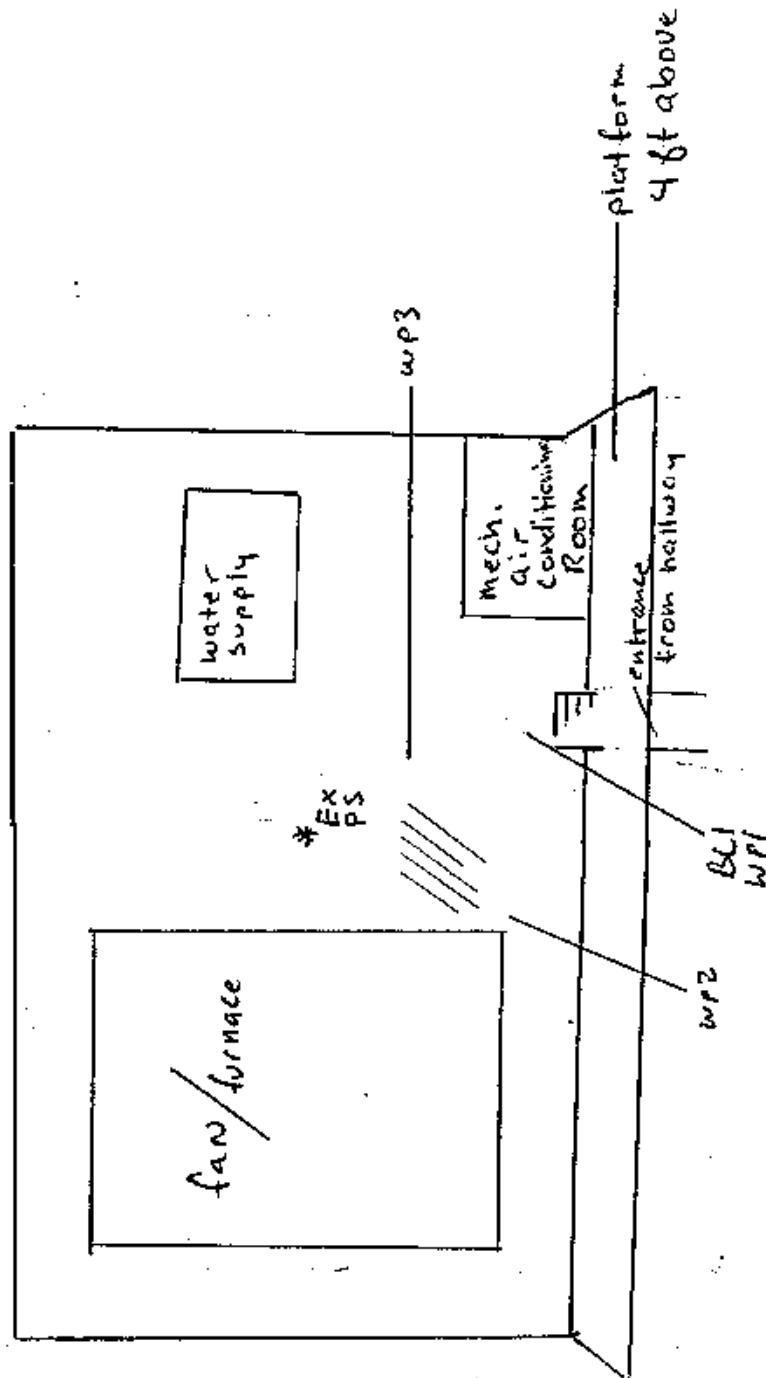
CS - Contiguous Sample
BL - Baseline Sample
AA - Ambient Air Sample
PA - PCM Post Abatement
TM - TEM Ambient Air

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
Dinny Room

Waste Bag Out



Client: SSI

Facility: Birmingham office plaza Building B'haw office plaza Area: mechanical Rm

Hygienists Signature (1) Jan Burton

Date: 1-24-96

ETC Project #: 81356

DAILY AIR MONITORING CHECKLIST

Yes	No	NA	E. Enclosure Method
☒	☐	☐	1. Clean Room a. Floors clean b. Cloths properly stored c. Sign-in / sign-out sheet posted d. Double flaps at entrance/exit
☒	☐	☐	2. Shower Area a. Shower operating b. Hot water available c. Cold water available d. Waste water filtered (0.5 microns) e. Soap/shampoo available f. Disinfectant available g. Double flaps at entrance/exit h. Are all workers showering
☒	☐	☐	3. Dirty room a. No excess ACM debris present b. Used work clothing placed in bag or drum c. Double flaps at entrance/exit
☒	☐	☐	4. Perimeter Barriers a. Perimeter plastic intact b. Windows/doors sealed c. HVAC system sealed d. Outlets/light fixtures sealed e. All vertical/horizontal openings sealed f. Proper posting at all entrances
☒	☐	☐	5. HEPA Ventilation Units a. Adequate negative pressure b. Contractor recording neg. pressure levels c. Exhaust properly vented (outside) d. Exhaust hose intact e. Pre-filters changed periodically
☒	☐	☐	F. End of Day Procedures 1. All material on floor bagged before leaving 2. Water on floor removed 3. Bags labelled/sealed 4. Bags decontaminated and properly sealed 5. Work area sealed off 6. Work area secured 7. Clothing disposed of properly 8. Respirators cleaned

Comments:

Client: SSI

Hygienists Signature (1) Jon Burton

(2)

Facility: Birmingham Office Plaza Building B

Area: Mechanical Rm

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

- Number of hours since encapsulation
- Is this post abatement aggressive ☐ Yes ☒ No
 Has the entire area been disturbed with a leaf blower ☐ Yes ☒ No
- Sample Results

Enclosures / Critical Barriers					
Sample #'s	PA	PA	PA	PA	PA
Results (f/cc)					
* If any individual concentration listed above is above the clearance criteria, the post fills must be re-run. If not, continue calculations. Average Concentration of Samples Above <u> </u> 95 % UCL of Average Concentration <u> </u> 95 % UCL = Avg. Conc. + (Clearance Standard x 1.645 x Coefficient of Variation) If 95 % UCL is below clearance criteria, the post treatment passes					
Glove Bagging					
Sample #'s	WP 1	WP 2	WP 3	WP	WP
Results (f/cc)	.0032	.0044	.0018		
95 % UCL (f/cc)	.0065	.0077	.0051		

Passed Clearance Standards

☐ Failed Clearance Standards

ETC's on site representative certifies that all clearance samples were taken and analyzed in accordance with appropriate NIOSH 7460 techniques.

ETC Representative: John Burtraw

Printed John Burtraw

Signed John Burtraw

Dated 1-24-96

Contractor Representative: John Weldon

Printed JOHN WELDON

Signed John Weldon

Dated 1-24-96

Client: SSI

Facility: Birmingham office Plaza

Building B'ham office Plaza BTC Project #: 81356

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

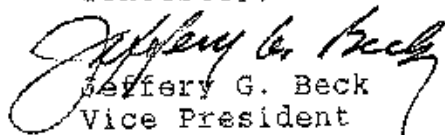
RE: Birmingham Group Incorporated
770 South Adams Road, Birmingham, Michigan
Asbestos Abatement Project

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





S.S.I. JOB# 96-D-0018-000

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

--	--	--	--	--	--	--	--

j. Description of Waste: RD WASTE ASBESTOS k. Quantity 0.5 Units 18 No. 02 TYPE BA
CLASS 9, NA2212, PG III

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 Mark W. Cherry 012496
Generator Authorized Agent Name Signature Shipment Date

TYPE
DM - METAL DRUM
DP - PLASTIC DRUM
B - BAG
BA - 8 MIL. PLASTIC BAG or WRAP
T - TRUCK
O - OTHER

UNITS
P - POUNDS
Y - YARDS
MP - CUBIC METERS
Y3 - CUBIC YARDS
O - OTHER

Section II. TRANSPORTER (Generator completes a-d; Transporter I complete e-g; Transporter II complete h-n)

TRANSPORTER I				TRANSPORTER II			
a. Name: <u>SPECIALTY SYSTEMS OF MICH., INC.</u>				h. Name: <u>BFI WASTE SYSTEMS</u>			
b. Address: <u>20650 NORTHLINE RD.</u> <u>ROMULUS, MI. 48174</u>				i. Address: <u>5400 CCGSWELL RD.</u> <u>WAYNE, MI.</u>			
c. Driver Name/Title: <u>JOHN WELDON / SUPERVISOR</u>				j. Driver Name/Title: <u>JOE RYAN</u>			
d. Phone No.: <u>(313) 941-0600</u> e. Truck No.: <u>8029</u>				k. Phone No.: <u>227 3222</u> l. Truck No.: <u>1051</u>			
f. Vehicle License No./State: <u>MI.</u>				m. Vehicle License No./State: <u>MI. 221400</u>			
Acknowledgement of Receipt of Materials.				Acknowledgement of Receipt of Materials.			
g. <u>John Weldon</u> <u>012496</u>				n. <u>[Signature]</u> <u>012496</u>			
Driver Signature Shipment Date				Driver Signature Shipment Date			

Section III. DESTINATION (Generator completes a-d; destination site completes e-f.)

a. Name: BFI AREA WASTE TREATMENT

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

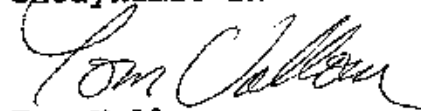
Dear Mr. Rusin:

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

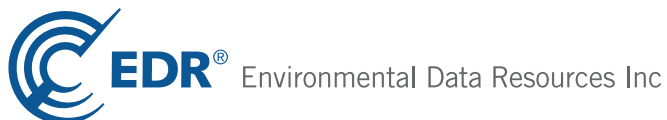
ENVIRONMENTAL DATABASE SEARCH

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

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	7
Orphan Summary	73
Government Records Searched/Data Currency Tracking	GR-1
 <u>GEOCHECK ADDENDUM</u>	
Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-5
Physical Setting Source Map	A-7
Physical Setting Source Map Findings	A-9
Physical Setting Source Records Searched	A-6

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
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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.

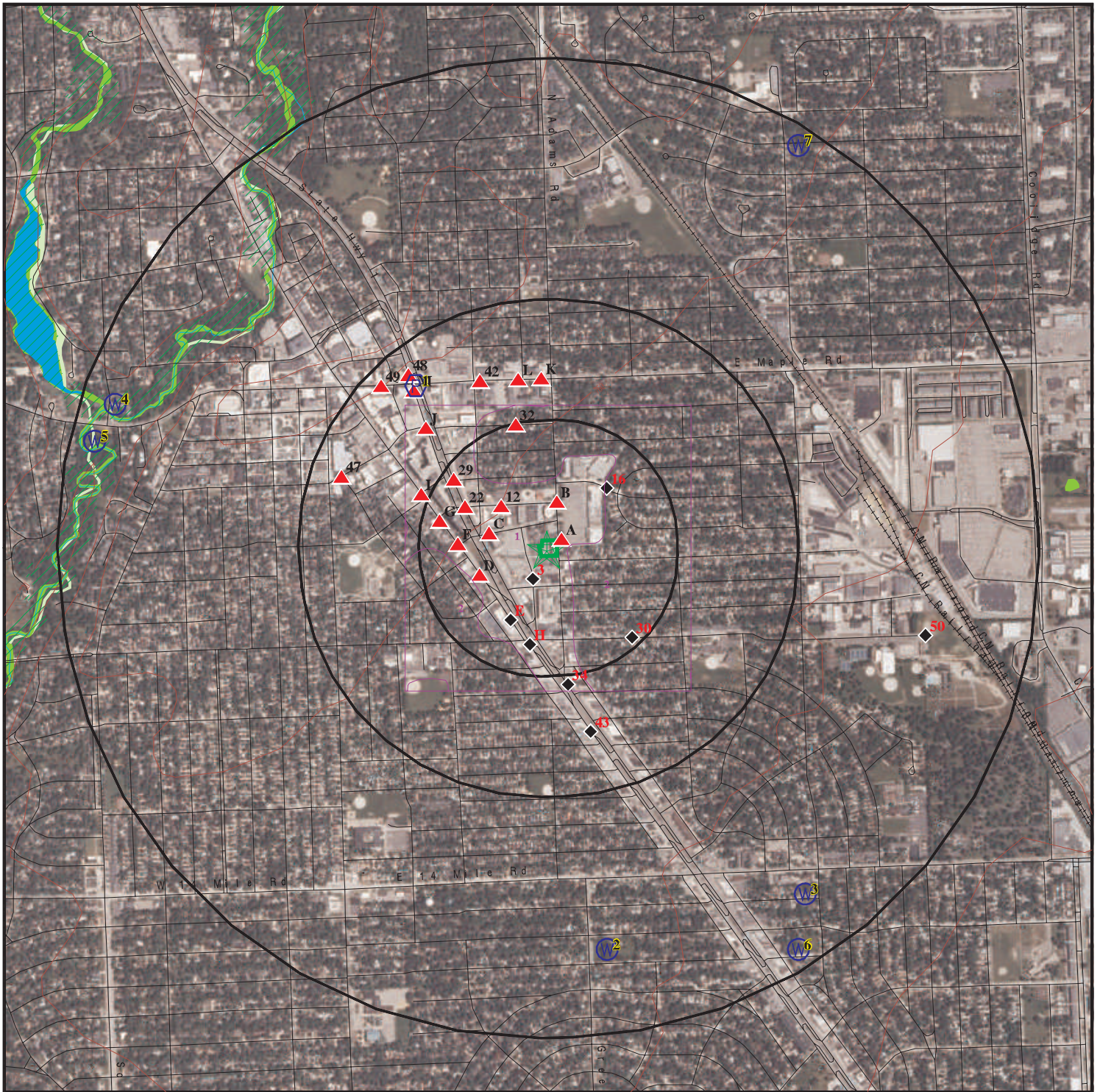
<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
Not reported	651 S ADAMS RD	NNE 0 - 1/8 (0.067 mi.)	B5	11
Not reported	850 S OLD WOODWARD AVE	WSW 1/8 - 1/4 (0.133 mi.)	D14	20
Not reported	608 S OLD WOODWARD AVE	WNW 1/8 - 1/4 (0.211 mi.)	G27	32
Not reported	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

0 1/4 1/2 1 Miles



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 **U003324173**
UST **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: DRYCLEANERS:
Higher Establishment#: 6300141
DCM #: 1
Actual: DCM Type: Perc
757 ft. 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 **1000865575**
FINDS **MI0000079103**

Relative: RCRA NonGen / NLR:
Higher Date form received by agency: 09/17/1998
Facility name: ROSAN CLEANERS
Actual: Facility address: 651 S ADAMS RD
757 ft. 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 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

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

LUST
UST
WDS

U000263070
N/A

Site 1 of 2 in cluster D

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

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

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:

Actual:
759 ft.

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
Used 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

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.

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 Interier
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 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: 12000
Install Date: 04/21/1974
Product: Diesel
Remove Date: 03/01/1992
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: 1000
Install Date: 04/22/1959
Product: FUEL OIL
Remove Date: 03/01/1992
Tank Release Detection: Not reported
Pipe Realease 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 Realease 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 Realease 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 Realease 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 Realease 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 Realease 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)

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 **U003320721**
UST **N/A**
BEA
WDS

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).

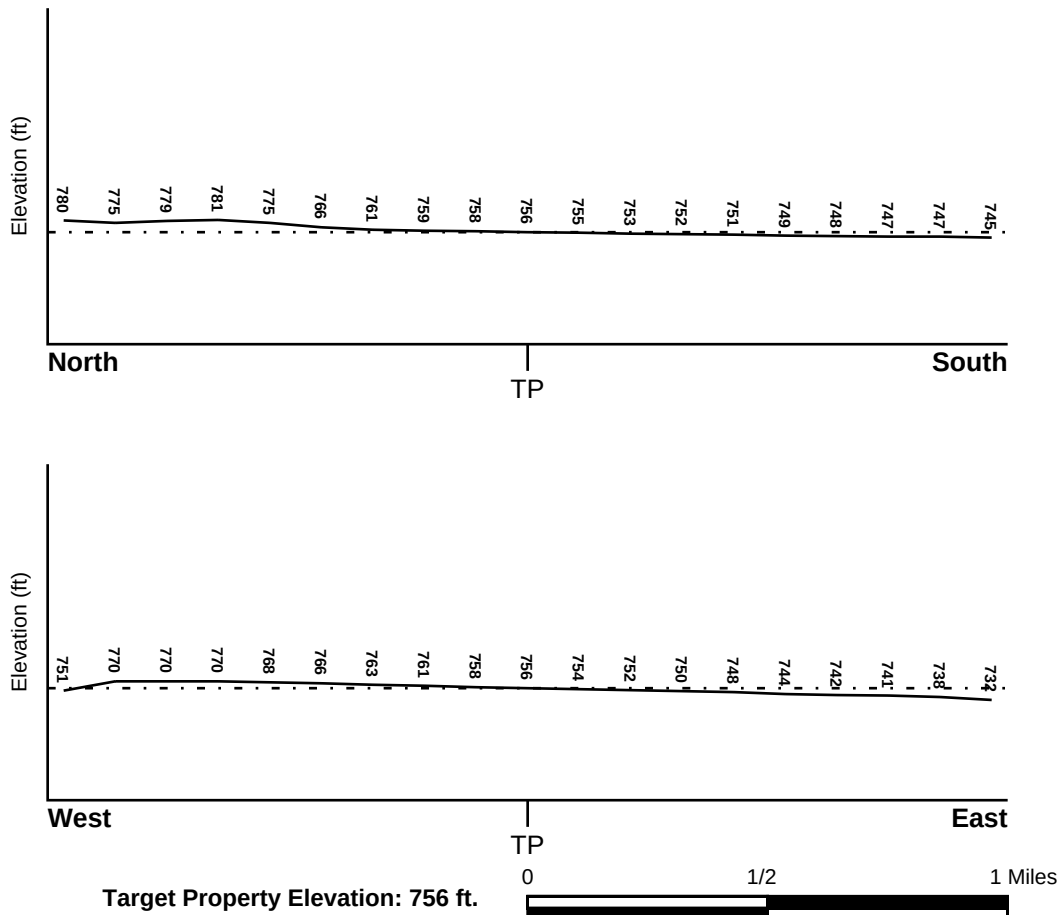
TOPOGRAPHIC INFORMATION

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

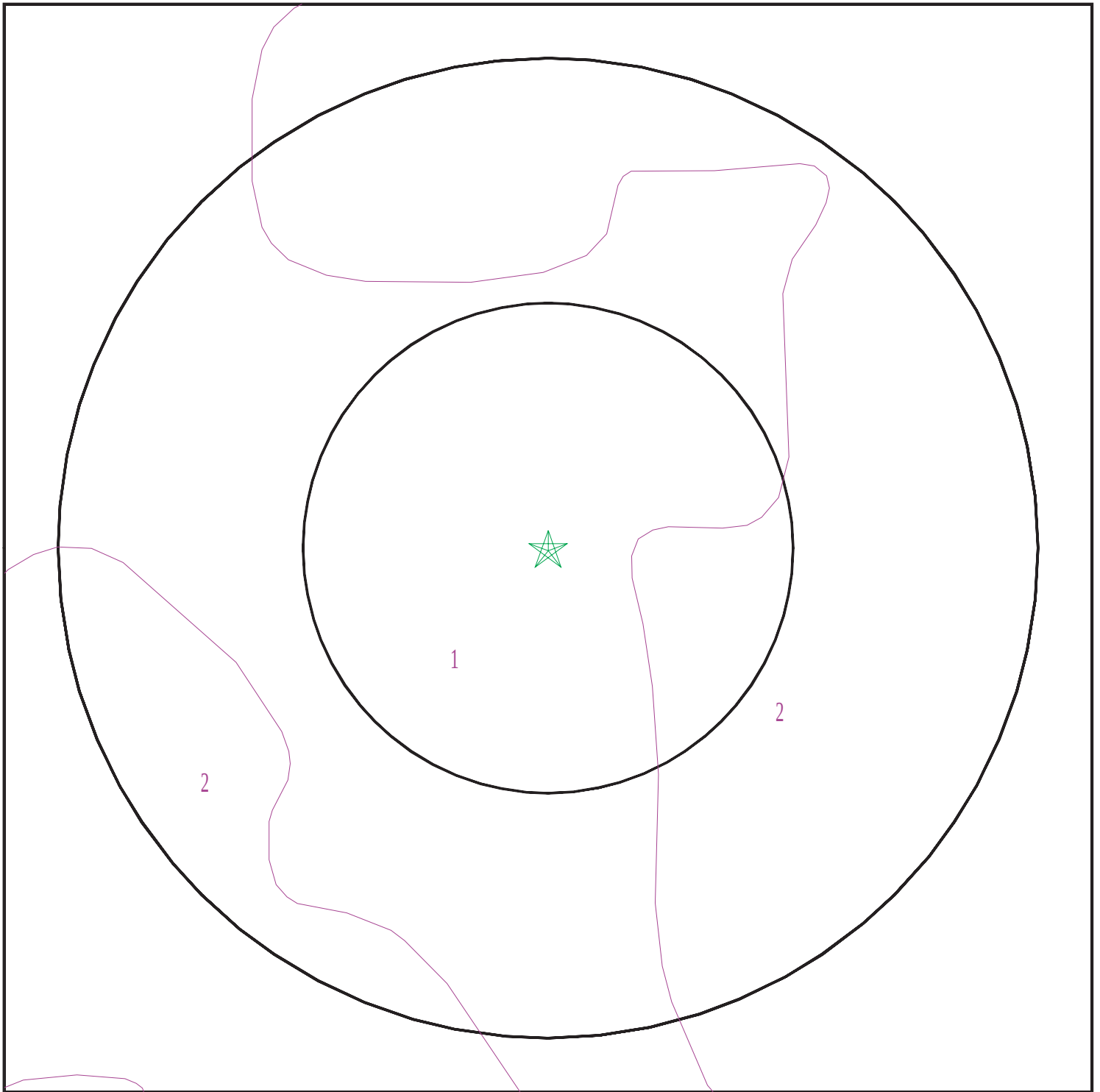
Era:	Paleozoic
System:	Devonian
Series:	Upper Devonian
Code:	D3 (<i>decoded above as Era, System & Series</i>)

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

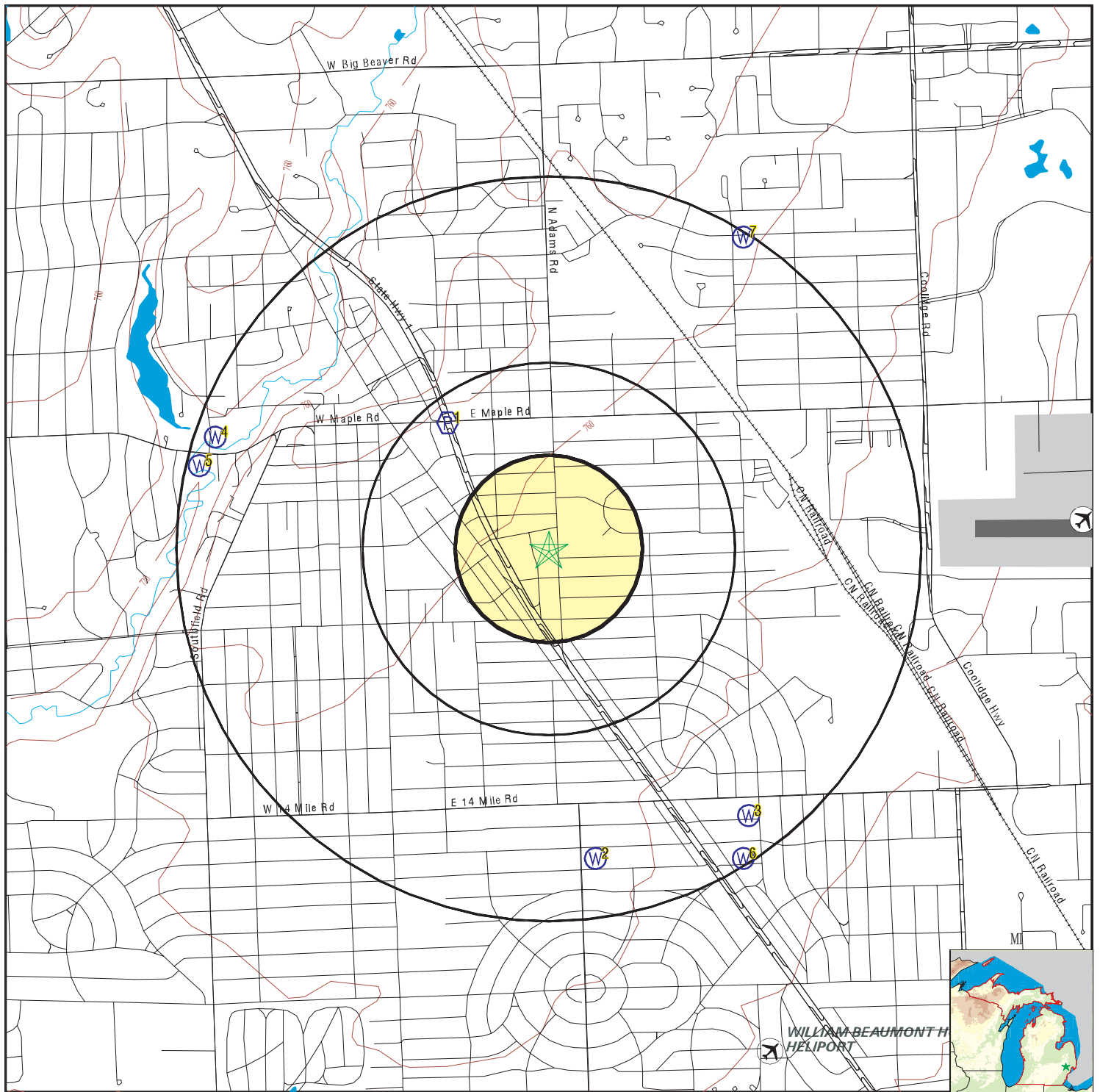
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	MI2033663	1/4 - 1/2 Mile NW

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

- Wayne State University
B.S. Environmental Studies
- Wayne State University
B.A. Biological Sciences

Certifications

- Successfully completed EDR Environmental Due Diligence 101 Course
- Healthcare Provider American Red Cross Association, First Aid, CPR, and AED Training.

ANDREA MAGAR

STAFF CONSULTANT

Areas of expertise

- Staff researcher for Phase I Environmental Site Assessments (ESAs).
- Data collection, site investigation, and preparation of Phase I ESAs.
- Collection and evaluation of data for Transaction Screens, Phase I Reports, and preparation of reports.
- 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.



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Education

- Michigan State University
B.S. Geology

Registration

Professional Geologist

- State of Indiana

Certified UST Professional

- State of Michigan

Certifications

- OSHA 1910.120 Hazardous Waste Training
- American Red Cross Standard First Aid and Adult CPR
- Meets the definition of Environmental Professional as defined in § 312.10 of 40 CFR 312

Professional Activities

- Michigan Association of Environmental Professionals
- 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

- Real estate portfolio analysis for evaluation of environmental risk associated with single and multi property transactions for the lending industry.
- Collateral and exposure analysis for over 3,000 real estate transactions, including single and multi commercial, industrial, and multi state properties.
- Management of environmental due diligence associates with foreclosed properties.
- Peer/Senior Technical Review for Baseline Environmental Assessment (BEA) Projects.
- 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
- Peer/Senior Technical review of Phase I, Phase II, Phase III Environmental Site Assessment Projects.
- Peer/Senior Technical review for Leaking Underground Storage Tank (LUST) Projects, including risk evaluation for the lending industry.
- Technical review of land use based Corrective Action Plans.
- Local, State, and Federal Regulatory Acts.
- Technical Review of feasibility studies for the remediation of soil and groundwater.
- Technical Review of generic and site-specific risk assessments.
- 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	FERNIS
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 written over a light blue horizontal line.

Allan Longyear
Senior Project Manager



**Darcy Environmental
Consultants LLC**



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

Table of Contents

1.0 General Information	1
2.0 Executive Summary	3
Current Use of Property	3
Database/Records Review	3
Historical/Document Review	3
Site Reconnaissance Findings	5
Other Environmental Considerations	5
Findings and Opinions	5
Conclusions.....	5
Suggested Actions to Address Business Environmental Risk	5
Disclaimer	5
3.0 Introduction	6
3.1 Purpose.....	6
3.2 Scope of Work	6
3.3 Significant Assumptions	8
3.4 Limitations and Exceptions.....	8
3.5 Deviations from the ASTM Standard	8
3.6 Special Terms and Conditions	8
3.7 Reliance.....	8
4.0 Site Description.....	8
4.1 Location and Legal Description	8
4.2 Site and Vicinity Description.....	9
4.3 Current Use of Property	9
4.4 Description of Structures and Other Improvements.....	9
4.5 Current Adjoining Property Information	9
5.0 User Provided Information.....	10
5.1 Title Records.....	10
5.2 Environmental Liens and Activity/Use Limitations	10
5.3 Specialized Knowledge.....	10
5.4 Purchase Price and Market Value Comparison.....	10
5.5 Valuation Reduction for Environmental Issues	10
5.6 Owner, Property Manager, and Occupant Information.....	10

Table of Contents

5.7 Reason for Performing Phase I	10
6.0 Records Review	11
6.1 Standard Environmental Records Sources	11
6.2 Additional Environmental Record Sources.....	14
6.3 Physical Setting Sources	14
6.4 Historical Use Information.....	15
6.4.1 Historical Summary	15
6.4.2 City Directories	15
6.4.3 Aerial Photos.....	16
6.4.4 Sanborn/Historical Maps.....	16
6.4.5 Other Environmental Reports	17
7.0 Site Reconnaissance	18
7.1 Methodology and Limiting Conditions.....	18
7.2 General Site Setting	18
7.3 Site Visit Findings.....	18
7.3.1 Chemical and Material Storage.....	18
7.3.2 USTs	19
7.3.3 ASTs	19
7.3.4 Other Suspect Containers.....	19
7.3.5 Equipment Likely to Contain PCBs.....	19
7.3.6 Staining/Corrosion	19
7.3.7 Discharge Features.....	19
7.3.8 Pits, Ponds, And Lagoons	19
7.3.9 Solid Waste Dumping/Landfills.....	20
7.3.10 Stained Soil/Stressed Vegetation	20
7.3.11 Wells	20
8.0 Interviews.....	20
9.0 Other Environmental Considerations.....	20
9.1 Controlled Substances.....	20
9.2 Continuing Obligations	21
9.3 Asbestos-Containing Materials	21
9.4 Lead-Based Paint	21

Table of Contents

9.5 Radon	21
9.6 Wetlands	21
9.7 Mold Evaluation.....	21
9.8 Items of Non-Compliance	21
9.9 Client-Specific Items	21
10.0 Phase I Findings/Opinions/Conclusions	22
10.1 Report Findings and Opinions	22
10.2 Conclusions.....	22

Appendices

Appendix A	References
Appendix B	Qualifications
Appendix C	Figures
Appendix D	Photographs
Appendix E	User Provided Information
Appendix F	Historical Research Documentation
Appendix G	Regulatory Records Documentation
Appendix H	Records Documentation
Appendix I	Interview Documentation
Appendix J	Miscellaneous

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.

A handwritten signature in blue ink, reading "William C. Henderson", followed by a horizontal line.

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.

A handwritten signature in blue ink, reading "William C. Henderson", followed by a horizontal line.

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

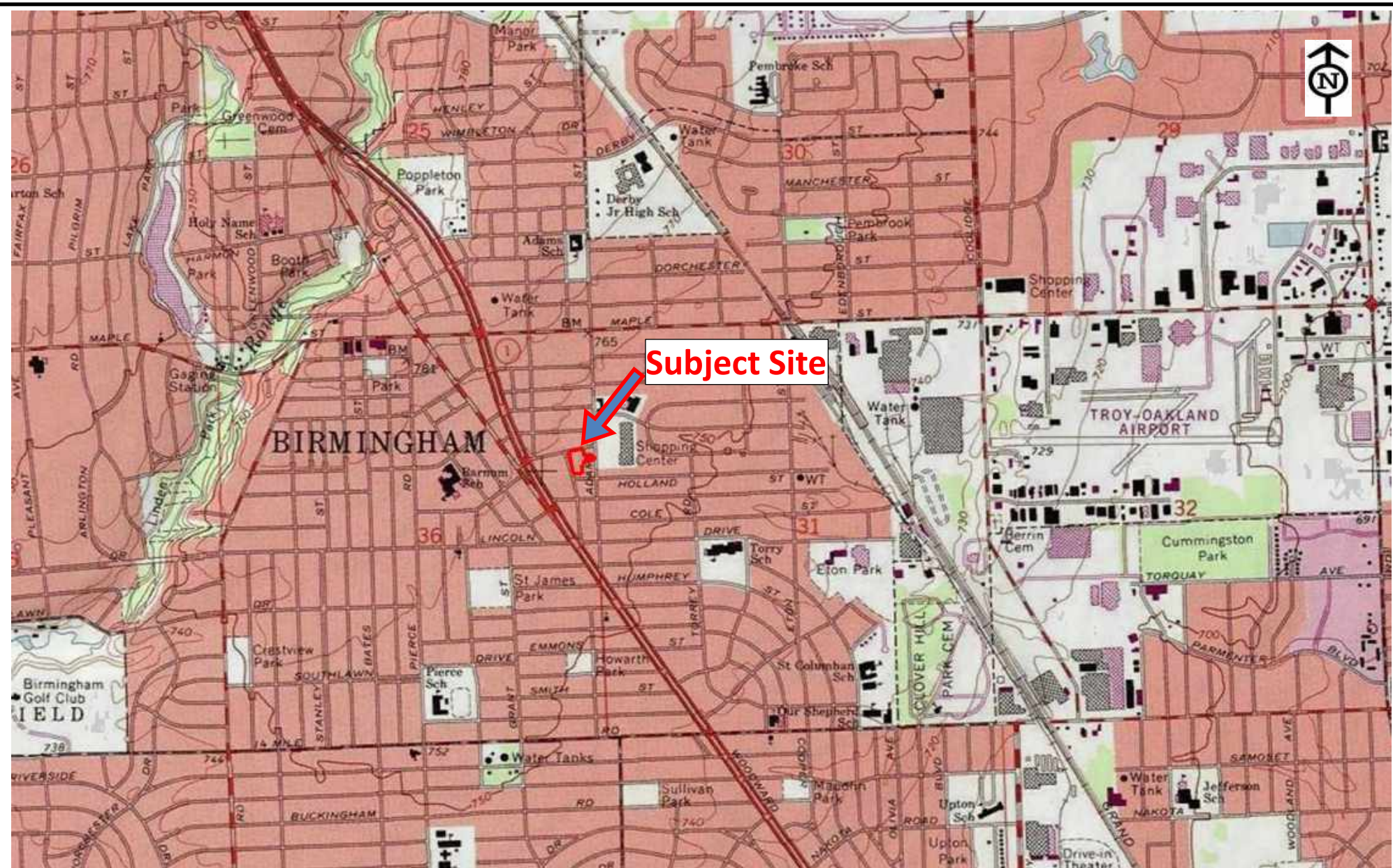


Figure 1: Site Location Map

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

Project Manager: Allan R. Longyear

Drawn By: Bob Hu

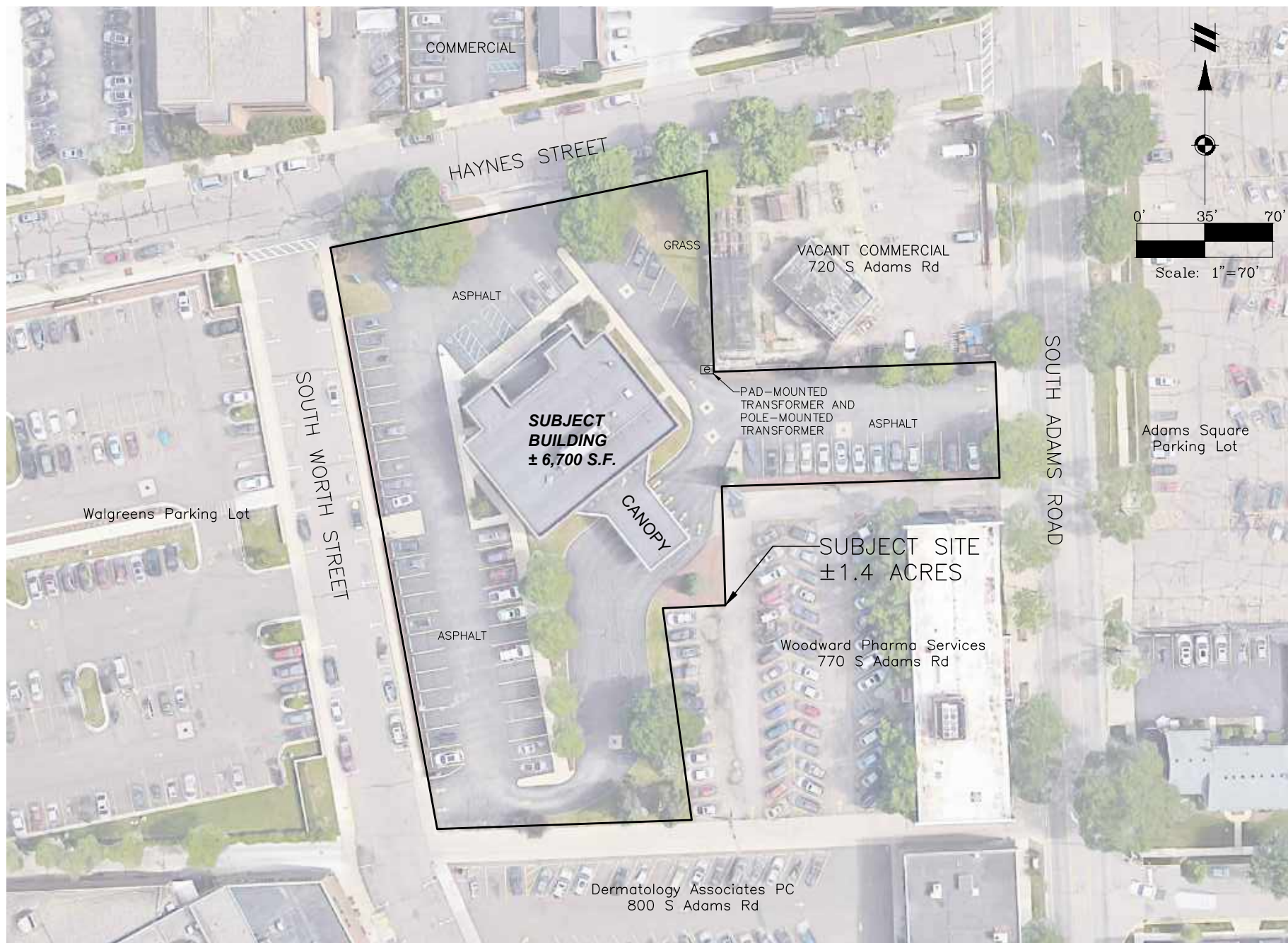


FIGURE 2: SITE PLAN WITH SOIL BORING
AND SAMPLING LOCATIONS
1000 HAYNES STREET,
BIRMINGHAM, MI

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)



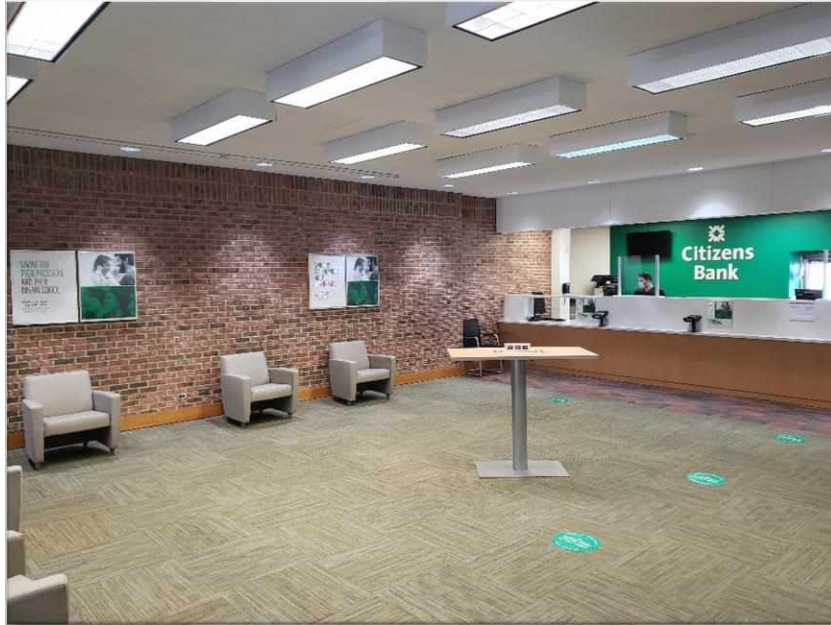
View west beyond S Worth Street (Walgreens beyond)



View southwest of the subject site (adjoining office building)



View of the subject building from the southwest



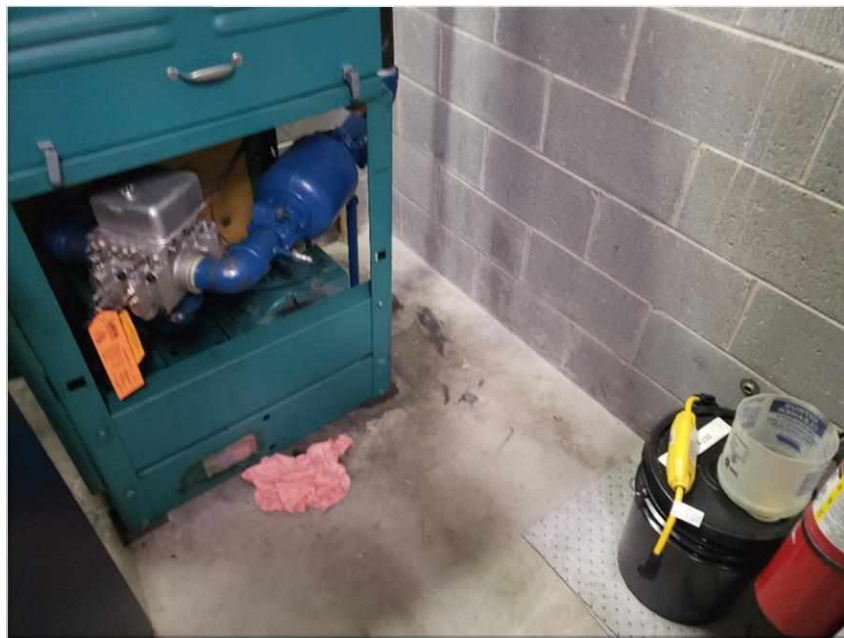
Main floor teller area



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: _____

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

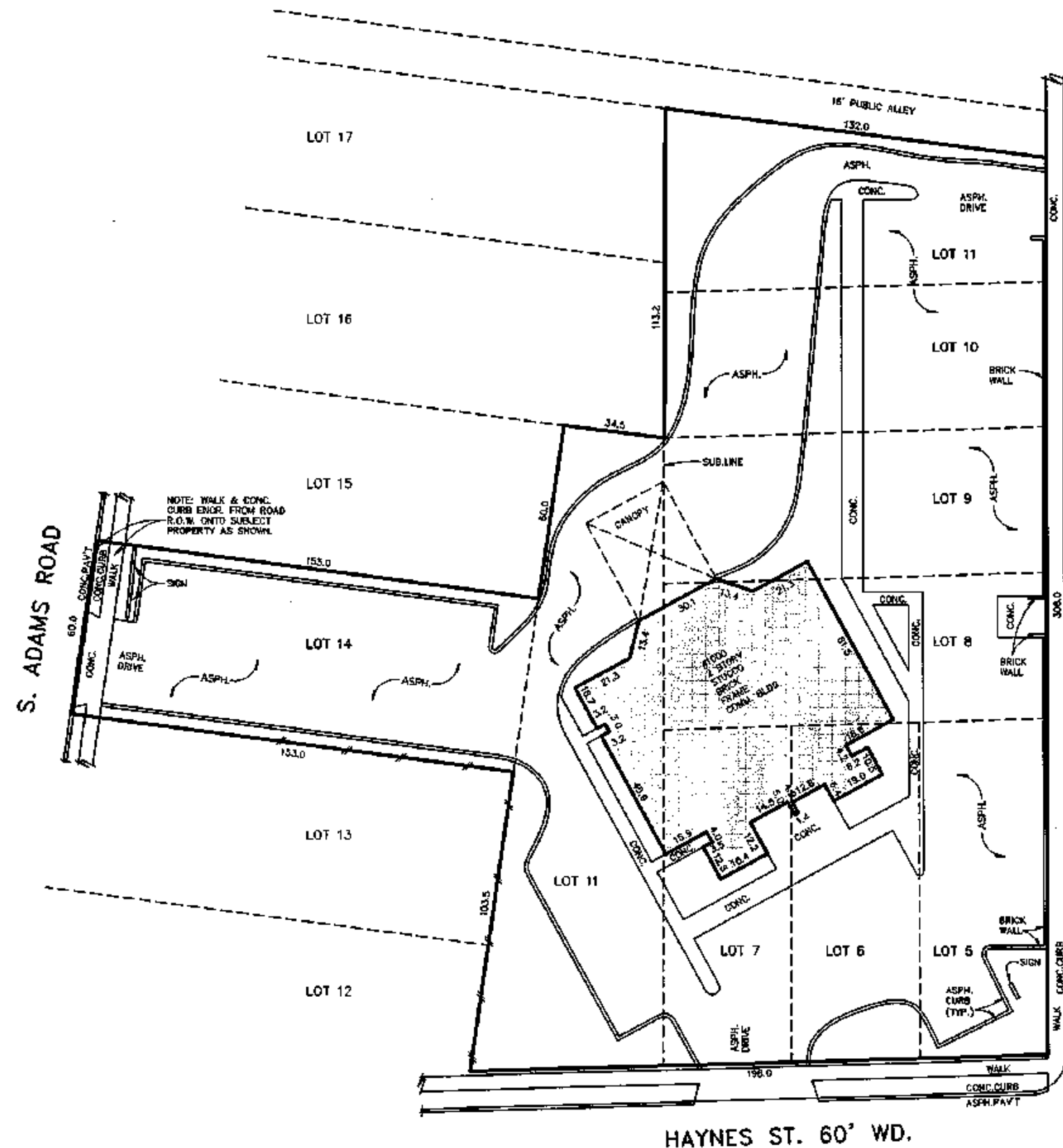
Lots 5 through 11 inclusive, RURAL SUBDIVISION OF LOTS 5, 6, 7, 8, 9 and 10 OF O.E. SHATTUCK SUBDIVISION; in Village of Birmingham, Oakland County, Michigan, according to the plat thereof as recorded in Liber 16 of Plats, Page 14, Oakland County Records.

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.



S. WORTH ST. 50' WD.

CERTIFICATE: We hereby certify that we have surveyed the above-described property in accordance with the description furnished for the purpose of a mortgage loan to be made by the forementioned applicants, mortgagor, and that the buildings located thereon do not encroach on the adjoining property, nor do the buildings on the adjoining property encroach upon the property heretofore described, except as shown. This survey is not to be used for the purpose of establishing property lines, nor for construction purposes, no stakes having been set at any of the boundary corners.

THIS SURVEY DRAWING IS VOID IF THE PROFESSIONAL SEAL IS NOT IN BLUE INK.

KEM-TEC PROFESSIONAL ENGINEERING, SURVEYING & ENVIRONMENTAL SERVICES
A GROUP OF COMPANIES
Eastpointe Detroit Ann Arbor Grand Blanc
(800) 255-7222 (313) 752-0817 (734) 964-0885 (586) 964-0001
FAX: (586) 772-4444 FAX: (586) 772-4448 FAX: (734) 964-0887 FAX: (519) 964-0955
www.kemtecgroupofcompanies.com

PREPARED FOR: THE BRISTOL

DATE: 01/25/21	JOB #: 21-00196
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 EXTRACONTRACTUAL 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

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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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

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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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.

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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**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.

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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

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FIDELITY NATIONAL FINANCIAL PRIVACY NOTICE

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.

Collection of Browsing Information

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.

For California Residents: We will not share your Personal Information or Browsing Information with nonaffiliated third parties, except as permitted by California law. For additional information about your California privacy rights, please visit the "California Privacy" link on our website (<https://fnf.com/pages/californiaprivacy.aspx>) or call (888) 413-1748.

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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The FNF Websites are not intended or designed to attract persons under the age of eighteen (18). We do not collect Personal Information from any person that we know to be under the age of thirteen (13) without permission from a parent or guardian.

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FNF's headquarters is located within the United States. If you reside outside the United States and choose to provide Personal Information or Browsing Information to us, please note that we may transfer that information outside of your country of residence. By providing FNF with your Personal Information and/or Browsing Information, you consent to our collection, transfer, and use of such information in accordance with this Privacy Notice.

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Certain FNF companies provide services to mortgage loan servicers, including hosting websites that collect customer information on behalf of mortgage loan servicers (the "Service Websites"). The Service Websites may contain links to both this Privacy Notice and the mortgage loan servicer or lender's privacy notice. The sections of this Privacy Notice titled When Information is Disclosed, Choices with Your Information, and Accessing and Correcting Information do not apply to the Service Websites. The mortgage loan servicer or lender's privacy notice governs use, disclosure, and access to your Personal Information. FNF does not share Personal Information collected through the Service Websites, except as required or authorized by contract with the mortgage loan servicer or lender, or as required by law or in the good-faith belief that such disclosure is necessary: to comply with a legal process or applicable law, to enforce this Privacy Notice, or to protect the rights, property, or safety of FNF or the public.

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By submitting Personal Information and/or Browsing Information to FNF, you consent to the collection and use of the information in accordance with this Privacy Notice. We may change this Privacy Notice at any time. The Privacy Notice's effective date will show the last date changes were made. If you provide information to us following any change of the Privacy Notice, that signifies your assent to and acceptance of the changes to the Privacy Notice. We may use comments or feedback that you submit to us in any manner without notice or compensation to you.

Accessing and Correcting Information; Contact Us

If you have questions, would like to correct your Personal Information, or want to opt-out of information sharing for affiliate marketing, send your requests to privacy@fnf.com, by phone to (888) 934-3354, or by mail to:

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

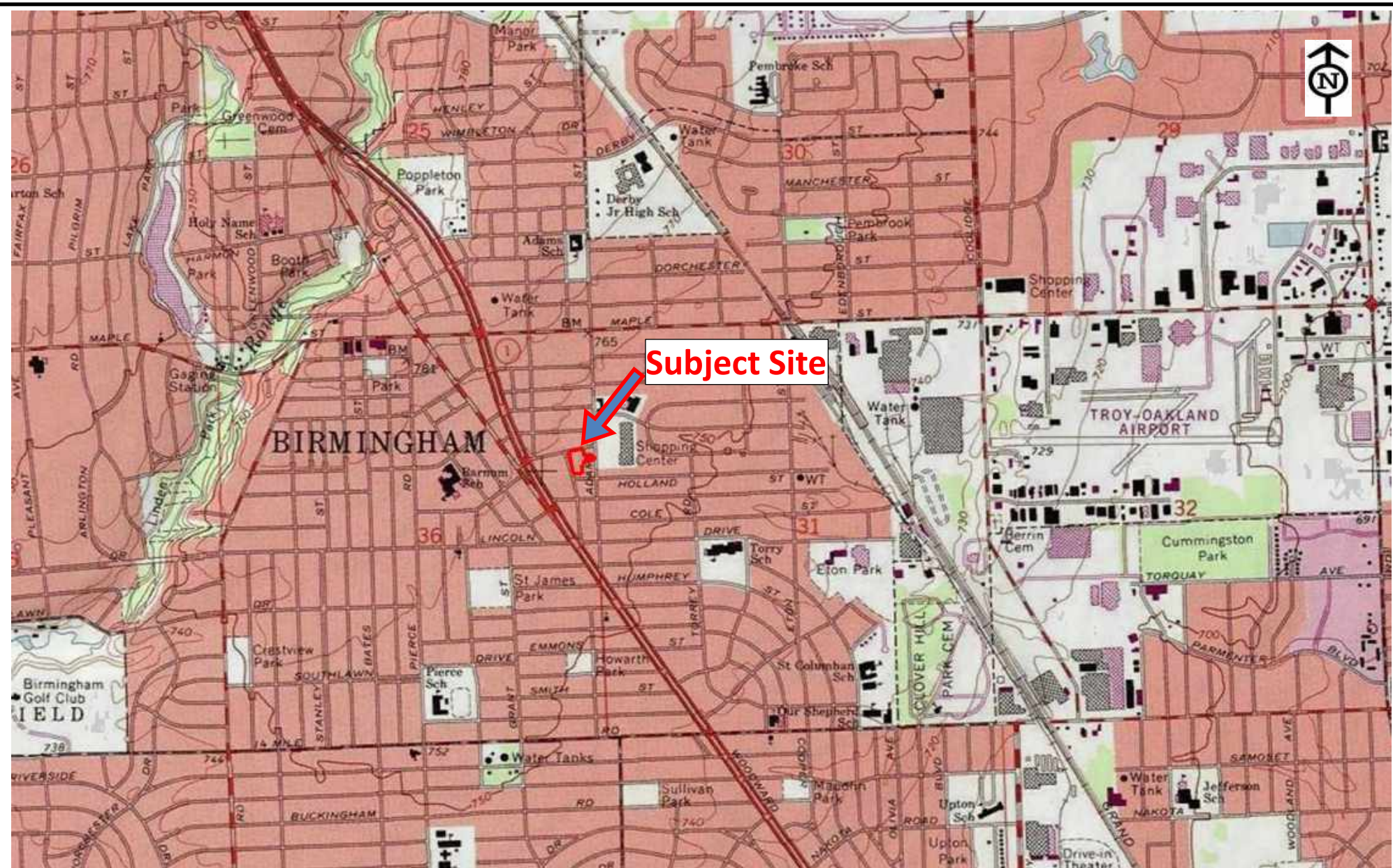


Figure 1: Site Location Map

1000 Haynes Street
Birmingham, Michigan
Project No.: 20086

11/20/2020



DARCY ENVIRONMENTAL

(313) 264-1216

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OFFICES IN NORTH AMERICA AND ASIA

Project Manager: Allan R. Longyear

Drawn By: Bob Hu

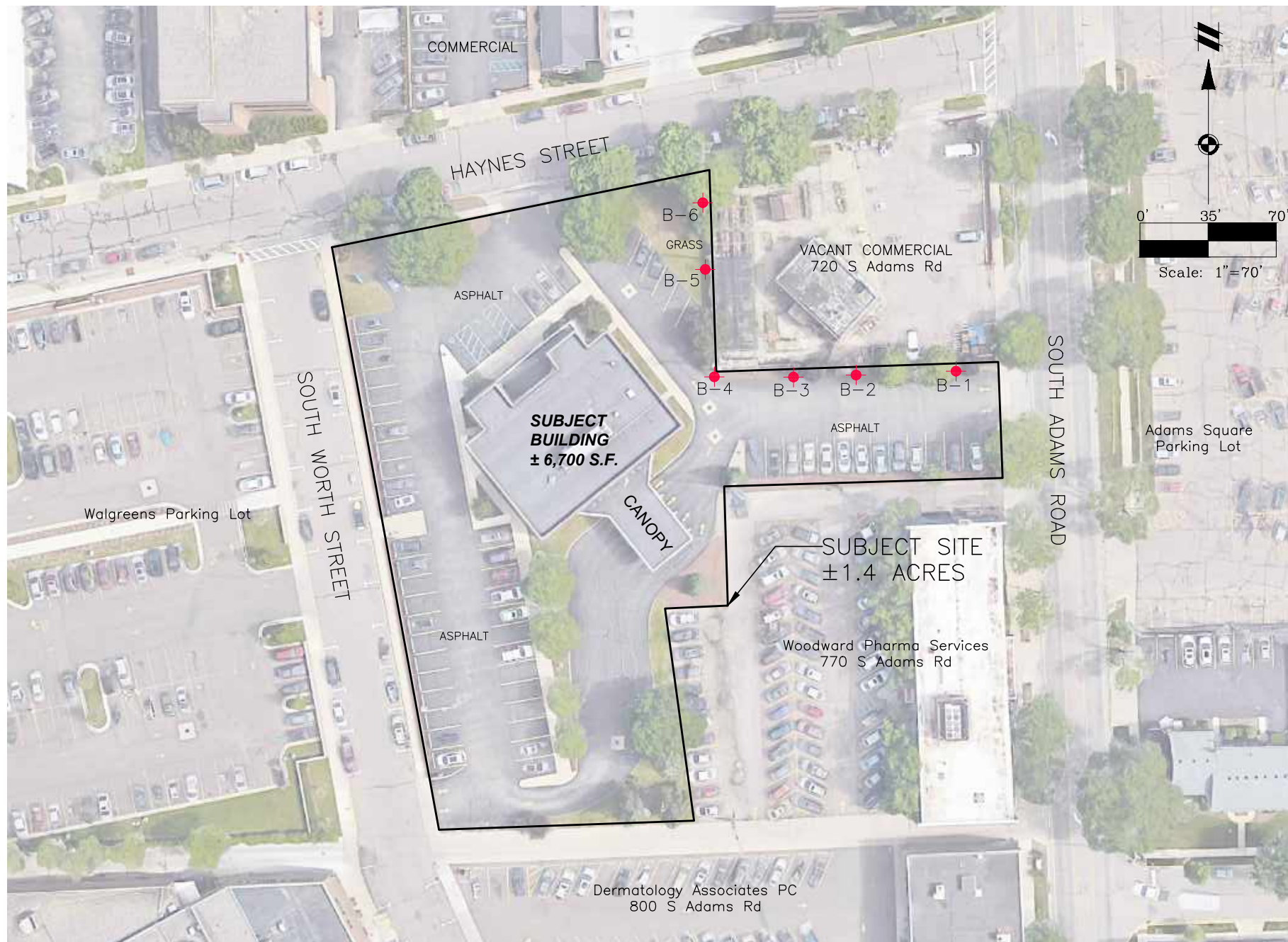


FIGURE 2: SITE PLAN WITH SOIL BORING AND SAMPLING LOCATIONS
1000 HAYNES STREET,
BIRMINGHAM, MI

LEGEND

◆ SOIL BORING LOCATION

PROJECT NO.: 20086
DATE: NOVEMBER 20, 2020

DR: BH
CAD FILE: 20086EV-01



DARCY ENVIRONMENTAL
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www.darcyenvironmental.com
SERVICES 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

Environmental

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RIGHT SOLUTIONS RIGHT PARTNER

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								
Surr: 2-Fluorobiphenyl	3199	0	3333	0	96	20-140	0			
Surr: 4-Terphenyl-d14	3214	0	3333	0	96.4	22-172	0			
Surr: Nitrobenzene-d5	2947	0	3333	0	88.4	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**

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			
<i>Surr: 2-Fluorobiphenyl</i>	3220	0	3333	0	96.6	20-140	0			
<i>Surr: 4-Terphenyl-d14</i>	3018	0	3333	0	90.5	22-172	0			
<i>Surr: Nitrobenzene-d5</i>	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.



Cincinnati, OH
+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 3166
York, PA
+1 717 503 5280

Page 1 of 2

COC ID: 192488

Customer Information				Project Information				ALS Work Order # 20112107											
Project Name				Phase II - 1000 Haynes, Birmingham, AL				Parameter/Method Request for Analysis											
Project Number				20086				VOCs											
Bill To Company				Calley Environmental Consultants LLC				PNAE											
Invoice Attn				702 North Bays Drive															
Address				702 North Bays Drive															
City/State/Zip				Grosse Pointe Woods, MI 48336															
Phone				(313) 264-1216															
Fax																			
e-Mail Address				alongyear@calleyenvironmental.com															
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold		
1	B-1 (7')	11/20/2020	9:45	S		2	X												
2	B-1 (10')		9:45														X		
3	B-2 (2')		10:20				X										X		
4	B-2 (10')		10:20																
5	B-3 (3')		10:50														X		
6	B-3 (6')		10:50				X	X									X		
7	B-3 (12')		10:50														X		
8	B-4 (3')		11:20				X	X									X		
9	B-4 (7')		11:20					X	X								X		
10	B-4 (10')	11/20/2020	11:20	S		2											X		

Shipments Method				Required Turnaround Time (Check Box)				Results Due Date:							
Standard 10 Wk Days				5 Wk Days				2 Wk Days				24 Hour			
Other				Other				Other				Other			
Received by				11/23/20 13:15h				11/24/20 0800				11/24/20 0800			
Received by Laboratory				11/23/20 5:00				11/23/20 5:00				11/23/20 5:00			
Checked by Laboratory				11/24/20 1000				11/24/20 1000				11/24/20 1000			
Preservative Key: 1-HCl, 2-HNO ₃ , 3-H ₂ SO ₄ , 4-NaOH, 5-Na ₂ SO ₃ , 6-Na ₂ SO ₄ , 7-Other				8-40, 9-5035				10-121				11-22			

Sampling/Please Print & Sign				QC Packaging (Check One Box Below)			
Bob H. [Signature]				Level II Std QC ☐ Level III Std GC/MS Data ☐ Level IV SW846/CLP ☐ Other ☐			
Received by [Signature]				Level II Std QC ☐ Level III Std GC/MS Data ☐ Level IV SW846/CLP ☐ Other ☐			
Received by [Signature]				Level II Std QC ☐ Level III Std GC/MS Data ☐ Level IV SW846/CLP ☐ Other ☐			
Received by [Signature]				Level II Std QC ☐ Level III Std GC/MS Data ☐ Level IV SW846/CLP ☐ Other ☐			

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.

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Simplen(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
Bob Wu / <i>[Signature]</i>				☒ STD 10 WK Days ☐ 5 WK Days ☐ Other ☐ 2 WK Days ☐ 24 Hour			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Note: Rec'd 11/24/20 0800 222	
<i>[Signature]</i>	11/23/2020	13:15 pm	HA	11/23/20	13:51 PM		
Relinquished by:	Date:	Time:	Received by (Laboratory):	Date:	Time:		
HA	11/23/20	5:00	DS	11/23/20	5:00		
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	Date:	Time:		
DS	11/24/20	1000	HA	11/24/20	2:28		
Preservative Key:			1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₈ 6-NaHSO ₄ 7-Oil 8-H ₂ O			QC Packages: (Check One Box Below) ☐ Level I STD QC ☐ TRKP Check/Std ☐ Level III Std QC/RAW Data ☐ TRKP Level IV ☐ Level IV SW546/CLP ☐ Other	

Note:

1. Any changes must be made in writing once samples and CQC 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.

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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'
1" = 500'
1" = 500'
1" = 1,000'
1" = 500'
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1" = 1,000'
1" = 1,000'
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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
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NAIP
NAIP

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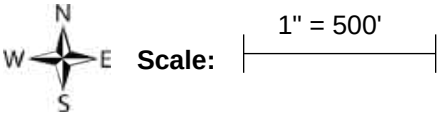
FLIGHT YEAR:
1949



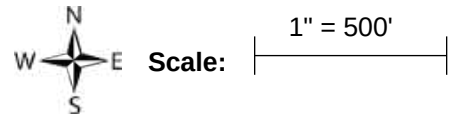
Scale: 1" = 500'



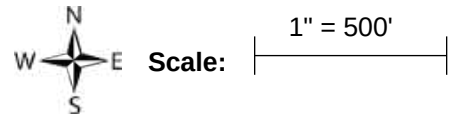
FLIGHT YEAR:
1957



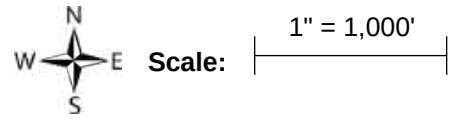
FLIGHT YEAR:
1951



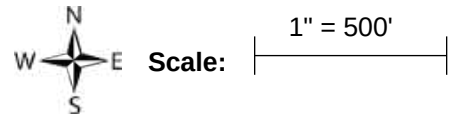
FLIGHT YEAR:
1952



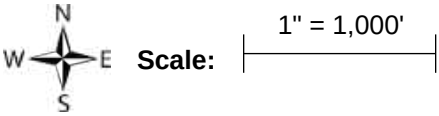
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1956



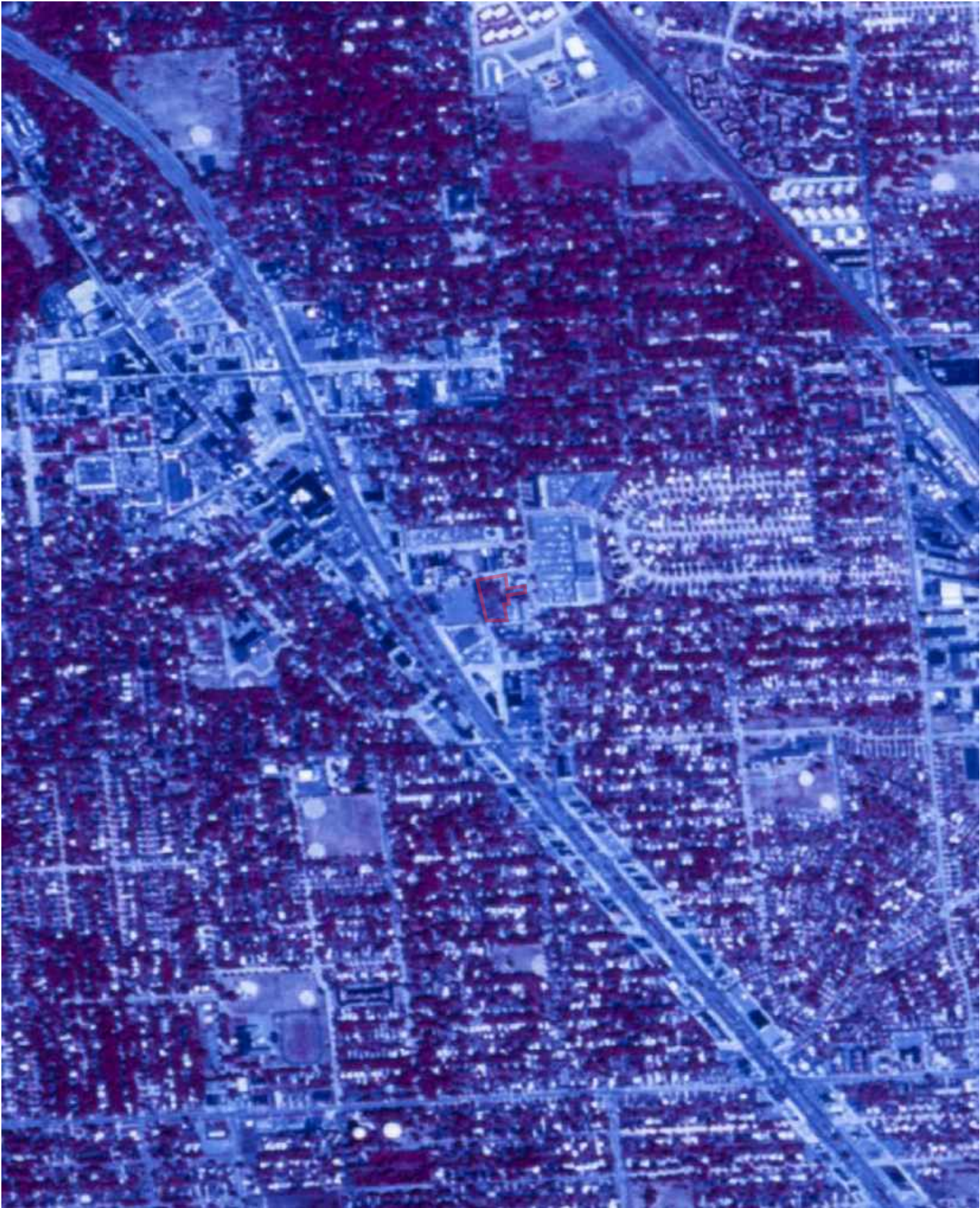
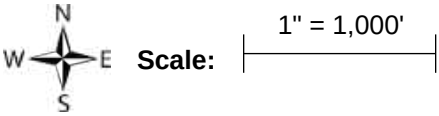
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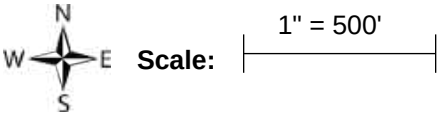
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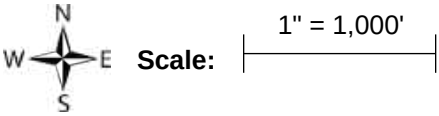
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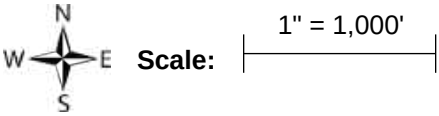
FLIGHT YEAR:
1973



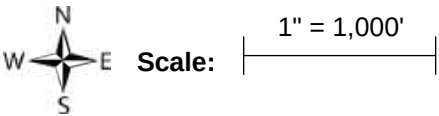
FLIGHT YEAR:
1980



FLIGHT YEAR:
1983



FLIGHT YEAR:
1987



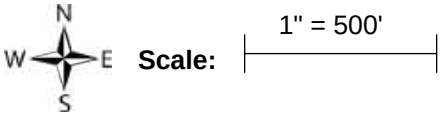
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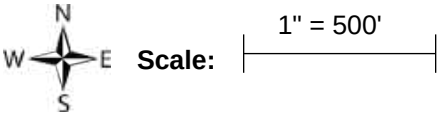
Scale: 1" = 1,000'



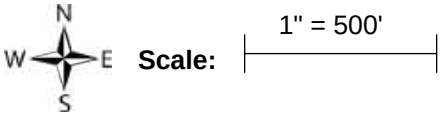
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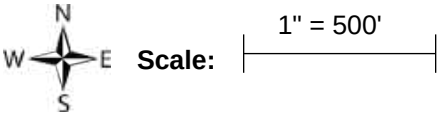
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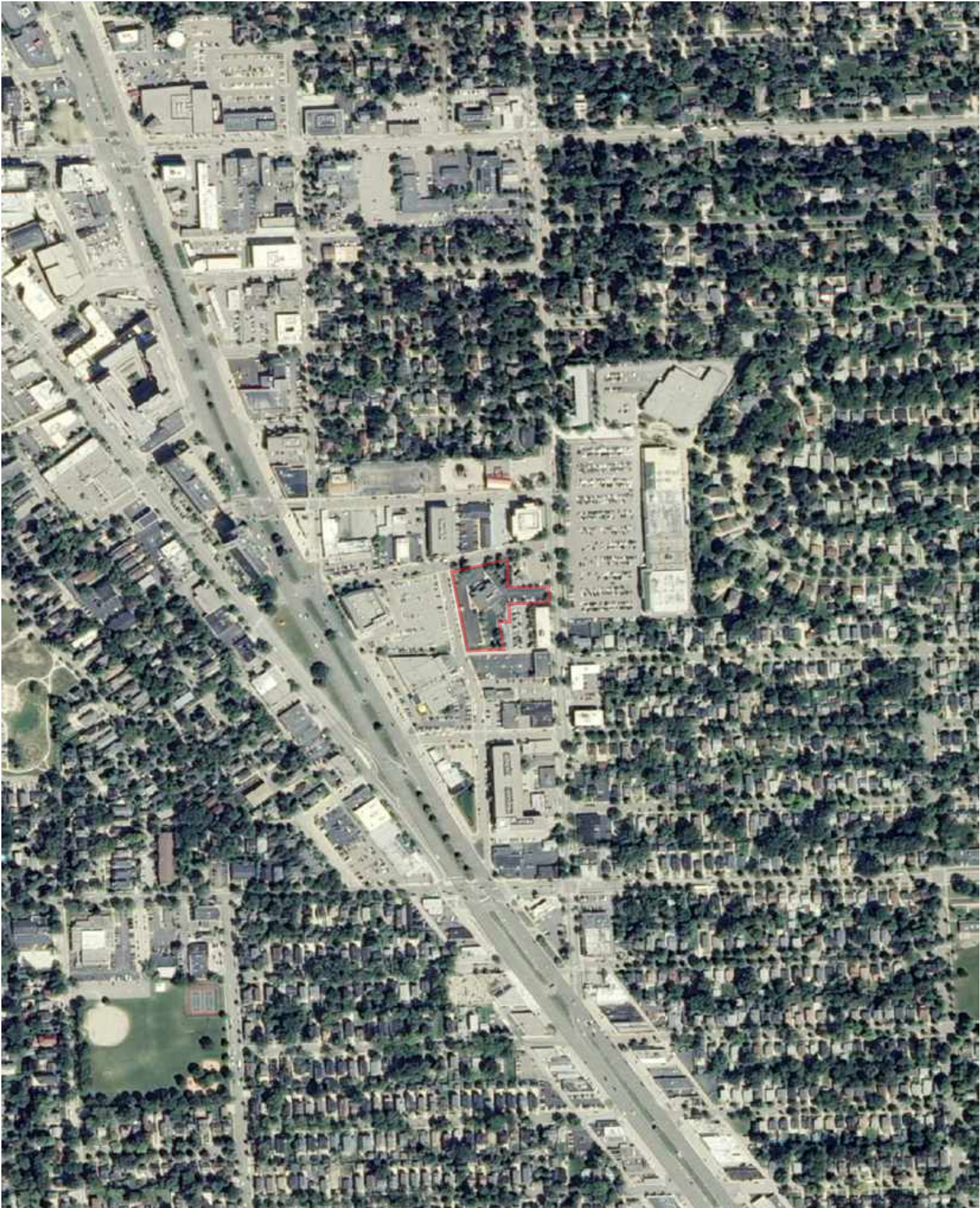
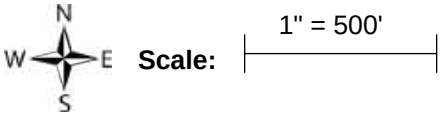
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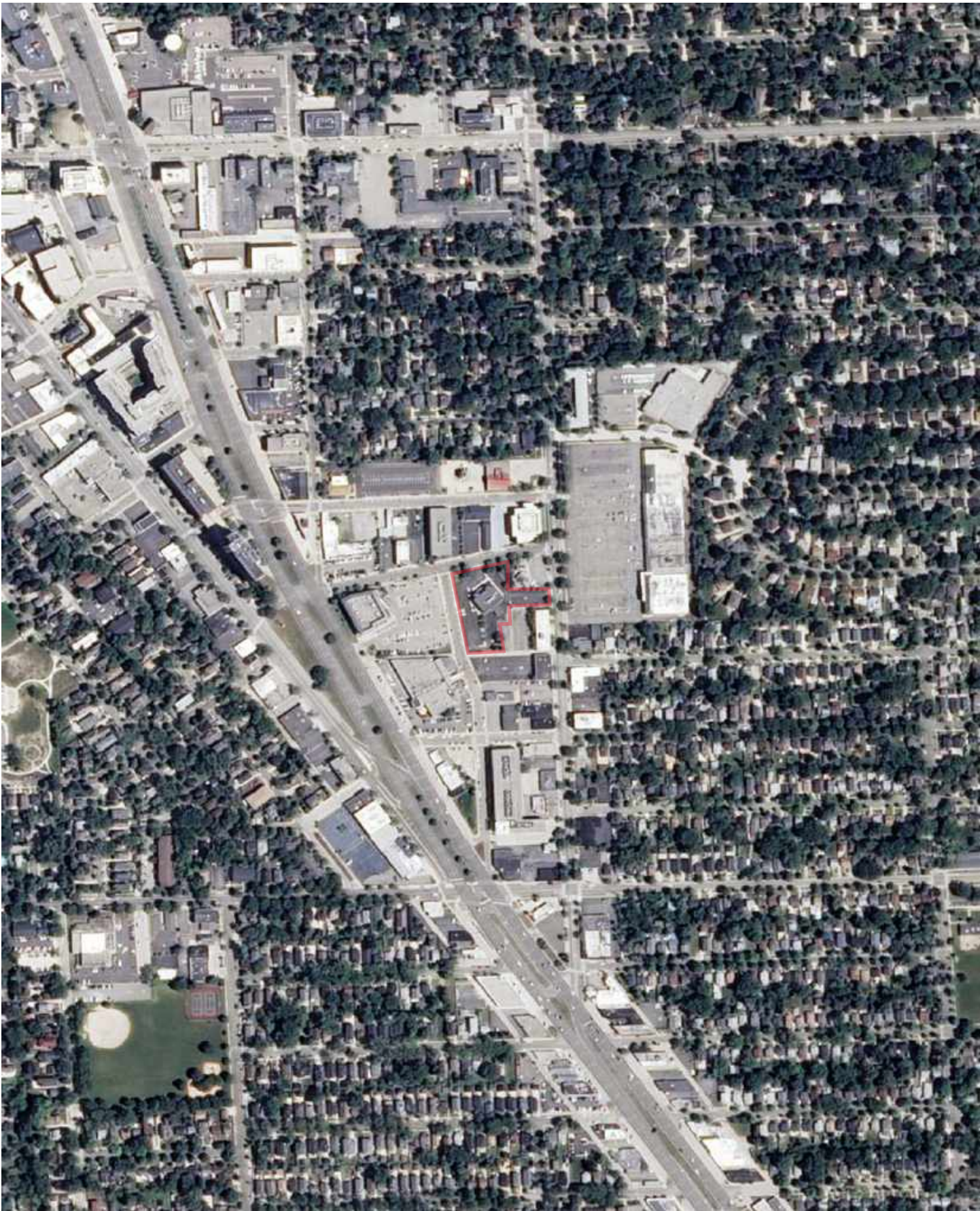
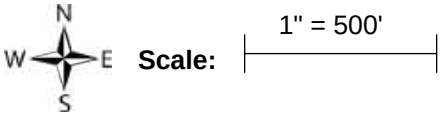
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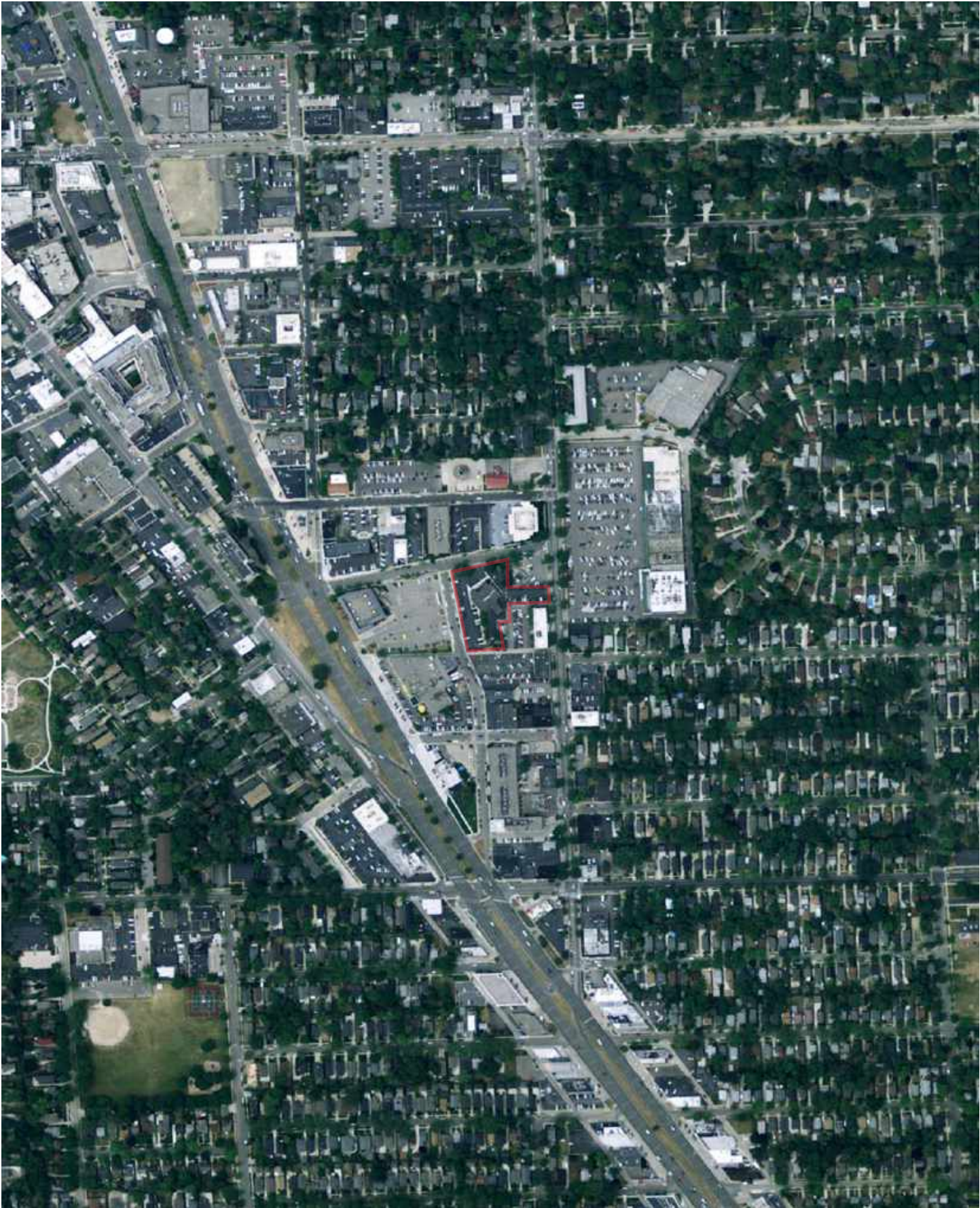
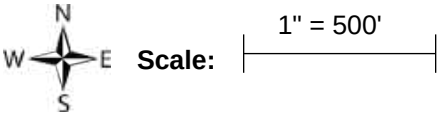
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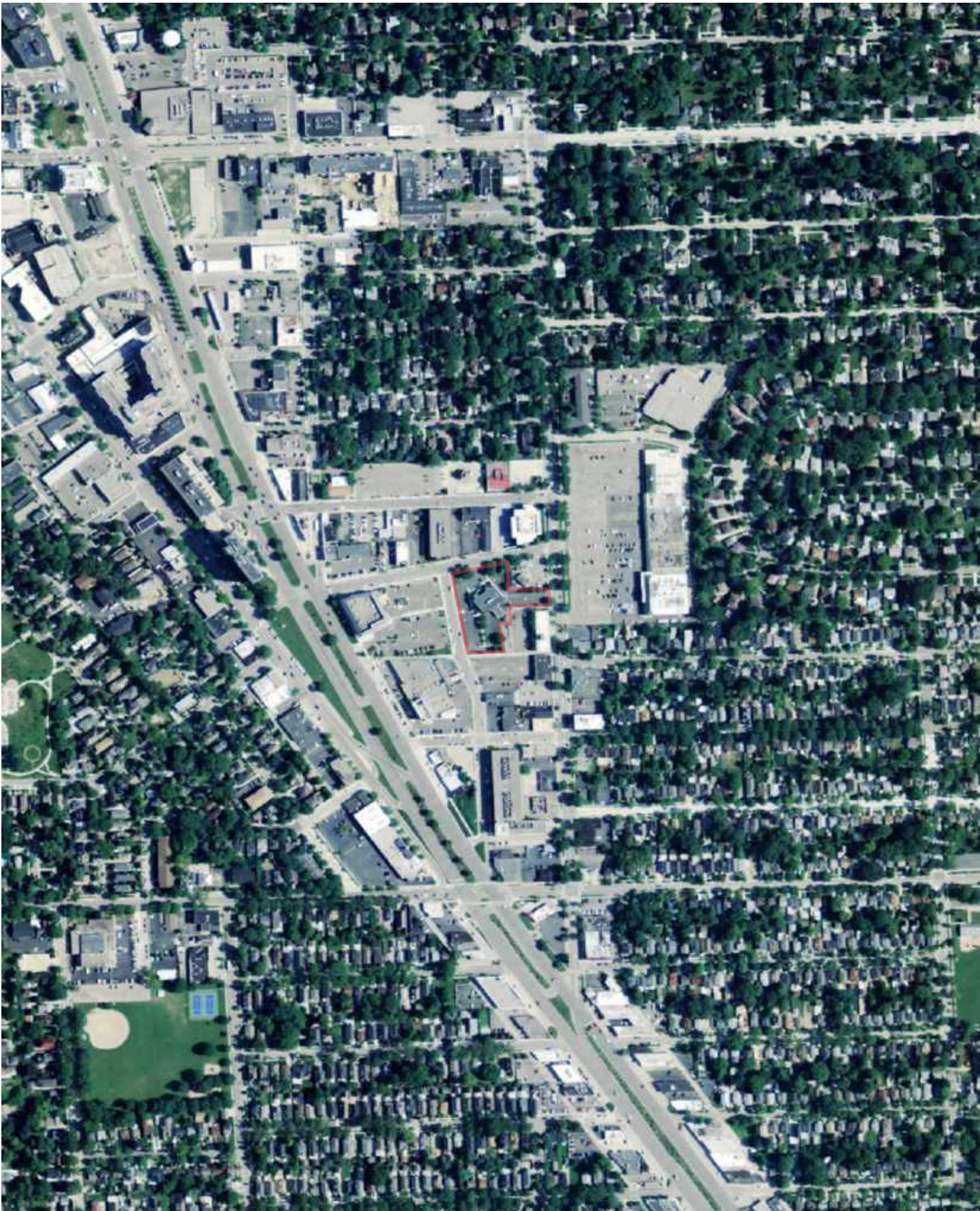
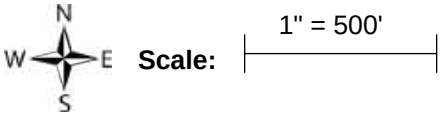
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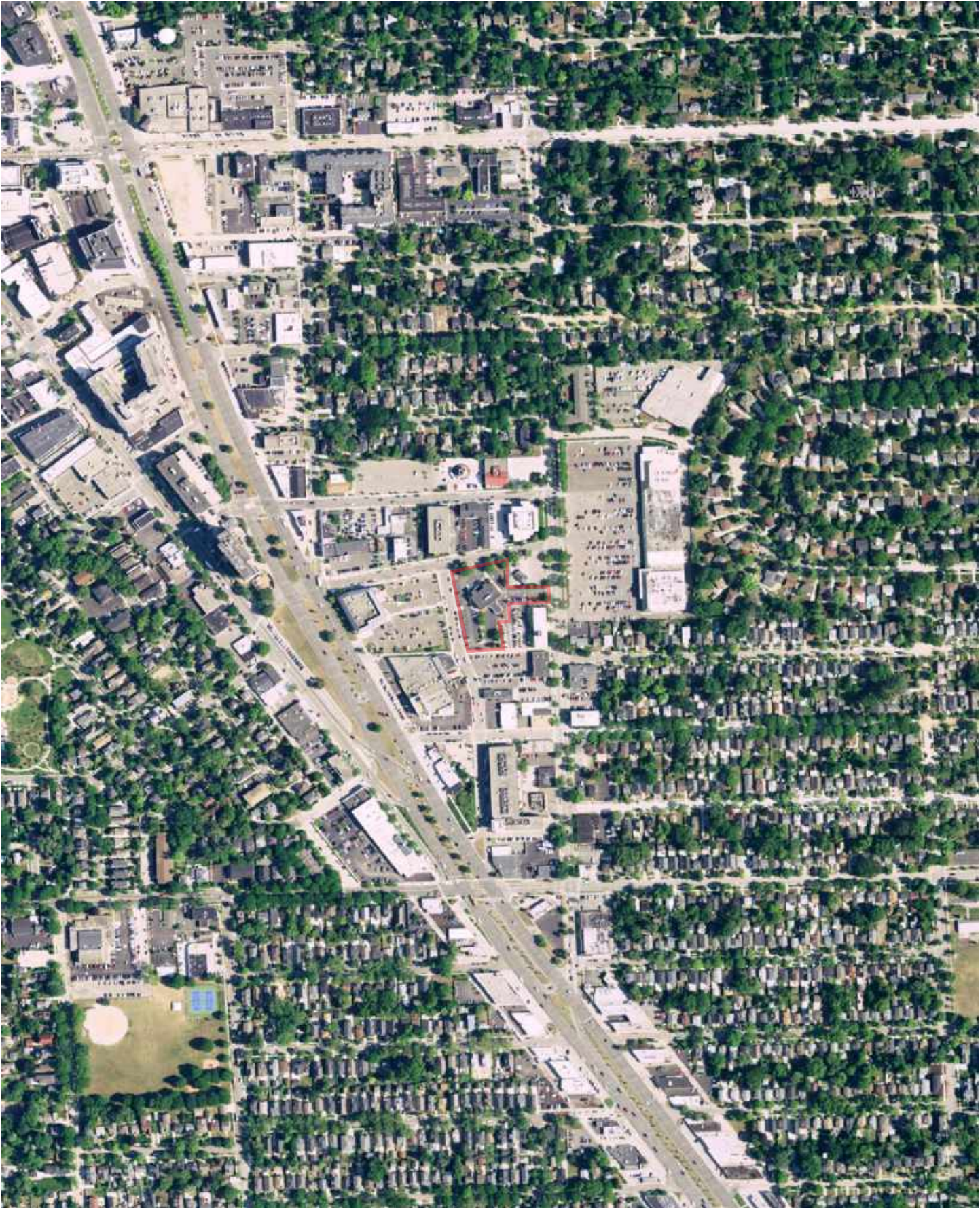
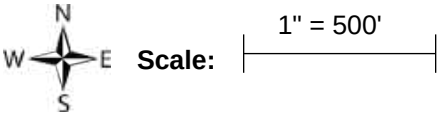
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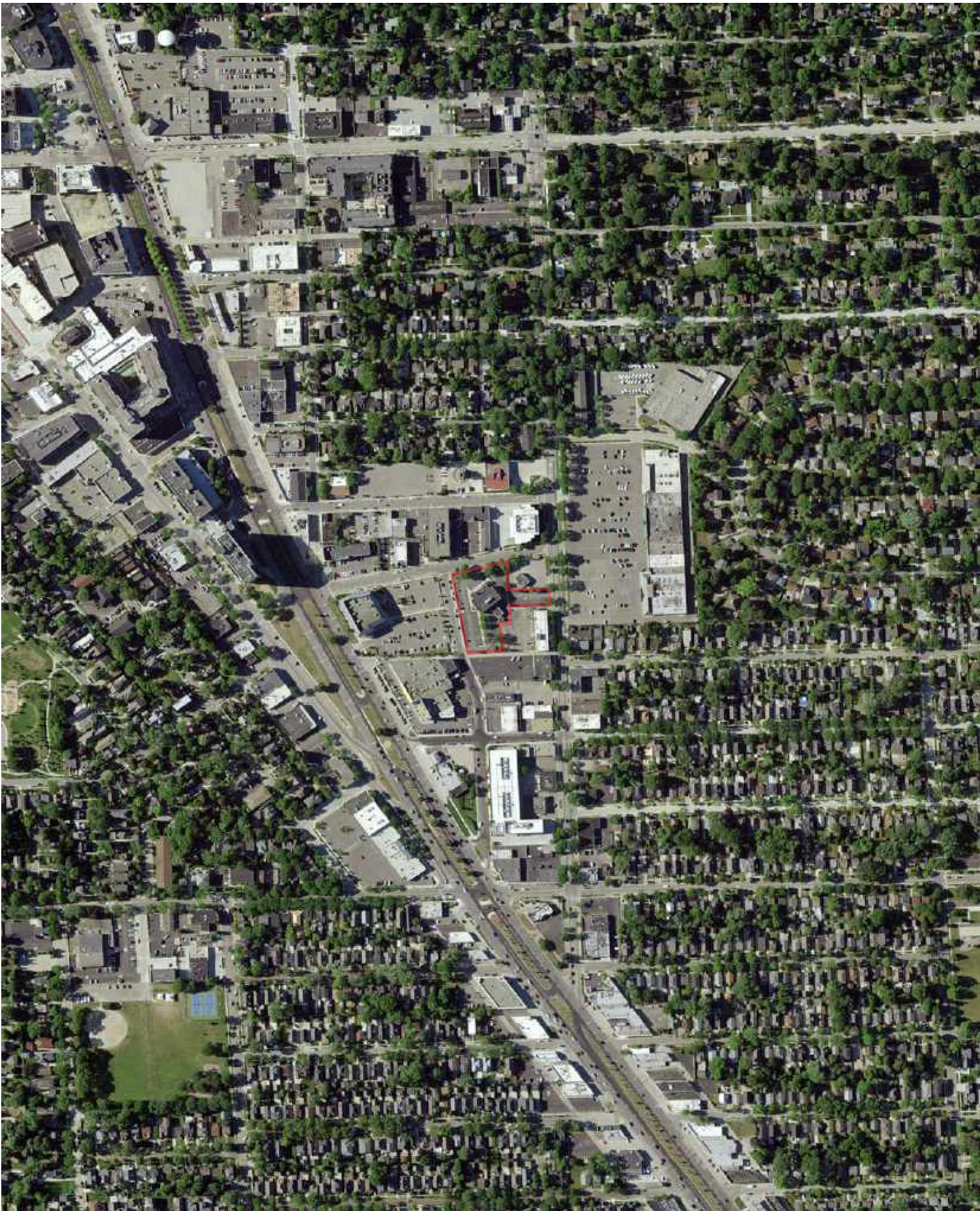
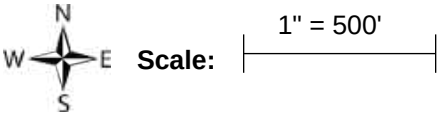
FLIGHT YEAR:
2014



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:

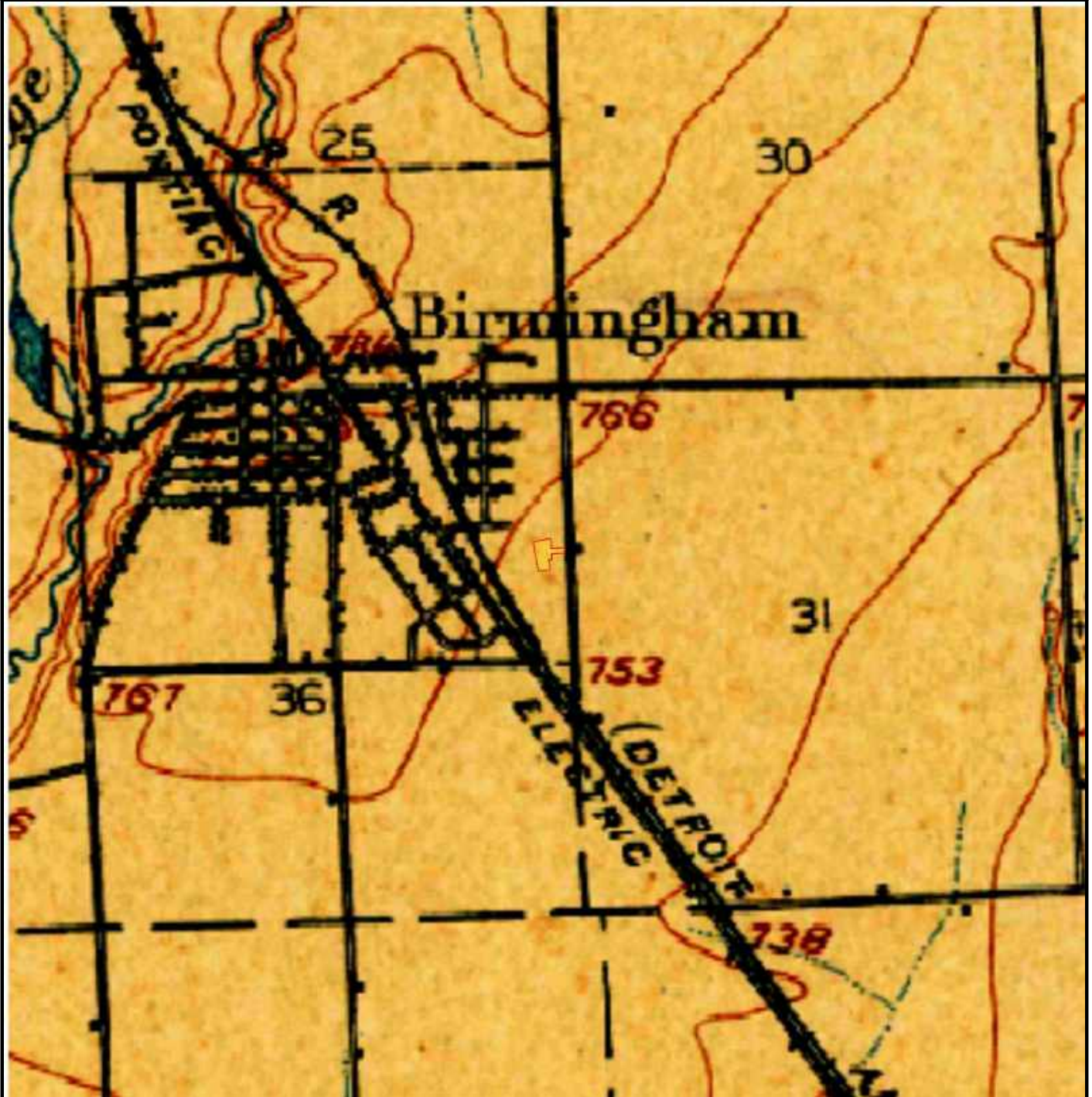
MAP NAME: Rochester

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:

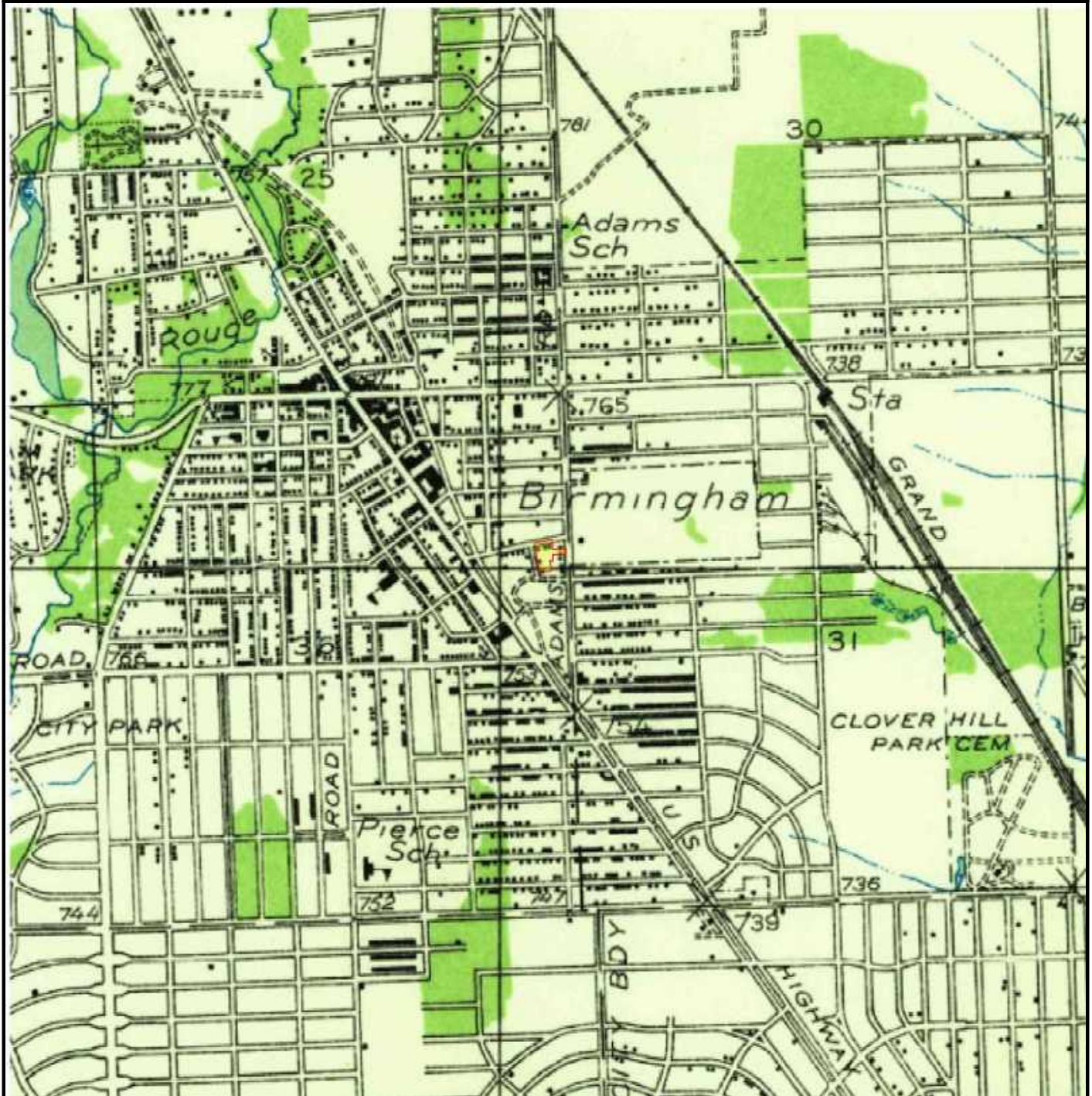
MAP NAME: Birmingham

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:

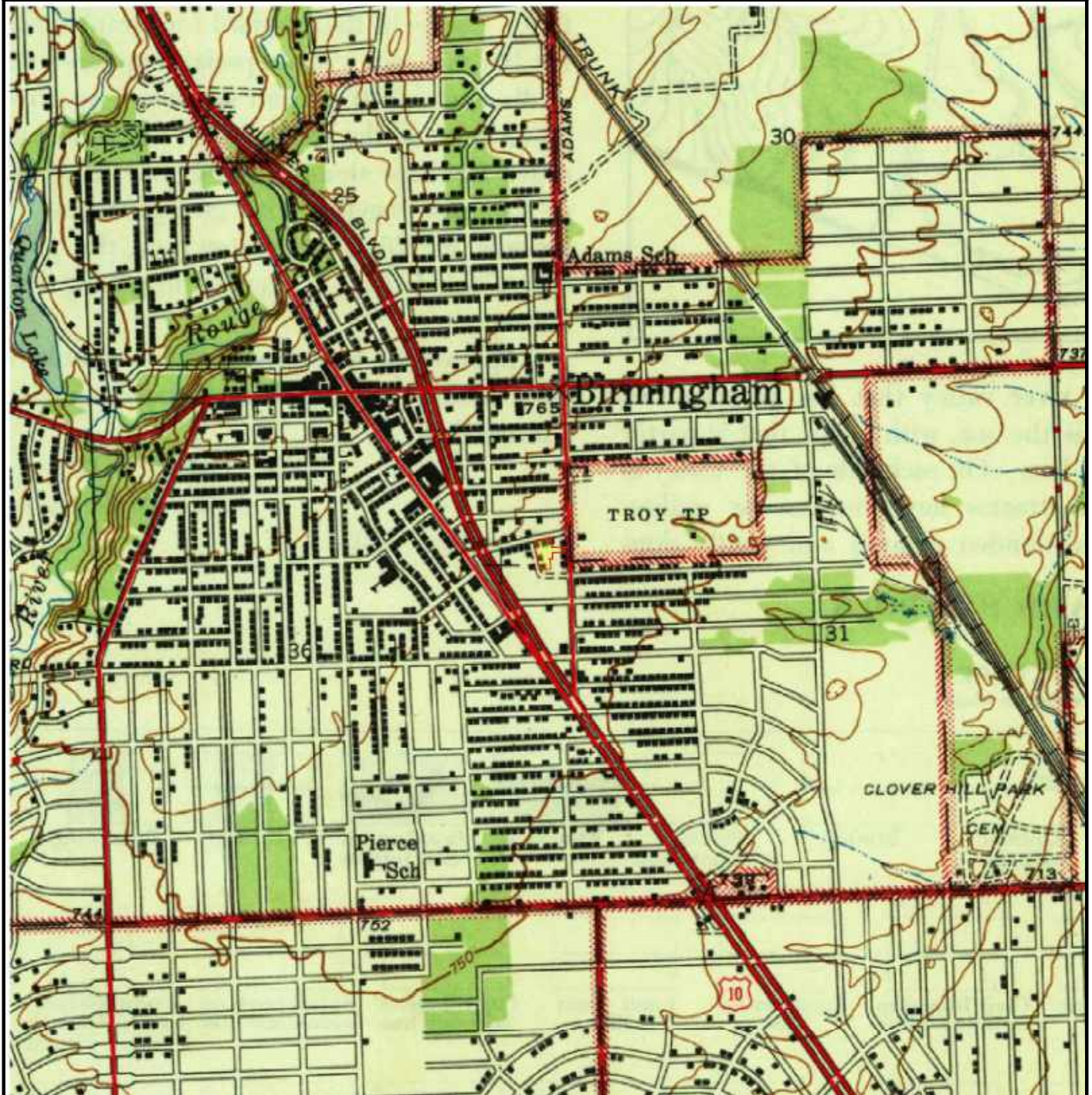
MAP NAME: Birmingham

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:

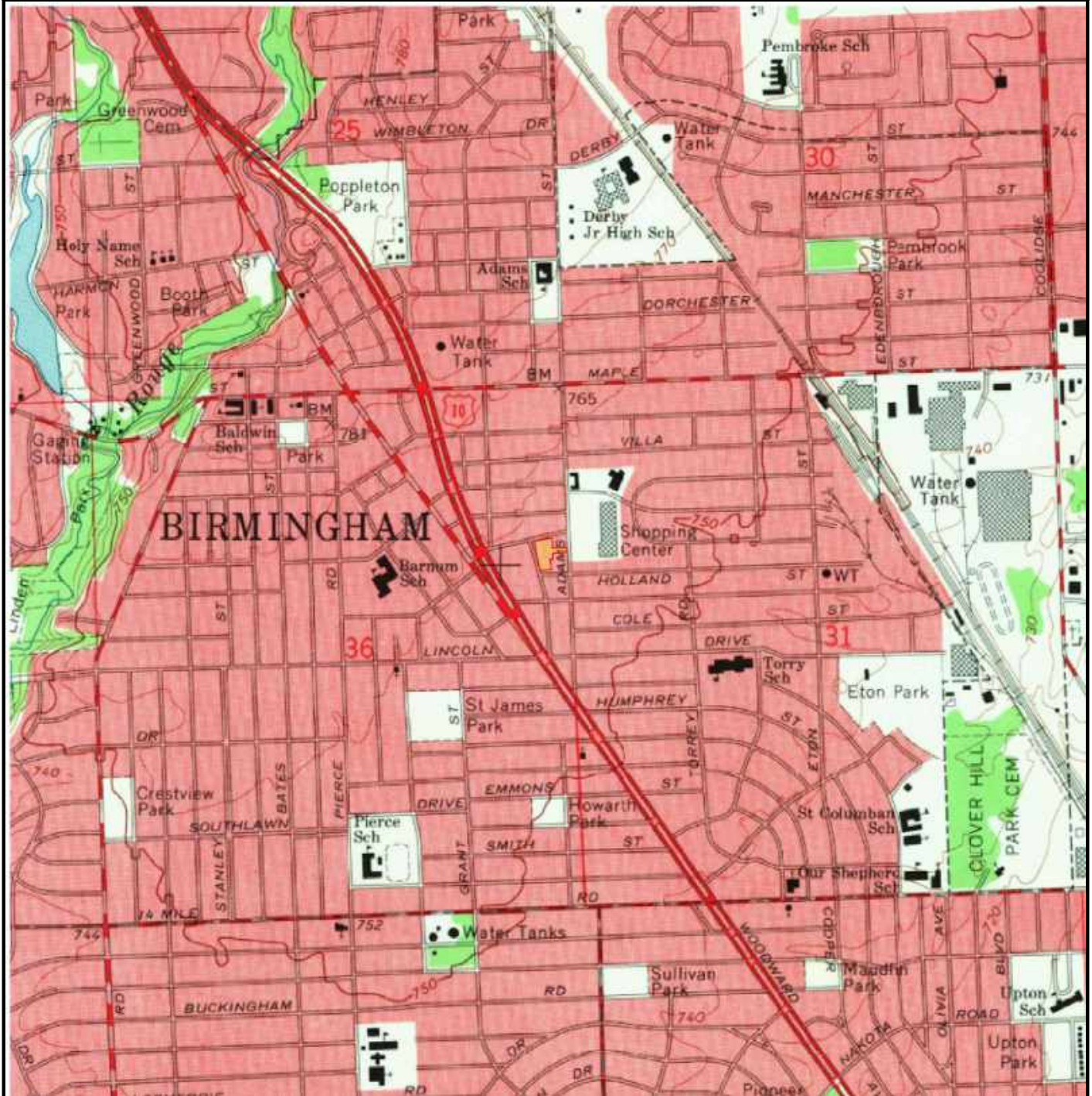
MAP NAME: Birmingham

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:

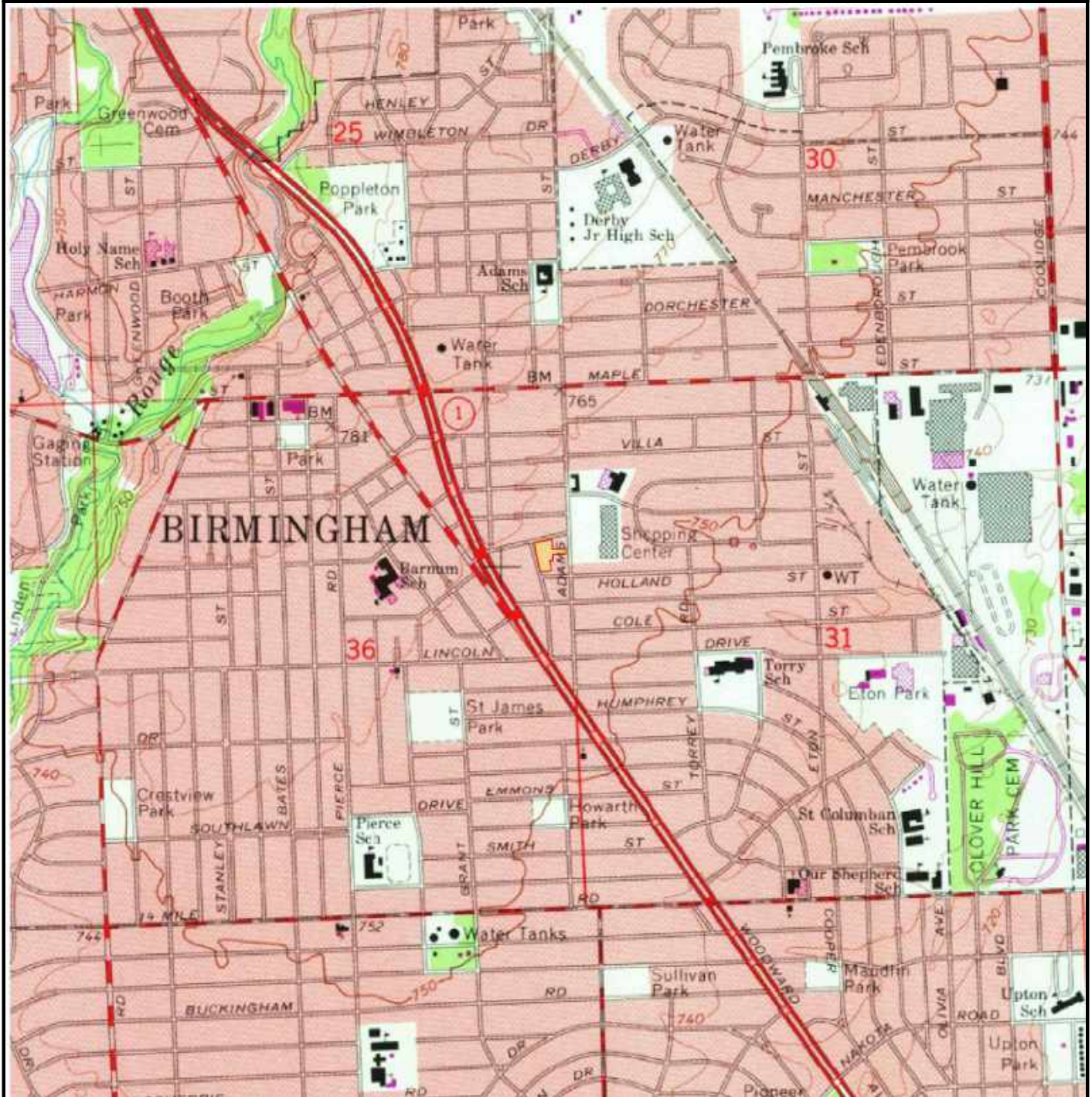
MAP NAME: Birmingham

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:

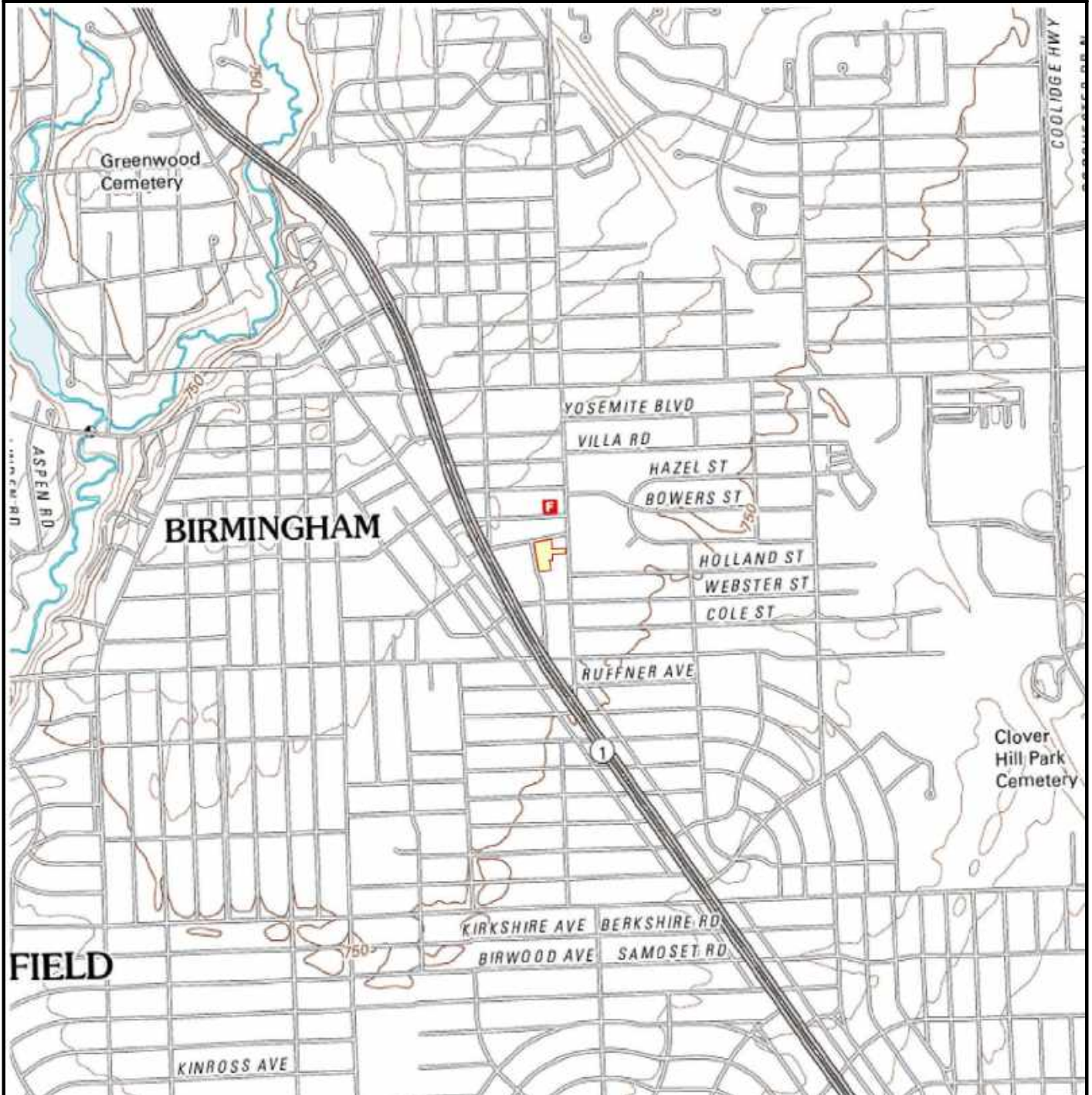
MAP NAME: Birmingham

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



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:

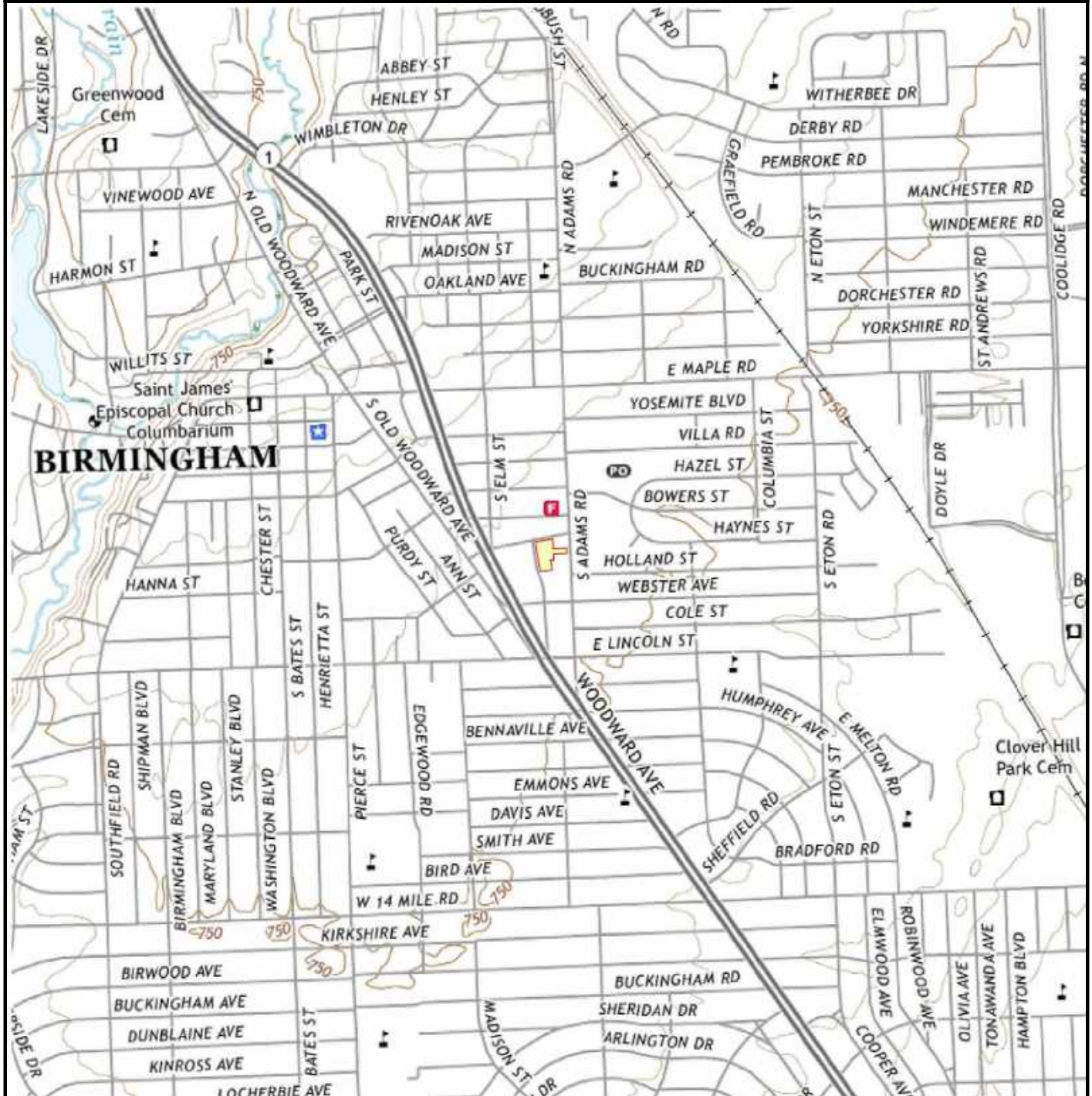
MAP NAME: Birmingham

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:

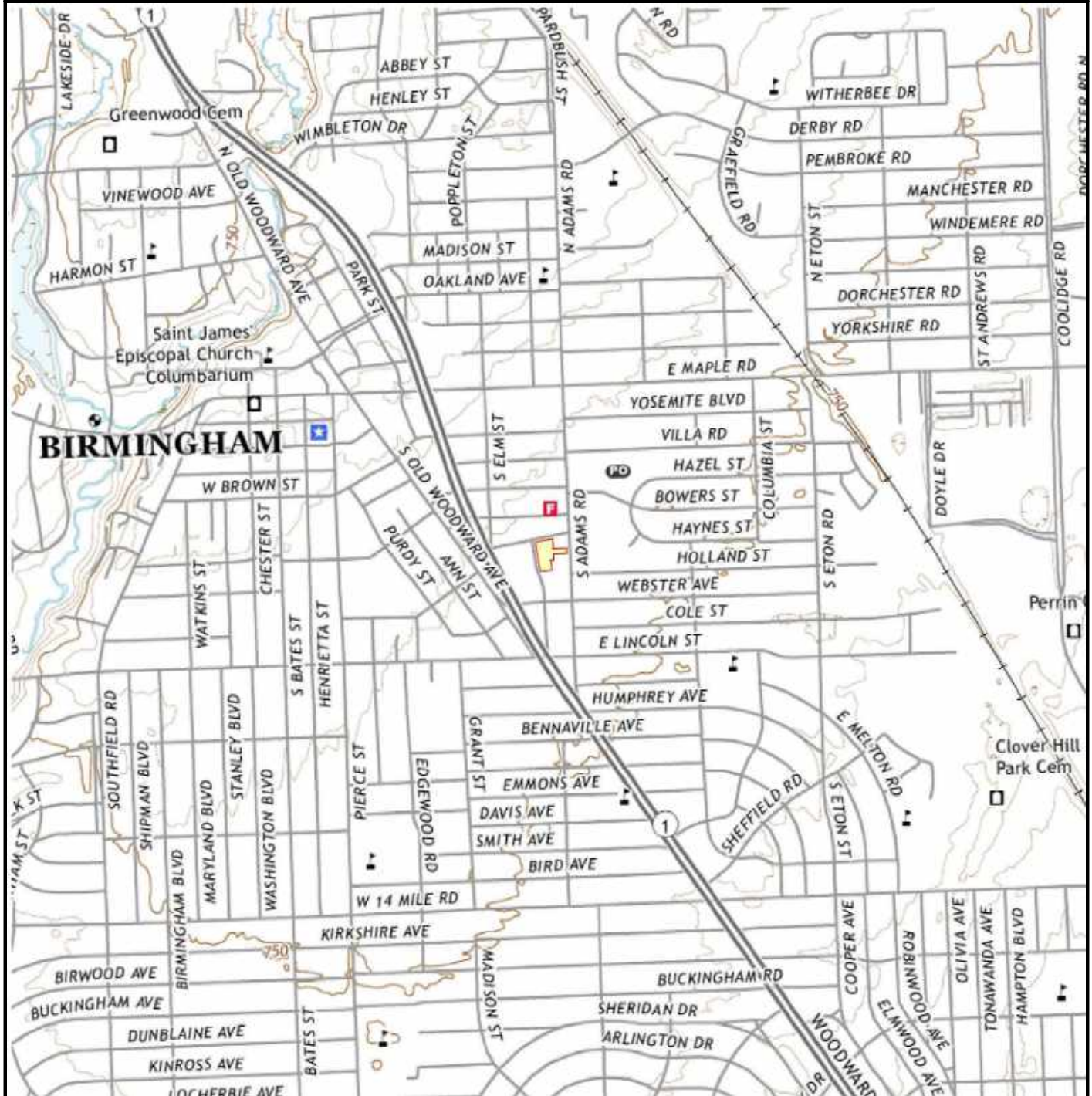
MAP NAME: Birmingham

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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014 SOUTH OAKLAND COUNTY

PAGE 59

BRESSER'S

390	Rafael M Kelly	01	248.642.8438	
416	James C Kelly	01	248.642.8438	
416	Alisa Karl Schwartz Atty	12	248.642.4455	
454	Mauriane E Schwartz	12	248.642.4455	
454	Jean Frances Poznanski	62	248.646.9265	
500	Dr Walter Anton Poznanski MD	62	248.646.9265	
512	Anne Tenece Patton	04	248.646.5011	
512	Theodore Patton	04	248.723.3911	

540	Isaac Hall	+	NP	
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1623	Susan Altha Kowicz	80	NP	
1640	Bonnie Jean Korn	75	248.645.9808	
1640	Norman Paul Korn	75	248.645.9808	
1645	Ann Marie Kushner	03	NP	
1647	Ramon Luis Betancos	07	NP	
1652	Eric Joseph Christensen	11	NP	
1659	Eric Joseph Christensen	11	NP	

1674	John Walter Brophy	90	248.644.3221	
1674	Kayla Brophy	90	248.644.3221	
1675	Am Pel Door & Gate Systems	10	248.203.9003	
1675	Jerry X Koleszko	04	248.594.1140	

1677	E Kelly	86	248.645.2853	
1677	Kevin Julia Keller	86	248.645.2853	
1691	Brian Bell	02	NP	
1693	Valerie Bell	02	NP	

1693	Nancy Mary Damm	99	NP	
1704	1706	+	NP	
1707	Leslie Kay Cherna	12	NP	
1709	Craig Michael Hentgen	12	NP	

1722	Ronald Mottke	98	NP	
1722	Michael Stephen Ognak	01	248.647.4719	
1725	Kath Frederick Honhart	00	248.644.4057	
1751	Lauren Lee Brown	00	248.644.4057	

1753	Delmar Lee Welch	94	248.642.9196	
1753	Linda Dawn Welch	94	248.642.9196	
1754	Betty Hines	01	248.593.9553	
1774	Rash Marie Lee	12	NP	
1775	Alex David Cain	02	NP	

1775	Renee Suzanne Cain	02	NP	
1777	Amanda M Schimano	10	NP	
1795	Paul Alan Newton	11	NP	
1796	May Young	11	NP	
1798	Douglas Monroe English	05	NP	

1798	Tammy Marie English	05	NP	
1809	Elizabeth W Foster	06	NP	
1810	Carmen M McNamara	84	248.646.8206	
1810	Kevin Patrick McNamara	84	248.646.8206	

1810	Dorica Peco Seplano	06	NP	
1822	Charles E Salgot	94	248.258.3631	
1822	Tammy Lynn Salgot	94	248.258.3631	
1825	Gerard Lee Lepage Jr	62	248.644.6369	

1843	Sharon Lynn Lepage	62	248.644.6369	
1843	Kathleen Elen Mosler-Pomick	03	248.792.2078	
1843	Robert Charles Pomick	03	248.792.2078	
1844	Andrew Steven Menendez	08	NP	
1861	Anna Lee Menendez	08	NP	

1866	Michael George Wega	84	248.646.3723	
1875	Victoria C Wega	84	248.646.3723	
1875	Misty Ann Matthews	98	NP	
1878	Nicole L Didonato	09	248.792.2489	
1889	Jason Raymond Weber	09	248.792.2489	

1890	Eva Marie Barren	11	NP	
1900	Kristen Elizabeth Ingalls	05	NP	
1910	Julie Ann Schiffrus	85	248.644.0027	
1919	Diane C Smith	04	NP	

1924	Brenda Lee Scarpelli	11	248.566.3157	
1936	Michael A Scarpelli	11	248.566.3157	
1947	Pauline Ann Kerr	62	248.647.3696	
1948	Dorothy Marie Zimka	62	248.540.9848	
1969	Ron James Iow	00	248.988.8665	

1969	Jennifer Marie Terwilliger	00	248.988.8665	
1973	Jeanne Frances Daloe	64	248.647.3368	
1982	Philip Hovey Daloe	64	248.647.3368	
1996	Casey James Dear	07	NP	
1997	Karl K Bess	07	NP	

1997	Jim Peter Yekoo	04	NP	
1997	Renee James Yekoo	04	NP	
1998	Deborah Kurtz	04	NP	
1998	A Lee	04	NP	

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1998	A Lee	04	NP	
1998	A Lee	04	NP	

1044	Marino Nicholas Apollinari	12	NP	
1044	Marino Nicholas Apollinari	12	NP	
1044	Marino Nicholas Apollinari	12	NP	
1044	Marino Nicholas Apollinari	12	NP	
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1044	Marino Nicholas Apollinari	12	NP	
1044	Marino Nicholas Apollinari	12	NP	
1044	Marino Nicholas Apollinari	12	NP	
1044	Marino Nicholas Apollinari	12	NP	

1469	Ludvik Marcel Liszkiewicz ..	78	248.646.01
	Therese L Liszkiewicz	78	248.646.01
1481	Rev Ching D Duan	10	NP
	Christy Duan	10	NP

BRESSER'S PAGE 58

2011 SOUTH OAKLAND COUNTY

HAYNES ST

345	★ Stacy L Block Lnw ACSW Plc	01	248 593 5088
	★ Steen Marcia MSW	+	248 594 5525
245	★ Ulrich John P	09	248 644 1270
	★ Raymond J Vasser	02	248 645 2747
	★ Vasser Raymond J PHD	00	248 646 2747
	★ Wagner Jolyn Welsh MD	06	248 258 9085
1000	★ Charter One Bank	06	248 644 7510
	★ Charter One Mortgage	06	248 901 1331
1015	★ Income Protection Agency Inc	98	248 642 5885
1019	★ Silverman Mark L MD Jd P	09	248 647 0390

S ADAMS RD INTS

BOWERS ST INTS

1300	Mana L Fratercangel	95	NP
1312	Jedra Boko Dorasi	77	248 646 8569
	Seri Boko Dorasi	77	248 646 8529
1324		NP	
1336	Eric Schubring	06	NP
1355	Kenneth Chao Kiang Hwa	06	NP
1399	Frank Carl Datto	99	248 594 3449
1400	Jeffrey Michael Patterson	+	NP
	Michelle Louise Patterson	+	NP
1415	Jennifer Lisa Guehn	07	NP
1448	Todd Philip Swales	06	NP

HAYNES CT INTS

1492	Eric Torrey	06	248 731 7642
	Elizabeth Louise Watson	06	248 731 7642
1495	Marie Meredith Meredith	95	NP
	Noble Meredith	95	NP
1506	Kathryn Carter	91	NP
	Paul R Carter	91	NP
1507	Bradford Jarrett McAlister	03	248 792 5086
	C A McAlister	03	248 792 5086
1523	Nicolas Filipesco	82	248 645 5192
1524	Joseph Andrew Valentine	04	NP
1540	Diane Marie Stores	89	NP
	Daryl Turner	89	NP
1549	Ivo John Tespa	99	248 593 9391
	Rose Anna Tespa	99	248 593 9391
1568	Brian W Ramesbottom	09	NP
1575	Carol Lee Peterson	82	248 540 1609
1582		NP	
1591	J Pearson Givin	09	NP
1603	Kyle Michael Uval	09	NP
1605	Kathleen M Paron	09	NP
1608	Isabelle W Clark	85	248 644 0471
	Steven Lang Clark	85	248 644 0471
1621	Greg David Thompson	99	248 723 5512
	Janice Thompson	99	248 723 5512
1623	Jena Marie Campbell	07	NP
1628	Susan Aletha Kowitz	95	NP
1640	Norman Paul Kern	75	248 645 9308
	Tina Ann Kern	75	248 645 9308
1645		NP	
1647	Ann Marie Kushner	03	248 723 0914
1652	Nancy A Balanza	03	NP
1661	Deborah E Weiss	08	NP

TORREY ST INTS

1674	Kayla Brophy	91	248 644 3221
	Robin Ann Brophy	91	248 644 3221
1675	★ Ampel Deer & Gale Systems	+	248 203 9003
	Jerry J Kolesko	04	248 594 1140
1686	Evelyn Julia Keller	86	248 645 2853
1691	Walter John Ruchak Jr	+	NP
1693	Carolyn Ann Sawson	+	NP
	John Lawrence Sawson	+	NP
1696	Nancy Mary Oran	99	NP
1704	Hilary Zebden Jones	07	248 594 1396
	Hilary Parton	07	248 594 1396
1707	Elaheth Maghaddam	09	NP
1709	Felicia Beth Silver	91	248 594 3080
	Jennifer Rose Silver	91	248 594 3080
	★ Silver Design	02	248 594 1684
1720	Arthur Leon Robin	89	248 645 5982
	Susan S Robin	89	248 645 5982
1722	Ronald Motke	96	NP
1725	Michael Stephen Gopok	01	248 647 4719
1727	Keith Frederick Honhart	01	NP
1751	Lauren Lee Brown	00	248 644 4057
1753	Delmer Lee Welch	94	NP
	Lada Dawn Welch	94	NP
1754	Betsy Hines	01	248 593 9553
	Robert E Hines	01	248 593 9553
1774	Alexander O Cain	05	NP
1775	Jennifer L Stoves	04	248 792 2016
	Robert W Stoves II	04	248 792 2016
1793	Emily Michelle Bright	03	NP
1795	Connie Sue Jacobson	07	248 593 1281
1798	Hassan M Naga	05	248 723 3938
	Cynthia Rose English	05	NP
	Douglas Monroe English	05	NP

COLUMBIA ST INTS

1809		NP	
1810	Kevin Patrick McManera	94	248 646 8205
1822	Charles E Salgot	94	248 258 3931
	Tammy Lynn Salgot	94	248 258 3931
1825	Gerald Lee Lepage Jr	82	248 644 6369
	Sharon Lynn Lepage	82	248 644 6369
1843	Kathleen E Mosier	03	248 792 2078
	Kathleen Ellen Pernick	03	248 792 2078
1861	Hope Susan Menendez	09	NP
	Steven Kenneth Menendez	09	NP
1866	Michael George Wega	84	248 646 3723
	Sandra Sue Wega	84	248 646 3723
1875	Marlon A Matthews	98	NP
	Misty Ann Matthews	98	NP
1878	Carrie Bragg	+	NP
	Scott James Bragg	+	NP
1889	Jason Weber	+	248 792 2489
1890	Gladys Olene Sargent	87	248 642 4528
1900	Scott Daniel Lange	95	248 203 2836
	Nancy L Wetzelhoff	95	248 203 2836
1901		NP	
1919	Julie Ann Bothus	86	248 644 0027
1924		NP	
1933	Dr Rangaswamy Subramaniam	+	NP
1936	Leone Howarth Sloan	92	248 258 0881
	Dawn Sloan	92	248 258 0881
1947	Patricia Ann Kerr	62	248 647 3696
1948	Dorothy Marie Zimmel	62	248 540 9848
	Michela A Zimmel	62	248 540 9848
1959		NP	

1960	Ron James Tew	00	248 998 8665
	Jennifer Marie Tewbagger	00	248 998 8667
1973	Kimberly Irene Rowland	06	248 792 9555
	Thomas Fleming Rowland	06	248 792 9555
1982	Hunter Holmes	81	248 647 4189
1996	Cassy James Bear	07	NP
	Kan K Bear	07	NP

S ETON ST INTS

119 RESIDENCE 33 BUSINESS

HAZEL ST

CT 1529 00	Birmingham	820 -	2028	\$A
CT 1532 00		940	1036	\$A
		940	1036	48009

S ELM ST INTS

820	Moses Fram	09	NP
833	Doug Champagne	87	NP
	Gayle Lynn Champagne	87	NP
844	Carmen Walker	07	NP
875	Flora Bardha	97	NP
	Loretta Bardha	97	NP
893		NP	
925	Claudine Hasan	05	248 723 9565
	Claudine Elizabeth Kafi	05	248 723 9565
938	Pete Chapman	09	NP
940	James Sokol	04	NP
942		NP	
955	Homes McRay	02	NP
959	Angela Lee Lamont	07	NP
	Daniel James Lamont	07	NP
960	Chelsey Patricia Gosselin	08	NP
	Heather Michele Tack	06	248 723 7166
977	Shelly Lynn Greenlee	06	248 723 7166
	Steven Michael Tack	+	248 792 6082
982	James Savage	+	248 792 6082
	Matthew P Savage	+	248 792 6082
997	Elizabeth Ellen Atallah	06	248 593 1035
	Pierre Charbel Atallah	06	248 593 1035
998		NP	
1011	Dr Priya D Kothari	05	248 885 8083
1020	Pamela N Mosen	89	248 540 0020
1031	Jennifer Przybyst	03	248 594 3806
1036	Brenda Sue Spanke	+	248 399 4817
	Stanley Philip Spanke	+	248 399 4817
1044	Maryanne Catherine Vozza	08	NP
	Michael P Vozza	04	NP
1053	Shelly Lynn Greenlee	04	NP
1060	Jennifer M Kay	08	NP
	Steven John Kay	08	NP
1077	Reed Elliott Lawrie	06	NP
1078	D J Lencinich	00	248 203 2194
1085	Bridget Ann Howell	93	NP
	David Ross Howell	93	NP

S ADAMS RD INTS

1315	Marjorie Elizabeth Ellis	74	248 844 4596
1331	Fanghua H Cao	94	248 723 5367
	Qi Shen	94	248 723 5367
1346	Graz Czerwinski	86	248 647 7543
	Walter Jan Czerwinski	86	248 647 7543
1353	C Holmes Franklyn	09	NP
1362	Donald Larry Scannell	83	248 540 9195
1377	Katie Marie Juncos	07	248 723 0981
	Orlando Frank Juncos	07	248 723 0981
1397	Alberto Desarte	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 5226
	Nancy Jeanne Evangelista	73	248 645 5226
1435		NP	
1438	Constantine Covici	77	248 642 8539
	Thomas Velcovici	77	248 642 8539
1469	Sonia Therese Luszewicz	78	248 646 8131
	Stephen P Luszewicz	78	248 646 8131
1486	Mary Magurran	78	248 646 8179
	Theodore Magurran	78	248 646 8179
1522	Robert John Unsworth	05	248 594 0801
	Sandra Mary Unsworth	05	248 594 0801
1527	Mary Kloria	74	248 644 4075
	Nicholas Kloria	74	248 644 4075
1543		NP	
1548	Barbara Jean Martz	66	248 646 1138
1584	James Alan Eng Jr	03	248 642 5732
	Sandra Jean Eng	03	248 642 5732
1585	Bryan Scott Doston	+	248 792 6411
1587	Jeffrey Scott Ewing	88	NP
	Mary Kay Kellogg	88	NP
1589	Swadstein Carlos	01	248 648 1343
	Cade Swadstein	01	248 648 1343
1593	Willis Russell	67	248 646 9386
	William Bruce Russell	67	248 646 9386
1596		NP	
1602	Laurie Barbara Craig	87	248 645 9484
	Marc Alan Craig	87	248 645 9484
1611	Kathleen Ann Hudson	87	248 642 5494
	Louis John Hudson	87	248 642 5494
1626	Ali Aref Cheab	04	248 258 4487
	Lisa Anne Richards	04	248 258 4487
1637	Joann Maria Smith	06	248 203 2710
	Jonathan Lewis Smith	06	248 203 2710
1638	Kenneth Livingston	01	248 647 4070
	Brooke Michelle Troy	01	248 647 4070
1650	Edward Edmund Garmham	77	248 647 8455
	Mary Theresa Garmham	77	248 647 8455
1655	Gerald William Lezio	+	248 792 6190
	Jack A Lezio	+	248 792 6190
1684	Nicolette Marie Kaptur	87	NP
1699	Irene P Kirby	73	248 642 6914
1704	John Michael Vanderveer	92	248 644 4207
1722	Brett J Halzeman	08	NP
1731	David John Essad	07	NP
	Julie Ann Essad	07	NP
1748	Brian Michael Hanson	83	248 642 9462
	Joanne Elizabeth Hanson	83	248 642 9462
1753	Linda Lee Rutherford	81	248 644 3285
1766	Barbara May Scrivener	94	NP
	Wayne A Scrivener	94	NP
1777	James Michael Fox	03	NP
	Rebecca Lynn Fox	03	NP

COLUMBIA ST INTS

1780	Shirley Gagnon	94	NP
1794	Laura Margaret Sorge	94	248 258 0876
1795		NP	
1807		NP	
1808	Viola May Storch	86	248 644 7058
1821	Joyce Ann Brauner	78	248 644 2904
	Robert Albert Brauner	78	248 644 2904
1824	J Battaglia	94	248 203 8990
	Stephanie Michelle Battaglia	94	248 203 8990
1842	C Santa	06	NP
	Carol Dichtung Santa	06	NP
1845	Santanna Kinsale Ladue	06	NP
1856	Susan Elaine Conrad	94	248 642 4997
	Joclyn Ann Henry	00	NP
	Todd William Henry	00	NP
1870	Christine M Sankbell	97	248 203 9103
	Todd Alan Sankbell	97	248 203 9103
1881	Donald Jacobites	09	NP
	Stephen D Jacobites	09	NP

SHELLEY SOLUTIONS

1881	Donald Jacobites	09	NP
	Stephen D Jacobites	09	NP
1888 *	Shelley Solutions	07	248 203 2430
1901		NP	
1904	Allegretto Gianluca	+	NP
1915	1916		NP
1930	Aaron Miller	+	NP
1943	Inna C Witt	06	NP
	Paulina N Witt	06	NP
1948			NP
1967	Christine H Schwartz	90	248 645 6787
1973			NP
1974	Alice Joann Cole	97	248 647 3188
1988	Connstance Ann Romanelli	86	NP
1999			NP
2004	Lucia Zamorano	+	NP

PSYCH ASSISTS INC

2007	C Crutcher	08	NP
	Fedorov Fedor	+	NP
2009	Dawn Salter	+	NP
2011	Adam B Jahnke	09	NP
	Matthew Benjamin Sickles	06	NP
2012	Dana L Bhatti	07	NP
	Pampr Singh Shati	07	NP
	★ Cardinal Home Health Care	+	248 593 9909
2013	William Toy Joe	06	NP
	Zeine Quintana	06	NP
2015	David S Lin	06	NP
	Reyn Nancy Lin	06	NP
2017	James Lessard	09	248 594 9445
	Kimberly Lessard	09	248 594 9445
2018	★ Hazel Street Salon	+	

HAWTHORNE ST

PAGE 48

BRESSER'S

2005-2006 SOUTH OAKLAND

HENRIETTA ST

HAWTHORNE ST 48009

BIRMINGHAM
120 655 CT152700 \$A

120	Sils C	92	248 644	3445
174	Davidson Jeffrey M	94	248 203	5376
	Davidson Leah A	94	248 203	5376
185	Kaiser John K	98	248 594	3402
	Kaiser Maure C	98	248 594	3402
216	Harnes William	94	248 642	2905
	Harnes William G	94	248 642	7433
225	Chasle Howard Jr	95	248 644	6316
272	Hinkle W J	82	248 646	7665
285	Sturmbos Catherine	99	NP	
320	Watts John C	87	248 644	7278
345	Stewart Kath H	+	248 644	1863
	Stewart Michael B	+	248 644	1863
348	Granata Pamela E	03	248 723	5352
	Granata Robert J	03	248 723	5352
390	Kelly Clay	91	248 642	6438
454	Pozanski Walter A MD			
	Res	62	248 646	9265
500	Spence Edwin	02	248 645	0541
512	Mearitz George D	+	248 646	5011
	Patton A T	+	248 646	5011
	Patton Anne T	+	248 723	3911
540	Vandom Isabella M	94	248 646	6150

ASPEN RD

607	Mosher David W	84	248 645	9688
633	Levy Leoy K	86	248 540	1095
655	Carpenter Glenn B Jr	02	248 646	0384
	MD			

LINDEN RD

NO #	Turci Paul	03	248 723	8444
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1 BUSINESS 25 RESIDENCE

HAYNES CT 48009

BIRMINGHAM
E 1342 1398 CT152900 \$C

HAYNES ST

1342	Tilman Justin	03	NP	
1350	Vonschmitt Rudy	03	NP	
1365	Back James W	90	248 647	2182
1374	Parris Bobby	02	NP	
1382	Coccarelli Robert N	89	248 642	0376
1398	Auna Arthur	03	NP	

0 BUSINESS 6 RESIDENCE

HAYNES ST 48009

BIRMINGHAM
835 1999 CT152900 \$C

S ELM ST

835	Goodyear Tire Centers	04	248 647	3370
	Halbeisen Tom Inc	76	248 647	3370
909	Village Mortgage Co	98	248 594	5580
911	Bardha Salon	94	248 646	7061
	Ima Skin Care	84	248 646	7061

S WORTH ST

999 BUILDING

	American Travel Service	03	248 540	1639
	Associate Cnslg Professionals	00	248 594	3364
	Bawden Garvin Jr	97	248 594	7200
	Bawden Wester & Associates	97	248 594	7200
	Baxter Seymour MD PC	96	248 642	4820
	Blair Rich & Associates	93	248 645	6961
	Booker James H Atty	98	248 644	2266
	Cahill Robert W PhD	95	248 645	2219
	Chambers Carol A PhD LP	00	248 594	3364
	Egan David C DDS	03	248 540	1494
	Falk Jonathan PhD	00	248 593	5817
	Ferrari Sam Ins	97	248 594	0850
	First International Mortgage C	03	248 540	1065
	Francisco John W PhD	88	248 644	1306
	Goodwin & Sozeska PC	92	248 644	4529
	Goodwin Scott Atty	92	248 644	4529
	Hilborn & Hilborn PC	99	248 642	8350
	International Mortgage Inc	03	248 258	1584
	Infil Mortgage	03	248 540	2799
	Katz Louis PhD	95	248 647	2737
	Martin A Scott Attorney & Coun	99	248 542	6020
	McIntyre Barbara M PhD Psychog	95	248 647	6553
	Messina Steven P Ma Lpc	00	248 594	3364
	Moore & Associates CPA PC	99	248 723	3280
	Moore Marvin E CPA	99	248 649	3500
	Ochs Helen S PhD	95	248 545	5040
	Parsons Adam T DDS	03	248 540	7200
	Podolsky & Associates	94	248 433	3388
	Robbins Elizabeth PhD	03	248 433	3093
	Sarnacki Paul A Atty	98	248 258	1500
	Sozeska James Atty	92	248 644	4529
	Shantz & Bookner	98	248 644	2286
	Shantz John F Atty	98	248 644	2286
	Spencer Annette C PhD	02	248 593	5557
	Ulrich John M H IV	03	248 540	1270
	Ulrich John M H IV	03	248 542	1270
	Vasser Raymond J PhD	00	248 646	2747
	Charter One Bank	04	248 646	9340
	Charter One Bank	04	248 644	7510
	Income Protection Agcy Inc	93	248 642	5895

HAZEL ST 48009

BIRMINGHAM
801 2006 CT152900 \$C

S ELM ST

801	Mary C	88	NP	
833	Champagne G L	03	248 433	3392
844	Hickok Irvin	03	NP	
865	Matson Allan	03	248 642	3014

50 BUSINESS 104 RESIDENCE

HAZEL ST 48009

BIRMINGHAM
801 2006 CT152900 \$C

S ELM ST

801	Mary C	88	NP	
833	Champagne G L	03	248 433	3392
844	Hickok Irvin	03	NP	
865	Matson Allan	03	248 642	3014

50 BUSINESS 104 RESIDENCE

HAZEL ST 48009

BIRMINGHAM
801 2006 CT152900 \$C

S ELM ST

801	Mary C	88	NP	
833	Champagne G L	03	248 433	3392
844	Hickok Irvin	03	NP	
865	Matson Allan	03	248 642	3014

50 BUSINESS 104 RESIDENCE

HAZEL ST 48009

BIRMINGHAM
801 2006 CT152900 \$C

S ELM ST

801	Mary C	88	NP	
833	Champagne G L	03	248 433	3392
844	Hickok Irvin	03	NP	
865	Matson Allan	03	248 642	3014

3019 L P L Financial Services

3019	L P L Financial Services	+	248 644	9600
	Linsco Private Ledger	98	248 644	9600
	Wealth Management Services LLC	+	248 644	9600

S ADAMS RD

BOWERS ST

HAZEL ST

1300	Fratarcangeli Albert	96	NP	
1312	Dores Beiko	03	248 646	8529
	Dores Beiko	03	248 646	8569
1324	Storckmeyer Lee	03	248 646	4855
	Storckmeyer Lee	03	248 646	4833
1336	Buskop Karen	+	248 540	3464
1355	Chao K	03	NP	
1399	Davis Frank C	99	248 594	3401
1400	XXXX			

HAYNES CT

1415	Green Jonetha A	94	248 646	7304
1448	XXXX			
1481	Simpson Collis J	78	248 642	2488
1492	Mascardi Dennis D	03	248 433	1867
1495	Meredith M A	98	248 723	5557
	Tipton Marie	00	NP	

HAZEL ST

1506	Blake Emma	+	248 723	0053
	Blake James	+	248 723	0053
1507	Mcbradford J	94	NP	
1523	Filipescu N	03	248 645	5192
1524	Valentine Joseph	04	NP	
1540	Shires Diane	03	248 593	9391
1549	Tessa Annun	78	248 646	6149
1568	Ward Nancy	78	248 546	5149
	Ward Stephen	82	248 540	1509
1575	Petersen Rodney M	86	248 642	8382
1582	Molean M	03	248 723	9468
1591	Pearson Gavin	03	NP	
	Sinclair Mark	03	NP	

TORRY ST

1603	XXXX		NP	
1605	Dalioo Aman	01	248 646	2899
1606	Clark Steven L	85	248 644	0471
1621	Cogan Nicole	03	NP	
	Thompson Greg	03	248 723	5612
1628	Cocella Jena	03	248 203	1945
1640	Kowitz Susan A	90	248 647	6943
1645	Kern Norman P	75	248 645	9308
1647	XXXX		NP	
1647	Kushner Ann M	03	248 723	0914
1652	McDonnell B J	77	248 647	7945
1659	Weed Mark	04	248 393	8707
1661	Reed E	04	248 723	5437
	Sanders Ellen	NP		
1674	Brophy John	91	248 644	3221

Am Poi Doors & Gates Systems

1677	Koleczko Jerzy	98	248 203	9003
	XXXX	03	248 594	1140
1686	Keller E	86	248 645	2853
1691	XXXX		NP	
1691	Butt Valene	02	248 544	2186
1698	Orram Nancy	03	248 782	2052
1704	XXXX		NP	
1706	Beileau Paul	03	248 580	8571
1707	XXXX		NP	

Silver Design

1720	Silver Felicia B	02	248 584	1564
1720	XXXX	91	248 584	3080
1722	XXXX	03	248 645	5962
1725	Ogorek Michael S	01	248 647	4719
1727	Hornhart Keith F	96	248 723	6782
1750	XXXX		NP	
1751	Brown L	03	248 644	4057
1752	XXXX		NP	
1753	Welch Delmer	03	NP	
1754	Hines Betty	02	248 593	9553
1774	XXXX		NP	
1775	Stevens Robert	03	248 792	2016
1776	XXXX		NP	
1777	Rosender Adam	+	NP	
1793	XXXX		NP	
1795	Gibney James	03	248 433	3902
1796	Nagin Hassan	+	248 723	3938
1798	Murdoch Gaye	01	NP	

COLUMBIA ST

1808	XXXX		NP	
1809	Robertelli Kevin	84	NP	
1810	McNanara Kevin	03	248 646	8205
1822	Soliz Tammy L	03	248 258	3021
1825	Lepage Gerald L	82	248 644	6399
1843	Mosler K	03	248 792	2078
1844	XXXX		NP	
1845	Charlton Anne	04	248 594	6205
1847	Charlton J	04	248 594	6205
1866	Wega George T	84	248 596	3723
1875	Mathews Misty	12	NP	
1876	Chitfield Betsy	03	248 646	0216
1889	XXXX		NP	
1890	Sargent G	87	248 642	4528
1900	Lange Scott D	95	248 203	2936
1901	XXXX		NP	
1919	Bolhus Julie A	85	248 544	0027
	Dollar Harold C	03	248 645	6891
1924	XXXX		NP	
1933	Jarman R	98	248 594	6025
	Jarman S	98	248 594	6025
1938	Sloan David	92	248 258	0981
	Sloan David	92	248 258	0834
1947	Kerr Thomas W	82	248 647	3696
1948	Zimmel Dorothy M	62	248 540	9848
1959	Brown Steven	03	248 598	8867
1960	Tew Jennifer	00	248 988	8870
	Tew Jennifer	00	248 988	8865
1975	XXXX		NP	
1982	Dafos Philip H	64	248 647	3368
	Holmes Hunter	03	248 647	4188
1994	XXXX		NP	

S ETON ST

1999	XXXX		NP	
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50 BUSINESS 104 RESIDENCE

HAZEL ST 48009

BIRMINGHAM
801 2006 CT152900 \$C

PAGE 38

BRESSER'S

2001-2002 SOUTH OAKLAND

BIRMINGHAM

● HANNA ST 48009

★ Midwest-Htg&Cool 79 248-647-2241

● HARMON ST 4800

372 George Whitehead • 248-644-739

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272 W J Hagle 83 • 248-646-7665

345	Walter F Dreyer	79 • 248-646-4960
348	L. McGinn	- • 248-594-9317

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★ Tom Halhisen Inc 76 ○ 248-647-3370

★ K&B Ins Mktg Inc 94 248-647-7790
★ Kete Glens J ACSW 95 248-647-1319

* Messina S P Ma Lpc 00 248-594-3366

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1750	Daniel J. Sheline	89 •	NR
1751	L. Brown	—	248-644-4057
1752	T. Gural	88	248-502-8144

1754	Betty Hines	00	248-593-9553
1774	1775	NP	

HAZEL ST	48009
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801	Doug Zolbert	-	248-647-4997
	G H Zolbert	-	248-647-4990
802		-	248-650-6380

1438 C Velocenci 77 • NP
1460 Dorothy Johnson 96 • 248-647-1629

1488 Theodore Magutan 57 • 248-646-8179
1522 Deanna D. Roll 98 • 248-203-7821

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1915 NP
1916 C D Wolf 84 • 248-644-7091

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744 750 NP

HENLEY ST 48009

292	Scott A. Wilson	91 • 248-647-3033
295	K. Wilson	98 • 248-203-9077

HENRIETTA ST 48009

116 Stanley Pieprzyk 88 • NP
155★ Gregg Harold L PC - 248-626-2103

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BIRMINGHAM

828	Jenny Bonner	94	646-0267
	Alexis Pollock	94	646-0267
	Whitney Rider	92	642-1080
843	L Murphy	NP	
879	Edward J Kvet Jr	54	644-7499
	55 RESIDENCE	4 BUSINESS	

● HAMILTON RD 48009			
600- 699 CT1526	SA E 6		
622	John F Dziuba Md	646-5966	
631	H T Seyfried Do	68	646-9179
644	655 666 685	NP	
688		NP	
	7 RESIDENCE		

● HAMILTON ROW 48009			
100- 499 CT1526	SA E 6		
135	D Gorman	NP	
221	Birmingham Fl Cover	93	647-6150
222	B Fisher	NP	
245	Steven's Salon	93	646-4123
283	Morrey Fine Jewlry	68	644-7626
304	Etruscan Furn Inc	II	647-4272
315	Sy Thai Restaurant	94	258-9830
327	Thirty One Baskin	81	646-8208
330	C Casper	94	646-8883
	* C P Casper Atty	94	646-8883
	* J B Title Agcy Inc	94	540-1777
	* Kinks Copies	90	540-7755
	* Tom Knyk & Assoc	Inc	92 646-9080
336		NP	
344	Thomas D & Co	85	258-6029
	* Thomas D & Co	85	644-2257
360	Illusions Sherr	91	644-2144
	* Mtchill John Assoc	75	645-1533
379	King Jffry Intrs	II	646-3353
381	Gilbali Primitive	II	644-1730
383	Pogo Sktbrd Shop	II	540-0150
393		NP	
395	Hmitn Prk Sin Inc	76	647-0078
	5 RESIDENCE	18 BUSINESS	

● HANLEY CT 48009			
1600- 1699 CT1529	SA E 7		
1607	F Arthur Byington	92	644-7425
1610	J Amber	NP	
1621	G Hackman	NP	
	J Gardington	NP	
1626	Tommy Kenny	93	258-5358
1633	J Fischer	NP	
	D Jendritz	NP	
1638	William Legge	258-0843	
1645	Michael H Cassidy	85	540-8717
1652	Birmingham Spts Inc	II	644-6334
1657	Steve McDermott	82	645-6542
1666	Ronald D O'Neill	85	644-3945
1669	D Jendritz	NP	
1674	Chas E Griffiths	85	644-9137
1675	J C Borremans	94	642-1433
1676	J Else	NP	
1687	J Kaczor	NP	
1688	V J Caputo Sr	86	258-5613
1692	D Knorr	II	646-8688
	S G Knorr	84	646-8642
1699	J Williams	NP	
	20 RESIDENCE	1 BUSINESS	

● HANNA ST 48009			
300- 799 CT1528	SA E 6		
355	Blair Ramseyer	85	644-3274
	* Midwest Htg & Cool	79	647-2241
364	Lewis Renner	89	647-7223
380	Karl M George	58	646-9239
387	Jacques Frotter	92	645-2355
411	J Klotz	NP	
412	J C Stewart	NP	
425	L Grosinger	87	647-2534
447	Gene P Doyon	87	646-1413
463	Thomas V Locicero	92	647-5483
470	Samuel J Besner Jr	73	646-5942
491	S M Stroia	92	644-1149
492	Mark F Cykowski	75	646-1214
	Mark Cykowski	89	646-5508
503	J Ostrander	NP	
511	John D Myers	94	645-1249
	M M Myers	84	540-2725
512	Maro Garrison	92	433-3953
519	Tim Udell	NP	
524	Lou Harp	93	647-9264
535	Gordon Vestre	74	647-0795
536	J Sarkesian	NP	
547	Berta Meyerson	88	645-0153
	Marvin Molasky	94	645-0153
552	Shari Freas-Wright	II	642-1568
560	M Stuehler	NP	
563	John N Ostrander	87	646-5467
575	George P Ulrych	II	644-3505
584	B Brown	NP	
	G Gilbert	NP	
592	R Ogg	NP	
593	T Allen	NP	
	R Iorio	NP	
604	Gilbert Goode Jr	60	646-8865
607	W A Gibbons	54	646-5183
620	J C Burger	89	647-3641
623	Gerald Naski	92	646-6031
636	James M Murphy	94	642-8872
	Jas Murphy	94	258-5697
647	C Sloan	NP	
658	R Partin	NP	

● HAWTHORNE ST 48009			
100- 699 CT1527	SA E 6		
120	David J Beattie	93	647-6038
	M Perrill	NP	
123	Kyle Andeer	94	647-9218
174	Gregory Drumm	NP	
	* Gregory J Drumm	92	648-2422
	* Falcon Dev Co	93	648-2422
	* Pioneer Dev Co	II	646-7044
185	S M Brown	90	647-1439
	R J Williams Jr	93	642-7158
216	T H Rutledge III	86	645-1274
225	C Brettschneider	88	646-8720
272	W J Haidie	83	646-7665
	* Laclede Steel Co	94	647-3070
	* Laclede Steel Co	94	669-7130
285	A Arnstein Md	93	642-1844
320	John C Watts	88	644-7278
345	Walter F Dreyer	79	645-4960
348		NP	
380	Clay Kelly	92	642-8438
	J Claibourne Kelly	92	642-8438
	D Kent	NP	
	Elaine Moran	92	642-8438
416		NP	
454	W A Poznanski Md	63	646-9265
	* W A Poznanski MD	II	646-9265
500	A K Smith	86	645-0541

667	Curtis J Bailey	87	540-3959
670	H E Cockerham	II	642-4116
	T W Cockerham	II	642-9562
672		NP	
679	Dan Aronoff	94	644-2024
690	A Lapointe	NP	
695	Larry Dennis	II	433-9769
	G Tuznowski	NP	
701	Marc A Schwartz	78	644-0541
704	G J Montgomery	69	646-8254
725	P Rodney	NP	
728	M C Restaino	II	642-9089
733		NP	
750	William J Pizzuti	93	642-4448
751	George Bloom	91	644-4493
755	Gregory Wojtaszak	87	540-3864
	56 RESIDENCE	1 BUSINESS	

● HARMON ST 48009			
200- 1099 CT1526	SA E 6		
214	P Murphy	NP	
225	290	NP	
292	Brkts & Assoc Inc	73	644-0604
295		NP	
359	Jeffrey O Link	II	646-2761
372	George Whitehead	II	644-7392
	Phyllis Whitehead	II	644-7393
383	M Wallace	NP	
	* Ausberg Interiors	94	645-5660
415		NP	
420	P Sobelton	NP	
425	H P Silman Cpa	91	540-7422
455		NP	
460	K Foxworth	90	645-1351
485	Michl J Deegan Md	II	540-3130
488	William L Moore	90	646-8077
519	C Russell	NP	
520	Thomas Barlow	II	258-3434
521	A Lerner	NP	
525	Lueva Dixon	NP	
544	Charles Nolton	84	644-8826
548	Walter J Scully	78	645-9783
572	Walter C Reinke	67	646-6969
603	J J Candler	81	642-5524
	Allan M Hayes	82	642-5524
627	Charles Corkum	88	540-6462
630	Holy Name Cath	Ch	NP
		NP	
635	David Kolar	88	644-1671
637	David Katic	NP	
651	Dana Woodburn	90	642-9663
	Dana A Woodburn	89	644-3262
663	C Saperstein	NP	
679	Donald W Robinson	84	642-4425
680	Holy Name School	644-2722	
	* Holy NM Schi Rlgs	68	642-4130
691	H S Ujda	70	646-9054
707	J T Johnson	77	642-2584
711		NP	
727	Edward M Parks Cpa	647-4164	
743	Daniel Carroll	94	644-1773
760	Walter W Newgeon	73	646-1253
767	S Singer	NP	
787	Robert P Geller	91	646-0682
788	Denise Acierno	89	644-1372
	Peter Rosenfeld	89	644-1372
810	Robert A Hermann	65	646-3531
827	Cathryn Hickman	94	645-6318
850	Wm C Potter Jr	74	646-5241
	* W C Potter Jr Atty	74	646-5241
855	William E Bray	75	646-0523
884		NP	
895	Stan R Turner	84	646-4981
915	D Klakulak	83	644-8024
	June E Miller	94	642-9049
920	S Bigelow	NP	
929	B Armstrong	88	433-1629
940	Carl F Ingraham	76	644-0348
945	Cynthia Link	II	433-2719
960	Robert B Smith	84	644-5135
	54 RESIDENCE	5 BUSINESS	

94	646-6885		
	* Och Helen S Phd	II	645-5040
	* A Podolsky Atty	II	433-3388
	* Podolsky & Assoc	94	433-3388
	* Robert J Bthl Ctr	91	645-0432
	* P A Sarnacki Atty	II	258-1500
	* Jas Scieszka Atty	II	644-4529
1000	* First Fed Mi Subn	79	646-9340
1015	* Income Protect Inc	93	642-5885
1019	* Jones Apprl Svc	94	642-6650
	* Jones Crp Rlty Inc	94	642-1980
1300	A Frataricangeli	NP	
1312	Beiko Doreis	89	646-6529
1324	Lee Stottlemeyer	83	646-4633
1336	Nick Onica	73	646-8705
1342	M Ahlstrom	NP	
1350	P Chambers	NP	
1374	Frank Bonardi	74	645-0733
1382	R Cicciarelli	NP	
1398	M Golubovich	NP	
1399	Keith R Marchando	92	642-6871
1400	R McVittie	NP	
1415	Jonathan A Green	II	646-7304
1448		NP	
1461	Collis J Simpson	91	642-2488
1492	David Kircos	92	644-4006
1495	Alan M Shapiro	79	644-0419
1506	Mark A Bailey	85	646-4609
1507	Frederick J Winsor	II	644-8038
1523	N Filipescu	77	645-5192
1524	F Aitken	76	647-8485
1540	R Gee	NP	
	D Shires	NP	
1549	Floyd S Kannell	84	645-0670
1568	George W Winborn	68	646-5149
1575	Rodney M Petersen	83	540-1609
1582	M McLean	80	642-8382
1591	Andy Christensen	II	646-2275
1603	M Auberle	II	646-1182
1605	Andrew Jones	645-9265	
1606	Steven Clark	86	644-0471
1621	S Kane	NP	
1623		NP	
1628	Susan Kowitz	91	647-6943
1640	Norman Kern	76	645-9308
1642	1645	NP	
1647	Christopher Craft	II	433-0958
1652	Wm C Mc Donnell	78	647-7948
1659	M Asher	NP	
1661	M Asher	NP	
1674	John Brophy	92	644-3221
1675	Daniel A Donahue	79	642-5067
1677	Barbara B Hanby	88	647-8546
	J Hedberg	88	647-8546
1686	E Keller	87	645-2853
1691	1693	NP	
1698	P M Hughes	70	644-1310
1704	Thomas M Schulte	92	642-4454
1706	Mark Drayton	II	258-9893
1707		NP	
1709	Charles Wilder	NP	
1720	S Sawa	NP	
1722	S Sawa	NP	
1725	Kenneth D Swart	91	642-4656

512	S T Baxter	71	646-0033
540	L Short	NP	
607	Doyle W Mosher	86	645-9688
633		NP	
655	G Carpenter Jr Md	61	646-0384
	* Carpenter G Jr MD	II	646-0384
	24 RESIDENCE	8 BUSINESS	

● HAYNES ST		48009	
800- 1999 CT1529		9C E 7	
835	*Gdyr Tr&Rbr Dirs	85	647-337
	*Halbeisen Tom Inc	76	647-337
	*Tom Halbeisen Inc	76	647-337
851		NP	
909	*Chandler&Assoc	88	647-077
	*Freehan Bocci	88	647-960
911	*Bertha Salon	65	646-706
	*Irina Skin Care	84	646-706
	*Shelere Cosmetics	91	644-400
977		NP	
999	*Annuity Brkrge<	94	647-779
	*M Ashcraft Jr ATT	93	258-273
	*M Ashcraft Jr ATT	93	258-949
	*Baxter Symr MD PC	II	642-482
	*Blair Rich&Assoc	93	645-696
	*James A Burns Atty	94	258-273
	*James A Burns Atty	91	258-949
	*Robt W Cahill Phd	II	645-221
	*Card & Burns Attys	90	258-949
	*Cmrphnsv Const	II	642-056
	*Conway&Mac Kenzie	90	433-310
	*Conway Dunleavy	88	647-226
	*Evrgm Counseling	94	645-043
	*J W Francisco Phd	II	644-130
	*Goodwin&Sosz PC	92	644-452
	*Scott Goodwin Atty	II	644-452
	*Griffin Properties	93	646-800
	*Hicks Const Co	II	642-125
	*K&B Ins Mktg Inc	94	647-779
	*Gloria J Katz	II	647-131
	*Louis Katz Phd	II	647-273
	*J K McAllister Phd	II	645-107
	*B M McIntyre Phd	II	647-655
	*Ntl Spmsde Dvsphn		

BIRMINGHAM

1990-1991 SOUTH OAKLAND

BRESSER'S CROSS-INDEX DIRECTORY

PAGE 47

BIRMINGHAM

HANNA

48009

300- 799 CT1029 8C*D 8
355 BLAIR RAMSEYER 5 6443274
364 LEWIS RENNER 5 6472223
380 KARL M GEORGE 6489239
387 ANTHONY KIRTON 7 6451426
411 412 NP
425 L GROSINGER 7 6472534
447 GENE P DOYON 7 6481413
463 DAVE GARRETT 10479713
GLENN GRAMLING 10479713
KEVIN KAROLL 10479713
470 SAMUEL J BESNER JR 6485942
491 NP
492 MARK CYKOWSKI 9 6465508
MARK F CYKOWSKI 6461214
503 511 NP
512 SUZANNE HONIGMAN 8 6470314
519 F KENNER 6420390
524 KENNETH W GUNN 6440531
535 GORDON VESTRE 6470795
536 J S CARR 6464309
547 GERALD MEYERSON 8 6450153
552 NP
560 RICHARD O'CONNELL 6 2580710
563 JOHN R OSTRANDER 7 6465467
575 JIM ROSENTHAL 6 6477359
584 NP
592 STEVE PILZNER 2 6448954
N REISS 6448954
593 JOHN R LONG 10452755
604 GILBERT GOODE JR 6488866
607 W A GIBBONS 6465183
620 DANIEL ASHCRAFT 104627416
J C BURGER 9 6473641
623 NP
636 C L FREMUTH 3 6450910
647 JOACHIM MATTHEIUS 6462188
658 NP
687 CURTIS J BAILEY 7 5403959
672 LEONARD P CERONE 6421833
678 STEVE LASH 3 5402716
690 NP
695 HENRY TUZINOWSKI 6465487
701 MARC A SCHWARTZ 6440541
704 G J MONTGOMERY 6468254
728 FRITZ CARLSON 6 2586314
733 NP
750 N P GREENBAUM 6476730
765 GREGORY WOJTAZAK 7 5403864
50 RESIDENCE

HARMON

48009

200- 999 CT103002 8A*D 8
292 BIRKERTS&ASSOC 6440804
359 M VERDESCHI 7 5403754
372 NP
385 LORI EICK 104677083
415 NP
420 VINTON BIRCH 5 6445769
480 K FOXWORTH 104651351
485 TERRELL E THOMAS 2 5404850
488 WILLIAM L DOORE 7 6465677
519 CHARLES RUSSELL JR 10426848
CHARLES RUSSELL JR 6426848
520 N STERLING JOHNSON 6467754
521 NP
544 CHARLES NOLTON 4 6446826
548 WALTER J SCULLY 6458783
572 WALTER C REINKE 6468969
603 J J CANDLER 1 6425524
627 CHARLES CORKUM 9 5406482
630 HOLY NAME CONVENT 6468106
635 MATTHEW PIERCE 104627615
637 KEVIN CLEARY 8 6427342
BETH GILLIES 8 6427342
651 DANA A WOODBURN 9 6429663
DANA WOODBURN 10429663
663 NP
678 DONALD W ROBINSON 4 6424425
680 HOLY NAME SCHL 6442722
HNS RELIGION DIR 6424330
691 H S UDA 6468084
707 J T JOHNSON 6422584
711 NP
743 JAMES P CALLAGHAN 6423423
760 WALTER W NEWGON 6461253
767 787 NP
788 DENISE ACIERNO 9 6441372
PETER ROSENFIELD 9 6441372
810 ROBERT A HERMANN 6463531
748 HAROLD C HICKMAN 8 6450043
850 W C POTTER JR ATTY 6465241
855 WILLIAM E BRAY 6460523
884 VERNON BRYANT 6443990
895 R STAN R TURNER 6449818
915 D KLAKULAK 3 6448024
920 NP
929 B ARMSTRONG 8 4331629
940 CARL F INGRAMHAM 6447117
945 ROBERT A LINK 6472539
960 ROBERT B SMITH 6448135
46 RESIDENCE 4 BUSINESS

HAWTHORNE

48009

100- 799 CT103001 8A*D 8
120 GABRIEL J COUREY 9 6478438
123 JOE FORD 9 6478438
174 T A HUNTER 5 6471175
185 M M BROWN 10471439
216 T H RUTLEDGE III 6 6451274
225 C BRETTSCHEIDER 8 6468720
226 W J HADLE 3 6467665
285 DR A R ARSTEIN 6421844
320 JOHN C WATTS 6447278
345 WALTER F DREYER 6464960
348 SIDNEY KOSLEN 6421313
380 DAVID L KENT 4 6443780
416 NP
454 DR W A POZNANSKI 6469265
500 A K SMITH 6 6450541
512 S T BAXTER 6460033
540 LEONARD SHORT 104677758
607 DOYLE W MOSHER 6 6459888
633 NP
655 DR G CARPENTER JR 6460384
19 RESIDENCE 1 BUSINESS

HAYNES

48009

800- 1999 CT1028 8C*D 8
835 GOODYEAR TIRE CO 6473370
TOM HALBEISEN INC 6473370
851 NP
911 BARDHA SALON 6467061
*IRINA SKIN CARE 6467061
977 NP
999 ADVISE INC 6477210
*ALLEGHENY-LUDLUM 6452840
*L J BURNETT ATY 6424346

399 CARO&BURNS

*R CAVANAUGH ATY 10420350
*CHANDLER RBASSOC 6470775
*CONTI DEVELOPMENT 6422800
*CONWAY&MACKENZIE 64333100
*CONWAY&MACKENZIE 6472288
*DIVERSO EQUITIES 6452590
*EVERGRIN CNSLG CTBS 10464033
*J W FRANCISCO PHD 8441300
*FRANKLIN HM LNDG 6441500
*FREEMAN BOCCIAO 6479600
*DR D J GONZALES 6440570
*GRAPHICS 55 6455905
*HEALTH-CARE RECRTS 6478170
*JOHN L NYNCH III 6470560
*DR J K MCALLISTER 6451075
*BPG INC 10477350
*SHARON N RUDE MSW 6450432
*STEWART TITLE CO 6424050
*TRANEX FINANCIAL 6441500
1000 *1ST FEDERAL OF MI 6467342
*1ST FEDERAL OF MI 6467510
1015 *MCCLELLAND&CO 6452803
*SRM TECH 6452771
1019 *HAAS&WILKERSON 2589800
*W R HOWELL&ASSOC 2589800
*W R HOWELL JR INS 2589800
1300 HOMER L INING 6463317
1312 BELKO DORESI 9 6468529
1324 LEE STOTTELMYER 3 6464633
1336 NICK ONICA 6468705
1350 NP
1355 FRANK BONARDI 6450733
1382 NP
1400 DANIEL PERK 8 6426543
1415 WILLIAM N HUNTER 6467666
1448 SEAN BENHAM 8 6451238
1461 NP
1492 F ARTHUR BYINGTON 6447425
1495 ALAN M SHAPIRO 6440419
1506 MARK A BAILEY 5 6464609
1523 N FILIPESCU 6455192
1524 F AITKEN 6478465
1540 ROBERT W GES 6441197
1549 FLOYD S KANELL 4 6460670
1568 GEORGE W WINBORN 6465149
1575 RODNEY M PETERSEN 3 5401609
1582 M MCLEAN 6428382
1591 LAWRENCE SULLINS 2585804
1603 STEVEN SCHILLER 8 6468012
1605 JERT BARTUSH 8 6433107
1606 STEVEN CLARK 6440471
1621 MICHAEL HUCKE 9 6479153
1623 1628 NP
1640 NORMAN KERN 6459308
1642 NP
1645 MICHAEL D GRODOCH 3 5404815
1647 LAWRENCE SCHAPPA 8 6452353
1652 NM C MCDONNELL 6477948
1659 STEPHEN PRAYEL 9 6441555
1661 O MCCOY 10450877
1674 NP
1675 DANIEL A DONAHUE 6425087
BARBARA B HANBY 8 6470584
J HEDBERG 10470476
J HEDBERG 7 6452653
1686 E KELLER 6428805
1691 NP
1693 PATRICK KAWA 10452657
1698 P M HUGHES 6441310
1704 ROBERT RICH 8 6425458
1706 NP
1707 M B VINCENT 3 6442838
1709 M B TOBIN 7 6445938
1720 NP
1722 MARK HOTTA 9 6472603
1725 NP
1727 TOM TROUP 10479297
1750 1751 NP
1752 BRIAN CZAJKOWSKI 8 6461412
BRIAN T GRAENING 8 6461412
1753 1754 NP
1774 DONALD OLSEN 10473894
1775 PAUL HUSSEY 6 6427063
1776 MICHAEL NIELSON 6466717
1777 NP
1795 JOSEPH ADAMO JR 6442898
TED PRZYBOCKI 8 6472733
L A STAAT 8 6472733
B BEYER 6451128
1809 A PRISCIAANDARO 6447228
1810 CATHERINE CHAPMAN 2589326
CARMEN SAPIANO 2589326
1822 L M LAFALCE 10479049
1825 L WOLF 9 6479739
1843 S D BURROWS 6446369
V A BURROWS 6440957
1844 1861 NP
1866 GEORGE WEGA 6463723
1875 H L STEVENSON 6470351
1878 BRENT CASSEL 6 6467962
1889 IVAN TOTI 6464624
1890 NP
1900 EDWARD J POWLR 9 6450693
1901 T E WALUN 7 6471237
1919 NP
1924 GREGORY W KESSLER 8 4331235
1933 WILBUR E BARRICK 6467368
1936 MARK CIUCCI 10469258
1947 THOMAS W KERR 6473696
1948 LOUIS J ZIMMEL 5409848
1959 NP
1960 WALTER LACEY 6470246
WILLIAM PASCOE 6472568
1975 PHILLIP H DAFEO 6473368
HUNTER HOLMES 1 6474188
1994 1999 NP
102 RESIDENCE 34 BUSINESS

HAYNES CT

1300- 1499 CT1028 8C*D 8
1342 JOHN J AHLSTROM 6420293
1350 NP
1366 JAMES W MACK 6472182
1374 THOMAS LAMB 5 6462007
1382 NP
1398 M GOLUBOVICH 6450829
6 RESIDENCE

HAZEL

700- 1999 CT1028 8C*D 8
816 NP
835 G L CHAMPAGNE 8 4333392
844 ZELLA M DEWEY 6445669
RICK LEWIS 9 2589522
858 867 888 893 NP
896 J M MCBRINE 6447099
920 ANTHONY SPEHAR 6446175

MICHEL M MARCOVITZ

7 4333628
M P ROGERS 7 4333628
939 J CALLAHAN 6424688
MARK ENLOW 9 6476231
940 WILLIAM FUNG 6469618
955 B L HARTE 9 2583908
960 MICHAEL F ABLESON 10463116
962 C W MCADAM JR 9 6452918
963 D THOMPSON 8 6472401
998 TIM OPI 10459164
1011 RICHARD R BROWN 10433751
1020 PAMELA MOERI 104678454
1031 LAURA VERRAST 9 6473955
1044 ALVIN STEIGER 104621918
1045 J THOMPSON 10406406
1060 CARL D KUMER 6472401
1077 A MILBRAND 6467446
1078 DARRELL MOFFITT 10465955
L STAMP 6469167
1088 M A LAPONSA 6469402
1315 M ELLIS 4 6445596
1321 M HAGGARDSON 5 6460839
1346 WALTER CZERWINSKI 104677543
1353 NP
1362 DONALD SCANNELL 6 5409195
1379 MICHAEL WASSERMAN 2 6446268
1387 CHARLES BARACK 8 5401056
1394 CARL EVANGELISTA 6429218
1435 ALFRED N MASKILL 6426919
1438 C VELCOVICI 6478634
1460 MELVIN H ROMAIN 6469642
1469 L M LISZKIEWICZ 6468131
1481 NP
1486 THEODORE MAGURAN 6468179
1522 J M MONTEITH 3 6443916
M K MONTEITH 7 6448720
AARON STANDER 6448720
1527 NICHOLAS KTONA 6444075
1543 WILLIAM E FEVER 6421077
1548 PHILIP A MARTZ 6461138
1564 JOHN R MASON 4 6425732
1565 DAVID S LITSTER 10464743
1582 NP
1589 KENJI INO 104677091
1593 WILLIAM B RUSSELL 6469386
1596 VERA ZYRIBULIS 6440456
1600 M CRAIG 8 6425944
1611 LOUIS J HUDSON 6425944
1626 M B JENSEN 10458967
1637 A D LALIC 6466367
1638 MARIAN RETTRAY 7 6429816
MARIAN RETTRAY 8 6444667
1650 RUDOLPH M BARTFAY 6478455
1655 NP
1673 P C SCHMITTIDEL 5 5408681
1684 NP
1696 ERWIN R RAKE 9 6465922
1699 J KIRBY 6426914
1704 C DEANE MOCK 6444207
1707 NP
1722 A WOLF 6460091
1731 NP
1746 JOANNE HANSON 5 6429462
LINDA C MELIN 5 6448754
1753 WILLIAM RUTHERBERG 6443295
1754 1756 NP
1780 J GAGNON 6440682
1794 SCOTT CHRISTENSON 10467173
1795 RICHARD C CORK 6421393
1807 JAMES RILEY 6 2589899
1808 FRITZ STRECH 7 6447058
1821 ROBERT A BRAUNER 8 646904
1842 VERNON IMHOFF 1 6467152
1845 NP
1856 VINCENT P DEPORRE 8 6428956
1859 NP
1863 LESLIE G CRABB 6461272
1870 JOSEPH NASHIF 10409448
1881 BURKE LEWIS 6 6447093
1888 G KENNEDY 10466839
1901 D SALIM 6455574
1904 NP
1915 T HALLMAN 6 5403102
1916 PAUL TONTO WOLF 4 6447091
1929 PAUL TONTO WOLF 5 5403868
1930 HERMAN FLEISCHER 6463758
1943 DARLENE A HALL 6 2586115
1948 JAMES A LEBLANC 9 5407032
1962 BRYAN RITTER 9 2585285
GRAHAM RITTER 9 2585285
1967 JOHN C SENKOWICZ 10409376
1973 M CRUCE 6425468
1974 J DREISSGAKER 7 6477716
1998 C A ROMANIGALL 2 5403724
1999 NP
107 RESIDENCE

HAZELWOOD

700- 899 CT103002 8A*D 8
735 LAWRENCE F KOLASA 8 5403868
744 H L KOHLMEIER 6441320
759 GARY GRENZ 8 6428126
764 THOMAS J KOWALESKI 6427368
787 PATRICK B MCCAULEY 10461373
788 E SPILKIN 7 2585933
LARRY J SPILKIN 6 6423722
815 PAUL CRAFTON 8 6466947
820 DOUGLAS MANIX 7 6468159
844 HOWARD ENGARD 6468833
JOYCE MILLER 9 6468833
851 GEORGE S QUIN 6464163
876 DANIEL MEISSNER 9 6467706
877 MARK EICHMAN 5 6449067
14 RESIDENCE

HENLEY

200- 999 CT1031 8B*D 8
250 ED ZIMMER 5 6445173
292 B B HAMILTON 3 6420123
B B HAMILTON 3 6447745
ROBERT MCGOWAN 3 6420123
319 NP
320 MICHAEL A CASE 6445788
342 GREGORY M KELLY 5 5408915
358 MORTON H ALGER 6475298
359 FREDK C ECKHOUT 6469044
M ECKHOUT 10472483
445 EDWARD SHANAHAN 9 6469081
460 E JAMES ERWIN 6425377
E JAMES ERWIN 6445895
463 MARGO MENDELSSOHN 5 6478921
487 HOWARD L PHILIPP 6466117
510 JOHN R SMITH 6448046
519 JOHN A BLUTH NP
550 K M STEINMAN 1 6466578
555 STEPHEN JESKE 4 6429678
587 GEO J AUCHTERLONIE 6480417
621 PATRICIA CURTIS 6464545
631 RABBIT G EARY 9 6451748
640 DR WILLIAM WARD 6477476
678 NP

JOHN CRAIN

740 PATSY G GANIARD 6420103
*R F GAINARD 6470213
749 REV H C MCGEEHE 6424136
758 RICHARD MCCOPIIN 3 5404193
RICHARD MCCOPIIN 9 847015
770 SAMUEL E HARPER 7 6472628
*THE O'BRIEN NETWK 1047786
800 CARL WISNIEWSKI 5 6460058
833 NEIL A MILLER 8 6446509
852 KURTIS S KRAMER 8 6447542
875 NP
877 G JAMES HERMAN 6 2585517
1040 HAROLD T STEPHENS 6461699
972 JOHN T BARRY 7 4331982
992 ALAN S LENHOFF 6 6464665
995 OWEN E PERRY 6467445
41 RESIDENCE 2 BUSINESS

HENRIETTA

48009

100- 1999 CT1029 8C*D 8
111 *BIG CHILL 2586690
155 *AAA PREFRO LIMO BH 6477433
*LIMOUSINES HAGEN 6477433
*WAMCO SOFTWARE SYS 6426570
410 NP
460 S PERELLI 5 6464946
530 E ROTH 9 2589517
535 BARTON WITTERS 2 5402760
536 ALEX F FISHER 9 2582737
544 T MAHLER 5 6451405
6 PAULA 104685007
547 DEBORAH KAY 2 6456348
557 B B ATKINS 6442322
580 LANCE PARKER 9 6468414
571 HARTGER J BORGMAN 6427993
572 RICHARD KONG 2585842
MICHAEL SANTORO 2585842
579 GEORGE BOEHNEKE 6470841
590 CHRISTOPHER SMILEY 10404822
591 ROBERT C BENSON 6 5406605
D M DZIEPAK 9 5406605
596 R STARK SCHOENHERR 10429343
R STARK SCHOENHERR 10429342
600 611 NP
627 GUY GLAZIER 10433316
JEFF B GLAZIER 10431879
630 LEN J PARKER 8 6456022
636 ERIC J MCCANN 9 6423729
647 652 NP
651 MICHAEL J ASHER 10474082
668 R A GIENAPP 6 6459410
695 JEFFREY GEMBS 9 6456227
713 EDMOND A GUISEPPE 10464732
751 HILMER C CARLSON 6447893
754 J KUCZERA 10465834
766 NP
768 ANDREW H FISHER 104621679
771 EDWARD H NEEB 6445174
773 JOHN B WHITAKER 10446325
784 ROBERT A CARLSON 3 6463693
786 789 NP
791 KATHERINE LUDWIG 104586938
802 DIANE HAHN 8 6454282
JAMES M RILEY JR 104623415
821 ROGER N TOOTHACKER 6 2585817
A TROCCELLI 10455428
822 J WOLF 8 6445866
833 K BURKE-BROWN 104668672
838 NP
840 LAWRENCE M GJELDUM 9 6446094
849 D S ABDELNOUR 7 4331871
DONNA ABDELNOUR 8 6450580
THOMAS T STOLBERG 10463868
852 DAVID STUMBRAS 10474852
854 859 NP
861 ANDREW JAKUSSI 104676093
DAVIDS TRUMBLE 104676093
866 868 875 NP
877 N L SPRY 104674429
878 LISA DEGRYSE 8 4333285
880 LARRY MELKUS 9 6469226
888 J STREET 7 6428089
890 L HAWLEY 2586073
891 DR D J GARFIELD 6 6423668
893 VALERIE KIN 10461248
895 KRISTEN STROGER 10461248
DR J W RUTHERFORD 6 2581553
920 PAUL STARONECK 9 6472468
922 NP
940 JAMES R BUCHANAN 6448679
947 C A FAIRBROTHER 2 6400210
MICHAEL SCHLANGER 8 6477243
987 PERCY LOCKHART 6445470
980 JAMES M JACOBucci 9 2588721
982 995 NP
997 P A HENRY 6 2585821
1010 J CLAR STANDISH 7 4333068
1012 GARY STERNITZKE 10479051
1015 BEN RAGLAND 6462218
1017 C J INGLIS 10474568
1047 B L CULLMAN 6474292
1048 T M JONES JR 7 5573494
1050 L A BENNETT 2 6424351
1051 HAROLD E ZEGLER 2 642351
JERRY L WHITE 6473578
1111 LAWRENCE WILHELM 9 4331869
1133 1146 NP
1156 H RICHARD VERBIEST 6461847
1168 STANLEY J PIEPRZYK 9 6443855
1176 J R TASSONE 9 6463371
1177 FREDERICK OSANN 5 6463371
1196 ROBERT L SPANGLER 6 2589016
1199 K A PICKERING 5 6447313
1206 THOMAS J USHER III 6468521
1211 GARY R LONG 9 6448135
1228 F M SEID 104676252
1246 J WIGFALL 7 6423725
55 B J CLIFFORD 6 6442934
CHRISTOPHER BOLTON 1 6450141
CHRISTOPHER BOLTON 9 6452971
1266 NP
1277 WALTER W LLOYD 6470932
1298 JOHN M STRAUSS 6464157
1299 RAYMOND KASSAB 6467831
1308 ANDREW W RICH 4 5408734
1311 JOHN H GILLS 6462815
1345 J CONNOLLY 9 6422458
1348 J L PECK 8 6473681
1375 ALEC J BELIASOV 1 6422684
1377 NP
1421 ALLEN COHEN 6426587
1424 VINCENT G KUHN 6 2586597
1430 RONALD J EVANS 6468905
1433 WILLIAM G BIGELOW 1 6460278
1447 T P STRETLIN 10462742
1452 JOHN A FRASIER 6468451
1465 WILLIAM F OLSEN 5 6450569
1470 NP
1483 W R DENYES 6468155
1488 F S STRONG IV 6423461

995 JOSEPH MATHER RYAN 1 48009
1040 BROOKS MARSHALL 6463932
8 RESIDENCE 6440590

GRAEFIELD CT

48008

ALL ADDRESSES FROM
621 TO 762 ON
GRAEFIELD CT ARE
WILLIAMSBURG
VILLAGE APTS
176 UNITS
WILLIAMSBURG MGMT
800-799 T 1031
** 1500-1999 T 1031 98**D 9
621 DR D BASTIANE L 4 6431691
622 DAVID SWANCHARA 2 6434373
633 G M BURCH -6434705
634 GEORGE H ZBIKOWSKI 4 6434947
645 V S MANCUSO JR 3 6434968
646
657 DOUGLAS W MORRIN 1 6434935
658 DR S K CAMPBELL 4 6434954
660 R NERRETER 4 6434966
666 S W POEPELMAN -6434308
669 NP
671 DAVID OSTERFELD 1 6434968
672 NP
683 P BAGCHI 2 6438757
684 695 NP
696 JAMES R BOSCO 1 6434848
JAMES E BROOKER 8 6435348
702 NP
704 G MORRISON 3 6439321
706 L M ENGLISH 1 6433071
708 KENNETH F SILVER 4 6433085
710 ALAN PANGBURN 4 6437147
712 714 715 NP
718 C S TILOR 1 6432851
720 M K PERCEFULL 1 6439312
722 DAVID C RASMUSSEN 3 6435379
724 ALLEN C CULBERTSON 6 6439084
726 S R HUDDLESTON 4 6438266
730 NP
732 CAREY DEWITT -6434933
734 J CORTIS 4 6438208
734 KATHERINE STAMPER 1 6435661
736 M J EMBREY 1 6434916
738 GEORGE HUGHES -6434334
740
742 J KALLIE NP
744 4 6438154
746 N REIGE -6434961
748 B SAWYER -6430364
750 NP
752 M MALINE 2 6435328
754 DALE FOUTCH 4 6435684
756 E J KEITH 4 6435186
758 NP
760 ANN M DROPLEWSKI 3 6438402
762 NP
48 RESIDENCE 1 BUSINESS

GRAEFIELD RD

48008

ALL ADDRESSES FROM
1500 TO 1999 T 1031 98**D 9
1530 A C ROBERTS JR 4 6435338
1532 JON S HAINLINE -6430087
1534 KATHY ANKROVE -6433386
CAROL WILLIAMS -6433386
CARL T BROBERG 6435132
ALL ADDRESSES FROM
1500 TO 1999 T 1031 98**D 9
GRAEFIELD RD ARE
WILLIAMSBURG
VILLAGE APTS
176 UNITS
WILLIAMSBURG MGMT
800-799 T 1031
1600 STEVEN STEINAU 1 6439322
1602 K R LOVETT -6434684
1604 MELVIN WHITE -6434856
1608 1609 1610 NP
1612 JAMES MAHONEY 2 6439176
JAMES MAHONEY 2 6439332
1616 C W MODRACK JR 4 6432015
1618 RICHARD WARNEKA 1 6433073
1620 FREDERICK SYNN 2 6430608
1621 C DICICCO 2 6439643
H D HIRZEL 2 6439643
1622 A ROBERTS 4 6430329
1624 S R LIEBERMAN 2 6430480
1626 M MARY 3 6439701
1628 JEFFREY SINGER 2 6439594
1629 RANDALL LEITMAN -6433754
1630 KEVIN PEPPARD 3 6439043
1632 TOM HOCH 4 6435444
1634 1634 NP
1637 D ARNOLD WHITE -6430373
1640 M JARMAN 2 6431264
1641 L M GRIFFITH -6436274
1642 S E GRIFFITH -6436274
1644 J N BUE 2 6437593
1646 1649 NP
1650 JAY VOGELBAUM 6 6435432
1652 PEGGY FISHER -6439322
1653 NP
1654 PETER BRIAN OBE 1 -6430151
1656 JULIEN GENDELL 3 6434370
1657 NP
1680 STEVEN NASH -6435344
1681 ROB SERING -6430036
1682 STEPH VANOPHUIJSEN -6434443
1684 JOSEPH L WRIGHT 1 6436581
1686 C J BEAL -6438203
1688 GARY ANDREWS -6439103
BENJAMIN W CAMERON -6439103
1670 MARC WEISMAN 3 6434154
1671 S C DEAKINS 4 6434318
1673 RICHARD PINKHAM JR 4 6433732
1679 J Y E BRANT 1 6430919
1680 N M HUFF -6432127
1682 W O BRIGGS IV -6439327
1683 CRAIG HANSON 3 6430839
1684 PAMELA A MEYER 3 6430839
PATRICIA WARD -6434681
1686 P R HOLIHAN 1 6430340
1687 JAMES E THOMPSON 4 6436622
1688 JOHN HUMPHREYS NP
1690 H H BARTON 4 64393507
1694 KATHLEEN GJELDUM 4 6434451
695 NANCY KELLEY -6433296
1696 TIM PRICHARD 4 6433684
1698 TIMOTHY BROWN -6439109
JULIE WOLSKI 1 6434528
1699 JOHN F ROSS JR 1 6431558
1702 V POTTER -6430404
1703 EDWARD DOUGET III -6435101
1704 JEFFERY JONES 2 6430728
1710 NP
1711 STANLEY MARTIN 3 6431449
1712 DOUGLAS B AUST -64396124

1714 SUSUMU NAKAYA 4 6436457
1716 R THOMAS LEFFLER 1 6430548
1722
1724 K L FREEBERG 1 6439104
1726 PHILIP W MELCHER 8 6434767
1727 P ARNOLD 2 6430899
1728 M NICKEL -6430461
1734 NP
1735 Y SNOW -64339363
1736 HAROLD J SAUER 1 6439089
1740 PETER D CLEARY 4 6430448
1740 MATTHEW C JONES -6439255
1743 CHIN WAN CHUNG 4 6439414
1744 DIANES PHOTOGRPH VW -6439467
1746 MARK D ANDERSON 4 6435963
1748 ALAN STAMM 1 6430432
1750 JEFF LLOYD 4 6436669
DANN MANZ -6430230
1751 WM H DAESCHNER -6437202
1752 LAWRENCE A RUBIN 4 6436082
1758 LIN MCKINNIE 4 6430481
1759 DIANNE WRIGHT 4 6430481
1760 MATTHEW MCCOLL -6430033
1762 NP
1767 W R SMITH -64390556
1768 JAMES DOWDY 4 6438172
1770 NP
1772 MICHAEL J KANKA -6439356
1774 NP
1776 JAMES M MEIDELL 4 6434746
MICHAEL REID 4 6434746
1778 J E BROWN 3 6438424
1779 1783 1784 NP
1786 H J EWEN 4 6439891
1788 S DRESSER -6438016
ROBERT E KATZ 4 6438016
1790 F A GRISINGER 1 6431902
1796 JOHN P SHERIDAN NP
1798 JOHN F LONGDIN 1 6434397
1800 1801 NP
1806 J A GOTTLIEB -6439289
1807 NP
1810 SIDNEY M BERMAN 3 6435421
1812 NP
1814 REX A MARTIN 2 6435582
1816 1822 NP
1834 K KIMEL 4 6438178
1846 BARRY DOUGLAS -6435152
1868 NP
B J PARKER 4 6435736
1872 A G HEARNE 1 6430846
1878 1882 NP
1886 J KOME 2 6434310
WARREN MCINTYRE 2 6434310
1892 NP
1898 RICK A MICHAEL 4 6438340
1898 BILL HROVATIN -6438596
1900 MARTIN A MIX 6435181
1901 N SPERONI 1 6436486
1905
ALL ADDRESSES FROM
1906 TO 1991 ON
GRAEFIELD RD ARE
GRAEFIELD TERRACE
CONDOMINIUM
NMIA
A K BRUTTLE 3 6435590
1921 S CARMAN NP
N REX 1 6439316
1927 NP
1928 F MCKENNA -64394479
1930 DALE E BURGARD 7 6439387
1936 P J ZAMORSKI 6 6438509
1938 C KOSER 0 643057
1940 G M GENCA -6439625
1941 NP
1942 V L CAMPBELL 9 6430089
1943 NP
1944 GENE GIZZARELLI 3 6430232
1946 ELIZABETH GIBBS -64396127
1948 C J BURNS 6 6436704
1950 S E ECKLEY 6 6436697
1951 JAMES M LUDWIG 4 6438133
1954 A WATY 0 6432966
1955 L E BRUTON 6435176
1960 ROBERT J BISHOP 4 6435828
1961 B E LEWIS 6435356
1964 F JORDAN 9 6438672
1970 DR W C CROWSON NP
1971 1974 NP
1975 MARY LU ROBERTSON 6435531
1981 KATE CHERRY 8 6434634
1983 CAROLYN PACHECO 6436676
1984 MICHAEL C POKER -6436298
ROBIN WALTER -6436298
1985 B E GILE 6436367
1986 NP
1987 MARIAN HOAG NP
1988 M DWYER NP
1989 A C WUGHTER 6435025
1990 1991 6435464
181 RESIDENCE 2 BUSINESS

GRANT

48009

1148 GINGER GRP BTY SLN 6452767
1160 BRGMH GLSAMIARROR -2585000
1184 DIRCTN SCH EARL ED -2585456
1700 L BLANKENSHIP JR -6466768
KENNETH MCURER 4 6430374
1704 V BITTER 4 6440398
1708 1712 NP
1716 L KERSHENBAUM NP
1720 3 6403781
1724 CLARA LEE 6476185
ELYNOR LEE 6476185
S K OTT -6450638
1728 L L SCHENK 3 6404028
1732 D MARSHALL 1 6433589
1736 BARBARA BARRETT -6448481
1740 JAMES HUNTER -6402702
1744 DIANE FINNEY 1 6401288
1750 L R GREENSPAN 3 6408374
DANIEL L LONSKI -6407714
1754 CAROLYN JOHNSON -6448484
1758 JAMES A UPSTILL 9 6459028
1762 JACK C SCHISSLER 6422807
1766 NP
1770 LEO GRAUPERA -64509803
MICHAEL MASAITIS 2 6420679
1774 DR J F OLEARY -64506484
1778 NP
1782 JAMES F LYONS 2 6427939
1786 1790 NP
1794 ALFRED KELLIHER JR 6447671
28 RESIDENCE 4 BUSINESS

GREENLAWN

48009

1200-1399 T 103001 9A**D 8
1242 DAVID M LAWSON NP
1356 2 RESIDENCE 8 6450185
200-899 T 103002 9A**D 8
255 NP
279 MICHAEL J VALKO 6477634
292 D K ROOSEVELT 6469215
303 RON MILLER 3 6448380
543 DAVID F RANEY 3 64432116
319 H M CORRIGAN 4 6478233
324 MARY E SAVOIE 2 6420155
PAUL SAVOIE 2 6472863
327 WILLIAM J MACQUEEN 7 6420026
336 WILLIAM B WINTERS 2 6455982
347 ANDREW D HENDRY 4 6420545
348 MRS LEGRAND F DALY 6461327
359 NP
364 EARL GROVES 6441323
371 OTTO H RACETTE 6442671
383 NP
388 JOSEPH D BULONE 6467477
395 MARVIN E MOORE 6443484
407 M L ASHCRAFT 0 6451277
M L ASHCRAFT 0 6450783
418 NP
426 DAVID W LARSON 8 6452086
443 A M ENGRAM 1 6463567
452 ALVIN SPIRO 3 6407756
511 E F HARRIGAN 6442788
525 JIM EVANS -6442468
532 RONALD P REA 5408618
559 RONALD D EICK 3 6441661
575 THOMAS FINCH -6409231
587 MILTON A ZUBE 1 6462318
611 LINDA DURAND -6464659
JAMES R NEUHARD -6464659
631 DR J JOVANOVIH 6447308
655 ROBERT JONES 6437495
656 E H SESTOK 6444678
667 NP
111 JOHN MORGAN 4 6425520
739 NP
750 G M FREDERICK 4 6440649
780 SANDRA PHILPOTT 4 6440649
K B SMITH -6466924
787 M B MORTON 6445389
819 E V MALARNEY 6444180
828 NP
843 RICHARD C MURPHY 6450760
875 EDWARD J KVEY JR 6447495
46 RESIDENCE 1 BUSINESS

HAMILTON RD

48010

800-899 T 1031 98**D 9
622 DR JOHN F DZIUBA 8 6459868
631 DR H T SEYFRIED 6469179
DR L A SEYFRIED 6469179
3 BUSINESS

HAMILTON ROW

48011

300-399 T 1031 98**D 9
304*ENCORE FURNISHING -64255140
315*GAG CUSTOM FLOOR 6478150
330*HAMILTON ROW RTY 6422760
M E KENNY ATTY 6469076
375*COMMERCIAL SECRETARY 6469076
344*ALLUSION BY SHERRI -6442144
D THOMAS&CO -6428629
383*JEFF FONTANA DSGN -6400299
8 BUSINESS

HAMILTON ST

48011

100-899 T 1031 98**D 9
221*JIMMIES RUSTIC INC 6441919
268*GAMMAGAMES 6465507
283*MOOREYS FINE JWLRY 6447626
327*31 BASKIN ROBBINS 6468208
330*ROBERT S BERG ATY 6469076
*TOM KENNYBASSOC 6469080
*DAVID H MILLER 6469076
*MILLERBERG ATTY 6469076
*L A PHILLIPS 6469076
*SOFTWARE DYNAMICS 6469489
*WOLF CORP 6450115
344*DR THOMAS&CO -6442257
360*J MITCHELL ASCS 6451533
375*HAWTHORNE HME APPL 6442200
375*COMMERCIAL SECRETARY 6469080
384*DR R WHITE 6469076
391*DR I BOTVINICK 6442468
*DR ALVA D RUSH 6448343
395*HAMILTON-PRK SALON 6470078
19 BUSINESS

HANNA

48009

1600-1699 T 1028 9C**D 9
1621 JOHN A PARDINGTON 4 6465083
1626 DIANE GANUN -6424169
ROBERT ZWART -6424169
1638 MARC E KALINOWSKI -6421947
1645 MICHAEL H CASSITY -6408717
1657 STEVE MCDEMOTT 2 6455642
1666 RONALD D ONEILL -6443945
1674 CHAS E GRIFFITHS -6449137
1675 J R KNORR 4 6458642
1689 JERRY WILLIAMS -6446295
K WILLIAMS 11 RESIDENCE
300-799 T 1029 9C**D 8
355 BLAIR RAMEYER -6443274
364 NP
380 KARL M GEORGE 6469239
387 ROBERT GORLIN 8 6445932
411 425 NP
447 BRADLEY D HOST 7 6445894
463 E H STIEFFELMAYER 3 6471171
WESTON G WICKHAM 3 6471171
470 SAMUEL J BESNER JR 6465942
491 NP
492 MARK F CYKOWSKI 6461214
511 NP
512 RICHARD STIEG 5402619
519 VERNAL KENNER 6420390
524 KENNETH W GUNN 6440531
535 GORDON VESTRE 6470795
536 J S ARNOLD 6464309
547*K&C RENOVATIONS 6426294
KAREN L MCCUE 4 6426294
CHRISTOPHER C TORRA 6426294

HARMON

48009

200-399 T 103002 9A**D 8
292*BIRKERTS&ASSOC 6440604
372 R H BUTLER NP
383 A D RIEHL 7 6470178
415 WILLIAM S BAUERLE 6 6464962
420 VINTON BIRCH -6445769
480 EDWIN J WHITCOMB 6471019
485 TERRELL E THOMAS 2 6404680
488 MILO A FISHER -6405792
519 CHARLES RUSSELL JR 7 6428648
520*P N SKILLMAN CLU 6467355
521 NP
544 CHARLES NOLTON 4 6446826
548 WALTER J SCULLY 8 6459783
572 WALTER C REINKE 6468969
603 J J CANDLER 1 6425524
627 D P OSBERGER 4 6402371
630*HOLY NAME CONVENT 6446106
635 J B MARIANI 4 6445526
637 RONALD A MARK 4 6440407
651 JOSEPH E KEENAN 6460543
663 NP
793 DONALD ROBINSON 4 6424425
680*HOLY NAME SCHL 6442722
*HOLY NAME SCHL 6424130
H S UJDA 6468054
707 J T JOHNSON 7 6422584
711 NP
743 JAMES P CALLAGHAN 6423423
760 WALTER W NEWGON 6461253
767 NEIL SEFFERMAN 3 6404805
787 ZOLTAN SEPESHY 6461854
788 NP
810 ROBERT A HERMANN 6463531
827 LEADEN HICKMAN 4 6451469
850 WM C POTTER JR 6465241
855 WILLIAM E BRAY 6460523
884 VERNON BRYANT 6443990
895 STAN R TURNER 6469811
915 D KLAKULAK 3 6448024
920 NP
929 JUNE E MILLER -6429048
940 CARL F INGRAM 6447117
945 ROBERT A INK 6472339
960 ROBERT B SMITH 6441355
40 RESIDENCE 5 BUSINESS

HAWTHORNE

48009

100-799 T 103001 9A**D 8
120 MICHAEL KERNICKI -6409193
123 JOE FORD 8 6428334
174 T A HUNTER -6471176
188 JOHN E JAMIESON 6443226
216 CHARLES F BARNES 9 6451274
225 LAWRENCE A HULBERT 6442713
229 W J HAIDE 3 6476656
285*DR A R ARNSTEIN 6421844
320 H J STEWART 8 6445235
348 WALTER F DREYER 9 6464960
348 SIDNEY KOSLEN 6421313
480 DAVID L KENT 4 6433780
416 NP
454 DR W A POZNANSKI 6469265
500 KEMPF HOGAN 6469889
512 S T BAXTER 6460033
640 GLENN E ANDERSON 8 6476762
633 DOYLE W MOSHER -6459688
655 DR G CARPENTER JR 6460384
19 RESIDENCE 1 BUSINESS

HAYNES

48008

800-1999 T 1028 9C**D 9
835*GOODYEAR TIRE CO 6473370
*TOM HALBEISEN INC 6473370
*TOM HALBEISEN INC 6473370
851 NP
909*JICKLING&BASSOC 6471777
*R B POWELL ARCHT 6471777
911*BARDHA SALON 6467061
*IRINA SKIN CARE 6467061
*PATTERSON ELCTRYS 6446767
977 NP
1000*1ST FEDERAL OF MI 6447818
*1ST FEDERAL OF MI 6469340
*FIRST FED OF MICH 6447510
1019*DEAN APPRAISL CO -6400040
*L M PERLMAN -6406270
1300 HOMER LITING 6463227
324 LEE STOTTELMYER NP
1336 NICK ONICA 6468705
1385 FRANK BONARDI 6450733
1382 V BRALOWSKY 6470508
1399 WILLIAM R FRANKLIN 6427689
1400 ROBERT G MCVITTIE 6466784
1415 WILLIAM N HUNTER 6467688
1448 1461 NP
1492 F ARTHUR BYINGTON 6447425
1495 ALAN M SHAPIRO 9 6440419
1508 MARK A BAILEY -6464609
1507 CARL S JONES 7 6451922
1523 N FILIPESCU 6478465
1524 F AITKEN 6478465
1540 ROBERT W GEE 6441197
1549 FLOYD S KANNELL 4 6450670
1568 GEORGE W WINBORN 6459149
1575 RODNEY M PETERSEN 3 6401809
1582 M MCLEAN 0 6423382
1591 NANCY PAULUS 4 6440417

BIRMINGHAM

1783 C GRIFFIN 48008
1784 DR S Z HECHTMAN 6495471
1786 H J EWE 6496901
1788 ROBERT J MENZIE 6495466
1790 L HEBERT 6494981
1791 NP
1796 ARTHUR S THORNBURY 6495449
1798 NP
1800 M J KEIRN 3 6496013
1801 GEORGE T FISCHER 8 6496013
1805 THOMAS RUMMINGER 6491028
1807 NP
1810 SUZIE VOCHME 9 6492256
1811 WILLIAMSBURG VILAG 6492220
1812 JOSHUA VOGEL 6495112
1814 W H MADDOEN 6495968
1816 NP
1826 TIM BURNS 64950124
1834 GARY R DUBOIS 2 6496947
1846 PAUL F SCHILLING 64951815
1858 NP
1866 ALAN J FERGUSON 8 6495552
1872 C CHURCHES 9 6495889
1876 RONALD P RANGER 5 6495657
1882 L BOYNES 6 6495989
1886 NP
1888 J E VIAU 6 6496903
1892 NP
1898 MICHAEL E NAYLON 6495347
1900 MARTIN A WIX 5 6495181
1901 NICHOLAS KOBER 9 6493120
1905 JOHN N WISBACH 6495930
... ALL ADDRESSES FROM ...
... 1906 TO 1991 ON ...
... GRAEFIELD DR ARE ...
... GRAEFIELD TERRACE ...
... CONDOMINIUM ...
1906 THOMAS E EDSON 4 6496418
1920 NP
1921 L E HITT 5 6495027
1927 MRS WENDELL HOLMES 6495867
1928 FRANCES HCKENNA 9 6496467
1930 DALE E BURGARD 7 6495928
1936 P J ZAMORSKI 6 6495609
1938 C KOSER 64950547
1940 WALLACE GENCA 2 6496825
1941 E J COSNER 9 6495994
1942 V L CAMPBELL 9 6495089
1943 A L HOLTZ 3 6496282
1944 W H HARRIS 6495193
1946 RALPH K MAYERS 6495135
1948 C J BURNS 6 6496704
1950 S E ECKLEY 6 6496967
1951 WILLIAM H MARION 6495629
1954 L AMREY 6495966
1955 M E BRUTON 2 6495176
1960 ROBERT J BISHOP 1 6495587
1961 B E LEWIS 1 6495356
1964 F JORDAN 9 6493672
1965 ROBERT G KELSEY 5 6496073
1970 DR W C CROWSON 6496649
1971 NP
1974 JERRY SCHWEIZER 9 6493756
1975 MARY LU ROBERTSON 6495031
1981 KATE CHERRY 8 6493434
1983 CAROLYN PACHECO 9 6496678
1984 R S WILCOX 6496571
1985 B E GILE 5 6496367
1986 NP
1987 MARIAN HOAG 6496812
1988 M DWYER 2 6495022
1989 A C WOUTER 3 6495464
1990 NP
1991 DONALD J OCONNOR 9 6494896
177 RESIDENCE 3 BUSINESS

GRANT

... 1100- 1999 T 1029 88..011
1148 GINGERGROUP BEAUTY 6452767
1162 SMITH WOODCRAFT CO 6440424
WOOD CRAFT CO 6440424
WOODCRAFT CO 6440424
1184 LANDMEER CRAFTS 6440422
1700 H C BEARDEN 6475294
1704 M D HANSEN 6421721
1708 S A WINTER 8 6424128
1712 NP
1716 ANDREW S TIMPNER 6421864
1720 NP
1724 CLARA LEE 1 6476185
ELYN LEE 1 6476185
E J PORRETT 4 6450797
1728 RICHARD HIRNEISEN 6420145
1732 MARVIN SPATZ 6455331
1736 JON DETROW 6452158
1740 F L SOTTI 6460222
1744 LARRY HAMBURGER 6442464
JOSEPH HOLDEN 6445371
1750 C L CHAPIN 5 6420085
TERRY L STINSON 4 6451645
1754 JOHN KLEIN 9 6495028
1758 JAMES A UPSTILL 6422807
1762 JACK C SCHISSLER 6422807
1766 NP
1770 M B UNDERWOOD 1 6461426
1774 1778 NP
1782 N L WARD 6442245
1786 COLE D STEWART 6459348
1790 NP
1794 ALFRED KELLER JR 6447671
26 RESIDENCE 5 BUSINESS

GREENLAWN

... 1200- 1399 T 103001 8A..011
1342 NP
1356 DAVID M LAWSON 8 6450185
2 RESIDENCE

GREENWOOD

... 200- 899 T 103002 8A..011
255 ALGIMANTAS BUBLYS 6468588
279 MICHAEL VALKO 9 6476244
292 D K ROOSEVELT 6496215
303 ROBERT I WINE 6425936
310 EDWARD T RANEY 6468718
319 DENNIS L FRAZHO 1 6495856
324 NP
327 WILLIAM J MACQUEEN 6452873
335 ROY GRAVILL 6426992
340 ROBERT E GIBLIN 6474248
348 MRS LEGRAND F DALY 6461327
359 WILLIAM F FERN 5 6467295
364 EARL GROVES 6441323
371 OTTO H RACETTE 6442671
383 NP
388 C BULONE 7 6470485
JOSEPH D BULONE 6467477
395 MARVIN E MOORE 6443438
407 M L ASHCRAFT 6450783
MARY L ASHCRAFT 6451277

BRESSER'S CROSS INDEX DIRECTORY

419 HENRY A MANLEY 6466880
436 DAVID W LARSON 8 6452086
443 A M ENGRAM 6 6493567
452 NP
515 E F HARRIGAN NP 6442788
525 DALE L BERG 6427229
543 RONALD F REA 4 6455495
559 JOHN A JUSKEVICH 7 6426573
SIMPLIFIED DIRECTN 6445180
575 KEITH OMALLEY 5 6421753
587 WILLIAM A ZUBE 6462318
611 ROBERT D CHAMPLIN NP 6462117
631 NP
655 ROBERT INNES 6465366
656 E M SESTOK 6446678
667 ROBT J LENIHAN II 7 6421230
711 PATRICK J MCCARTHY 6444385
739 NP
759 G M FREDERICK 6440649
780 RICHARD L CARRON 6 6452078
K KINSINGER 6462948
787 M B HORTON 6445389
819 E V MALARNEY 6444180
828 GEORGE P CARONIS 6471723
843 RICHARD J MURPHY 4 645766
879 EDWARD J KVEI JR 647499
45 RESIDENCE 1 BUSINESS

HAMILTON ST

... 100- 699 T 1031 88..012
221 JIMMIES RUSTIC INC 6441919
269 THE HOBBO FACTORY 6455570
283 MORREYS FINE JWLRY 6447626
M WATNICK JEWELER 6476226
300 TIVOLI LTD 6426665
304 TADROSS & ZAHLOUT 6448200
315 CCG CUSTOM FLOOR 6476150
327 CFC ENTERPRISES 6449666
POLY CLEAN CENTER 6449866
330 HAMILTON ASSOCIATS 6428124
344 RUNNERS REALM 6451125
360 J MITCHELL ASCS 6451533
375 HAWTHORNE ELEC CO 6442200
377 K D BUTLER INC 6423650
379 COMMERCIAL SECRETARY 6490909
381 BASKIN-ROBBINS 6460208
31 BASKIN ROBBINS 6468208
384 DR R H WHITE 6461246
391 DR ALVA D RUSH 6448343
395 HAMILTON-PARK SALON 6470078
62 DR JOHN F OZUBA 6469179
631 DR M SEYFRIED 6469179
WDR L A SEYFRIED 23 BUSINESS

HANNA

... 300- 799 T 1029 88..011
355 NP
364 JOHN L GISLASON NP 6464218
PAMELA WARD 6464192
380 KARL M GEORGE 6469239
387 ROBERT GORLIN 6 6459392
411 NP
412 M A DELBRIDGE 6 6460824
412 PETER GERAN 7 6428550
447 BRADLEY D MOST 7 6445894
463 NP
470 SAMUEL J BESNER JR 6465942
491 LORNE R BERRY 1 6460559
492 MARK F CYKOWSKI 5 6461214
511 NP
512 DAVID N HUNT 3 6475939
519 VERNAL KENNER 2 6420390
524 KENNETH W GUIN 6440531
535 GORDON VESTRE 4 6470795
536 J S CARR 6464309
547 E CASTRO 9 6448883
EMILIA CASTRO 6448562
L NICORAL 6448883
K TYLER 9 6448883
552 HOWARD D RITTER 6443331
560 J PHILIP JENKIN 6 6445943
563 E JOHN WIEFERNAN 3 6470398
575 NP
584 BOWDEN BROWN 9 6447608
KENNETH ENBORG 9 6447608
592 N REISS 6448954
593 C H HOLMES 6444773
604 GILBERT GODE JR 6468865
607 W A GIBBONS 6451813
620 E COFFREY C UPWARD 6 6423625
623 MICHAEL H WOLK 6427555
636 EDWARD BISSETT 6459896
647 JOACHIM MATTHEWS 6462188
658 NP
667 WILLIAM B LARKIN 6 6478144
672 LEONARD P CERECNE 6 6421833
679 STEVE BRORBY 9 6451319
690 ALEX J LAPOINTE 6465715
695 HENRY TUZINSKI 6466487
701 MARC A SCHWARTZ 6 6440541
704 G J MONTGOMERY 6468254
726 NP
733 S E WILLIAMS 6420833
735 N P GREENBAUM 4 6476730
765 49 RESIDENCE

HARMON

... 200- 999 T 103002 8A..011
292 G BIRKERTS ARCHT 6440604
BIRKERTS & SASSO 6440604
C FLECKENSTEIN JR 6440604
359 NP
372 R H BUTLER 6458669
383 A D RIEHL 7 6470179
411 WILLIAM S BAUERLE 6 6449462
420 VINTON BIRCH 6445775
460 EDWIN J WHITCOMB 6471019
485 JOHN T EDGERLY 6472047
488 MILO A FISHER 6457922
519 CHARLES RUSSELL JR 6428648
521 NP
548 PAUL A STIERNA 4 6476267
WALTER J SCULLY 8 645783
572 WALTER C REINKE 6468969
603 WILLIAM L THORNBURN 6445183
627 DENNIS OSBERGER 6472741
630 HOLY NAME CONVENT 646106
SAC GUILLAN 6467538
635 STEVEN BELEN 6452755
637 DON DELSCHLAGEL 9 644487
651 JOSEPH E KEENAN 6460543
663 NP
679 DONALD W ROBINSON 7 6424425
680 HOLY NAME SCHL 6427222
HOLY NAME SCHL 6421330
691 S E UJO 6469054
707 J T JOHNSON 7 6422584
711 NP
743 JAMES P CALLAGHAN 5 6423423
760 WALTER M NEUGEON 3 6461253

BIRMINGHAM

767 ARTHUR J BLEAZBY 6468312
F M BROWN 6469873
787 ZOLTAN SEPESHY 6461854
788 JOHN B ARMSTRONG 8 6455239
827 ROBERT A HERMANN 6463531
850 WM C POTTER JR 4 6465241
855 WILLIAM E BRAY 5 6460523
884 VERNON BRYANT 6443990
895 STAN R TURNER 6464981
915 DR DAVID K MINTON 6425281
920 S M BIGELOW 6 6466444
929 NP
940 CARL F INGRAHAM 6447117
945 ROBERT A LINK 2 6472539
960 DONALD A SCHNEIDER 6467176
41 RESIDENCE 7 BUSINESS

HAWTHORNE

... 100- 799 T 103001 8A..011
120 NP
123 JOE FORD 8 6428334
174 D E MACKENZIE 6444628
185 JOHN E JAMIESON 6443226
216 CHARLES F BARNES 9 6451274
225 LAWRENCE A HUBERT 6442713
272 CHARLES E LEWIS 9 6446323
285 DR A R ARNSTEIN 6421844
DR A R ARNSTEIN 1 6448594
320 THOMAS R OSUND 9 6448798
J STEWART 8 6445235
345 WALTER F GREYER 9 6459660
348 SIDNEY KOSLEN 1 6421313
380 416 NP
454 DR W A POZNANSKI 6469265
500 C J HOGAN 9 6464482
KEMPF HOGAN 9 6468889
512 S J BAXTER 1 6460033
540 GLENDA W ANDERSON 8 6451274
607 CLAR V GARDINER 6442768
633 GARY A SHAW 9 6426617
655 DR G B CARPENTER 6460384
22 RESIDENCE 1 BUSINESS

HAYNES

... 800- 1999 T 1028 88..012
835 GOODYEAR TIRE CNTR 6473370
*TCM HALBEISEN INC 6473370
851 NP
909 JICKLING ASSOC 6471777
WILLIAM LYNN ARCH 6471777
WR B POWELL ARCHT 6471777
911 BARDHA SALON 6467061
977 NP
1000 FIRST FED SVGS LN 6447510
*FIRST FORD SVGLDN 6469340
1025 CUSTOM FRAMING 6452741
H H HULLY 6452741
1045 HROYAL HONDA 6426166
1000 WECAL LIVING 3 6463227
1312 NP
1324 WALTER A KERN 6464633
1336 NICK ONICA 6468705
1350 DENNIS H ELLIS 6468945
1355 FRANKLIN NARDI 4 6450733
1382 V BRALOWSKY 6470568
1399 JOHN A CROSSMAN 6468231
1400 ROBERT G MCVITTIE 6466784
1415 WILLIAM N HUNTER 6467666
1448 D SILVERMAN 6 6471448
1461 NP
1492 F ARTHUR BYINGTON 6447425
1495 ALAN M SHAPIRO 9 6440419
1506 NP
1507 GEORGE W BODTH 6448453
1523 N FILIPESCU 7 6455192
1524 F AITKEN 6 6478465
1540 ROBERT W GEE 6441197
1558 GEORGE W WINBORN NP
1575 HAROLD W LYNES 6465149
1582 M MCLEAN 6468091
1591 NP
1603 A J STARK 6445852
1605 NP
1606 W F PARKRATZ II 2 6429352
1621 STEPHEN SEYMOUR 6468475
1623 DAVID WELER 6 6459422
1628 ALBERT L FISHER 3 6421365
1640 NORMAN KERN 6 6459308
1642 NP
1645 PAUL A NORDHOUEN 7 6451609
1652 WM C MCDONNELL NP
1659 EDMUND F USHER 8 6477948
1661 DAVID AULIE 8 6449021
1674 NP
1675 DANIEL A DONAHUE 9 6425067
1678 ROBERT B HANBY 8 6420885
1687 NP
1691 DONALD J BLOSE 6422476
1693 J L MILLER 6462674
1698 P M HUGHES 6441310
1704 NP
1706 CLIFFORD R MOORE 9 6460013
1707 NP
1709 DENNIS R WEBB 9 6441362
1720 M DUFFY 2 6473511
1722 A RUSSELL MESSINA 8 6451817
1725 NP
1727 S R EAGLE 6420783
KIM JAMES KARBUM 8 6420783
1751 M C ADAMS 9 6441835
K OSTERBERG 9 6441835
1752 E U WAREX 6 6471485
1753 1754 NP
1774 DALE A MONCRIEFF 9 6448921
1775 JAMES A SAFRAN 7 6426569
1776 NICHOLAS GALANOS 6451716
1777 MICHAEL MESSINA 8 6459239
1778 MARC GELINA 6447733
1795 JOSEPH ADAMO JR 8 6442698
MICHAEL M ANDERSON 6461457
1796 B BEYER 1 6451316
1798 MICHAEL MCBRIDE 6425940
JAMES RUSIA 9 6425940
A RUSSELL LANDRO 8 6447228
1809 RICHARD J BARKER JR 8 6470778
1822 S OSTERHAGE 6448486
1825 GERALD LEPAGE 6446369
1843 V A BURROWS 6440957
1844 JOHN D JACKSON 9 6424825
1861 EDWARD DENZER 6423966
1866 GEORGE WEGA 6437323
1875 H L STEVENSON 7 6470151
1878 WILLIAM A PETERSON 6443391
1898 IVAN TOTM 6446246
1899 NP
1900 TIMOTHY J SHEEHAN 9 6420849
1901 JILL M ACKERMAN 6451619
1919 NP
1924 L TOMASZEWSKI 6424195
1933 WILBUR E BARRICK 6467368

BIRMINGHAM

1936 DONNA GLESTON 6463969
1947 THOMAS W KERR 6473696
1948 LOUIS J ZIMMEL 6469084
1959 NP
1960 WALTER LACEY 6470246
WILLIAM PASCOE 6472588
1962 PHILLIP M DAFDE 6473368
1994 L A CURRAN 6443227
96 RESIDENCE NP
HAYNES CT 48008
... 1300- 1399 T 1028 88..012
1342 JOHN J AHLSTROM 7 6420293
1350 NP
1366 JAMES W MACK 3 6472182
1374 C M LASOAGE 2 6422047
1382 NP
1398 M GOLDBOVICH 2 6450829
6 RESIDENCE

HAZEL

... 700- 1999 T 1028 88..012
816 TERRY CIOTTI 6446792
844 ZELLA M MEYER 9 6450921
C L OZUBKO 6463791
867 NP
868 THOMAS NICHOLSON 7 6463257
893 NP
896 J M SCRIBNER 6447099
920 ANTHONY SPEHAR 9 6446175
921 SCOTT A WILSON 9 6445092
939 H L MCILROY 6446081
940 HIN YAN HO 6429856
955 ANDREW FREAR BUTT 6443194
960 S A PEABODY 6443954
982 KEITH E LEWIS 9 6444385
995 D I DEAN 9 6451833
998 PETER G SABB 6467157
1011 DAVID PATTON 6426765
1020 FRANK P MORAN 4 6428722
1031 TOM PARASILITI 6 6421237
1044 DAVID A DUNN 6427689
1053 WILLIAM R FRANKLIN 7 6472405
1060 CARL O KUMMER 7 6472405
1077 A MILBRAND 9 6442398
1078 C DOMBRO 9 6442398
R KLEGON 6459290
LALA STAMP 3 6469167
1085 M A LAPONSA 6469402
J MURRAY 6428911
1315 THOMAS W ELLIS 8 6444596
1331 1346 NP
1353 FRANKLYN C HOLMES 6464493
1362 NP
1379 J W MEYER 6 6451527
1397 RUSSELL W GARMAN 6465751
1403 DESIGN FORUM I 1 6451071
1414 CARL EVANGELISTA 3 6455226
1435 ALFRED N MASHILL 4 6459149
1438 C VELCOVICI 7 6478634
1460 MELVIN M ROWNAT 6469642
1469 L M LITSZKIEWICZ 6468131
1481 MAC CHEKALUK 6463989
1486 THEODORE MAGLON 6468179
1492 AARON STANDER 9 6448720
1527 NICHOLAS KTONA 6440755
1543 WILLIAM E FRYER 6421077
1548 PHILIP A MARTZ 6461138
1564 E L DUNCAN 8 6424393
1565 THOMAS KRETSCHMER 6459625
1582 HARLAN J SNOOK 2 6450927
1589 DANNY GOWMAN 4 6450272
1593 WILLIAM B RUSSELL 6 6459366
1596 VERA ZVIRBULIS 2 6440456
1602 ARTHUR O CRAIG 6441642
1611 LOUIS J HUDSON 6425494
1626 W SCOTT RICH 9 6441286
1637 A D LALIC 6463367
1658 ROBERT A RETTWAY 2 6429216
1659 RUDDOLPH M BARTFAY 8 6478455
1673 SHAFIK RAGHEB 3 6459147
1684 JOSEPH P CAPONIGRO 8 6447383
1696 TERRY S ROBERTS 6 6460812
1699 T KIRBY 3 6426914
1704 C DEANE WOCK 9 642207
1707 NEIL RUST 9 6421348
1722 A WOLF 6460091
1731 G J STONEHOUSE 6461149
1748 PAUL E MCTEER 3 6468382
1753 WILLIAM RUTENBERG 6443295
1766 ZIVA STELICK 5 6421816
1780 S J GAGNON 6450682
1794 MICHAEL J ISHAM 6469177
S ISHAM 6469178
1795 RICHARD C CORK 5 6421393
1807 NP
1808 FRITZ STRECH PNTR 6447058
1821 ROBERT A BRAUNER 6442904
1824 PAUL RICH 6451330
1842 VERNON I MOFF 2 6423738
1845 NP
1856 DONALD L EBRIGHT 4 6426512
1859 NP
1863 LESLIE G CRABB 6461272
1870 PAUL H MCWAIN 6455386
1881 JOHN R HUGHES 9 6446985
1888 NP
1901 D SALIN 7 6455574
1904 CLINTON K WISE 9 6441094
1915 STANFORD J LEHNE 8 6462061
1916 RICHARD MINER JR 6443986
1929 NP
1930 HERMAN FLEISCHER 7 6463758
1943 LLOYD M FORSTER JR 6423766
1948 NP
1962 RICHARD BROEGMAN 3 6455509
1967 JAMES CUBERA 8 6445569
1973 DICKIE R CRUCE 6425468
1998 NP
1998 JOHN TADIAN 6424907
1999 DAVID K RODGER 6459492
99 RESIDENCE 2 BUSINESS

HAZELWOOD

... 700- 899 T 103002 8A..011
735 WALTER BERGER 7 6455721
744 H L KOHLMEIER 6441320
759 MICHAEL GARZA 7 6450889
764 WILLIAM D CARSON 6440968
787 PHILLIP T FOSS 6443750
788 LARRY J SPIIKIN 2 6423722
820 J KINGSLEY COTTON 7 6455997
844 HOWARD ENGARD 6466833
851 GEORGE S QUIN 6464163
876 ROBERT M LEAVENS 6461352
877 WILLIAM B BROWN 6468035
12 RESIDENCE

BIRMINGHAM

PAGE 42 BRESSER'S CROSS INDEX DIRECTORY

1975-1976 SOUTH OAKLAND

BIRMINGHAM

348 MRS L D DALY 48009
349 WILLIAM F NERN -6467295
350 WILLIAM F NERN -6465337
364 EARL GROVES M141323
371 OTTO H RACETTE 4442671
383 JEFF CHESBY 6441776
384 B T PETERS JR 2 6477572
388 JOSEPH D BULONE 6467477
395 MARVIN E MOORE 7 6444384
407 BURKE D CAMPBELL 8 6463674
419 HENRY A MANLEY M166880
436 G STARK 6470318
443 ROBERT BATES M164725
452
511 E F HARRIGAN M142768
525 DALE L BERG 6472229
543 RONALD F REA 4 6455495
559 P KELLER 6459671
575 KEITH D WALLEY M1421753
587 MILTON TUBE M162318
611 GEORGE F WEBER M162209
631 GEORGE A BEECHER 2 M142689
655 ROBERT INNES M165366
656 E H SESTOK 6446778
667
711 GEORGE P SHERIDAN 8 6463517
739 ROBERT D ROSMAN 6465546
827 D STONE 6465546
759 GERT M FREDERICK M140649
760 P DOWDELL 6464311
S MAZZARELLA 6464311
767 M B HORTON M145399
819 E V HALLARNEY M141900
828 RAYMOND JENSEN 2 6443200
DAVID W SMINK 6443997
843 RICHARD C MURPHY 4 6450760
879 EDWARD J KVEY JR 6447499
47 RESIDENCE

HAMILTON ST

48011

221 JIMMIES RUSTIC INC M141919
269 GRISWOLD SPORTS GDS 6463976
283 MORREYS FINE JEWELRY 6467626
315 NEXT DOOR 6463248
320 DR J N ALLSTON 6465175
327 CFB ENTERPRISES 6449866
POLY CLEAN CNTR 6449866
332 CHURCHILLS OF BGHM 6474555
344 ALL-MAN DISTRIBUTORS 6462949
BRIANS HAW SHOP 6449582
CONDOMINIUM CONCEPTS 6424664
ECOLE DE BALLET 6449353
FRIEDMANGASSOC 6428686
J CS COMBSHEAR 6429449
J CS FAMILY HAIR 6429449

VICTORIA HAIR PIECE 6471538
KAY WISE SCHL 6449353
346 ENGLISH CSTM TALS 6441246
360 J MITCHELL ASCS -6451353
375 HAWTHORNE ELECT CO M142200
377 LA FAYETTE RADIO 6462375
379 COMMERCIAL SECRETARY 6469090
381 BASKIN-ROBBINS 31 6468208
383 JANE B MC MILLAN 6468208
LEWIS J SAPPINGTON 64652200
STEELFLEX DSGNR 64652200
391 DR R H WHITE 6461375
394 DR ALVA R RUSH M148343
395 BRENTWOOD SALON 6470078
622 DR JOHN F DZIUBA 6459666
631 DR H T SEYFRIED M169179
DR L A SEYFRIED M169179
34 BUSINESS

HANNA

48009

355 M A BOYD 4 6460055
364 JAMES T WILSON 6460485
360 KARL A GEORGE M1692399
367 WILLIAM M DUDLEY -6426373
411 NP
412 C F DELBRIE JR M160824
425 JAS M VANDERKLOOT -6476595
447 EDWARD H MCPADON 3 6420009
463 WILLIAM WAGGONER 3 6420009
470 SAMUEL JR 3 6459542
491 LORNE R BERRY 1 6460559
492 MARK F CYKOWSKI -6461214
PETER M GRANT -6461214
511 NP
512 DAVID N HUNT 3 6475939
V HUNT 2 6420397
519 VERNAL KENNER 2 6420397
524 KENNETH W GUNN 4 6405531
535 GORDON VESTRE 4 6470795
536 J S CARR 6464309
547 RUEDIGER SCHWAB 6428640
552 HOWARD D RITTER M143331
560 PHIL SEAVER 3 6451684
563 E JOHN WIEFERNAN 3 6470398
584 JOHN CAMP 1 6461339
592 MICHAEL DRISMAN -6444398
593 C H HOLMES 6 6447735
604 GILBERT GOODE JR 6468865
607 W A GIBBONS 6465183
620
623 ROBERT E YATES 6466243
636 W H HUTCHINGS JR 4 6473847
JAMES D STONE 2 6420048
647 JOACHIM MATTHEIUS 8 6462188
648
667 FREDK A PROTHORGE 6446260
672 L S VAUGHN 6464848
A V WHITE 6464848
679 N B TEMPLE 0 6442309
690 ALEX J LAPOINTE 6465715
699 G W TUZINDSKI 2 6452159
701 RAYMOND W MORGAN 0 6445109
704 G J MONTGOMERY 9 6462854
728 NP
733 CHARLES R MITCHELL 3 6466774
750 N P GREENBAUM 4 6467230
765 MICHAEL D THOMAS 0 6424541
47 RESIDENCE

HARMON

48009

292 G BIRKERTS ARCHT 4 6440604
G BIRKERTS ASSOC'S 6440604
F FLECKENSTEIN JR 4 6440604
359 R J WICK 4 6460257
372 R H BUTLER 6465869
383 A D RIEHL 3 M170179
415 GEORGE A ROGERS 2 6477633
420 VINTON BIRCH 6464769
460 EDWIN J WYCOMB 0 6471019
483 JOHN T EDGERLY 6472047

488 MILO A FISHER M165792
519 B J FAIR 6465387
521 NP
544 OLIVE NELL PLISKA 4 6467250
548 PAUL A STIERNA 4 6476267
572 WALTER C REINK 7 6460959
603 WILLIAM L THORNBURN M145183
627 MARY ELLEN RYAN 6467179
630 HOLY NAME CONVENT M146106
635 FOREST K FOWLER M145179
637 S J ALT 6446544
651 JOSEPH E KEENAN 6460543
659 W MICHAEL WILLIAMS 6427555
679 D SIGNORELLI 4 6426176
680 HOLY NAME SCHL M142722
HOLY NAME SCHL 6424130
691 H S UJDA 0 6469054
707 M C RILEY 6473651
711 NP
743 JAMES P CALLAGHAN NP
760 WALTER W NEWGEOE 3 6461253
767 ARTHUR J BLEAZBY M168312
F M BROWN 9 6469873
787 ZOLTAN SESESHY 7 6461854
788 ERNEST J SAVOIE 7 6472863
810 ROBERT A HERMANN 4 6420155
827 NP
850 WM C POTTER JR 4 6465241
855 WILLIAM E BRAY -6460523
884 VERNON BRYANT 6443990
895 STAN R TURNER 6464981
915 LARRY M KOHLER 3 6452152
920 GEORGE S ROBINSON 6442959
929 WILLIAM B WOODBURN 6440234
940 CARL F INGRAMM 6447117
945 ROBERT A LINK 2 6427539
960 DONALD A SCHNEIDER 9 6467176
42 RESIDENCE 6 BUSINESS

HAWTHORNE

48009

100- 799 T 103001 \$A..D11
120 GILBERT FONS 6424292
123 BRUCE A KING JR 6447309
J F KING 6447309
174 D E MACKENZIE 6444828
185 JOHN E JAMIESON 9 6443226
K JAMIESON 6445336
216 E V BAGAMERY 9 6477237
225 LAWRENCE A HULBERT 6427113
272 CHARLES E LEWIS 7 646323
280 DR A R ARNSTEIN 6421844
320 WM R VANDERKLOOT 3 6445235
345 CLIFFORD BAUGH 6464960
348 SIDNEY KOSLEN 1 6421313
380 R C STOLTE 647541
416 NP
418 DR W A POZNANSKI 6469265
512 S T BAXTER 1 6460033
540 LEROY BRAISTED 6468807
607 C V GARDINER M142768
633 GEORGE J FIELDS 0 6426617
655 DR G B CARPENTER M160384
751 ROLAND E SMITH CPA M162235
20 RESIDENCE 2 BUSINESS

HAYNES

48011

800- 1999 T 1028 \$C..D12
835 GODYEAR TIRE CO 6473370
855 NP
909 JICKLING ASSC ARCHT 6471777
WILLIAM LYMAN ARCHT 6471777
911 BARDHA SALON 6467061
JOAN KREPL COSMET 6452610
1025 BIRMINGHAM ART GLTRY 6427455
BIRMINGHAM GLTRY INC 6427455
1045 AEA ASPHALT PAVING M143800

1300 HOMER LIVING 48008
ALL ADDRESSES FROM 3 6463227
1312 TO 1696 ON 6463227
BIRMINGHAM TOWNHSE 6463227
APARTMENTS 6463227
D E TWING MGR 6463227
1312 NIAZI BARDHA 6 6473715
1324 WALTER A KERH 6464033
1335 KICK ONICA 4 M168705
1355 FRANK BONARDI 4 6450733
1382 V BRALOWSKY M170508
1399 JOHN A CROSSMAN 6468231
1400 ROBERT G MCVITTIE M166784
1415 WILLIAM N HUNTER 6467666
GERALD F DALK 6463119
1448 NP
1461 NP
1492 F ARTHUR BYINGTON 6447425
1495 MRS C G DREVDAHL 6468214
1506 MICHAEL J GARZ 4 6462600
1507 DR DONALD A JONES 4 6476353
1524 W L JENSEN JR 6 6476130
1540 ROBERT W GEE 6441197
1549 LEOLA STEVENS M167372
1568 GEORGE W WINBORN 6465149
1575 HAROLD L LNEIS 6468091
1582 WILLIAM W MCLEAN 7 6428382
1591 RICHARD W CHANDLER 4 6424289
1603 ADAM STARK M167551
1605 OSAMU ATISHIMA -6440463
1606 WM F PANKRATZ III 2 6429352
1621 A BAULT 2 6452241
1623 VINCENT J BONACCI 4 6420936
1628 ALBERT L FISHER 3 6421385
1640 JAMES W REEDY 0 6421652
1645 MARK W KIDD 0 6421531
1652 NP
1653 EDWARD F USHER 9 6461933
1661 B MUNFORD REID 9 6465390
1674 ARMAND PETERSON 6467206
1675 B L KELLEY -6447110
1677 NP
1686 DAVID L WEIR 6424355
1691 TOMMY G PITZER 3 6421471
1698 P M HUGHES 0 6441310
1704 EDWARD L WHITAKER 6427428
1706 NP
1707 ALLEN B WILHELM 1 6474219
1709 HUGH M PETERS 1 6443353
1720 M DUFFY 2 6473511
1722 JAMES H SCHROEDER 9 6463919
1725 RONALD G CANTELL 9 6424395
1727 A G SPEAROW 9 6477948
1751 M E HECK 2 6443335
1752 ATILLOTSON STUDIO M147799
1753 J P CONSIDINE SR 0 6425408
1764 D L LUSK 6462282
1774 BARBARA PRICE 6463190
F R VANLANDINGHAM 8 6463190

1775 K V HUBBARD 6426363
1776 NP
1795 MICHAEL M ANDERSON 6461457
RICHARD N DAY 1 6440254
1796 EDWARD J BAGALE 1 643131
1798 EDWARD J BAGALE 4 6450285
1809 A PRISCANDARO 6447222
1810 WALTER W HANSZ JR 2 6429388
1822 DEREK A HOUSTON 4 6477518
1825 GERALD LEFAGE 6446369
1843 V A BURROWS M140957
1844 NP
1861 WENDELL G ASPLIN 9 6422165
1866 GEORGE WEGA 0 6463723
1875 OTHO STEVENSON 6470351
1878 NP
1889 WILLIS J BEYER NP
1900 GARY L KILLIAN 2 6425671
1919 NP
1924 JAMES W READING 6443762
1933 WILBUR E BARRICK 8 6467368
1936 DAVID J CANTO 3 6444444
1947 THOMAS W KERR 6473696
1948 LOUIS J ZIMMEL 6469084
1950 NP
1960 WALTER LACEY 6470246
1975 WILLIAM PASCOE 7 6425658
1982 PHILLIP H DAFGE 6473368
1994 NP
1999 MICHAEL DEPALMA 6421165
88 RESIDENCE 9 BUSINESS

HAYNES CT

48008

ALL ADDRESSES FROM 1342 TO 1398 ON HAYNES CT ARE BIRMINGHAM TOWNHSE APARTMENTS
D E TWING MGR 6472176
1300- 1399 T 1028 \$C..D12
1350 FRANK H PURSELL 8 M142987
1366 JAMES W MACK 3 6472182
1374 C M LASOVAGE 2 6422047
1382 NP
1398 M GOLUBOVICH 2 6450829
6 RESIDENCE

HAZEL

48008

700- 1999 T 1028 \$C..D12
816 GERALD A DESAUTELS 6459176
844 ZELLA N DEWEY 6445669
PATRICK F WHITNEY 6473696
867 FRED MABRY 6474732
868 LINDA A BINDER 3 6423062
893 NP
896 J M SCRIBNER M147099
920 ANTHONY SPEHAR 6446175
921 STEVEN ROSE 6426489
929 H L MCILROY M146081
955 ANDREW FREAR BUTT 6443194
960 DANNY S FREELS 64669145
982 JOHN J MARKS 6468079
995 R R RODDA 6440478
998 RICHARD HARRISON IV 9 6467157
1011 DAVID PATTON 2 6467655
1020 FRANK P MORAN 2 6427126
1031 STEVEN A PASSON 64441429
1044 DONALD E MORSE 4 6420879
1053 J F NIEMIEC 3 6467817
1077 DONALD W BORLAND 7 6470227
A MILBRAND M167446
1078 L MCARTNEY 6474631
LALA STAMP 3 6469167
1085 M A LAPONSA 6469402
1315 WILLIAM ELLIS 6442744
1331 RICHARD J RENNELL 6463421
1353 WILLIAM D TRULL 6461472
1353 FRANKLYN C HOLMES 6464493
1362 NP
1379 FRED C FULLER 6474207
1397 RUSSELL W GARMAN M165751
1403 P L CUPELLI BLDR 6451070
DESIGN FORUM I -6451070
1414 CARL EVANGELISTA 3 6455226
1435 ALFRED N MASKILL 4 6426919
1438 REV B J BURR 9 6429050
1460 MELVIN H ROMAIN 6469642
1469 L M LISZKIEWICZ M165131
1481 MAC CHEKALUK M163999
1486 THEODORE MAGURAN M168179
1492 DENNIS J ADAMS 6425628
1527 NICHOLAS KTONA M144075
1543 WILLIAM E FREVER 0 6421077
1544 PHILIP A MARTZ 6 6461138
1548 ANTHONY J GENNA 6467608
1560 M J SEWERT 8 6427024
1582 HARLAN J SNOCK 2 6450927
1589 DANNY GOWMAN 4 6450272
1593 WILLIAM B RUSSELL 9 6469386
1596 VERA ZVIRULIS 2 6440456
1602 ARTHUR D CRAIG 8 6425494
1611 KEVIN HUDSON 0 6421513
1637 NP
1638 ROBERT A RETRAY 2 6429816
1655 NP
1673 SHAFIK RAGHEB 3 6459147
1684 RONALD S GOODBURN 6464072
1696 S G SUTHERLAND 6 6476245
1699 I KIRBY 3 6426914
1704 C DEANE MOCK 3 6444207
1707 JOHN R WHITEMAN JR 6428874
1722 A WOLFE 7 6460091
1731 J STONEHOUSE 6461149
1748 PAUL E MCTEER 3 6468382
1753 WILLIAM RUTENBERG 6443295
1766 ZIVA STELKIC 6421816
1780 C T GAGNON 3 6440682
1794 DAVID C HANKINSON 7 647373
1795 RICHARD C CORKER 6421393
1807 NP
1808 FRITZ STRECH PNTR M147058
1821 ROBERT A BRAUNER 6442904
1824 L STROBEL M1466321
1842 NP
1845 DONALD L EBRIGHT 4 6426512
1859 NP
1863 LESLIE G CRAIB 6461272
1870 MARK GROSSI 3 6423293
1881 BRYAN DYBAS 4 6424480
1888 NP
1901 GERALD CHALMERS 3 6425754
1904 EVELYN F FORREST 6425373
1915 NP
1916 NP
1929 NP

1930 S R FLEISCHER 6463758
1943 BRUCE DUCHARME 4 6462814
1948 ERNEST S ROULEAU 6462930
1962 RICHARD BROGMAN 3 6459509
1972 PAUL D HACKER 3 6429658
1973 DICKIE R CRUCE 8 6425468
1974 JACK BARNES 3 6475275
1998 JOHN P DURITZA 1114 6445263
1999 MICHAEL E TODD 1 6420948
97 RESIDENCE 3 BUSINESS

HAZELWOOD

48009

700- 899 T 103002 \$A..D11
735 CHRISTOPHER C NERN -6474365
744 H L KOHLMEIER M168330
750 EDWARD W LYLES 3 6425142
764 WILLIAM D CARSON 6440968
787 JOHN A LOFGREN 4 6460284
788 LARRY J SPILKIN 2 6423722
815 NP
820 LOREN BRECKELS 6 6476817
844 HOWARD ENCARO M168333
850 GEORGE G QUIN 6464163
876 ROBERT M LEAVENS 6461352
877 WILLIAM B BROWN 9 6468035
12 RESIDENCE

HENLEY

48008

200- 999 T 1031 \$E..D12
250 ROBERT J WILLIAMS 6427170
ROBERT J WILLIAMS 6477754
292 D K SIMPSON 6460347
D K SIMPSON 0 6475890
310 WILLIAM N CAMPBELL M167390
320 CHARLES A EDDY M140147
342 WILLIAM L MONROE -6440477
358 ROBERT B WILLIAMS 6460656
359 FREDK C ECKHOUT 6469044
445 KARL B ZINT JR 6460343
460 E JAMES ERWIN 8 6425737
463 H A BEKER 647776
487 MRS GEO A ANDERSON 6450687
HOWARD L PHILIPP 6 6466531
510 JOHN R SMITH 3 6448046
511 PETER K BOYNE 6422931
539 JULIUS L RUSSO 1 6422931
550 JOHN P STROUSS 9 6428490
555 DR S NAJARIAN 6455446
587 GEO J AUCHTERLONIE 6464355
621 EMANUEL PAPADAKIS 6440291
633 HAROLD R GEARY 9 6477476
640 BRUCE MACDONALD -6426049
678 JAMES A ALBER 6448586
740 R F GANIARD 6470213
749 REV H C MCGHEE 2 6424135
756 RICHARD N KIEPPE M146880
770 J E OBRIEN 6460551
800 C ROBERT BLANK 2 6462797
813 NP
852 R A DICKIE 1 6451095
852 W ARTHUR LINDSAY 3 6425862
875 HERBERT J HARTON 4 6475393
937 RICHARD E LOEDING 2 6473668
950 HAROLD T STEPHENS 6461699
972 ARTHUR MEYER 6472997
992 CHARLES E HASTINGS 6463231
995 OWEN L PERRY 4 6474445
38 RESIDENCE 1 BUSINESS

HENRIETTA

48009

300- 1999 T 1029 \$E..D11
410 R ESTER KORINSKY 6442540
ESTER KORINSKY 6420074
530 JOHN E ROTH M144077
535 E BRUCE HENSEY 4 6474607
536 B R LUKASIK 6444326
544 AYERS MORISON JR 6444231
547 KENNETH A FADELEY 4 6452144
555 B B ATKINS 3 6442322
560 ALEXANDER BLAIN IV 6465973
BRUCE SCOTT BLAIN 6465973
571 HARTGER J BORGMAN 6427993
572 DANIEL NEATON 6441881
579 GEORGE BOEHNEK 6470841
590 PERRIN S SHATTUCK 6449496
591 JOSEPH WILLIS M147694
611 JAMES S BALDWIN M143927
627 M E FRANZEN 1 6452639
647 NP
652 GREGORY W CERMAN 4 6426805
668 H L SHERIDAN M166053
692 JOHN L ELLIOTT M165660
695 RICHARD P TUCKER 1 6478545
713 N PHILLIPS 6464755
751 HILMER C CARLSON 6467893
756 R H VRIESSELDOUT 6461536
7 V ULEY 1 6426229
768 S B WITHINGTON 1 6426663
771 NP
773 ELWIN H PETERSON 6444864
784 ONEIL L DILLON 1 6463375
786 R E DECKER 6464741
789 WILLIAM T CARLSON 3 6450157
791 R I OYE 1 6463374
M J HEIDMAN 1 6463374
809 CHARLES C HOOVER 6476921
820 DR KAMEL HASSAN M149138
821 D A CAMERON 3 6426737
822 WILLIAM A BLAZEK 3 6445236
833 JANE E NEARIE 8 6423445
DALE SPICER 6445216
838 RICHARD SEAN STACK 4 6475491
840 NP
849 JAMES KAROS 6 6474972
GARY NEWINGHAM 6425681
852 G A SPRAGUE M144437
854 HENRY DAHLQUIST M141232
859 MRS S R SELLERS 8 6442662
861 L A HOPKINS 1 6478596
866 JOSEPH S CURLEY 0 6467656
868 R W HARRIS 4 6427610
W HARRIS 4 6427610
875 E C CLARK 0 6467834
877 D J TIBBLE 9 6466518
878 NP
880 I H NEUMANN 6443231
888 MRS J A GILRAY SR 8 6428089
890 DEREK PINLETT 64441458
891 CARL BINKLE NP
893 EARL C REYNOLDS 0 6455713
911 JOHN V INGOLD M147922
920 C BIONDOLILLO 4 6449332
922 ADRIAN C JOHNSON 6441249
923 JAMES R BUCHANAN M146679
947 JAMES W RUSSELL 4 6423579
956 W W GRIFFITH 9 6440473
967 PERCY LOCKHART 6445470
980 WALTER R BARKLEY M141276

40 BIRMINGHAM

1758 RODERICK R PARKER 6422714
1762 ROBT FLORENTINO 6427541
1766 DR H SONENSHIN 6422274
1770 HAROLD S BARRON 6427553
1774 PIER C BOGGS 6427348
1778 S L ROSENTHAL 6443222
1782 NP
1786 NP
1790 LEONARD L ROGERS 6414241
1794 E F ARCHER 6468472
25 RESIDENCE 5 BUSINESS

GREENLAWN

48009
1200-1399 T 103001 JA..D11
1242 JOHN B WHITAKER 4 6409521
1356 GILBERT SETTLE 6429183
2 RESIDENCE

GREENWOOD

48009
200-899 T 103002 SA..D11
255 EMISIE SMITH ALLEN 6465960
279 MICHAEL J VALKO 6477634
292 D K ROSEVELT 6462531
303 ROBERT J LINE 6462531
310 EDWARD T RANEY 7 6468718
319 DR C SALISBURY 6467758
324 PAUL P FREND 6469176
327 ROBERT L MORRIS 6466310
335 ROY GRAYLIN 6462995
336 NP
347 ROBERT E GIBLIN 5 6474248
348 MRS LEGRAND F DALY 3 6461327
364 EARL GROVES 6461323
371 OTTO M RACETTE 6462671
383 MYRTLE THOMSON 6467232
388 JOSEPH C BULLEN 2 6467477
395 MARVIN E MOORE 7 6444384
407 BURKE D CAMPBELL 8 6463674
416 HENRY A MANLEY 6466880
436 LAWRENCE H POMEROY 6461378
443 ROBERT BATES 1 6464725
452 FRED C NISSLEY 6464750
451 E F HARRISON 6462788
525 DALE BERG 5 6467229
543 ROST M STRICKLAND 6463099
559 NP
575 J DAVID HEINZ 6446856
587 MILTON A ZUBE 6462318
611 GEORGE F WEBER 6462209
628 NP
631 C F BEECHER 4 6414269
655 ROBERT INNES 6465366
656 E H SESTOK 4 6444578
667 J W SCHEUBAL 6 6472985
711 GEORGE P SHERIDAN 6463519
739 JOHN M FARR 6467335
749 G W FREDERICK 6460547
780 JOAN DAVIS 6471106
*DR D M HIRSCH JR 64622054
787 M B MCRTON 6465389
819 E V MALONEY 6444180
828 GORDON L BARNES 6467185
7 JOHN C KRAUSE 7 6474232
843 CHRISTIAN DEUTSCH 6462807
879 EDWARD J KVET JR 6467499
44 RESIDENCE 1 BUSINESS

HAMILTON

48011
100-699 T 1031 SB..D12
106 NP
107 NP
110 CHARLES CHYNOWETH 6462118
115 OMER PETTI 6427451
128 ROBERT M REX JR 6463906
135 THEODORE J CARRON 6467985
140 HAROLD D HARRIS 8 6423849
159 EDWARD L COLLINS 7 6473913
168 ROBERT T ROTH 6 6467628
186 FRANKLIN B ROBERTS 6462619
221 JIMMIE RUSTIC FUR 6419191
222 WM H REYNOLDS 6467760
226 ROBERT C CHARLTON 6460689
243 NP
246 A F VONDERHAAR 8 6460670
269 GRISWOLD SPNG GDS 6463976
283 MORREYS FINE JWLRY 6467626
315 W H WATKINS JWL 2 6471648
WILLIAM G BURGESS 6471648
*LAFYTT RADIO ELCTR 6440345
320 NP
327 POLY CLEAN CENTER 6449866
*GARCO INC 6449566
*PAUL T GAREY 6449566
332 CHURCHILL BQ OF BGHM 6474555
335 E T BURROUGHS 6444488
336 NP
344 *FALES TRAVEL AGCY 6428230
*FATES HTL REPR 6428231
*JACK FRIEDMAN ARCH 6428686
346 *POLITZER SHIP 6428231
360 J D MAYNARD RL EST 6443500
*BERNOLD ETTERGASSCO 6443500
*W F CHAPOTON REEST 6443500
*EARL W FERNELIUS 6443500
*R W ETTER RL EST 6443500
*ETTERGASSCO INC 6443500
*GEORGE A VANAMAREN 6443500
*WHITFIELD REL EST 6443500
*ALLEN A STROM RLTR 6443500
*J T ELLIOTT RL EST 6443500
*KEN JONES 6443500
*STROM CO INS 6413400
365 RALPH L STICK 6463567
375 *HANTHORN ELECT CO 6442200
377 E JONES FLOOR CVRG 6444483
*JONES FLOOR COVERG 6444483
379 *BIRMINGHAM FLOWERS 6460120
381 *31 BASKIN ICE CRM 6468208
*BASKIN ICE CRM 6468208
383 *BIRMINGHAM MNT LNS CT 6464472
*DR J W JOHNSON 6462472
*DR R M WHITE 6461246
391 *DR ALVA D RUSH 6448343
395 *CHRISTYS HAIR STYL 6470078
400 HARRISON W WILDER 6413898
412 EDMOND NOLAN 6465300
500 M C DAWSON 6465717
515 JAMES A HALL 4 6469719
LAURA F HALL 8 6469719
575 THOMAS LAHIFF 64674179
580 WILLIAM L BONES JR 7 6429685
WILLIAM L BONES JR 7 6429685
622 DR JOHN F DZIUBA 6465966
644 LYNN MITCHELL 3 6464658
WENDY MITCHELL 3 6464658
666 BRITTON W MISTELES 6469663
33 RESIDENCE 36 BUSINESS

HANNA

48009
300-799 T 1029 SB..D11
355 LANDON BAIRD BOYD3 6460155
364 JAMES T WILSON 4 6460485
380 KARL M GEORGE 6462939
387 NP
411 RICHARD J MCCLEARS 6448535
412 C F DELBRIDGE JR 6460824
425 MILKA ICONOFF 2 6462775
447 MICHAEL LOWER 64623640
JOYCE O LOWER 64623640
463 GEORGE E FERBER 6 6466086
470 MILES H TUFF 6467299
491 EDWIN M FOWLER 3 6444236
492 JAMES F CLARKE 8 6424776
511 G L WENZL 8 6460771
M M WENZL 6460771
512 JOHN MOOSMAN 6446696
519 ROBERT J GUAIL JR 6468357
524 KENNETH W GUNN 3 6440531
535 ALAN K PERKINS 5 6427551
536 J S CARR 3 6464309
547 R BRUCE MCCLELLAND 7 6467816
552 HOWARD D RITTER 6467331
560 JOHN EDWARD YOUNG 6462335
564 P G BURNETT 6466395
584 CRAIG G KALLEN 6 6422135
592 G E RICHARDSON 6417992
593 C H HOLMES 6 6444773
604 *GOODE REAL ESTATE 6471898
GILBERT GOODE JR 6468865
607 W A GIBBONS 6465813
620 MERRILL V SCHLAACK 6465813
623 ROBERT E YATES 3 6466243
636 KEVIN C WALDRON 64627396
ROBERT KIPP 7 6428185
647 JOACHIM MATTHEIUS 6462185
658 W A REED 8 6464974
667 FREDK A PROTHORCE 6464260
672 L S VAUGHN 1 6464848
A V WHITE 6464848
679 JAMES R TEMPLE 6460067
690 ALEX J LAPOINTE 2 6465715
695 WILLIAM R RALLS 6476241
701 WILLIAM E KINLEY 6466399
704 G J MONTGOMERY 6466399
728 CLARENCE O MCVEY 6 6477828
733 J M FARRINGTON 4 6463533
750 N P GREENBAUM 8 6476730
765 NP
47 RESIDENCE 1 BUSINESS

HARMON

48009
200-999 T 103002 SA..D11
268 A M WOOD 6 6462521
272 D P KAMBO 6462278
288 *BIRKERTS & ASSOC'S 6478440
292 NP
359 GORDON S WOOD 3 6468909
372 R H BUTLER 6465869
383 ADA S MOORE 6464611
415 RUSSELL W SYMES 6429075
420 VINTON BIRCH 6445769
446 CLYDE H MULHERN 4 6464468
485 JOHN T EDERLY 5 6422047
488 WILLO FISHER 6455792
519 JOHN W MURPHY 1 6470528
521 NP
544 JOHN A MEADE 64629436
548 NP
572 WALTER C REINKE 7 6465969
603 WILLIAM H THORNTON 6465193
627 MARY ELLEN RYAN 6467179
630 HOLY NAME CONVENT 6461010
635 FOREST K FOWLER 645179
637 CYRIL L DAY 8 6422970
651 MRS JOSEPH E KEENA 6460543
663 JOHN J FEEHLEY 5 6471654
679 M VIRGINIA TARRIE 4 6467692
680 HOLY NAME SCHL 6462722
*HOLY NAME SCHL 6424130
691 J WEICKENAND 6466824
707 NP
711 FREDK W GIBB II 8 6424922
DAVID W MILLS 6 6473467
743 DANIEL C DEVINE 6 6445978
760 EDWARD H GAGNE 6464931
767 ARTHUR J BLEAZBY 6468312
F M BROWN 64669873
787 ZOLTAN SEPESHY 7 6451854
788 ERNEST J DAVIE 3 6472863
810 ROBERT A MERMANN 5 6463531
827 HAROLD C HICKMAN 6440665
850 JOHN E DEWENTER 4 6470506
855 REV L C GILLETTE 6462233
864 VERNON BRYANT 6443990
895 STAN R TURNER 6425313
STAN R TURNER 4 6464981
915 SEWA BARM 5 6467782
GLADYS ROGERS 6477222
920 GEORGE S ROBINSON 6442959
929 WILLIAM B WOODBURN 6 6440234
940 CARL F INGRAHAM 6 6471117
945 JOHN B SMITH 4 6468285
960 DONALD A SCHNEIDER 6467176
47 RESIDENCE 4 BUSINESS

HAWTHORNE RD

48009
100-799 T 103001 SA..D11
120 A LESLIE SCHAEFER 6467847
123 J F KING 4 6447309
B A KING JR 5 6447309
174 D E MACKENZIE 6444828
185 JOHN E JAMIESON 6443226
216 FRANK J BAGANERY 6477237
225 LAWRENCE A HULBERT 5 6442713
MRS R HULBERT 5 6442713
272 CHARLES E LEWIS 7 6463223
285 JAMES W FREDERICK 6453931
320 E W BREHM 6411931
345 CLIFFORD BAUGH 6464960
348 RODNEY CRAIGHEAD 5 6440427
380 R C STOLTE 647541
454 DR W A POZNANSKI 3 6469265
512 MRS JACOB MANTING 6472283
540 LEROY BRAISTED 6468807
607 C V GARDIN 6467688
633 HAROLD G KENNEDY 6444403
655 DR G B CARPENTER 1 6460384
20 RESIDENCE

HAYNES

48011
800-1999 T 1028 SC..D12
833 *BIRMINGHAM LOCKSMITH 6417939
835 *LIBERTY CLNRS FLMT 6419700
*LIBERTY CLEANERS 6410222
851 MILLOS SINTAY 6462607
SAMUEL MOORE 6422484
909 *J D HILBERT ARCHT 6440604
*G BIRKERTS ARCHT 6440604
*BIRKERTS & ASSOC ARCH 6440604
911 *BARDHA SALON 6467061
985 *TAYLOR BROS CO INC 6419400
1008 ROGER CRONA 6424452
1025 *BIRMINGHAM GLTRY INC 6427455
1036 JAMES A SIELAFF 8 6467845
1045 *ASA ASPHALT PAVING 6436800

48008
1300 BERT A CRAWFORD 6471927
1302 NP
1312 NIAZI BARDHA 6 6473715
1324 WALTER A KERN 6465313
1336 NICK CNICA 6468705
1399 C E BETSHER 5 6468064
1400 ROBERT G MCVITTIE 6467844
1415 WILLIAM N HUNTER 6467666
1448 GERALD F DALK 6463119
1461 ROBERT M ANDERSON 6477378
1492 F ARTHUR EYINGTON 6478445
1496 MRS C G DREYDAHL 3 6468214
1506 NP
1507 LEWIS R ROBBINS 6465415
1523 *OR BERGE NAJARIAN 6474199
1524 W L JENSEN JR 6 6470114
1540 ROBERT W GEE 6441197
1549 LEOA STEVENS 6467372
1568 GEORGE W WINBORN 6465149
1575 HAROLD M LYNEIS 6468091
1582 WILLIAM E MCLEAN 7 6428382
1591 ROGER E PAPINEAU 6468765
1603 ADAM STARK 6467551
1605 J N JAMES 8 6423245
1626 WILLIAM B GILBERT 6470121
1628 NP
1623 DUDLEY AUSTIN 6422296
1628 BRUCE REYNOLDS 6467193
1640 JOHN L DAVIDSON 3 6473261
1645 C L SCHNERER 6 6467401
1647 L E ECKER 6463323
1652 STEWART L PECK 6 6469529
1659 EDWARD F USHER 6461933
1661 B MUNFORD REID 6465390
1674 ARMAND PETERSON 2 6467206
1675 HARRY A GAVIN 6428517
1677 VICTOR B GOOD 6 6476799
1686 PAUL F CORBIERE 7 6470114
1691 ROBERT A HOFFMAN 7 6428996
1693 JAMES F MCQUIRE 6469539
1698 DONALD E VAN LOO 3 6465123
1704 EDWARD L WHITAKER 6427428
1705 NP
1707 ALLEN B WILHELM 5 6474219
1709 ROY M GILBERT 6465690
1721 JAY H TAYLOR 7 6474359
1722 P E VANWINKLE 5 6470716
1725 RONALD G CANTRELL 6424395
1727 A G SPEAROW 6477948
1751 RAYMOND H HECK 8 6443335
1752 *TILLOTSON STUDIO 6417999
1754 O E LUSK 2 6462282
1754 NP
1774 BUD PRICE 64663804
F R VANLANDINGHAM 6463190
1775 K V HUBBARD 6426363
FRANK W TURNER 6 6475012
1776 DONALD W VENA 6422172
1793 JAMES H SCORDECER 6465390
1795 WM W MCNAUGHTON JR 6474423
1796 NP
1798 S M LINEBERGER 6476306
1809 A PRISCINDARIO 6417228
1810 NP
1822 RODNEY L BENN 6465618
1825 GERALD LE PAGE 2 6446369
1843 VIRGINIA A BURROWS 6410957
1844 LEROY J HEUGH 4 6463926
1861 WENDELL G ASPLIN 6422165
1866 NP
1875 OTHE STEVENSON 6470351
1876 STEVEN SIMON JR 6426585
1889 NP
1890 WILLIS J BEYER 6449413
1900 NP
1919 M J DUCHARME 6 6472955
1924 JAMES W READING 6443762
1933 WILBUR E BARRICK 8 6467368
1935 JUNE WAZENSKI 8 6463279
1947 THOMAS W KERR 2 6473696
1948 LOUIS J ZINMEL 4 6469084
1959 NP
1960 WALTER LACEY 6470246
1975 WILLIAM PASCOE 7 6472568
1982 PHILLIP H DAFEE 4 6473368
1994 NP
1999 GEORGE WEGA 8 6463723
89 RESIDENCE 12 BUSINESS

HAYNES CT

48008
1300-1399 T 1028 SC..D12
1342 NP
1350 A GLENN WING 6422987
1355 JOHN A CROSSMAN 6408231
1366 DONALD E CAVENDER 6424568
1374 MICHAEL E LASOVAGE 6422047
1381 J BRULOWSKY 6470709
1398 HARRY P PRITCHARD 6456672
7 RESIDENCE

HAZEL

48008
700-1999 T 1028 SC..D12
746 JAMES P GORMAN 8 6423248
844 ZELLA M DEWEY 6445669
ROBERT T COOKE 8 6427265
867 NP
868 WILLARD BROWN 6417859
893 CHIN SOON 6426956
895 J W SCRIBNER 6461755
920 ANTHONY SPEHAR 6461755
921 NP
939 H L MCILROY 5 6460801
955 ANDREW FREAR BUTT 6443194
960 R J GRIESHABER 6469212
982 JOHN J MARKS 4 6468079
998 HAROLD RILLIPS 643497

BIRMINGHAM

1011 DAVID PATTON 6467157
1020 WILLIAM E PITNEY 1 6460498
1031 NP
1044 DONALD E MORSE 6473430
1053 LEO A STIERS 6412056
1060 ALICE W ENGRAM 5 6463567
1077 ALICE WILBRAND 6467446
D SORLAND 7 6427927
1085 M A LA PCNSA 2 6469402
J M MURRAY 6 6477628
1315 WILLIAM ELLIS 6442744
1331 THEODORE T TANASE 6463563
1346 V J CAPUTO SR 6470343
1353 FRANKLYN W HOLMES 6467443
1373 WARREN J RUTTER 6467857
1379 ROBERT KIGHT 7 6475615
1397 RUSSELL M GARMAN 6465751
1403 PHILIP P BRUNO 6467058
1414 HERBERT W GOST 6469307
1435 JOHN H TODD 4 6469582
1438 REV B J BURA 6429030
1460 MELVIN H ROMAIN 6469642
1469 L M LISZKIEWICZ 6468131
1481 MAC CHEKALUK 6463989
1486 THEODORE MAGURAN 6468179
1522 DAVID E LARSON 6428398
1527 NICHOLAS PRONA 646775
1546 BRUCE L ROMKEY 6469056
1548 PHILIP A MARTZ 6 6461138
1564 ANTHONY J GENNA 2 6473608
1565 ROBERT M SIEMERT 8 6427024
1582 DAVID R CHESHIRE 4 6470283
1589 A J ZAEHRINGER 7 6426218
1593 WILLIAM B RUSSELL 6469386
1595 WARREN A WICKLAND 6468361
1602 ARTHUR D CRAIG 4 6441642
1611 LOUIS J HUDSON 8 6425494
1626 WM H BERGER JR 6425069
1637 A D LALIC 6466367
1638 PHILIP J LA PINE 3 6468784
1650 RICHARD O WARE 3 6472580
1673 EKREM BARDHA 7 6472351
1684 RONALD S GOODBURN 6464072
1696 S G SUTHERLAND 6 6476245
1699 JAMES W BOLIN 8 6477972
1704 L W KNIGHT 6 6467229
1722 JOHN W HIGLEY 6 6473287
1722 WOLF 7 6460091
1731 G J STONEHOUSE 6461149
1748 PAUL E MCETER 6468382
1753 WILLIAM RUTHENBERG 6443295
1766 MYFIT BARDHA 6 6474418
1777 NP
1780 NP
1794 DAVID C HAWKINS 7 6473744
1795 AGIM BARDHA 7 6462007
1807 NP
1808 *FRITZ STRECH PNTR 6470558
1821 ROBERT A BRAUNER 6462904
1824 RICHARD W EMMET 6 6476317
1842 *EUGENE L RANG FLBR 6467327
*REL PLBGSEWER SRV 6462723
EUGENE L RANG 7 6478686
1845 NP
1856 DONALD E CAMPBELL 3 6468726
1859 NP
1863 LESLIE G CRABB 6461272
1863 STEVEN R ERWIN 6 6472915
1881 EMERSON W RICE 5 6464014
1888 NP
1901 NP
1904 MICHAEL W GROSS 8 6424593
1915 NP
1916 NP
1929 PAUL J ROY 6463061
1930 S R FLEISCHER 6463758
1943 DE VERE T COREY 642506
1948 ERNEST S ROULEAU 5 6462930
1962 NP
1967 NP
1974 NP
1974 NP
1998 ROBERT M ABB 6 6476843
1999 N E BELANGER 7 6443116
95 RESIDENCE 3 BUSINESS

HAZELWOOD

48009
700-899 T 103002 SA..D11
735 JAMES W MILFORD 6412939
744 H L KOHLMEIER 6441320
759 EDWARD W LYONS 8 6425142
764 WILLIAM D CARSON 5 6440966
774 A SOTO 7 6462880
788 JOHN H NOLAN 8 6422713
815 NP
820 LOREN BRECKELS 6 6476817
844 HOWARD ENGARD 6468833
851 GEORGE S GUIN 5 6464163
876 ROBERT M LEAVENS 2 6461352
WILLIAM B BROWN 6468035
12 RESIDENCE

HENLEY

48008
200-999 T 1031 SB..D12
250 ROBERT J WILLIAMS 6477554
ROBERT WILLIAMS 6427170
292 D K SIMPSON 6 6475890
D K SIMPSON 6460347
319 WILLIAM N CAMPBELL 647390
320 CHARLES A EDDY 6410147
342 WINDLE F JARVIS 3 6478208
368 ROBERT B WILLIAMS 6460655
359 FRED C ECKHOUT 4 6469044
445 KARL B ZEINT JR 5 6460343
460 E JAMES ERWIN 8 6425377
463 H A BERKER 2 6447776
487 HOWARD L PHILLIP 8 6466531
510 ROBERT E MILLER JR 5 6440894
511 PETER K BOYNE 1 6446664
539 JULIUS L RUSSU 7 6471769
550 JOHN P STROUSS 6428470
555 J KEVIN SMITH 6 6445125
587 GEO J AUCHTERLONIE 8 6444355
621 HENRY C MCQUEEN 6413681
633 HAROLD B GEARY 6447747
640 BETHEL B KELLEY 643139
678 JAMES A ALIBER 6418586
740 R F GANARD 6470213
749 DAN H HUFFMAN 6445232
755 DAN H HUFFMAN 6425812
765 RICHARD N KIEPPE 6416880
770 J E OBIEN 6460551
800 WALTER B BOOTH 6447435
801 ROBERT J HOLLAND 6460001
833 HARRY E ROSEN 6442437
LORETTA ROSEN 6442437
852 ALBERT E FREED 641846
CLYDE SNYDER 6461846
937 DR R R GALPIN 6460290

40 BIRMINGHAM

BIRMINGHAM

1892 KENNETH B NEWBERRY 3 6464640
1900 GEORGE N SKRUBB -6473714
1901 EDWARD HAMMERSTEIN MI66209
1905 EUGENE U BEGO 1 MI71092
1906 JAMES E FULLER -6473028
1921 GUY D HITT MI40588
1927 M W HOLMES MI44730
1928 J THORSBERG 1 MI40458
1930 DOUGLAS J WOLTER 3 6448533
1936 NP
1938 RONALD R LEIST -6460726
1940 NOEL R COOK -6440706
1941 JACKSON MC LAUGHLIN -6471255
1942 DONALD S JACOBSSAKI MI71001
1943 A L HOLTZ 3 6445368
1944 JOHN SEELEY 2 6465805
JOSEPHINE W SEELEY 2 6465805
1946 ELON JIPSON MI60963
1948 ROBERT S KETCHUM 3 6469208
1950 JACK F COSTOLO -6440663
1951 GERALD P DAVIS -6461559
1954 JOHN W CAMPBELL -6472886
1955 HOWARD A LOVE JR 2 MI67358
1960 OSCAR A GOTTSCHO 3 6440015
1961 MARY ANN SHERWOOD 3 6471639
LORI OLSEN 3 6471639
1964 R W LEMOYNE -6440715
1965 E J JUSTICE 2 6448322
1970 ROBERT O BRADLEY -6464555
1971 BURKE D CAMPBELL -6463674
1974 ARTHUR W SACKRISON 2 6473775
KAREN N GRAHAM 2 6471959
MARYLU ROBERTSON 2 6471959
1981 THEO R SCHROEDER -6461751
1983 CAROLYN PACHECO 0 MI63756
1984 S L SAAVEDRA 3 6442074
1985 DR JOHN G GRAUPNER 3 6472325
R S WILCOX MI61462
1986 MARIAN HOAG MI67108
LOIS E WENTWORTH 1 MI67108
1988 WILBUR C BUCKHEIT -6464290
1989 L E MCDOWELL 2 6473589
1990 EDGAR A DEYO 6470849
1991 T R PRICE 3 6469847
171 RESIDENCE 2 6469847

GRANT

48009

..... 1100- 1199 T23029 \$B..D11
1148 ELOUISE WOOSTER MI47432
*MAYBELLE BEAUTY SH MI47432
1160 LINDOLN LAUNDROMAT 6449878
1184 WOODCRAFT CO MI40424
*SMITH WOODCRAFT CO MI40424
1 RESIDENCE 4 BUSINESS

GREENLAWN

48009

..... 1171- 1372 T23030 \$A..D11
1242 JOHN B WHITAKER -6469521
1356 DR JOHN W SIGLER MI48983
2 RESIDENCE

GREENWOOD

48009

..... 200- 899 T23030 \$A..D11
248 NORMAN C WHITE MI63409
255 EMMIE SMITH ALLEN 6465960
279 JOHN F ROSIER JR MI65392
292 D K ROOSEVELT MI62151
303 ALBERT F AHUSSENER -6472268
319 JOSEPH J GRANDA 0 MI48531
324 JOHN J CALE JR 6441928
327 ROBERT L MORRIS -MI68310
335 ROY GRAVLIN -6440428
347 ROBERT E SULLIVAN -6473294
348 MRS LEGRAND F DALY 3 MI61327
364 EARL GROVES MI61323
371 OTTO H RACETTE MI42671
383 BERNADINE C ALLEN -6466887
P GLAVE -6464243
MYRTLE THOMSON MI67232
388 JOSEPH D BULONE 2 6467477
407 ROBERT L WERNER 3 6444223
419 HENRY A MANLEY MI66880
436 MRS L H POMEROY 0 MI61378
443 ROBERT BATES 1 MI64725
452 MARGARET MCDONOUGH MI47401
511 E F HARRIGAN MI42788
525 MRS ELLEN J BEMIS2 6466469
543 GEORGE B WOLF 3 6467964
575 J DAVID HEINZ MI46856
587 MILTON A ZUBE 0 MI62318
611 GEORGE WEBER 0 MI62209
631 C F BEECHER -MI42689
655 ROBERT INNES MI65366
656 E H SESTOK -MI44678
667 ROBERT F JAMIESON -6472092
711 JAMES E BLOCKER 3 MI68049
ROBERT O SHEPLER 0 MI65428
739 JOHN M FARR MI46735
759 GERTRUDE FREDERICK 3 MI40649
780 S W NUNNELEY 3 6466282
JACK R HARNED 2 6471963
787 M B HORTON MI65389
819 ELSIE V MALARNEY MI44180
828 MRS G MAJNARICK -6442792
V M RICHARDS 3 6464492
843 GERALD A LOCKHART MI68019
879 EDWARD J KVEI JR MI47499
44 RESIDENCE

HAMILTON

48011

..... 100- 699 T23031 \$A..D12
110 MICHAEL G FRISCH MI70712
115 OMER PETTI MI41538
128 R L GUYMON MI70287
159 CLIFFORD E SIMMONS 1 MI55616
168 DOUGLAS H EWEN MI67886

186 F B ROBERTS MI62619
221 JIMMIES RUSTIC FUR MI41919
222 G L CHRISTOPHER 3 6470899
243 DR WM J HOPKINS MI67952
246 LAWRENCE H BECK MI69369
269 GRISWOLD SPING GDS 6463976
283 JONES FLOOR CRVNG -6444483
*E JONES FLOOR COVR -6444483
314 CHARLES K BACKUS 2 6446711
*WILLIAM STONE ARCT -6446711
315 LAFYTT RADIO ELCTR -6440345
D L BAKER 2 MI71648
WILLIAM G BURGESS1 MI71648
327 GARCO INCORPORATED 6461543
*PAUL T GARIEPY 6461543
*POLY CLEANER 6461543
332 DAVID E DAVIS FURN 6461810
335 E T BURROUGHS 6444488
336 ROBERT D WILEY MI65771
344 FRANK STRAUB ASSOC -6446811
*HOLFORTY GASSOC WC -MI70773
346 POLITES BARBER SHP 6442273
360 BERNDT EITER GASSOC 6443500
*ROLAND W BERNDT 6443500
*R W EITER RL EST 6443500
*ALLEN A STROM RLTR 6443500
*JACK T ELLIOTT 6443500
*B A VAN MAAREN 6443500
*HENDRIK J HOUW ENG -6470573
*STROM CO INS MI73400
365 RALPH W STRUCK MI65367
375 CARLS APPL SERV MI40888
*HAWTHORNE ELECT CO MI42200
377 VILLAGE GOURMET INC -6465450
*VILLAGE GRMT RSTR -6465450
379 BTRMGH TRAVEL SERV MI45711
381 *31 BASKIN RB ICECM -6468208
*BASKIN RBN ICE CREM -6468208
383 JOSEPH W JOHNSON -6462472
*BRMNGHM CNT LNS CT -6462472
384 DR R H WHITE MI51246
391 DR ALVA D RUSH MI88343
395 CHRISTYS HAIR STYL MI70078
400 HARRISON W WILDER MI43898
412 EDMUND T NOLAN MI54530
500 NP
515 JAMES A HALL -6469719
575 WAYNE M SPADE MI62242
580 ALLAN J FORD -6473225
622 DR JOHN F DZIUBA MI59966
644 LYNN MITCHELL 3 MI64658
WENDY MITCHELL 3 MI64658
666 HOWARD STOCK 2 MI43427
28 RESIDENCE 31 BUSINESS

HANNA

48009

..... 300- 799 T23029 \$B..D11
355 MRS LANDON B BOYD MI60155
364 JAMES T WILSON -6460485
380 KARL M GEORGE -MI69239
387 NP
411 JOHN F OTT JR 0 MI69116
412 C F DELBRIDGE JR -MI60824
425 MILKA ICONOMOFF 2 6462775
447 LELAND J BUNYAN 0 MI68991
463 MILTON D MACKLER 0 MI60792
470 MILES H TUFT MI67299
491 EDWIN M FOWLER 3 6444236
492 NP
511 MARY M WENZL MI46071
TRUDY WENZL 3 MI46071
512 JOHN MOOSMAN MI44696
519 ROBERT J QUAIL JRO MI48357
524 KENNETH W GUNN 3 6440531
535 CASSAM A WILSON 0 MI43061
536 J S CARR 3 MI64309
547 JAMES R LOUGHRAN MI48918
552 HOWARD D RITTER MI43331
560 NP
563 P G BURNETT MI66395
584 ARTHUR C PECK MI45422
592 G E RICHARDSON MI47992
593 J R GRIFFITH 3 6464585
SARAH LARSON 3 6464585
604 GILBERT GOODE JR 0 MI68865
*GOODE REAL ESTATE 6471898
607 W A GIBBONS -MI65183
620 MERRILL J SCHLAACK MI46681
623 ROBERT E YATES 3 6466243
636 MRS FRANK LOSSINGO MI43493
TERRY J ROBERTS JR 3 6469475
647 JOACHIM MATTHESIU MI62188
658 RICHARD J MCCLEAR2 6448535
667 FREDRICK PROCTEROE MI46260
672 MRS ADA WHITE MI64848
LILLIAN S VAUGHN 1 MI44848
679 JAMES R TEMPLE 0 MI80067
690 ALEX J LAPOINTE 2 6465715
695 L A HORN 3 6446110
701 WILLIAM E KINDLEY -6467399
704 LUTHER HEACOCK MI46299
733 J M FARRINGTON -6463533
765 JOHN J SADIER MI45237
45 RESIDENCE 1 BUSINESS

HARMON

48009

..... 268- 960 T23030 \$A..D11
268 MRS D C PRIER -6465701
272 HARRY MOGG -6443942
288 ARTHUR N KIRK MI46275
292 SUZANNE CRAIG MI67357
359 GORDON S WOOD 3 6468909
372 R H BUTLER MI65869
*SAV-U-STAS NP
383 ADA S MOORE MI46413
415 RUSSELL W SYMES MI43343
420 VINTON BIRCH MI45769
460 CLYDE H MULHERN -6464408
485 H N DAVOCK MI67961
ALFRED C MOORE MI67961
488 MILO A FISHER MI65792
499 JOHN W MURPHY 1 MI70528

521 NP
548 JOHN P MEADE 3 6464726
572 HARVEY K GLOR 3 6442960
603 WILLIAM L THORBURN MI45183
627 MARY ELLEN RYAN -MI67179
630 HOLY NAME CONVENT MI46106
635 FOREST K FOWLER MI45179
637 JOHN J FEEHELEY 3 6471694
651 MRS J E KEENAN -MI60543
663 CAREY MALONEY MI42945
679 M VIRGINIA TARRIER -6467652
680 HOLY NAME SCHL MI42722
691 THOMAS J CAHILL -6444492
707 ANNA S PARKS MI47049
711 JENNIFER M MILLS 3 6471411
KIRK W MILLS 2 6473467
743 E J CLOUTIER JR MI44166
760 EDWARD H GAGNE MI46931
767 ARTHUR J BLEAZBY MI65312
787 J J MCGOWAN 0 MI41364
788 ERNEST J SAVOIE 3 6472863
810 ROBERT E TOMASELLO 3 6448178
827 HAROLD C HICKMAN MI44066
850 JOHN E DEWENTER -6470506
855 JOHN M RADY 1 MI47795
884 VERNON BRYANT MI43990
895 VIRGINIA MERRILL MI64981
STAN R TURNER -MI64981
915 GLADYS ROGERS MI47722
920 GEORGE S ROBINSON MI42959
929 VICTOR W CANEVER MI47480
940 CARL F INGRAMAM MI47117
945 JOHN B SMITH -6468285
960 SAMUEL H COOMBS 0 MI66639
47 RESIDENCE 3 BUSINESS

HAWTHORNE RD

48008

..... 120- 699 T23030 \$A..D11
120 A LESLIE SCHAEFER MI67847
123 J F KING -6447309
174 D E MACKENZIE 6444828
185 WILLIAM E REDDIE 6464890
216 MRS E PLUNKETT -6445792
DONALD S HUTTON MI49153
225 MARK HARRIS MI40110
272 CHARLES E LEWIS MI46323
285 JAMES W FREDERICKO MI45398
320 E W BREHM MI44931
345 CLIFFORD BAUGH MI64960
348 BARBARA H AYERS 3 6461090
380 R C STOLTE MI47541
454 WALTER A POZNANSKI 3 6469265
512 H F KLEIN MI60924
540 LEROY BRAISTED MI68807
607 C V GARDINER MI42768
633 HAROLD J KENNEDY MI44403
655 DR G B CARPENTER 1 MI60384
19 RESIDENCE

HAYNES

48011

..... 800- 1099 T23028 \$C..D12
833 BIRMINGHAM LOCKSMITH MI47939
835 LIBERTY CLEANERS MI40222
*LIBERTY CLNRS PLNT MI49700
851 NP
HIROKO OBA -6443626
985 TAYLOR BROS CO INC MI49400
1008 ETHEL L KUHLMAN MI67823
1025 BIRMGH LBRG SUPPLY MI43636
1036 IRENE E YOUNG MI44218
1045 AGA ASPHALT PAVING MI43800
1048 CHESTER L GARDNER -6471068
..... 48008
1302 JAMES R EAGAN 3 6465923
1312 NP
1324 WALTER A KERN NP MI64633
1336 NICK ONICA 0 MI68705
1399 EARL W FERNELIUS -MI48456
1400 ROBERT G MCWITTIE MI66784
1415 WILLIAM N HUNTER 6467666
1448 GERALD F DALKA MI63139
1461 GEORGE LADUKE 6460248
1492 F ARTHUR BYINGTON MI47425
1495 MRS C G DREYDAHL 3 6468214
1506 JOSEPH A LAFAYE 3 -MI65296
1507 LEWIS R ROBBINS MI65415
1523 DR H F SMITH JR -6470526
1524 JOHN L STRACHAN 3 MI65363
1540 ROBERT W GEE 6441197
1549 LEOLA STEVENS 0 MI67372
1568 GEORGE W WINBORN MI65149
1575 HAROLD W LYNEIS 3 MI68091
1582 JOHN D COOLEY -6473290
1591 JAMES C SAYLOR 3 6443130
L K DRAKE -6471420
ROBERT E CRINK -6471420
1603 ADAM STARK MI67551
1605 LOUIS MARRA 3 6463310
1606 EDWARD J HORVATH 0 MI46327
1621 S HOFFMANN -6473227
1623 MARK B WARE 3 6445633
1628 JRUCE REYNOLDS MI67193
1645 C L SCHNEIDER MI64701
1647 LILA F ECKER -MI64323
1652 WILLIAM ONISO -MI68630
1659 DENNIS KNIGHT 3 6467093
1661 B MUNFORD REID 3 MI65390
1674 ARMAND PETERSON 2 6467206
1675 C M QUARTERS 3 6462680
1677 VIRGIL R HALL -6445863
1686 G E HAMILTON 0 MI65218
1691 EARL F STRICKFADEN -6472954
1693 THOMAS T MORTENSON -6445992
1698 DONALD E VAN LOO 3 6465123
1704 EDWIN L WHITAKER 0 MI44021
1706 HELEN J GRINNELL MI42132
1707 ALAN L GOULD 3 6443858
1709 RICHARD E GOODWIN -6467915
1720 CLIFFORD H BROWN MI46984
1722 CHARLES R GASS 3 6445970
1725 GEORGE H DAVIS -6463920

1727 DR HARRY INGBERG -6447307
1751 JAMES H SCHROEDER2 MI63919
1752 TILLOTSON STUDIO MI47799
1753 O E LUSK 2 6467282
1754 E W SCHNAKE MI70396
1774 RALPH L PRICE 1 MI63190
1775 KATHRYN HUBBARD 3 MI42323
DANIEL F WILL -6473148
1793 LLOYD H MILLER 3 6471083
1795 ANDREW W KLEIN 6442424
1796 HAROLD J HILL 2 6469670
1798 TEOFIL SWIONTEK -6473841
1809 A PRISCINDARO 3 MI47228
1810 HARRY MOODT MI43605
1822 JAMES S ROSS 2 6473132
1825 GERALD LE PAGE 2 6446369
1843 N S BURROWS MI40957
*DECORATING SERVICE -MI44534
*DIEMER DCRGT CO -MI44534
1844 LEROY J HEUGH -6463926
1861 WILLIAM SPENCER -6468957
1866 C T BRAITHWAITE MI66113
1875 OTHO STEVENSON MI70395
1878 R L BRAITHWAITE 3 MI70587
1880 DANIEL L JOHNSON 3 6440073
1890 WILLIS J BEYER MI49413
1900 W HIGGINBOTHAM MI48282
1901 RAYMOND C KOLCE -MI68637
1919 ALLEN L FRANCO 1 MI69734
1924 JAMES W READING 6443762
1933 GEORGE A NILES -6466924
1947 THOMAS W KERR 2 6473696
1948 LOUIS J ZIMMEL -646084
1959 NP
1960 WALTER LACEY MI70246
1975 CHARLES PHILPO -6470235
1982 PHILLIP H DAFEO -6473368
1994 NP
1999 ARTHUR M CONN MI65349
90 RESIDENCE 9 BUSINESS

HAYNES CT

48008

..... 1300- 1399 T23028 \$C..D12
1342 DONALD E KOHTE 3 MI66982
1350 A GLENN WING MI42987
1355 JOHN A CROSSMAN MI68231
1366 NP
1374 REX FREEMAN MI63478
1382 V BRALOWSKY 3 MI70508
1398 HARRY F PRITCHARD3 MI65672
7 RESIDENCE

HAZEL

48008

..... 700- 1999 T23028 \$C..D12
816 RICHARD EGAN -6466836
844 ZELLA M DEWEY 6445669
867 W G SCHWALLIE MI61853
868 WILLARD BROWN MI41789
893 CHIN SOON MI62956
896 J M SCRIBNER MI47099
920 ANTHONY SPEHAR MI46175
921 WENG WONG 2 6470487
939 WILLIAM MCILROY 3 6446081
955 ANDREW FREAR BUTT MI43194
960 ROBERT GRIESHABER MI69212
982 JOHN J MARKS -6468079
995 NP
998 HAROLD PHILLIPS MI43497
1011 WILLIAM SEEBACK 2 6470734
1020 WILLIAM E PITNEY 1 MI60498
1031 NP
1044 GRACE L WHEELER 1 MI43267
1053 LEO A STIERS MI42056
1060 ALICE M NGRAM -6463567
1077 NP
1085 M A LA PONSA 2 6469402
1315 WILLIAM ELLIS MI42744
1331 HENRY F JOHNSON 3 MI63744
1346 BIRMINGHAM ELEC -MI49313
J F PAUL NAUD MI49313
1353 FRANKLIN C HOLMES3 MI64493
1362 WARREN J RUTTER 6467857
1379 HERBERT B HAGEN 3 MI65989
1397 RUSSELL W GARMAN MI65751
1403 PHILIP P BRUNO -MI67058
1414 HERBERT W GOST 0 MI69307
1435 JOHN H TODD -6469582
1438 DR FRANZ BAUER 3 6464682
1460 MELVIN H ROMAIN -MI69642
1469 L M LISZKIEWICZ -MI68131
1481 MAC CEGHALUK -MI63989
1486 THEODORE MAGURAN MI68179
1522 A J STILL JR -6471378
1527 NICHOLAS KTONA MI44075
1543 ROY F SCHROEDER JR 3 6447443
1548 STEVE SENSI -6463982
1564 ANTHONY J GENNA 2 6473608
1565 PAUL M LIVINGSTON MI70549
1582 DAVID CHESHIRE -6470283
1589 DR JAS A FANNIN -6448071
1593 JAMES R STEIN -6473511
1596 WARREN A WICKLAND3 6448361
1602 ARTHUR D CRAIG -6441642
1611 A F BLAIR -MI67526
1626 CHARLES R GATES -MI41446
1637 A O LALIC MI65637
1638 PHILIP J LA PINE 3 6448784
1650 RICHARD O WARE 3 6472580
1655 NP
1673 ROBERT J ROSS 2 6467922
1684 R S GOODBURN -6464072
1696 DAIN R MCKOWN 6468950
1699 MEL JOHNSON 3 6446140
1704 W J HARTMAN JR -MI67637
1707 JOHN P HIGLEY 2 6473387
1722 PAUL A HEINEN -6460882
1731 G J STONEHOUSE MI61149
1748 PAUL E MCTER -MI68382
1753 W RUTHENBERG 0 MI43295
1766 WILLIAM BINDER -6441614
1777 RALPH A SCOTT 0 MI66619
1780 C T GAGNON -MI40682

30 BIRMINGHAM

HAYNES

835* LIBERTY CLEANERS MI40222
 *LIBERTY CLNRS PLNT MI49700
 851 ELIZABETH SIMENTON MI49931
 SOPHIA MITCHELL MI40748
 887 OWENS B MULLINS MI48143
 CHARLES W MINTLING MI58863
 985* TAYLOR BROS CO INC MI49400
 1008 ETHEL L KUHLMAN MI67843
 1025* BIRMGH LBRG SUPPLY MI43636
 1036 IRENE E YOUNG MI44218
 1045* A&A ASPHLT PVNG CO MI43800
 1244 WALTER A KERN MI46633
 1399 EARL W FERNELISE MI48456
 1400 ROBERT G MCVITTIE MI66784
 1415 WILLIAM N HUNTER MI67666
 1448 GERALD F DAKA MI63119
 1461 GEORGE LADUKE MI60248
 1492 F ARTHUR BYINGTON MI47425
 1495 EDWIN R FRAAS MI63872
 1506 JOSEPH A LAFAVE MI65296
 1507 LEWIS R ROBBINS MI65415
 1523 HENRY J MILLARD MI63778
 1524 JOHN L STRACHAN MI65363
 1540 STEVE A KALLAS MI42384
 1549 JUD BUELL MI48584
 1558 GEORGE W WINBORN MI65149
 1575 HAROLD W LYNES MI68091
 1582 JACK L OVERMAN MI49425
 1591 JAMES C SAYLOR MI68927
 1603 ADAM STARK MI67551
 1605* R K QUAMME MD MI63815
 1606 H NELSON SIMON MI63539
 1623 KENNETH E JAMES MI66018
 1628 BRUCE REYNOLDS MI67193
 1640 RICHARD H CHAMPION MI61259
 1645 GERTRUDE B COOK MI64701
 C L SCHNERER MI64701
 1647 LILA F ECKER MI64323
 1652 WILLIAM ONISKO MI68630
 1659 ROBERT G SIMPSON MI60253
 1661 B MUMFORD REID MI65390
 1674 THROCK M LOWERY MI65268
 1675 J PATRICK MURPHY MI61269
 1677 FRANK L DREW MI42813
 1691 DAVID ALISON MI65880
 1693 N YOANIDES MI70829
 1698 GLEN G ALLEN MI68791
 1706 HELEN J GRINNELL MI42132
 1707 ROBERT L JOHNSON MI64666
 1709 HOMER M ALLODREDGE MI64852
 1720 CLIFFORD H BROWN MI46984
 1722 R M NELSON MI62507
 1725 CHARLES DENNISTON MI62859
 1727 HARRY W BARNES MI65368
 1751 W D MCLAUGHLIN MI70529
 1752 M H TILLOTSON MI47799
 *M H TILLOTSON STUD MI47799
 1754 E W SCHNAKE MI70396
 1774 A M BROWN MI67433
 1775 KATHRYN HUBBARD MI42323
 ANDREW W KLEIN MI42424
 1776 RUSSELL H GRANT MI66661
 1793 MRS RALPH BURTON MI62074
 1795 WALTER W COLBERT MI68013
 1798 OLIVER H ALLEN MI67169
 1809 A PRISCILLANDRO MI47228
 1810 HARRY MOODT MI43605
 1822 JOSEPH P STACH MI63328
 1825 WILLIAM C MACKIE MI64995
 1843 N S BURROWS MI40957
 1844 EDWARD SIMON MI63350
 1861 GEORGE L THOMAS MI42208
 1866 C T BRAITHWAITE MI66113
 1875 OTHO STEVENSON MI70351
 1878 R L BRAITHWAITE MI70587
 1889 FRED UPTEGROVE MI40208
 1890 WILLIS J BEYER MI49413
 1900 W HIGGINBOTHAM MI46282
 1901 RAYMOND C KOURCE MI68637
 1919 HAROLD C DOLLAR MI69753
 1924 RUTH A READING MI43762
 1936 EDGAR MUMFORD JR MI63054
 1947 WALLACE E MCCASKEY MI62114
 1948 FRANK A FERRARO MI44241
 1960 WALTER LACEY MI70246
 1975 RONALD A JOHNS MI64584
 1982 GERALD J DEVERE MI60973
 1994 E R PESSELL MI40859
 1999 ARTHUR M CONN MI65349
 82 RES 7 BUS

HAYNES CT

1342 DONALD E KOHTE MI66982
 1350 A GLENN WING MI42987
 1355 JOHN A CROSSMAN MI68231
 1374 REX FREEMAN MI63478
 1382 V BRALOWSKY MI70508
 1398 HARRY F PRITCHARD MI65672
 6 RES

HAZEL

779 GEORGE D SPENCER MI45588
 GENEVIEVE JOHNSON MI41144
 816 LATHROP M WILKIE MI46965
 844 ZELLA M DEWEY MI45669
 867 W G SCHWALLIE MI61853
 868 WILLARD BROWN MI41789
 893 CHLIN SOON MI62956
 896 J M SCRIBNER MI47099
 920 ANTHONY SPEHAR MI46175
 921 LEONARD J RISH MI63349
 939 WILLIAM MCILROY MI46081
 940 FAY M LEFAVE MI43194
 955 ANDREW FRIESHABER MI69212
 960 MRS G E GREENE MI65334
 982 ROGER F SPRING MI66272
 998 HAROLD PHILLIPS MI43497
 1011 DEAN JOHNSTON MI41491
 1020 DWIGHT BROOKS MI40768
 1031 ARDEN AMWEG MI49257
 1044 NORMAN W COUCH MI66574
 1053 LEO A STIERS MI42056

BRESSER'S CROSS-INDEX DIRECTORY

BIRMINGHAM

1060 ALBERT B BABBITT MI41097
 1077 ALICE MILBRAND MI67447
 1078 H G SMITH MI65708
 1085* CHARLES W GODAU MI41398
 1315 WILLIAM ELLIS MI42744
 1331 HENRY F JOHNSON MI63741
 1346 JOSEPH NAUD MI49313
 *BIRMINGHAM ELEC MI49313
 1353 FRANKLYN C HOLMES MI64493
 1362 WARREN J RUTTER MI67857
 1379 HERBERT B HAGEN MI65589
 1397 RUSSELL W GARMAN MI65751
 1403 PHILIP P BRUNO MI67058
 1435 LEW CHURCHILL MI66374
 1438 DR CALVIN P TAYLOR MI69080
 1460 MELVIN H ROMAIN MI69642
 1469 L M LISZKIEWICZ MI68131
 1481 MAC CHEKALUK MI63989
 1486 THEODORE MAGURAN MI68179
 1522 J J ROBERTSON JR MI70153
 1527 NICHOLAS KTONA MI44075
 1543 KENNETH CARSON MI65431
 1548 KENNETH J MORIARTY MI62971
 1564 BEN L ROUSE MI68071
 1565 PAUL M LIVINGSTON MI70549
 1589 FRANK C HEIDEL MI67558
 1593 EDWARD A RUSIN MI67145
 1596 ALVIE L SMITH MI70007
 1602 A D CRAIG MI69256
 1611 A F BLAIR MI67526
 1626 CHARLES R GATES MI41446
 1637 WALTER M LALIC MI66367
 1638 SAMUEL FATZICK JR MI68103
 1650 JOSEPH D BULONE MI67477
 1673 A J RICHTER MI63957
 1684 EIVEN NILSEN MI66965
 1696 DAIN R MCKOWN MI68950
 1699 ROBERT J KUHLOW MI67821
 1704 W J HARTMAN JR MI67837
 1707 JOHN R HOUCK MI60786
 1722 PAUL A HEINEN MI40638
 1731 G J STONEHOUSE MI61149
 1748 PAUL E MCTEER MI68382
 1766 WILLIAM L LAUER MI67916
 1780* C GAGNON MI40682
 1807 GEORGE VOCK MI66146
 1808* FRITZ STRECH MI47058
 1821 ROBERT A BRAUNER MI62904
 SUSAN SCHROEDER MI42904
 1824 WILLIAM C STRANG MI46046
 1842* J J WOLF JR MI60091
 1845 FRANK G FUZESARI MI43606
 1856 JEAN C DINSMORE MI68726
 1859 C B FRANKLIN MI43394
 1863 LESLIE G CRABB MI61272
 1870 TRUMAN S REED MI46068
 1881 SAMUEL J FOX MI61094
 1888 HAROLD MARRIOTT MI45486
 1904 A J WHITAKER MI66072
 1916 KATHRYN TATOMIR MI41652
 1929 PAUL J ROY MI63061
 1930 S R FLEISCHER MI63758
 1943 DE VERE T COREY MI42506
 1948 WILLIAM SUTTON MI70842
 1962 WILLIAM MARTZ MI60694
 1967 ANDY S TELEK MI48022
 1973 S J THOMAS JR MI63218
 1974 THOMAS L WHITE MI64705
 1978 RAYMOND F ABILLI MI70614
 1999 PHILIP F ASHTON MI65458
 87 RES 5 BUS

HAZELWOOD

735 JAMES W MILFORD JR MI42939
 744 H L KOHLMEIER MI49465
 759 JAMES F ANDERSON MI63193
 764 RICHARD L WEST MI41489
 787 GEORGE S SCOTT MI64280
 815 G A GILLETTE MI40704
 820 PETER A MCGUIRE JR MI65923
 844 SANFRID E ODHNER MI43397
 876 ARTHUR G COLLINS MI63376
 877 E L PILKINGTON MI40394
 10 RES

HENLEY

250 R J WILLIAMS MI42989
 292 D K SIMPSON MI60347
 319 WILLIAM N CAMPBELL MI67390
 342 GLADYS FRASER MI66927
 358 R B WILLIAMS MI60656
 359 R A EMMETT JR MI40691
 445 G H HEIDEMAN MI68577
 487 EDWIN C WALTER MI64536
 539 ALFRED R WATERS MI49414
 587 V B WATKINS MI49097
 621 HENRY MCQUEEN MI43881
 640 BETHEL KELLEY MI43139
 756 RICHARD N KIEPPE MI46880
 800 WALTER B BOOTH MI47435
 801 ROBERT J HOLLAND MI60001
 833 LORETTA RASHKEN MI42437
 JEANNE C ROSEN MI42437
 852 ALBERT E FREED MI61846
 CLYDE SNYDER MI61846
 937 DR R J GALPIN MI60290
 995 A J THORNER JR MI64236
 21 RES

HENRIETTA

355* LAIRD & WILCOX MI47400
 *WILCOX & LAIRD MI47400
 *MAIN ENGINEERS MI42214
 *FOX & MAIN MI42214
 *MARION J FOX MI42214
 383 JAMES E GROSS MI41052
 384 BALTAZAR KORAB MI65418
 410 MYRA SHOWMAN MI46728
 ROSE BUCK MI42540
 530 JOHN E ROTH MI44077
 535 JACK COLENSO MI61033
 536 MRS C R MONTAGU MI64597
 544 MRS H S TEMPLE MI42916
 557 W E ATKINS MI42322

560 WALTER J PIEL MI66914
 571 HARTGER J BORGMAN MI49382
 572 GEORGE MACDONALD MI44278
 579 SAMUEL W PAQUETTE MI68533
 S W PAQUETTE MI68533
 590 PERRIN B SHATTUCK MI46496
 591 JOSEPH WILLIS MI47694
 611 MRS ERNEST BALDWIN MI43927
 627 GEORGE BOEHMKE MI70841
 661 A J FOWLER MI46488
 668 HELEN SHERRIDAN MI66053
 692 JOHN H ELLIOTT MI65660
 695 C E ATTIG MI41653
 713 T B KLINGENSMITH MI66857
 751 HILMER C CARLSON MI47893
 756 T A MAXWELL JR MI65056
 768 NORMAN B CHRISTIE MI63082
 773 MILLARD S KELLEY MI70448
 784 ELIZABETH BEMIS MI45177
 ESTELLA ADAMS MI45177
 789 MRS ALLEN MCGIRR MI48788
 809 JOHN RUDIN MI48788
 PETER VANDER MI66653
 820 GERALD R LINTON MI49138
 821 I GUTKEWITSCH MI44156
 MARIA BAESSLER MI44156
 EUGENE W HOFFMANN MI61761
 822 EARL F KUEHL MI40305
 833 WILLIAM J SPICER MI43109
 DALE SPICER MI45216
 838 MARIE J DUPUIS MI64083
 840 GEORGE P NELSON MI49115
 849 QUINCY F ADAMS MI40372
 JACK F BROWN MI49408
 852 G A SPRAGUE MI44437
 854 HENRY DAHLQUIST MI41232
 866 MRS S HAMILTON MI40705
 868 MRS O HERSHBERGER MI69690
 875 FRANK H HOWE MI43154
 877 ELBERT S BURNS MI65947
 878 IRWIN EARL MI45182
 880 MRS R C RESTRICK MI66746
 888 MRS JAY F POOL MI70011
 890 E H BENKER MI45368
 891 CARL FINKEL MI62925
 911 JAMES S BULLOCK MI67990
 913 MRS W M PUKVES MI40799
 JOHN V INGOLD MI47922
 920 H D BUDD MI48594
 940 JAMES R BUCHANAN MI66679
 947 ROBERT A BURLEY MI67746
 956 MRS P H SMITH MI49332
 967 PERCY A LOCKHART MI45470
 980 WALTER R BARKLEY MI41276
 982 MRS JAS TEEGARDEN MI60376
 995 JOHN D BURKE MI45472
 H C CUNNINGHAM MI70611
 1010 BRONSON BRANT MI46339
 1012 DR W A BRIEGL MI68187
 1015 CLOYE E HORNUNG MI42642
 1017 MRS CLIFFIE BRYANT MI69607
 R F UTERMOHLEN MI69607
 1042 R H WHITE MI49122
 1047 FREDERICK P RAINEY MI44261
 1048 FRIEDA L CALHOUN MI40530
 *K A CRAWFORD MI40530
 1050 JOHN H ROSSO MI40869
 1051 RUSSELL S HOLLIDAY MI65666
 1053 MILDRED E HART MI49108
 1146 HELEN BEBBER MI60202
 1147 E P MANN LI MI65449
 1196 WILLIAM D JOHNSON MI67519
 CHARLES R BANGS MI61224
 1211 EDWIN MINKS MI46447
 1226 DR MARCUS W FROST MI60261
 1246 L C HARE MI65410
 1255 R W KIRKPATRICK MI44019
 1256 PETE Y BURNS MI40802
 1266 STUART M TOTTY MI62066
 1277 FRANK BOSSMAHN MI70754
 1296 JOHN M STRAUSS MI64157
 1299 PETER E WESTBERG MI70091
 1306 GAIL A MATHEWS MI69849
 SANDORA K MATHEWS MI69849
 DAN H MATHEWS MI61082
 1311 JOHN H GILLS MI62815
 H S FORD JR MI64273
 1346 JOHN W CLARK MI68480
 R H ZIMMERMAN MI69263
 1377 GORDON STONER MI47850
 1421 MRS SHELDON NOBLE MI65226
 1424 DR T W HOLLOWAY MI42001
 1430 EVA B NEPHELE MI65977
 1433 ROLAND J BERKOL MI61756
 1447 W SCOTT PURVIS MI42271
 1452 STEDING CHILDREN TEL MI64065
 JEAN STEDING MI43178
 1465 JOSEF F PALME JR MI66312
 1470 ANSON W HIBORN MI62691
 ANSON W HILBORN MI62691
 1483 ALEX SOMERVILLE MI42994
 1488 GEORGE S KNOPF MI48896
 1500 WILLIAM H DUCKER MI69450
 *DR DOROTHY GOERNER MI69450
 1501 JAMES I STALKER MI66368
 1519 BRENT K HOGSHEAD MI69638
 1520 DANIEL WATTS MI46277
 1537 VERNON L BUTLER MI42489
 1538 ROY M NELSON MI62649
 1551 EDWARD BRUNCK MI64184
 1552 WILLIAM M DRESCHER MI48955
 1571 RICHARD W HUFF MI68804
 1580 EARL J ROBERTS MI44060
 1587 ROBERT SAWYER MI70018
 1592 LLOYD O MCINTOSH MI45398
 1601 G J PENTIU MI48843
 1604 JACK KACHADURIAN MI40010
 1620 FRED W LAMMERS MI69829
 1632 WARREN MATICE MI46712
 1637 VERNON A FOURACRE MI49096
 1652 JOHN D BIRNEY MI41381
 1659 AXEL MAGNUSON JR MI43157
 1684 GEORGE E FERBER MI65086
 1685 NICHOLAS BUALIS MI42655
 1698 JOHN J KEEVAN MI47818
 1699 HUGO H NICOLAI MI41173
 1712 JOHN E WEBSTER MI45953

1727 DONALD D PEASE MI67034
 1734 J R WORTHINGTON MI47750
 1746 C L GARDNER MI47144
 1759 LEONARD F GARLITZ MI47979
 1762 MILTON E SKUTT MI40415
 1771 CHARLES W PRATT MI46813
 1776 D H RICHARDSON MI66822
 1787 P J MCCLUSKEY MI45695
 1792 ARTHUR CARROLL MI45914
 1807 E HAMMOND MI43642
 1810 HARRY SHEREMET MI60345
 1823 KENNETH A BATEMAN MI65549
 1828 GORDON WANGBERG MI42977
 1841 HOWARD C BARCH MI47825
 1844 PAUL W BEST MI69867
 1859 C C PHILLIPS MI66614
 1862 CHARLES I FOLLIS MI42334
 1885 CHARLES E MARTIN MI47306
 1886 ARTHUR F LINK MI43083
 1898 RANDALL P HARRISON MI65955
 1913 W T SWEENEY MI70020
 1920 BRYNJEV LEGLAND MI67357
 1942 HAZEL N SPOHR MI65572
 1948 DR ELMER J KOZORA MI43775
 1961 JAMES L JUHL MI43038
 1975 J B GOODWIN MI42890
 1978 FREDERICK J ALTER MI66397
 1992 JOHN PERWERTON MI47189
 1997 ALBERT ARNOLD MI43031
 163 RES 7 BUS

HILLSIDE DR

1119 F G PAULI MI44556
 1122 HAROLD M STEPHEN MI46751
 1135 LORIN J VOLLMER MI64795
 1140 NEVIN J JAMIESON MI66680
 1147 JAMES W FREDERICK MI45398
 1160 FRANK J HOWLET MI40414
 1200 DR JACK K FUNKEY MI48917
 1221 SIDNEY W HUFF JR MI68350
 1275 PALMER E FRY MI48663
 1276 RALPH H BACKUS MI67822
 10 RES

HILLTOP LANE

125 JOHN MACKENZIE MI67414
 NO MARY N HAMMOND MI66882
 NO KATHLEEN JENNISON MI42154
 NO DRW L LOWRIE MI42154
 4 RES

HOLLAND

1111 CLARENCE A JOHNSON MI63098
 1113 ROBERT B FARLOW MI43496
 1115 KATHLEEN A HARM MI60662
 1116 WILLIAM WARRISH MI60521
 1128 VIOLET E AWE MI68743
 1137 C G NUNNELLEY MI43492
 1144 MYRTLE G SALTARD MI47916
 1171 H B WASSON MI46765
 1180 CARL O FREDERICKSON MI47232
 1196 VERNON KEENER MI42317
 1212 PAUL BITKOWSKI MI65220
 1223 CLYDE FRENCH MI42825
 1232 HAROLD WENTWORTH MI40976
 1239 FRANCES MONTGOMERY MI45722
 1244 HUGH M MACKAY MI60809
 1264 NORMAN V PAYNE MI47703
 1276 ALFRED VON RAGAN MI63505
 1283 FRANK C TRUSELL MI69543
 1291 A D RUSSELL MI40491
 1292 DR F STAINTHORPE MI44986
 1311 A O WILLIS MI63321
 1312 WILLFORD SCHOEBO MI43986
 1325 JOHN R MEHMET MI64980
 1339 MERLE A ELDRIDGE MI68027
 1340 LOUIS C DEMONACO MI63475
 1352 FRANK DEPEW MI60622
 1361 J C MASARIK MI62272
 1362 L W TALBOT MI65991
 1376 ARCH SKELTON MI47621
 1392 R A VATES MI41008
 1395 ARNOLD C ENGMAN MI61597
 1405 LESTER ALLEN MI47696
 1408 EMMETT DEXTER MI41896
 1428 KENNETH P PARKER MI63614
 1444 ALBERT SAVINO MI63128
 1460 GROVER O COMPTON MI63146
 1469 BERNARD S JANNETTA MI44358
 1490 EDMUND LONG JR MI60356
 1509 ARTHUR H GREEN MI44873
 1512 DAVID NAUMANN MI65230
 1526 ARTHUR W DOWNS MI62270
 1531 ETHEL LEPAGE MI63545
 1544 LUELL L COLLINS MI43655
 1550 JOHN P NITZKE MI64334
 1551 THEO O PERFETTI MI67960
 1572 CLARENCE A BIRRELL MI65371
 1585 RALPH W MCCURRUM MI45599
 1614 LESLIE KNOWLES MI40032
 1617 GEORGE DIMAS MI47943
 1622 CARL J LISEWSKI MI63843
 1625 CHARLES ANDERSON MI49395
 1645 EDWIN N RYDELL MI43495
 1646 MYRLAN R QUIGG MI60847
 1654 LAWRENCE TOUTANT MI60552
 1661 EDITH HOBBS MI47063
 PATRICIA ACKERMAN MI47063
 1670 PAUL M DOERNER MI70597
 1673 JAMES E RENNELL MI43954
 1685 WILLIAM R DAHLBERG MI67963
 1686 WALTER BALLI MI65576
 1694 GEORGE H BENARDES MI60338
 JULIA E BERNARDES MI60338
 1697 JACK E GALVIN MI41862
 1704 ROBERT ELWOOD MI41378
 1709 LARRY D FUHRMAN MI61012
 1718 DAVID E CREASEY MI64996
 1721 GERALD KROSS MI67227
 1732 HAROLD HANDLEY MI61420
 1735 C O HAMACHER MI68858
 1743 JAMES H WEDDELL MI43657
 1744 WILLIAM J DANAHAN MI70580
 1758 BERNHARD A R URBAN MI63138

22 BIRMINGHAM

GRAEFIELD ROAD

1965 JOHN J DYER MI 4-7991
 1970 MALCOLM R MCKINNON MI 6-0016
 1971 C A ROBERTSON MI 6-2155
 1974 R D MARSHALL MI 4-5415
 1975 SHERMAN McDONALD MI 4-0226
 1983 LEE BELANGER MI 4-4662
 1984 D CRUMLISH MI 6-0152
 1985 W H WALSH MI 6-6450
 1986 E A DUNN JR MI 6-0283
 1987 J A VANDENBERG MI 4-6570
 1988 HERBERT G BIGELOW MI 6-1021
 1989 DONALD F COOPER MI 6-0041
 1990 WALTER E SCHULZ JR MI 4-5375
 1991 JOHN P SEAVITT MI 4-8467

GRANT

1148 ELOUISE WOOSTER 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 6-2035

GREENLAWN

1356 DR JOHN W SIGLER MI 4-6983

GREENWOOD AVE

248 NORMAN C WHITE MI 4-1540
 255 J J HAMEL JR MI 6-0636
 279 JOHN F ROSIER JR MI 4-1973
 292 MRS D K ROOSEVELT MI 4-9577
 303 RICHARD STEVENS MI 4-3864
 319 WILLIAM DUPLER MI 4-2395
 324 ARTHUR T LOUGEE MI 4-5768
 327 JOSEPH A BYRNE MI 4-9846
 335 ROY GRAYLIN MI 4-0428
 336 MRS JAMES BARR MI 4-6973
 347 GEORGE E STOOKEY MI 4-4950
 MRS P V LYNDALL MI 4-3094
 348 WILLIAM F NEWTON MI 4-1791
 364 EARL GROVES MI 4-1323
 371 OTTO H RACETTE MI 4-2071
 383 MADELINE R VICK MI 4-5039
 MYRTLE THOMSON MI 4-7371
 SALLY POWELL MI 4-5254
 LILLIAN B CLAWSON MI 6-0464
 388 ROY E BROWN MI 4-3183
 407 E W REYNOLDS MI 6-2586
 412 WALTER L FLINN MI 4-3035
 419 HENRY A MANLEY MI 4-6016
 436 J R POMEROY MI 4-2886
 511 E F HARRISON MI 4-2789
 525 WILLIAM THOMAS JR MI 4-6665
 543 ARTHUR R ROEBEN MI 4-1984
 559 R J SANDERS MI 4-0674
 575 J DAVID HEINZ MI 4-5274
 587 W W WORCESTER MI 4-2218
 611 ERNEST E MANN MI 4-1891
 R H MANN MI 4-1691
 628 MRS E COUSINS MI 4-6107
 631 MRS G A BEECHER MI 4-2489
 640 A JEROME BOSLEY MI 4-5190
 655 J M ROBERTSON MI 4-6509
 656 DR L E OLMSTEAD MI 4-4254
 667 A E MEAD MI 4-4422
 711 L E COLGROVE JR MI 4-3776
 739 JOHN M FARR MI 4-6733
 759 G M FREDERICK MI 4-0649
 767 M B HORTON MI 4-5389
 819 WILLIAM MALARNEY MI 4-4180
 828 A G TODD MI 4-7142
 843 KARL L BRONSON MI 4-0629
 879 EDWARD J KVEIT JR MI 4-7499

HAMILTON AVE

168 DOUGLAS H EVEN MI 4-7153
 275 CHARLES H SMITH MI 4-3240
 279 CATHERINE HUDGE MI 4-1348
 280 JET NEW AGY MI 4-5221
 314 ARTHUR C REINBOLD MI 4-2312
 332 MICHAEL LAPIDARY SPLY MI 4-6733
 336 ROBERT D WILEY MI 4-5503
 367 W E FOSTER MI 4-1441
 379 DR R H WHITE MI 6-1246
 *PONTIAC DAILY PRES MI 4-0844
 *PONTIAC DAILY PRES MI 4-1811
 *BIRMINGHAM TRVL SV MI 4-5711
 JOHN R FOSTER MI 6-1046
 391 DR SIDNEY MILLER MI 4-3120
 480 F C NIELSEN MI 4-5071
 462 WILLIAM AXLER MI 4-3070
 JACK STEWART MI 4-0893
 879 PONTIAC PRESS MI 4-0844

HANNA

364 J P OWENS MI 4-6490
 380 A A KIEHOFER MI 4-8559
 411 HUGH C RALSTON MI 4-0515
 412 WILLIAM R SAYLOR MI 4-4226
 463 MRS L HASTREITER MI 4-0285
 470 HARVEY J HOWE MI 4-5236
 491 BARDEE PRUDEN MI 4-0892
 511 J F WENZ MI 4-6071
 519 RICHARD L MILLER MI 4-1356
 524 ROBERT KELLEHER MI 6-0415
 535 CASSAM A WILSON MI 4-3061
 536 HENRY STEPHENS MI 4-5448
 547 L B CUPP MI 4-1923
 552 H D IRTTER MI 4-3331
 560 ANTHONY J DALEY MI 4-3109
 563 P G BURNETT MI 4-1910
 584 ARTHUR C PECK MI 4-3421
 592 G E RICHARDSON MI 4-7992
 593 C WALK MI 4-3634
 604 CLEMENS X CASTLE MI 4-0062
 607 W A GIBBONS MI 4-0129
 620 MERRILL J SCHLAACK MI 4-5681
 623 ELLIOTT E REDIES MI 4-3093
 636 C A JESSUP MI 4-5025
 ROBERT L JESSUP MI 4-4413
 647 W R MCCONNERY MI 4-3063
 658 GEORGE W ZINKY MI 4-9410
 667 FREDK A PROTHOROE MI 4-6260

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679 WILLIAM H TODD MI 4-1203
 695 WILLIAM S HODDE MI 4-0310
 701 C G BORLET MI 4-2085
 704 LUTHER HEACOCK MI 4-6299
 728 L J SLUSSER MI 4-3723
 735 I W PARRISH MI 4-8042
 763 JOHN J SADLER MI 4-5237

HARMON AVE

268 MAY BELLE CLARA MI 4-9145
 272 ARCHIE A YDRK MI 4-4426
 288 MRS M GOLDENBOGEN MI 4-1148
 292 ROBERT B THOMPSON MI 4-6073
 352 JAMES H HERBST MI 4-8806
 372 R H BUTLER MI 4-3013
 383 ADA S MOORE MI 4-6912
 419 J P CUMMINGS MI 4-5578
 420 VINTON P BIRCH MI 4-5769
 460 RANDOLPH W HEIZER MI 6-0315
 483 H N DAVOCK MI 4-3780
 R C HURP MI 4-3780
 488 MILD A FISHER MI 4-9260
 519 WOLVERINE EQUIP CO MI 4-8411
 A E PICHANN MI 4-8411
 544 R W SANDUNDERS MI 6-2728
 548 E W BERGSIAM MI 4-9011
 572 C R SANDERSON MI 6-2311
 603 WILLIAM L THORBURN MI 4-5183
 630 HOLY NAME CONVENT MI 4-6106
 635 FOREST K FOWLER MI 4-5179
 637 EDWARD F BURNHAM MI 4-1979
 651 H J HAMMANG MI 4-6996
 663 FREDERICK J MASON MI 4-0153
 679 HIRAM P TODD MI 4-5872
 680 HOLY NAME SCHL MI 4-2722
 691 STUART M ALLEN MI 4-5383
 707 ANNA S PARKS MI 4-7049
 743 JOHN M HAWTING MI 4-8023
 766 EDW H GAGNE MI 4-6931
 767 A J BLEAZBY MI 4-7881
 787 J B VANOUSEN MI 6-1309
 810 WEDWIN MOSHER JR MI 4-2876
 827 HAROLD HICKMAN MI 4-4066
 MRS WILLIAM LEADEN MI 4-5316
 855 A D DUNKIN MI 4-3130
 884 VERNON BRYANT MI 4-3990
 895 BENJAMIN V FUENTE MI 6-1623
 915 MRS BERTHA POOL MI 4-1394
 945 GLADYS ROSS MI 4-7722
 929 VICTOR W CANVEN MI 4-4899
 940 CARL INGRAM MI 4-7117
 945 WALTER P TAYLOR MI 6-1356
 960 ROBERT L MARTIN MI 4-4559

HANTHORNE RD

120 A LESLIE SCHAEFER MI 4-9308
 123 BANNARD HOMES MI 4-0434
 174 DOROTHY MACKENZIE MI 4-4288
 185 R C CUNNINGHAM MI 4-1136
 218 DONALD S HUTTON MI 4-9153
 NIELS DIFFRENT MI 4-3245
 225 MARK HARRIS MI 4-0110
 R B ROBERTS MI 4-0110
 272 CHARLES C LEWIS MI 4-3123
 285 BEVERLY R BOYD MI 4-7411
 320 E W BRENN MI 4-4031
 345 THOMAS H HOWLETT MI 4-4759
 348 L B BILLINGS MI 4-7821
 360 R C STOLTZ MI 4-7541
 416 HOWARD LYVERANCE MI 4-4791
 454 MARK B BEARDS MI 4-1563
 512 ORREN L ANDREWS MI 4-5562
 540 T F THORNTON MI 6-1311
 607 CLARENCE GARDINER MI 4-2768
 633 HAROLD KENNEDY MI 4-4403
 655 WILLIAM W WILLIAMS MI 4-0780

HAYNES

835 LIBERTY CLEANERS MI 4-0222
 *LIBERTY CLEANERS MI 4-9700
 851 THEO MITCHELL MI 4-0748
 887 HELLER DEHABECKER MI 4-3194
 CHAS W MITTLING MI 4-3539
 916 JAMES DIMAS MI 4-4680
 940 GUY SHATTUCK MI 4-6919
 983 TAYLOR BROS CO INC MI 4-9400
 1008 ETEL L KUHLMAN MI 4-1995
 1025 JOHN ROSSOVSONS IN MI 4-1060
 BERN L BRASUPPLY CO MI 4-3036
 1036 IRENE E YOUNG MI 4-4218
 1045 AAA ASPHALT PAVING MI 4-3800
 1048 EARL SIMMONS MI 4-0681
 1809 A PRISCILLARD MI 4-7228
 1810 HARRY MOODY MI 4-3605
 1822 ROBERT J JANKOW MI 4-6594
 1843 N S BURROWS MI 4-0957
 1844 ROLLAND B REYNOLDS MI 4-7135
 1861 VINCENT TIRONY MI 4-3209
 1866 LAVERNE F SMITH MI 6-2539
 1875 WILLIAM AXLER JR MI 4-8975
 1878 DONALD MACDONALD MI 4-9517
 1889 GERALD E TWEEDIE MI 4-0807
 1890 WILLIS J DEVER MI 4-9413
 1900 W HIGGINBOTHAM MI 4-2828
 1901 CHARLES DUNKEL MI 4-4836
 1919 RALPH GREEN MI 4-6172
 1924 JAS W READING MI 6-1658
 1936 CHARLES ANDERSON MI 4-9395
 1947 WALLACE E MCCASEY MI 6-2114

HAZEL

776 WALTER V MASON MI 4-7627
 GEORGE D SPENCER MI 4-5588
 816 ARTHUR STALEY MI 4-6177
 MARILYN L STALEY MI 4-6177
 844 ZELLA M DEWEY MI 4-5669
 867 VERNON FOURACRE MI 4-9096
 868 WILLIAM BROWN MI 4-1789
 893 RAY B PAYE MI 4-0497
 896 J M SCRIBNER MI 4-7099
 920 ANTHONY SPEHAR MI 4-6175
 921 JOHN E FANCHER MI 4-6326
 939 WILLIAM MCILROY MI 4-6081
 940 FAY M LAPAVE MI 4-9025
 955 J THOMAS MARTIN MI 4-4913
 982 W M BACKUS MI 4-0720
 998 HAROLD PHILLIPS MI 4-3497
 1011 DR R E GIBSON MI 4-2030
 1020 DWIGHT BROOKS MI 4-0766
 1031 RICHARD W BROWN JR MI 4-4594
 1043 LFO A STIERS MI 4-3426
 1060 ALBERT B BOBBITT MI 4-1097
 1077 MRS R G HOOVER MI 4-7663
 1078 H G SMITH MI 4-2087

BIRMINGHAM

1085 CHARLES W GODAU MI 4-1598
 1807 AMELIA LIENARD MI 4-3576
 1808 FRITZ W STRECH MI 4-7058
 1821 SUSAN SCHRODER MI 4-2904
 1824 WILLIAM C STRANG MI 4-6046
 1845 FRANK G FUZESARI MI 4-3606
 MRS GUY C BROWN MI 4-5947
 1856 ROBERT L HENDERSON MI 4-7342
 1859 CHARLES FRANKLIN MI 4-3394
 1863 LESLIE G CRABB MI 6-1272
 1870 TRUMAN S REED MI 4-6068
 1881 SAHL J FOX MI 6-1094
 1888 RICHARD W HETRICK MI 4-3764
 1901 JAMES OSTERHOUDT MI 6-2093
 1904 ELMER J SMITH MI 4-1526
 1916 KATHRYN TATOMIR MI 4-1652
 1929 PAUL J ROY MI 4-0683
 1943 DEVERE T COREY MI 4-2506
 1948 ROBERT NAUMANN MI 6-6480
 1962 WILLIAM MARTZ MI 6-0694
 1967 ANDY S TELEK MI 4-8022

HAZELWOOD AVE

735 JAMES W MILFORD JR MI 4-2939
 744 H L KOHLMEIER MI 4-9465
 759 R H SPENCER MI 4-6598
 764 HUGH KEYES MI 4-9277
 767 GEORGE S SCOTT MI 4-0357
 788 GEORGE H VANBUREN MI 4-5849
 815 GEORGE GILLETTE MI 4-0704
 820 ROBERT H PORTER MI 4-2880
 844 RALPH R HUTCHKISS MI 4-2259
 851 FRANK H HARDY MI 4-3187
 876 MALCOLM T MURRAY MI 4-6352
 877 E L PILKINGTON MI 4-0394

HENLEY DR

250 ROBERT J WILLIAMS MI 4-2989
 258 ROBERT B WILLIAMS MI 6-0656
 292 O K SIMPSON MI 6-0347
 339 CHARLES RENFREW MI 4-0749
 359 ARTHUR WRAGBY MI 4-9277
 362 ARCH B FRASER MI 4-4001
 359 R A EMMETT JR MI 4-0691
 445 GEORGE HEIDEMAN MI 4-9169
 487 IRENE H NEUMANN MI 4-3231
 511 PETE BOYNE MI 4-2460
 539 ALFRED R WATERS MI 4-0414
 587 V B WATKINS MI 4-9097
 621 HENRY C MCGUEN MI 4-3881
 640 BETHEL B KELLEY MI 4-3139
 678 C J BOCK MI 4-5581
 756 WILLIAM C ALLEE MI 4-0885
 801 ROBT J HOLLAND MI 6-0001
 937 DR R GALLPIN MI 6-0290
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HENRIETTA

339 MARY HALE MI 4-7217
 THOMAS P SHEARER MI 6-2084
 355 RALPH A KALIN MI 4-2214
 *WILCOX LAIRD MI 4-7400
 *LAIRD WILCOX MI 4-7400
 366 RICHARD STEPHENSON MI 6-1350
 383 MRS MAUDE E BROOKS MI 4-2849
 410 MYRA SHOWMAN MI 4-6728
 445 EDWARD EBUCK MI 4-2460
 415 KENNETH W DUFF MI 4-9218
 530 JOHN E 90TH MI 4-0217
 *J ROBINSON MI 4-0217
 535 JACK COLENSO MI 6-1033
 536 MC MURRAY MI 4-5529
 544 DEGLAND KENEALY MI 4-0393
 MRS H S TEMPLE MI 4-2016
 547 NORMA B GUSTAFSSON MI 4-4737
 557 W E ATKINS MI 4-2322
 560 ALTON H HAACK MI 4-2586
 571 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 4-6614
 647 GEORGE W ARMSTRONG MI 4-0062
 652 JOHN BROOKS MI 4-3098
 661 A J FOWLER MI 4-6488
 668 HELEN SHERIDAN MI 4-1361
 692 FRANK DEMPSEY JR MI 4-0895
 695 WALTER R BARKLEY MI 4-1276
 711 CLYDE H COLLINGS MI 4-2235
 751 HILMER C CARLSON MI 4-7893
 756 T A MAXWELL JR MI 4-8486
 768 JOHN H BROOKES MI 6-1271
 771 JOHN H ROSSO MI 4-0869
 773 RICHARD W YOUNG MI 4-9278
 784 JACK D FULLER MI 4-2251
 786 R W JONES MI 4-6474
 789 MRS ALLEN MCGIRR MI 4-8785
 791 WARREN NEWMAN MI 4-8568
 809 DR L B WELCH MI 4-9217
 E SHALBERG MI 4-5427
 JACK THOMPSON MI 6-2720
 820 W B CARY MI 4-4412
 821 G S GURIN MI 4-9466
 DONALD D MARTIN MI 6-2404
 822 FREDA HATCH MI 6-2687
 DORRIS HAINES MI 6-2687
 833 JAMES M PEABODY MI 4-1445
 CARL R LUNDBLAD MI 4-0810
 838 M J DUPUIS MI 4-8945
 840 JOHN V TRABUE MI 4-3358
 849 ROBERT J ADAMS MI 4-8666
 EARL F KUEHL MI 4-0305
 852 G A SPRAGUE MI 4-4437
 854 HENRY DAHLQUIST MI 4-1232
 859 G CORREGAN MI 4-3764
 863 MRS F H ALFRED MI 4-0677
 866 MRS S HAMILTON MI 4-0705
 868 G C MCGAVRAN MI 4-0768
 875 FRANK H HOWE MI 4-3154
 877 ELBERT S BURNS MI 4-2611
 878 J R LEONARD MI 6-1059
 888 HENRY A HOUSTON MI 4-3127
 MRS F B ETTER MI 6-0382
 890 CARL B MOE MI 6-0336
 891 CARL BINKLE MI 4-1412
 893 MRS KARL F OEHLE MI 6-1045
 911 PAUL J SHINE MI 6-1657
 FROST MI 4-0123
 920 H D BUDD MI 6-2647
 922 VERN C MARKLEY SR MI 4-1753
 940 JAMES R BUCHANAN MI 4-6679
 947 GORDON L SCHICK MI 6-1379
 956 MRS PAUL H SMITH MI 4-0332
 967 FREDY LOCKHART MI 4-5470
 980 MRS BLANCHE WHITE MI 4-0793
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Fences - Silos
Gutters and Downspouts
Heating Units
Auto Chassis
Under Fenders
Structural Steel
Smokestacks
Fire Escapes
Machinery
Tanks
Road
Machinery
Trucks - Buses
Ships - Boats

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Below 13 Mile Rd.

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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

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Phone Woodward 2-8700

Birmingham Branch W. Maple
at Cranbrook, Phone B-ham 1414

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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

4 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

4 Bel Wm C
8604 Spencer Louis M
48054 Vernor Jas

PHONE 4400

CLOHSET & McCUTCHEON

Authorized Hudson
Sales and Service

Birmingham, Mich.



820 S. Woodward

HUSTON HARDWARE CO.

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



POTTER

Moving
&
Storage
Co.

Fireproof
Warehouse

Phone
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
767⁴Bleasby 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
216⁴Plunkett 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. HARDWARE Co. Sherwin-Williams 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
445⁴Heldeman Geo H ©
445⁴Neumann Carl W
511⁴Boyne Peter K ©
539⁴Waggoner Glenn C ©
bidg contr
587⁴Thomas Jos T
Warwick dr intersects



Hartford Fire Insurance Co.
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WABEEK BLDG.
BIRMINGHAM PHONE 328-J



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Electric



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Birmingham

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Washers
Refrigerators
Ranges
Heaters
Cleaners
Lighting
Fixtures
Wiring and
Repair Service

Leonard
Electrical
Co.

162 W.
Maple Ave.

PHONE
223

PARKS COAL Company

Builders'
Supplies

Dupont
Paints

283
Brownell
St.

PHONE
2020



Birmingham's Largest Automobile Dealer

WINNINGHAM CHEVROLET CO.

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 Shuter 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

JOHN L. TRACY

REPRESENTATIVE

Metropolitan Life Insurance Company

359 MERRILL ST.

PHONE 2850

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 Child Huntley Jr Hilty Maude Mrs

821 King Elbert W
833 Gayman Wendell P Kanauer Harry E

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Drug Store

105
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Av.

PROMPT
DELIVERY

PHONE
61

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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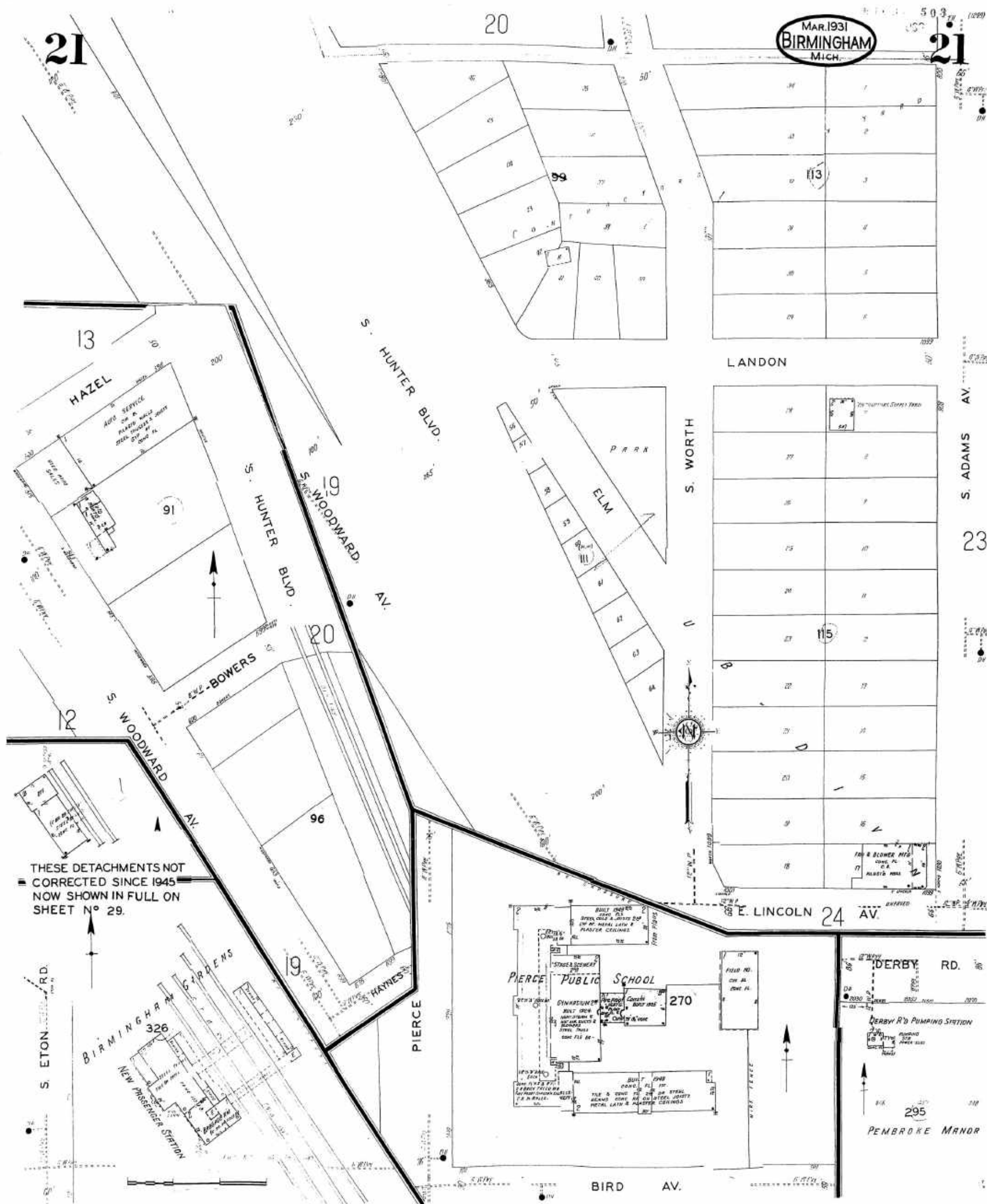
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Map Type: Fire Insurance
 Publisher: Sanborn Map Co.
 Publication Name: Birmingham, MI
 Base Map Date: March 1931
 Revised Date: May 1949
 Republished Date:
 Sheet Number: 21

Requested by: Envirosite Corporation



23

23

MAR. 1931
BIRMINGHAM
MICH.

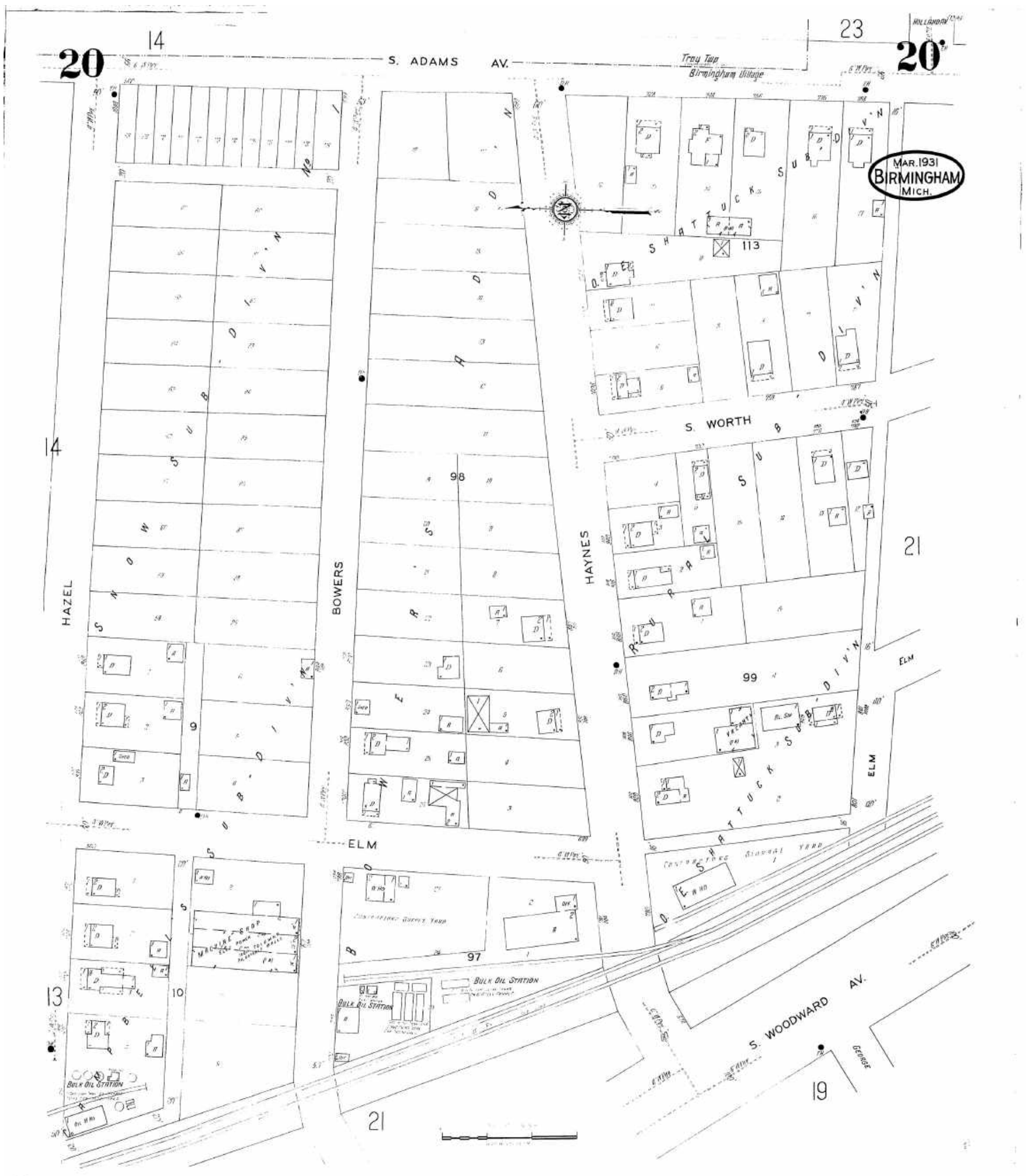
Map Type: Fire Insurance
 Publisher: Sanborn Map Co.
 Publication Name: Birmingham, MI
 Base Map Date: March 1931
 Revised Date: May 1949
 Republished Date:
 Sheet Number: 23

1949

Requested by: Envirosite Corporation

Commercial Property
 1000 Haynes St
 Birmingham, MI 48009
 Client Project # 49822
 HIG Project # 2045763 www.historicalinfo.com





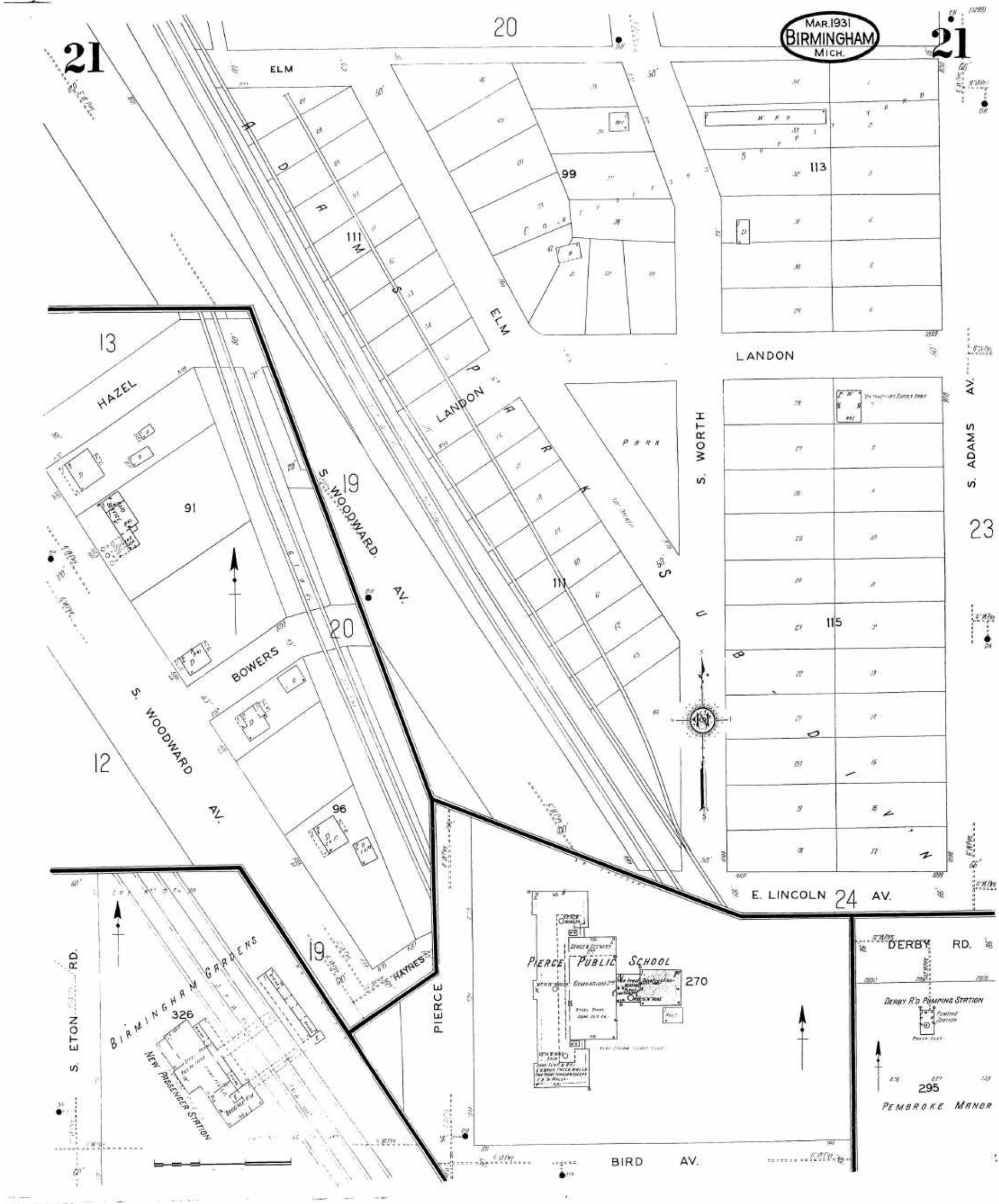
Map Type: Fire Insurance
 Publisher: Sanborn Map Co.
 Publication Name: Birmingham, MI
 Base Map Date: March 1931
 Revised Date:
 Republished Date:
 Sheet Number: 20

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

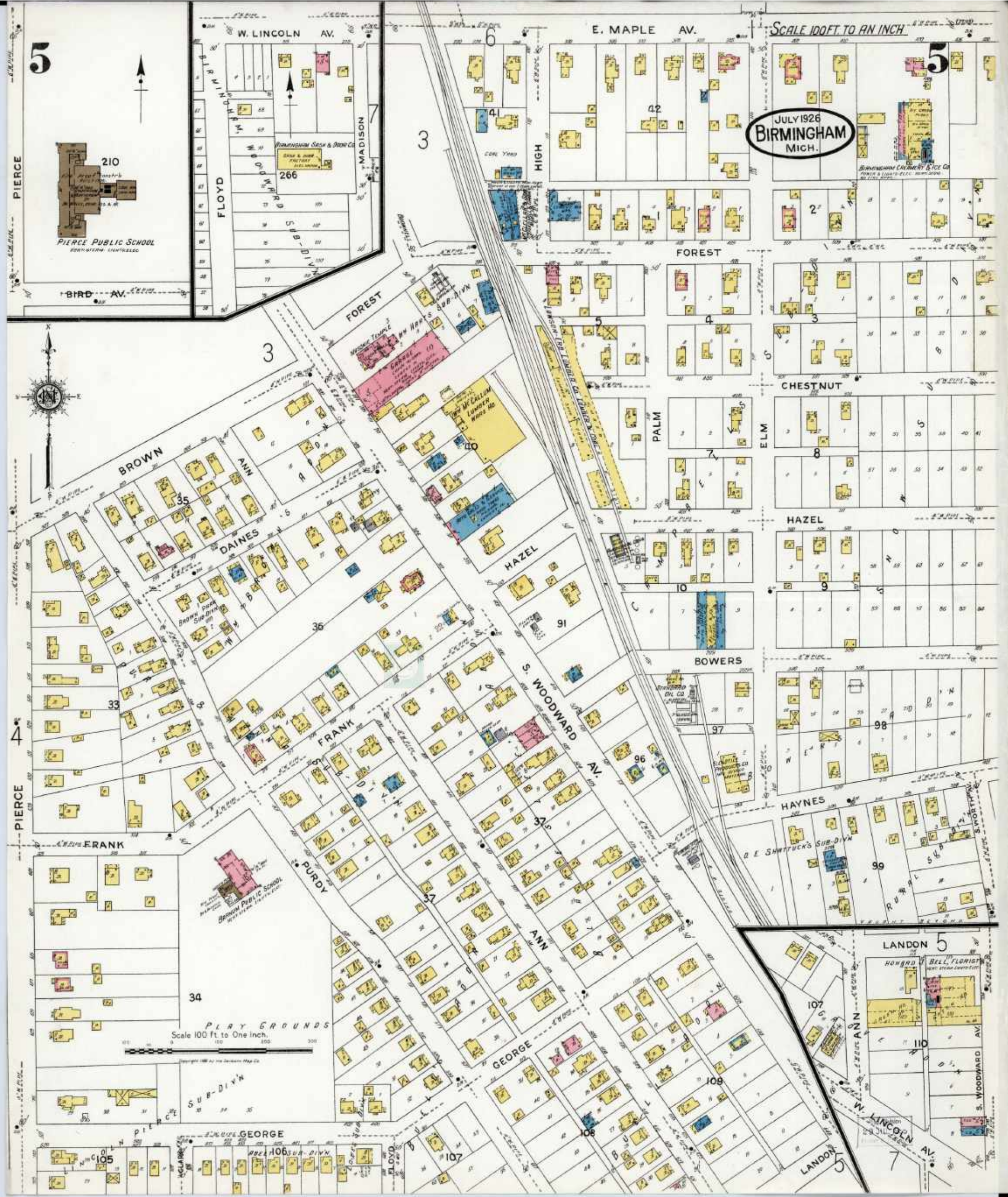
1931

Requested by: Envirosite Corporation

Commercial Property
1000 Haynes St
Birmingham, MI 48009
Client Project # 49822
HIG Project # 2045763 www.historicalinfo.com







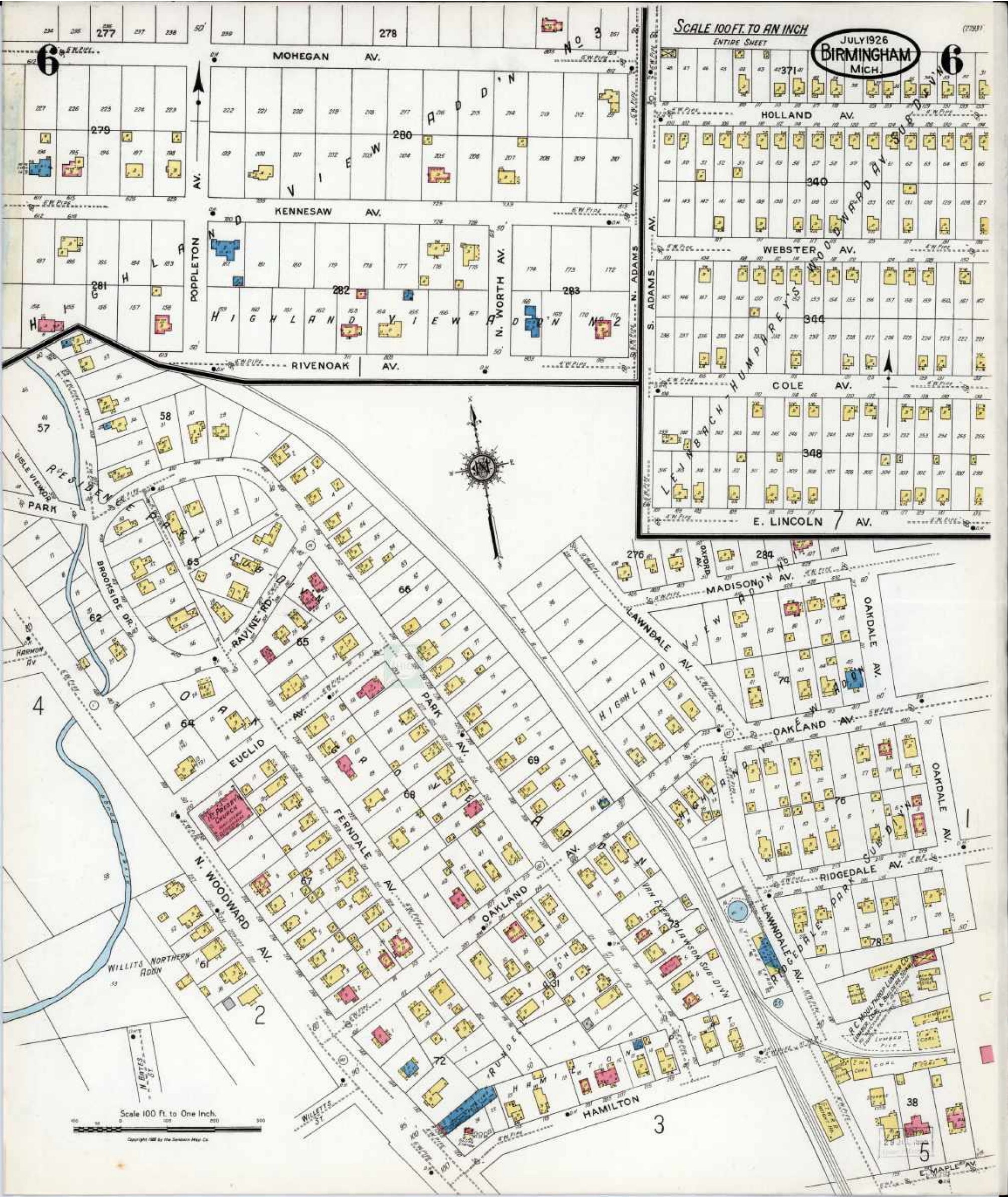
Map Type: Fire Insurance
Publisher: Sanborn Map Co.
Publication Name: Birmingham, MI
Base Map Date: July 1926
Revised Date:
Republished Date:
Sheet Number: 5

1926

Requested by: EnviroSite Corporation

Commercial Property
1000 Haynes St
Birmingham, MI 48009
Client Project # 49822
HIG Project # 2045763 www.historicalinfo.com





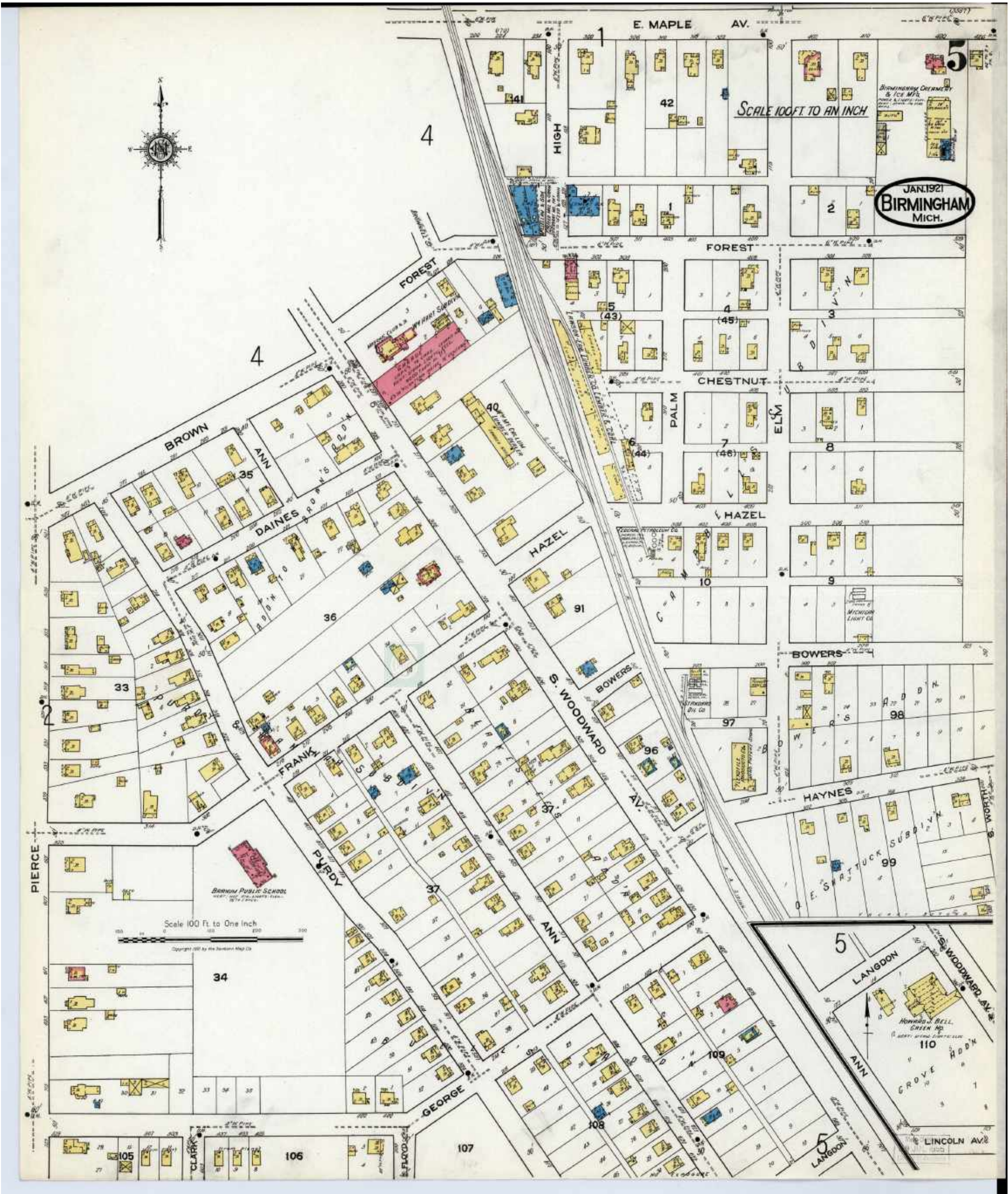
Map Type: Fire Insurance
Publisher: Sanborn Map Co.
Publication Name: Birmingham, MI
Base Map Date: July 1926
Revised Date:
Republished Date:
Sheet Number: 6

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

Section	Page
<u>Executive Summary</u>	<u>1</u>
<u>Executive Summary by Distance</u>	<u>2</u>
<u>Executive Summary by Database</u>	<u>5</u>
<u>Property Proximity Map</u>	<u>20</u>
<u>Area Map</u>	<u>21</u>
<u>Map Findings Summary</u>	<u>22</u>
<u>Map Findings</u>	<u>28</u>
<u>Unmappable Summary</u>	<u>281</u>
<u>Environmental Records Searched</u>	<u>282</u>
<u>Geological Landscape Section</u>	<u>300</u>
<u>Geological Landscape Section Soil Map</u>	<u>303</u>
<u>Geological Landscape Section Summary</u>	<u>304</u>
<u>Geological Findings Map</u>	<u>312</u>
<u>Geological Landscape Section Map Findings</u>	<u>313</u>
<u>Geological Landscape Section Map Findings Radon</u>	<u>536</u>
<u>Geological Landscape Records Searched</u>	<u>537</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

<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.

<u>MAP ID</u>	<u>SITE NAME</u>	<u>ADDRESS</u>	<u>DATABASE(S)</u>	<u>RELATIVE ELEVATION</u>	<u>DIRECTION / DISTANCE</u>
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.

MAP ID	SITE NAME	ADDRESS	DATABASE(S)	RELATIVE ELEVATION	DIRECTION / DISTANCE
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.)**

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
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	
G27	- ID: Tank ID UTK-124022-15	Status: Removed from Ground	Date: 07/10/2008	95
	- ID: Tank ID UTK-124023-15	Status: Removed from Ground	Date: 07/10/2008	
	VILLAGE JEEP EAGLE	666 S WOODWARD	W / 0.139 mi.	
	- ID: Facility ID 00005612	Status: N/A	Date: N/A	
37	- ID: Tank ID UTK-005255-15	Status: Removed from Ground	Date: 08/30/1990	115
	FRED LAVERY CO	34602 WOODWARD AVE	WNW / 0.186 mi.	
	- ID: Facility ID 00014864	Status: N/A	Date: N/A	
	- ID: Tank ID UTK-099226-15	Status: Removed from Ground	Date: 07/19/1990	
138	FRANKLIN SAVINGS BANK	479 S OLD WOODWARD AVE	WNW / 0.230 mi.	121
	- ID: Facility ID 00013244	Status: N/A	Date: N/A	
	- ID: Tank ID UTK-001044-15	Status: Removed from Ground	Date: 09/28/1988	
	ESTATE MOTORS LTD	464 S OLD WOODWARD AVE 464 S WOODWARD AVE	WNW / 0.246 mi.	
143	- ID: Facility ID 00015180	Status: N/A	Date: N/A	135
	- 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	
	CITGO	1531 S WOODWARD	SSW / 0.123 mi.	
E21	- ID: Facility ID 00013409	Status: N/A	Date: N/A	84
	- 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**

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
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**

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
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

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
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.)

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
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 BOJJI/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

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
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	720 S ADAMS RD	ENE / 0.010 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	
E12	Birmingham Cleaners	1253 S WOODWARD	SW / 0.104 mi.	62
	- ID: Facility ID 00018874	Status: N/A	Date: N/A	
	- ID: Leak Number C-1373-93	Status: Closed	Date: Release Date 05/17/1994	
E21	WOODLINC/MICH LTD PARTNERSHIP	1050 S OLD WOODWARD AVE	SSW / 0.125 mi.	84
	- ID: Facility ID 00039226	Status: N/A	Date: N/A	
	- ID: Leak Number C-1071-96	Status: Open	Date: N/R	
E34	Mobil SS #03-kpv	1991 S Woodward Ave	S / 0.161 mi.	106
	- ID: Facility ID 00016687	Status: N/A	Date: N/A	
	- ID: Leak Number C-2008-90	Status: Closed	Date: Release Date 11/30/1995	
J46	BIRMINGHAM CLEANERS INC	33866 WOODWARD AVE	SSE / 0.262 mi.	152
	- ID: Facility ID 00018874	Status: N/A	Date: N/A	
	- ID: Leak Number C-1373-93	Status: Closed	Date: Release Date 05/17/1994	
J47	FORMER GASOLINE STATION Neighborhood Pro Hardware Property	33801 WOODWARD AVE	S / 0.266 mi.	159
	- ID: Facility ID 50005898	Status: N/A	Date: N/A	
	- ID: Leak Number C-0158-13	Status: Open	Date: N/R	
P69	CITGO BIRMINGHAM	33588 WOODWARD AVE 1531 S WOODWARD (FORMERLY) 33588 Woodward Ave	SSE / 0.432 mi.	232
	- ID: Facility ID 00013409	Status: N/A	Date: N/A	
	- ID: Leak Number C-0005-15	Status: Open	Date: N/R	
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
	- ID: Facility ID 00013409	Status: N/A	Date: N/A	
	- ID: Leak Number C-0005-15	Status: Open	Date: N/R	

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	400 SOUTH OLD WOODWARD AVENUE 400 S OLD WOODWARD AVE	WNW / 0.269 mi.	161
	- ID: 170095	Status: N/A	Date: Cleanup Completion Date N/R	

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
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FEDERAL ERNS LIST

ERNS	Emergency Response Notification System
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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
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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
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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
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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

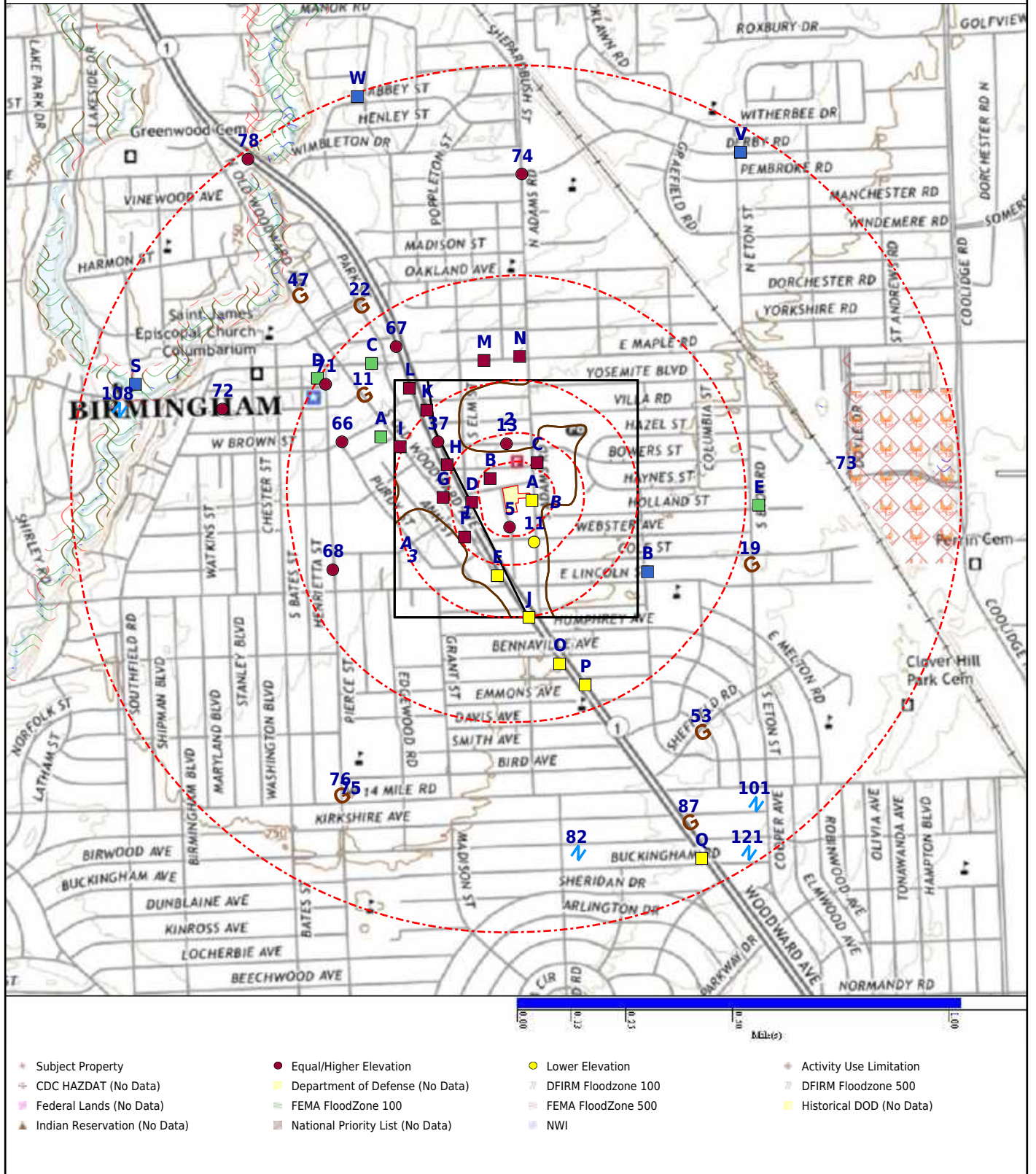
AFS	Air Facility Systems
ALT FUELING	Alternative Fueling Stations
AST PBS	ASTs at Bulk Petroleum Terminals
BRS	Biennial Reporting Systems
CDC HAZDAT	Hazardous Substance Release and Health Effects Information
COAL ASH DOE	Coal Ash: Department of Energy
COAL ASH EPA	Coal Ash: Environmental Protection Agency
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

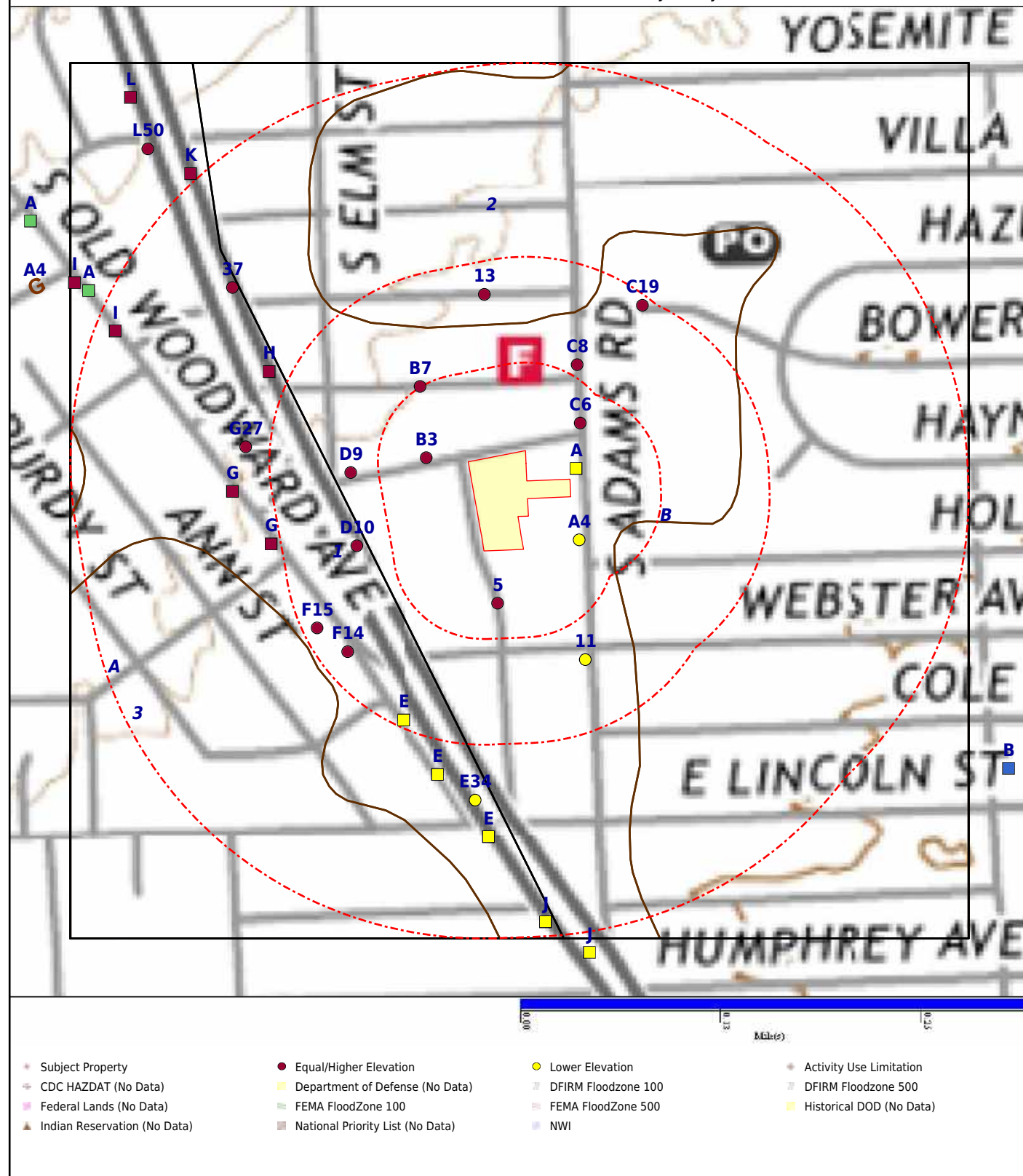
SUBJECT NAME: Commercial Property
ADDRESS: 1000 Haynes St, Birmingham, MI, 48009
LAT/LONG: 42.542049 / -83.206414

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>
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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>
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STATE RCRA GENERATORS LIST

HWG - MI		0.250	7	7	--	--	--	14
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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>
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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
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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
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Notices of Violations Summary

Regulation Violated :	N
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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
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Notices of Violations Summary

Regulation Violated :	N
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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
SLLP 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
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Notices of Violations Summary

Regulation Violated :	N
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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 : 1000 BUILDING
Facility Address : 1000 S OLD WOODWARD AVE, BIRMINGHAM, MI 48009
County : OAKLAND

WDS ID : 495445
Site ID : MIK212640328
Site Legal Name : PERIMETER PROPERTIES 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 : PERIMETER PROPERTIES LLC
Facility Address : 1000 S OLD WOODWARD AVE, BIRMINGHAM, MI 48009
County : OAKLAND

Date Form Received by Agency : 09/29/2015
EPA ID : MIK212640328
Mailing Address : 112 PEABODY ST, BIRMINGHAM, MI 48009
Contact : STEVEN G QUINTAL
Contact Address : N/R
Contact Country : N/R
Contact Telephone : 248-642-0024
Contact Email : STEVE@FULLERCENTRALPARK.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: 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
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Notices of Violations Summary

Regulation Violated :	N
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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
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Notices of Violations Summary

Regulation Violated :	N
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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
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Notices of Violations Summary

Regulation Violated :	N
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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_VSQQ, 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_VSQQ

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
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Notices of Violations Summary

Regulation Violated :	N
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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
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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
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Notices of Violations Summary

Regulation Violated :	N
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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
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HWG - MI

Facility Name :	SPEEDWAY 8721
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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
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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
 SFLLP 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 Prvding 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
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Notices of Violations Summary

Regulation Violated :	N
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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
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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
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Notices of Violations Summary

Regulation Violated :	N
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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
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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
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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 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 :	.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 :	Ewa's 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 lwies
 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
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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 TSD: 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_TSD: 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:

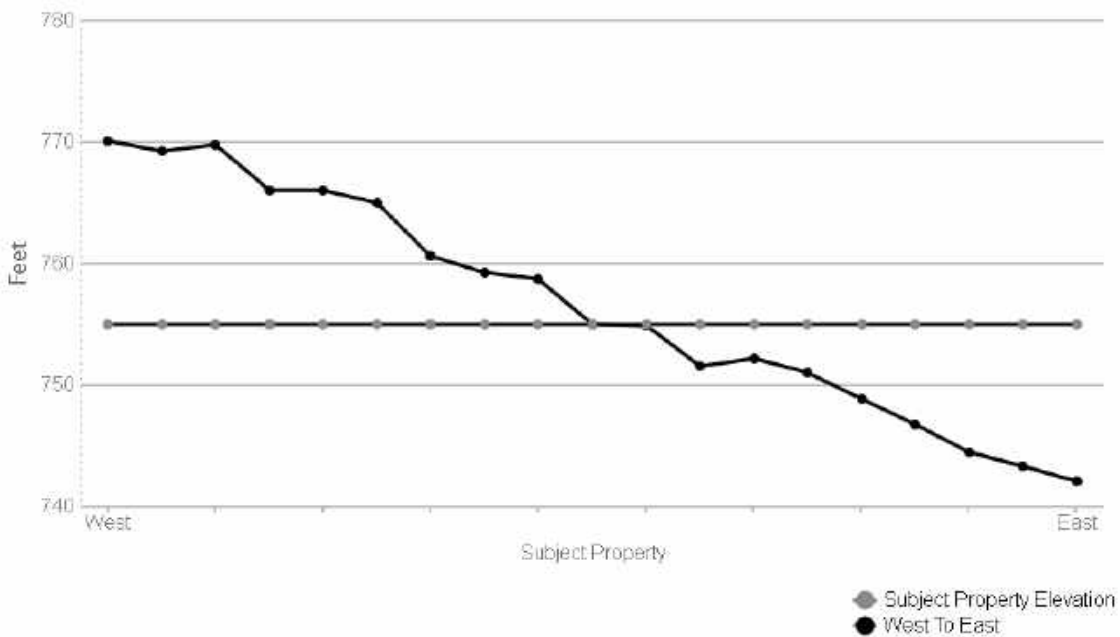
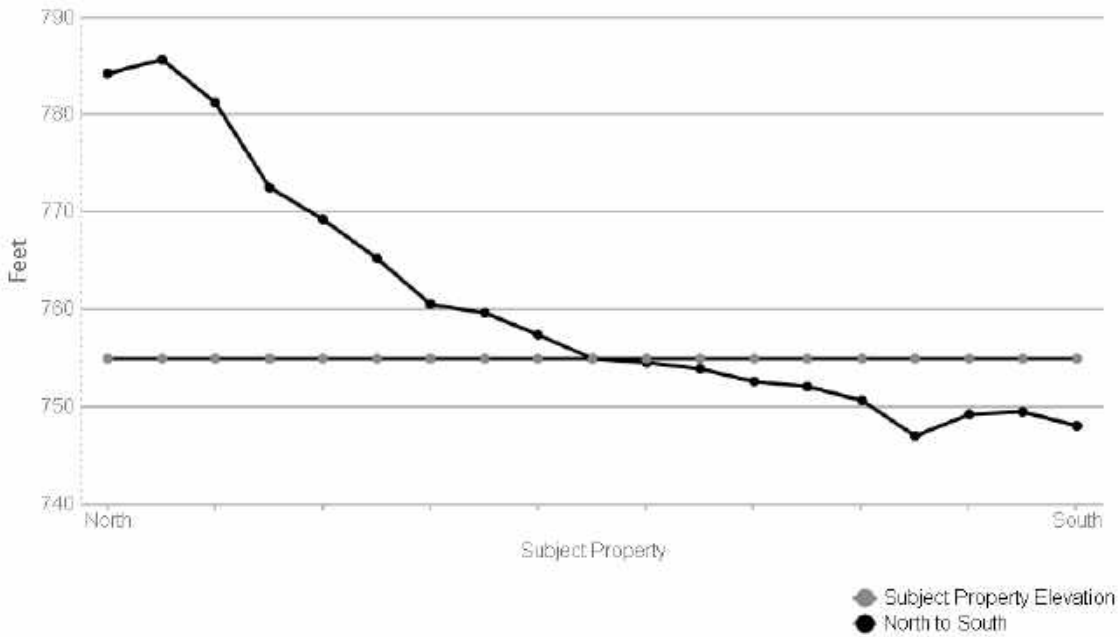
	FEMA Flood
Subject Property County:	Electronic Data:
Oakland	Yes - refer to the PROPERTY PROXIMITY MAP and AREA MAP
Flood Plain Panel at Subject Property:	2601680005B
Additional Panels in search area:	2601690016B 2601800003E 2601800005C 2602560002B

NATIONAL WETLAND INVENTORY:

	NWI Electronic
<u>NWI Quad at Subject Property:</u>	<u>Data Coverage:</u>
Birmingham	Yes - refer to the Geological Findings Map

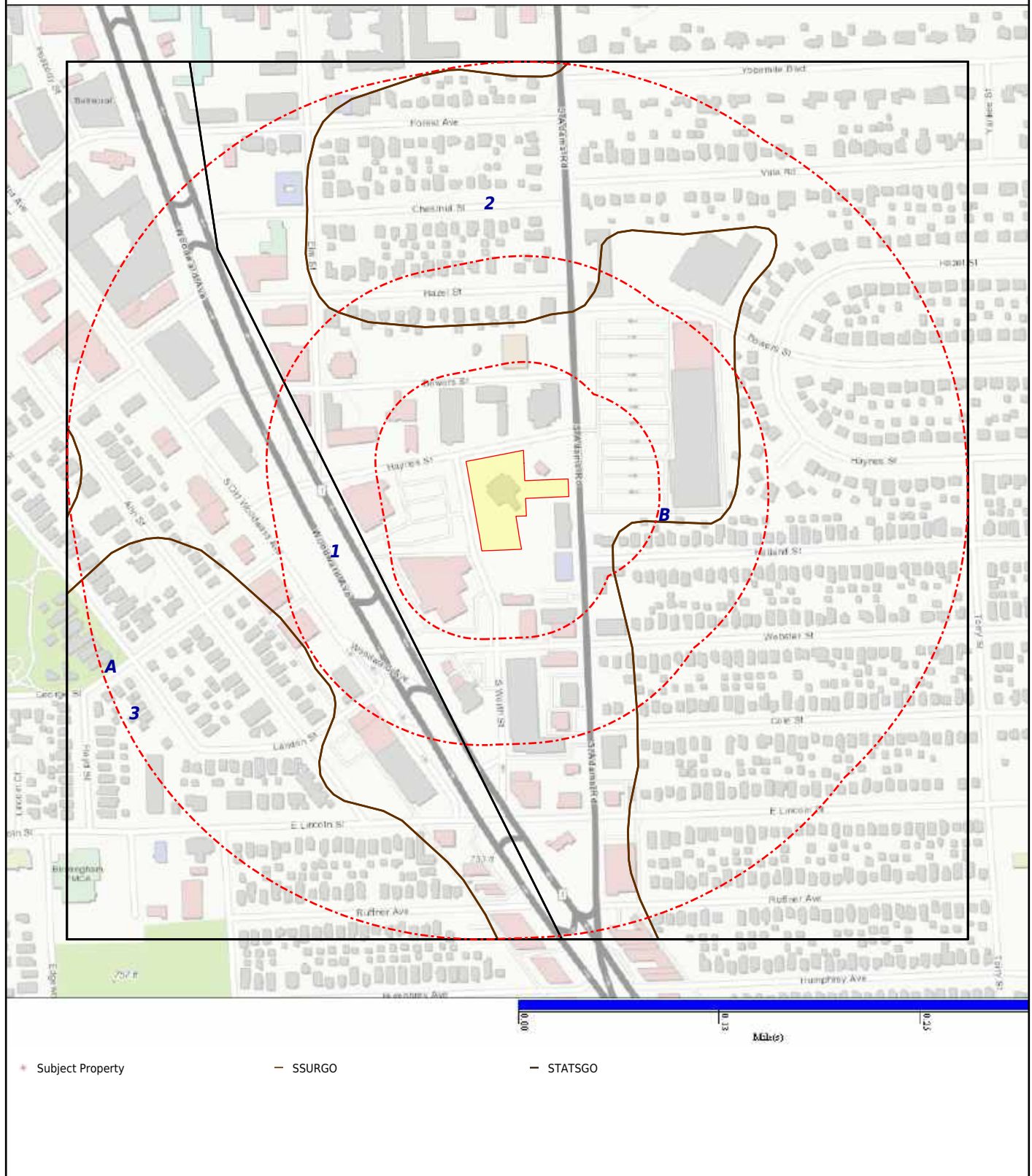
LITHOSTRATIGRAPHIC INFORMATION:**ROCK STRATIGRAPHIC UNIT:****GEOLOGIC AGE IDENTIFICATION**

Era:	Paleozoic	Category: 103 D3 Upper Devonian
System:	Devonian	
Series:	Upper Devonian	
Code:	D3	



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.)

<u>MAP ID:</u>	<u>WELL ID:</u>	<u>LOCATION FROM SP:</u>
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

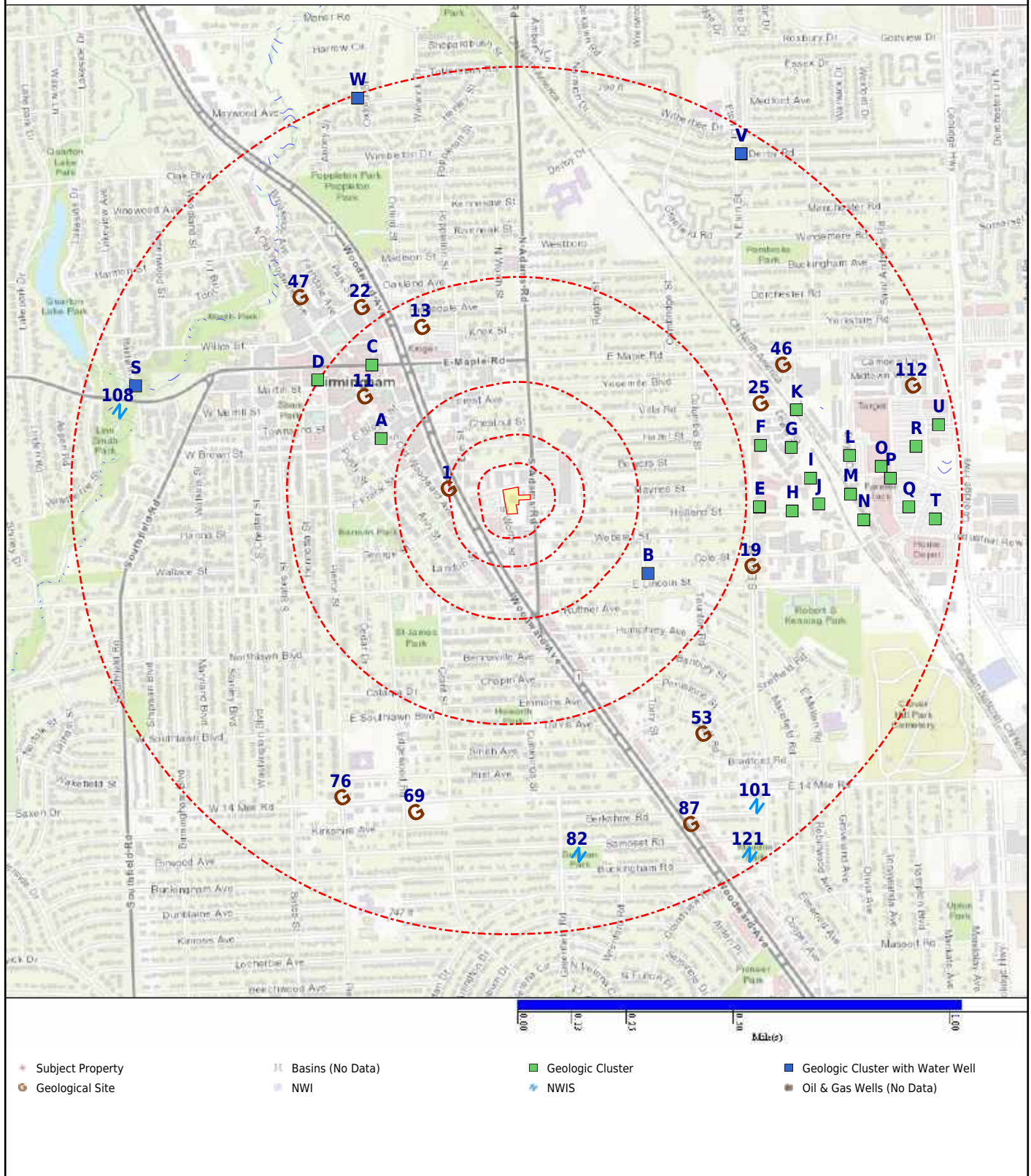
Note: PWS System location is not always the same as well location.

STATE/LOCAL WATER AGENCY DATA SUMMARY:

<u>MAP ID:</u>	<u>WELL ID:</u>	<u>LOCATION FROM SP:</u>
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

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



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

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

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

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

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

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 RTCR 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

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

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

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

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

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 RTRC 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

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

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

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

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

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

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@storrssstudentliving.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@storrssstudentliving.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

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

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

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

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

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

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

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 RTRC 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

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

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

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

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

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

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

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

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

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

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

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

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 RTRC Monitoring : N/R
 Last Date in Agency List : 10/26/2020

Facility Address : 217 PIERCE, SUITE 209, BIRMINGHAM, MI 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 (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

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

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

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

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

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

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

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

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

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

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 RTCR 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

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

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

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

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 RTCR 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

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

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

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

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

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

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

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

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

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 RTCR 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

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

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 : 2015AGL031250E
 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

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

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

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

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

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

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 RTRC 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

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:	ANNINNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Flags for Instruments at Site :	YNNNYNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
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

Envirosite ID: 11671156
EPA ID: N/R

[illegible]

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

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

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

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

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

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, subregions, 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
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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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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
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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

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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

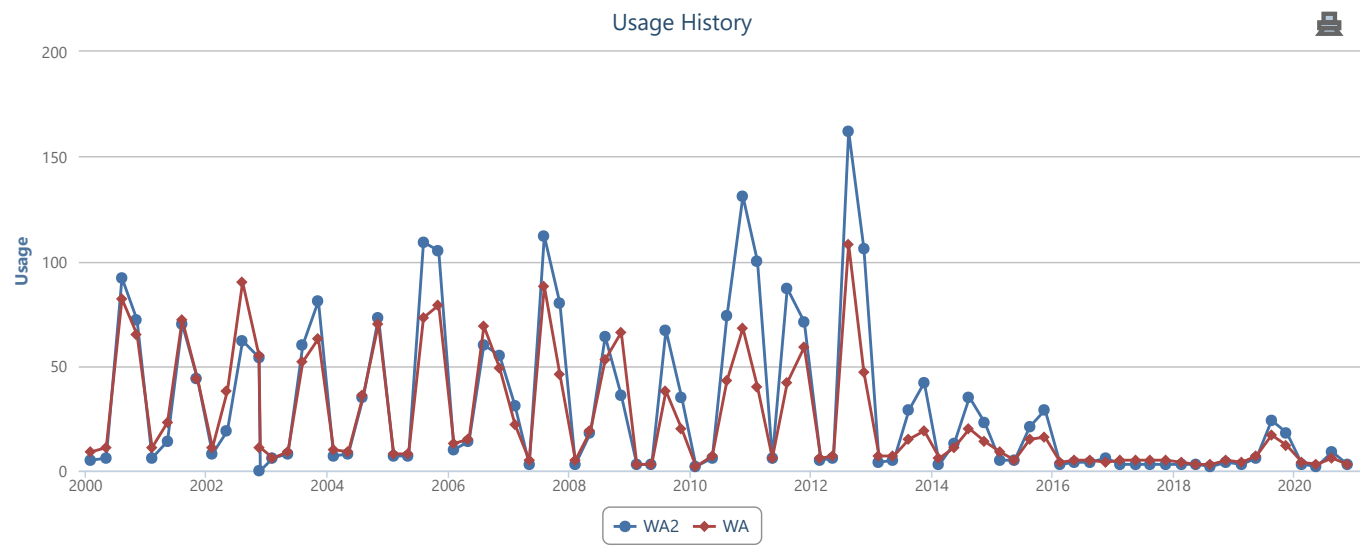
History (292 Items Found)

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



**Darcy Environmental
Consultants LLC**

Site Inspection Environmental Checklist

Customer Information <i>ARTA Haynes, LLC</i>			
Name		Inspector Name <i>Al Longene</i>	
Facility Name <i>Citizens Bank</i>		Site Contact Name: <i>Refetv Abdo</i>	Weather Conditions? <i>Clear 28°</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



**Darcy Environmental
Consultants LLC**

Are drums present? Yes ☐ No ☒			Number:		
Contents:		Hazardous Wastes? Yes ☐ No ☒	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 ☐ No ☒				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 ☐ No ☒			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: *Retain on site or divert 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-Scopd 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	✓		North gas station current plant station valent
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? ☒ Yes ☐ No	Outside toured? ☒ Yes ☐ No	Property perimeter toured? ☒ Yes ☐ No	Off site area toured? ☒ Yes ☐ No	Complete Access? ☒ 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>Elevated equipment prior to demo</i>
Compliance Audit Needed? Yes ☒ No	Wetland Survey Needed? Yes ☒ No

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.

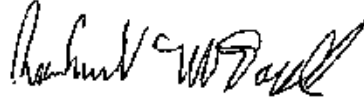
If we can be of any further service, please feel free to call.

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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LOG OF SOIL

BORING NO. 1

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	Sec. %
	1		0'3 1/2" ASPHALT						
	2		Medium compact moist to wet brown gravelly SAND, fill						
A UL	3		2'0"	1					
	4			2					
	5			1					
B UL	6		Soft moist variegated to discolored silty CLAY with pebbles, fill						
	7			1					
	8			2	21.6	119			
	9			2			*	(2000)	
C UL	10		Stiff moist variegated silty sandy CLAY with trace of pebbles						
	11			4					
	12			5	16.9	128			
	13			10			*	(5000)	
D UL	14		Very stiff moist brown silty sandy CLAY with trace of pebbles						
	15			7					
	16			13	13.9	135			
	17			17			*	(9000)	
	18		Extremely stiff moist variegated silty sandy CLAY with pebbles						
	19								
	20								
E UL	21			4					
	22			7	13.2	141		3825	
	23			7			*	(5500)	
	24		Very stiff moist blue silty sandy CLAY with pebbles and occasional moist clayey silt seams						
	25								
	26								
	27								
	28								
	29								
F UL	30		19'6"	4					
	31			6	11.8	143		4055	
	32			7			*	(7000)	
	33								
	34								
	35								
	36								
	37								
	38								
	39								
	40								
G UL	41		24'6"	9					
	42			7	12.5	136			
	43			6			*	(3200)	

TYPE OF SAMPLE
D. - DISTURBED
U.A. - UNDIST. LINER
S.T. - SHELBY TUBE
S.S. - SPOT SPOON
R.C. - ROCK CORE
() - PENETROMETER

REMARKS:

*Calibrated Penetrometer

Standard Penetration Test - Driving 2" OD Sampler 1" With
140# Hammer Felling 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 HR. FT. INS.
G.W. VOLUMES Light



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LOG OF SOIL
BORING NO. 1 (continued)
Soils Investigation -
PROJECT 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 WL P.C.F.	Dry Den WL 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 7 7					
	31								
	32								
	33								
	34								
I UL	35		34'0"	6 8 10					
	36								
	37		Extremely stiff moist blue silty sandy CLAY with pebbles						
	38								
	39								
J UL	40		39'0"	4 7 9					
	41								
	42								
	43								
	44								
K UL	45		Very stiff moist blue silty sandy CLAY with pebbles	4 6 9					
	46								
	47								
	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 Wt. P.C.F.	Unc. Comp. Strength PSF	Siz. %
	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			6					
	61			7					
	62			7					
	63								
	64								
	65								
	66								
	67								
	68								
	69								
	70								
	71								
	72								
	73								
	74								
	75								

60'6"

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
() - PENETRIMETER

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 G.W. AFTER HRS. Dry FT. INS.
G.W. VOLUMES Light FT. INS.



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LOG OF SOIL

BORING NO. 2

Soils Investigation -
Proposed Six-Story Building

PROJECT

LOCATION 770 South Adams Street

JOB NO. 19-366

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	2			3					
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	4				(5300)	
B	4								
UL	5		5'0" Stiff moist brown silty CLAY with trace of pebbles	3					
	6			3	20.1	126			
	7		6'0" Stiff moist brown silty CLAY with trace of pebbles	4				(4000)	
C	7								
UL	8		Extremely stiff moist brown silty sandy CLAY with pebbles	7					
	9			10					
D	9		9'0" Extremely stiff moist variegated silty sandy CLAY with pebbles	15					
UL	10			6					
	11		Extremely stiff moist variegated silty sandy CLAY with pebbles	11	14.3	137			
	12			14				(9000+)	
	13		12'0"						
	14								
E	14								
UL	15			5					
	16			7	14.5	134		4055	
	17			9				(4200)	
	18								
	19		Very stiff moist blue silty sandy CLAY with pebbles						
F	19								
UL	20			4					
	21			7					
	22			9					
	23								
	24								
G	24								
UL	25			3					
				5	13.4	138		3670	
				7				(4000)	

TYPE OF SAMPLE
D. - DISTURBED
UL - UNDIST. LNER
S.T. - SHELBY TUBE
S.S. - SPUT 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.	St. %
	26								
	27								
	28								
	29								
H									
UL	30			4					
				6					
	31			8					
	32								
	33								
	34								
I									
UL	35			3					
				6	14.3	134			
	36			7				(2100-2500)	
	37								
	38		Very stiff moist blue silty sandy CLAY with pebbles						
	39								
J									
UL	40			4					
				7					
	41			8					
	42								
	43								
	44								
K									
UL	45			4					
				5	15.0	138			
	46			8				(3000)	
	47								
	48								
	49		Notes:						
			1) Used automatic hammer.						
			2) Patched boring upon completion with cold patch asphalt.						
L									
UL	50			4					
				6					
				7					

50'6"

REMARKS:

*Calibrated Penetrometer

Standard Penetration Test - Driving 2" DP 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

TYPE OF SAMPLE

D - DISTURBED

UL - UNDIST. LINER

S.T. - SHELBY TUBE

S.S. - SPLIT SPOON

R.C. - ROCK CORE

I - PENETROMETER



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LOG OF SOIL BORING NO.

3
Soils Investigation -
Proposed Six-Story Building

PROJECT

LOCATION 770 South Adams Street

JOB NO. 19-366

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. %
	1		0'4" ASPHALT						
	2		Medium compact moist to wet brown gravelly SAND, fill						
A	2			2					
UL	3		2'0"	4	15.3	132			
	4			4				(5000)	
B	5		Stiff moist variegated silty CLAY with trace of pebbles	3					
UL	6			3					
	7			5					
C	7		7'0"	7					
UL	8			12	14.7	136			
	9		Extremely stiff moist brown silty CLAY with trace of pebbles	17				(9000+)	
D	10			7					
UL	11		10'0"	11					
	12			15					
	13		Extremely stiff moist variegated silty sandy CLAY with pebbles						
	14								
E	15		13'0"	4					
UL	16			6	14.7	136		4130	
	17			8				(5000)	
	18								
	19		Very stiff moist blue silty sandy CLAY with pebbles						
F	20			4					
UL	21			6	14.0	138		4815	
	22			8				(3600)	
	23								
	24								
G	25			4					
UL				6	14.0	133			
				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)
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		Very stiff moist blue silty sandy CLAY with pebbles	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"

REMARKS:

TYPE OF SAMPLE
D. - DISTURBED
UL. - UNDIST. LINER
S.T. - SHELBY TUBE
S.S. - SPLIT SPOON
R.C. - ROCK CORE
() - PENETROMETER

*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			(6500)	
	4		3'6" Compact wet brown SAND & GRAVEL with occasional variegated silty clay seams, fill	4					
B	5		4'10" Very stiff brown silty sandy CLAY with wet sand seams	6	13.2	142		(4000)	
UL	6		6'0" Extremely stiff moist brown silty CLAY with sand and pebbles and occasional moist brown silt seams	7					
	7		8'6" Very stiff moist variegated silty CLAY with occasional moist brown fine sand seams	3					
C	8		12'0" Stiff moist blue silty CLAY with traces of sand and pebbles	4	14.1	137		6730	
UL	9		22'0" Very stiff moist blue silty CLAY with sand and pebbles	10				(9000+)	
	10			6					
D	11			7	27.0	123		2155	
UL	12			9				(3700)	
	13								
	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
G.W. VOLUMES Medium Cave-in at 46'6"



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LOG OF SOIL

BORING NO. 5

Soils Investigation -

PROJECT

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.	Sr. %
	1		0'5" ASPHALT						
	2		1'0" Moist brown SAND & GRAVEL, aggregate fill						
A UL	3			2					
	4		Stiff moist variegated silty CLAY	3	19.0	126		(5000)	
B UL	5			3					
	6		5'0"	5	15.2	133		5580	
	7		Very stiff moist brown silty CLAY with sand and pebbles	7			*	(5000)	
C UL	8			6					
	9		7'0"	12					
	10			16					
D UL	11		Extremely stiff moist variegated silty sandy CLAY with pebbles	8					
	12			12					
	13			15					
	14		12'0"						
E UL	15			4					
	16			6	14.6	135		3900	
	17			8			*	(3700)	
	18								
	19		Very stiff moist blue silty sandy CLAY with pebbles						
F UL	20			5					
	21			7					
	22			10					
	23								
	24								
G UL	25			4					
				6	15.2	138		3060	
				7			*	(2700)	



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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.	Ult. Comp. Strength, PSF	Str. %
	26								
	27								
	28								
	29								
H									
UL	30		Very stiff moist blue silty sandy CLAY with pebbles	4					
				6					
	31			7					
	32								
	33								
	34								
I									
UL	35			4					
				5	15.6	133		2065	
	36		Stiff moist blue silty CLAY with sand and pebbles	6			*	(3200)	
	37								
	38								
	39								
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



McDOWELL & ASSOCIATES
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LOG OF SOIL
BORING NO.

5 (continued)
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 per 6"	Moisture %	Natural Wt. P.C.F.	Dry Den Wt. P.C.F.	Ult. Comp. Strength PSF.	Str. %
	51		Very stiff moist blue silty sandy CLAY with pebbles						
	52								
	53								
	54								
M			Stiff moist blue silty sandy CLAY with pebbles and wet gray sand lens at 50'6"	4					
UL	55			4					
	56			7					
	57								
	58		Extremely stiff moist blue silty sandy CLAY with pebbles						
	59								
N				5					
UL	60			9					
	61			9					
	62								
	63								
	64								
	65		Notes: 1) Used automatic hammer. 2) Patched boring upon completion with cold patch asphalt.						
	66								
	67								
	68								
	69								
	70								
	71								
	72								
	73								
	74								
	75								

TYPE OF SAMPLE
D. - DISTURBED
U.L. - LIQUID LINER
S.T. - SHIELD TUBE
S.S. - SPLIT SPOON
R.C. - ROCK CORE
I. - PENETROMETER

REMARKS:

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

Standard Penetration Test - Driving 2" OD Sampler 1" With
140# Hammer Falling 30" Count Made at 6" Intervals

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

McDowell & Associates

Geotechnical, Environmental & Hydrogeological Services • Materials Testing & Inspection

21355 Hatcher Avenue • Ferndale, MI 48220

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www.mcdowassoc.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

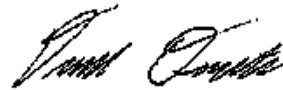
change in the final design plans should be brought to our attention for review and evaluation with respect to the prevailing subsoil conditions.

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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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 Wt. P.C.F.	Dry Den Wt. P.C.F.	Unc. Comp. Strength PSF	Sr. %
	26								
	27								
	28								
	29								
H UL	30			3	13.7	138			
	31			5				(3000)	
	32			7					
	33								
	34								
I UL	35		Stiff moist blue silty CLAY with sand and pebbles and occasional stones	2					
	36			4					
	37			6					
	38								
	39								
J UL	40			2					
	41			3	13.1	141		(2000)	
	42			5					
	43								
	44								
K UL	45			2					
	46			5					
	47		Very stiff moist blue silty CLAY with sand and pebbles and occasional stones	8					
	48								
	49								
L UL	50			3					
				5	15.6	136		(2700)	
				8					

TYPE OF SAMPLE
D. - DISTURBED
U.L. - UNDIST. LOWER
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.	INS.
G.W. VOLUMES	PT	INS.



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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 Wt. P.C.F.	Dry Den Wt. P.C.F.	Und. Comp. Strength PSF.	St. %
	1		Moist dark brown sandy TOPSOIL, fill						
A	2		17"						
UL									
	3								
			Extremely stiff moist brown sandy CLAY with traces of vegetation, topsoil and gravel, fill	6	19.5	117			
	4		3'6"	11					
	5								
B	6		Stiff moist variegated silty CLAY with traces of sand and pebbles	3					
UL									
	7								
	8		6'0"	3	14.7	---			
	9								
C	10		Extremely stiff moist brown silty CLAY with sand and pebbles	4				(7000)	
UL									
	11								
	12		13'0"						
	13								
	14		Extremely stiff moist blue silty CLAY with sand and pebbles						
E	15								
UL									
	16		22'0"	9	13.1	138			
	17								
	18		Very stiff moist blue silty CLAY with sand and pebbles	22				(9000+)	
	19								
F	20		22'0"						
UL									
	21								
	22								
	23								
	24								
G	25								
UL									



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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 WL P.C.F.	Dry Den WL P.C.F.	Unsat. Comp. Strength PSF	St. %
	26		Very stiff moist blue silty CLAY with sand and pebbles						
	27								
	28								
	29								
	30			3					
H	31		Very stiff moist blue CLAY with sand and pebbles and occasional stones	6					
UL	32			8					
	33								
	34								
	35			5					
I	36		Very stiff moist blue CLAY with sand and pebbles and occasional wet sand seams	7	15.1	138			
UL	37			9			*	(3100)	
	38								
	39								
	40			6					
J	41		Very stiff moist blue CLAY with sand and pebbles and occasional wet sand seams	7					
UL	42			9					
	43								
	44								
	45			3					
K	46		Stiff moist blue sandy CLAY with pebbles	6	10.9	141			
UL	47			7			*	(6000)	
	48								
	49								
	50			4					
L				5					
UL				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 60 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 per 6"	Moisture %	Natural WL P.C.F.	Dry Den WL 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			8					
	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 50 FT 5 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 WL P.C.F.	Dry Den WL P.C.F.	Unc. Comp. Strength PSF	Sr. %
	1		0'8" ASPHALT						
A	2		Moist dark brown SAND & GRAVEL, aggregate fill	2					
UL	3		Stiff moist brown sandy CLAY with gravel and discolored streaks, fill	4					
	4			5					
B	5			3					
UL	6		Stiff moist variegated silty CLAY with sand and pebbles	5	15.8	127		(7000)	
	7			7					
C	8			4					
UL	9			8	14.3	135			
	10			16				(7800)	
D	11		Extremely stiff moist brown silt CLAY with sand and pebbles	7					
UL	12			11	13.3	135			
	13			20				(9000+)	
	14								
E	15								
UL	16			4					
	17			6	14.4	138		4895	
	18			8				(5200)	
	19								
F	20		Very stiff moist blue silty CLAY with sand and pebbles	4					
UL	21			6					
	22			10					
	23								
	24								
G	25			5					
UL				7	15.2	135			
				8				(4500)	

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" W/wh
140# Hammer Falling 30"; Count Made at 6" Intervals

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT 38 FT. 0 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.	Unsat. Comp. Strength PSF	Sr. %
	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		Very stiff moist blue silty CLAY with sand and pebbles and occasional wet silt lenses						
	44								
K UL	45			4					
	46			5					
	47			7					
	48								
	49								
L UL	50			5					
				5					
				8					

TYPE OF SAMPLE
D. - DISTURBED
U.L. - UNDIST. LNER
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



McDOWELL & ASSOCIATES
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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 WL P.C.F.	Dry Den WL P.C.F.	Unc. Comp. Strength PSF	Sr. %
	51								
	52								
	53								
	54								
M UL	55		Very stiff moist blue silty CLAY with sand and pebbles and occasional wet silt lenses	4					
	56			6					
	57			9					
	58								
	59								
N UL	60			6					
	61			7					
	62			10					
	63								
	64								
	65								
	66								
	67								
	68								
	69								
	70								
	71								
	72								
	73								
	74								
	75								

Notes:

- 1) Used Automatic Hammer.
- 2) Patched boring upon completion with cold patch asphalt.

TYPE OF SAMPLE
D. - DISTURBED
UL - UNDIST. LINER
S.T. - SHELBY TUBE
S.S. - SPLIT SPOON
R.C. - ROCK CORE
[] - PENETROMETER

REMARKS:

GROUND WATER OBSERVATIONS

G.W. ENCOUNTERED AT 38 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

Standard Penetration Test - Driving 2" OD Sampler 1" With
140# Hammer Falling 30". Count Made at 6" Intervals



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. 4

PROJECT Soils Investigation

LOCATION Proposed 6-Story Building

1000 Haynes Street

Birmingham, Michigan

JOB NO. 21-020

SURFACE ELEV. _____ **DATE** 2-2021

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.	Sr. %
	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			4					
UL	6		Extremely stiff moist variegated silty CLAY with traces of sand and pebbles	8	14.5	128			
	7			11			*	(9000+)	
C	8								
UL	9			5					
	10			9					
D	11			12					
UL	12		Extremely stiff moist brown silty CLAY with sand and pebbles	8					
	13			13	13.5	138		9995	
	14			18			*	(9000+)	
	15								
	16								
	17								
	18								
	19								
E	20			7					
UL	21			9	13.8	139			
	22		Extremely stiff moist blue silty CLAY with sand and pebbles	12			*	(5700)	
	23								
	24								
	25								
F	26			5					
UL	27			7					
	28			9					
	29								
	30								
	31								
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Geotechnical, Environmental, & Hydrogeologic Services
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Phone: (248) 399-2066 • Fax: (248) 399-2157

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	Sr. %
	26		Stiff moist blue silty CLAY with traces of sand and pebbles						
	27								
	28								
	29								
H			Extremely stiff moist blue silty CLAY with sand and pebbles	6					
UL	30			8					
	31			12					
	32								
	33								
	34								
I				6					
UL	35			7	15.9	137			
	36		Very stiff moist blue silty CLAY with traces of sand and pebbles	8			*	(250)	
	37								
	38								
	39								
J				4					
UL	40			5					
	41			8					
	42								
	43		Extremely stiff moist gray clayey SILT with moist silt lenses						
	44								
K				6					
UL	45			10	19.1	128			
	46			15			*	(9000)	
	47								
	48								
	49								
L			Extremely stiff moist blue silty CLAY with sand and pebbles and moist silt lenses	5					
UL	50			11					
				14					

TYPE OF SAMPLE
D - DISTURBED
UL - UNDIST. LINER
S.T. - SHELBY TUBE
S.S. - SPLIT SPOON
R.C. - ROCK CORE
I - 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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Phone: (248) 399-2066 • Fax: (248) 399-2157

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 WL P.C.F.	Dry Den WL P.C.F.	Uns. Comp. Strength PSF	Sk. %
	1		0'7" ASPHALT						
			Moist brown SAND & GRAVEL, aggregate fill						
A	2		1'8" Compact moist brown gravelly SAND, fill	4					
UL				4	12.6	126			
	3		3'0" Moist discolored brown sandy CLAY with asphalt, fill	5					
	4		3'6"						
B									
UL	5		8'0" Firm moist variegated silty CLAY with traces of sand and pebbles	2					
				2	17.4	128			
	6			3			*	(2000)	
C	7		8'3" Very stiff moist brown silty CLAY with traces of sand and pebbles and occasional wet silt seams	5					
UL				6	13.1	140			
	8			7			*	(5500)	
	9								
D									
UL	10		12'0" Extremely stiff moist brown silty CLAY with traces of sand and pebbles	9					
				13	14.0	137		8975	
	11			17			*	(9000+)	
	12								
	13								
	14								
E									
UL	15		18'0" Very stiff moist brown silty CLAY with sand and pebbles and occasional stones	5					
				5	14.6	---			
	16			7			*	(4000)	
	17								
	18								
	19								
F									
UL	20			5					
				8					
	21		Extremely stiff moist blue silty CLAY with sand and pebbles	11					
	22								
	23								
	24								
G									
UL	25			5					
				8	14.6	137		4510	
				10			*	(4000)	

TYPE OF SAMPLE
D. - DISTURBED
UL. - UNDIST. LINEAR
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 WL P.C.F.	Dry Den WL P.C.F.	Unc. Comp. Strength PSF	Sr. %
	26								
	27								
	28								
	29								
H									
UL	30			6					
	31			11					
	32			13					
	33								
	34								
I									
UL	35			6					
	36			8	15.0	140			
	37			11				(4000)	
	38								
	39								
J									
UL	40			4					
	41			6					
	42			9					
	43								
	44								
K									
UL	45			4					
	46			6	14.7	136			
	47			8				(3000)	
	48								
	49								
L									
UL	50			5					
				8					
				11					

TYPE OF SAMPLE
D. - DISTURBED
UL. - UNDIST. LINER
S.T. - SHELBY TUBE
S.S. - SPLIT SPOON
R.C. - ROCK CORE
I - PENETROMETER

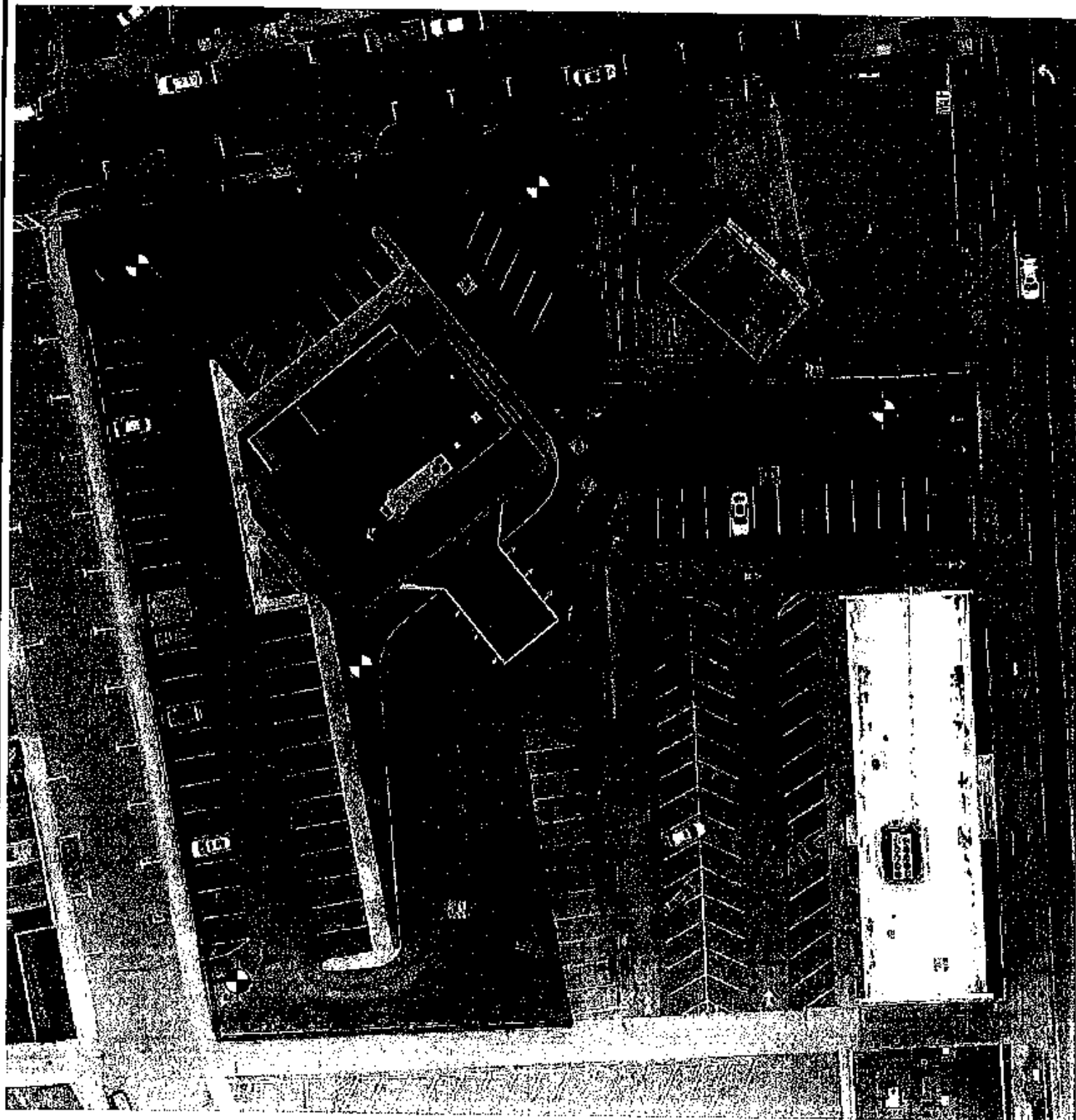
REMARKS: *Calibrated penetrometer

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
21335 Fletcher Avenue
Farmdale, 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

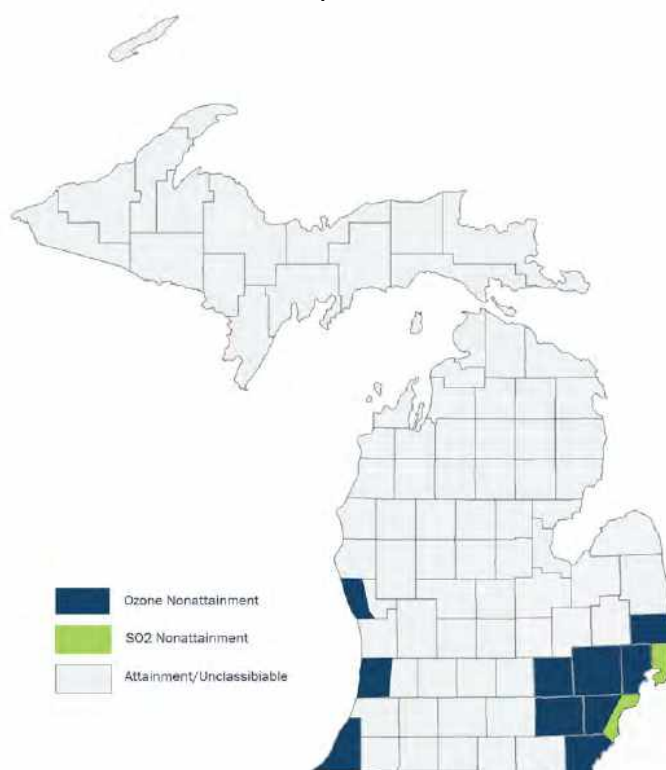


TABLE OF CONTENTS

INTRODUCTION	1
CHAPTER 1: BACKGROUND INFORMATION	2
National Ambient Air Quality Standards (NAAQS).....	2
Michigan Air Sampling Network	3
Current Attainment Status.....	8
Mlair – Air Quality Information in Real-Time.....	9
Air Quality Index.....	9
Air Quality Forecasts	11
Air Quality Notification	13
AIRNow.....	13
CHAPTER 2: CARBON MONOXIDE (CO)	14
CHAPTER 3: LEAD (PB)	18
CHAPTER 4: NITROGEN DIOXIDE (NO ₂)	23
CHAPTER 5: SULFUR DIOXIDE (SO ₂).....	28
CHAPTER 6: OZONE (O ₃).....	34
CHAPTER 7: PARTICULATE MATTER (PM ₁₀ , PM _{10-2.5} , PM _{2.5} , PM _{2.5}	44
CHEMICAL SPECIATION AND TSP)	44
PM ₁₀	46
PM _{10-2.5}	50
PM _{2.5}	50
CHAPTER 8: TOXIC AIR POLLUTANTS.....	60
National Monitoring Efforts and Data Analysis	62
CHAPTER 9: METEOROLOGICAL INFORMATION.....	64
CHAPTER 10: SPECIAL PROJECTS	65
APPENDIX A: CRITERIA POLLUTANT SUMMARY FOR 2020	A1
APPENDIX B: 2020 AIR TOXICS MONITORING SUMMARY FOR METALS, VOCs, CARBONYL COMPOUNDS, PAHS, HEXAVALENT CHROMIUM & SPECIATED PM _{2.5}	B1
APPENDIX C - SUMMARY	C1
National Ambient Air Quality Standards (NAAQS).....	C1
Types of Monitors	C4
Quality Assurance	C5
Historical NAAQS Changes	C6
APPENDIX D: ACRONYMS AND THEIR DEFINITIONS.....	D1
ACKNOWLEDGMENTS	

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**.

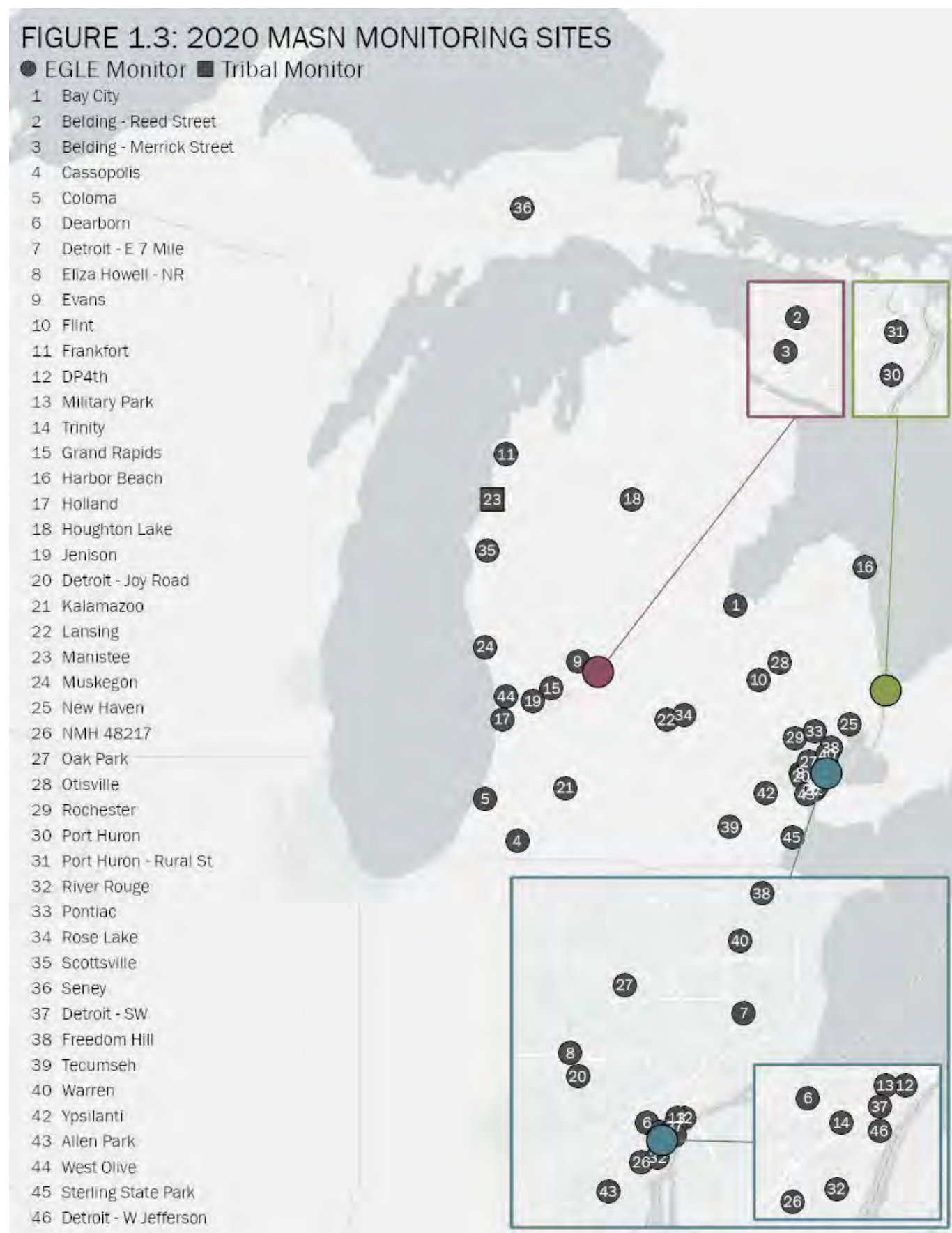
Figure 1.3: 2020 MASN Monitoring Sites

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} monitorT = 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.

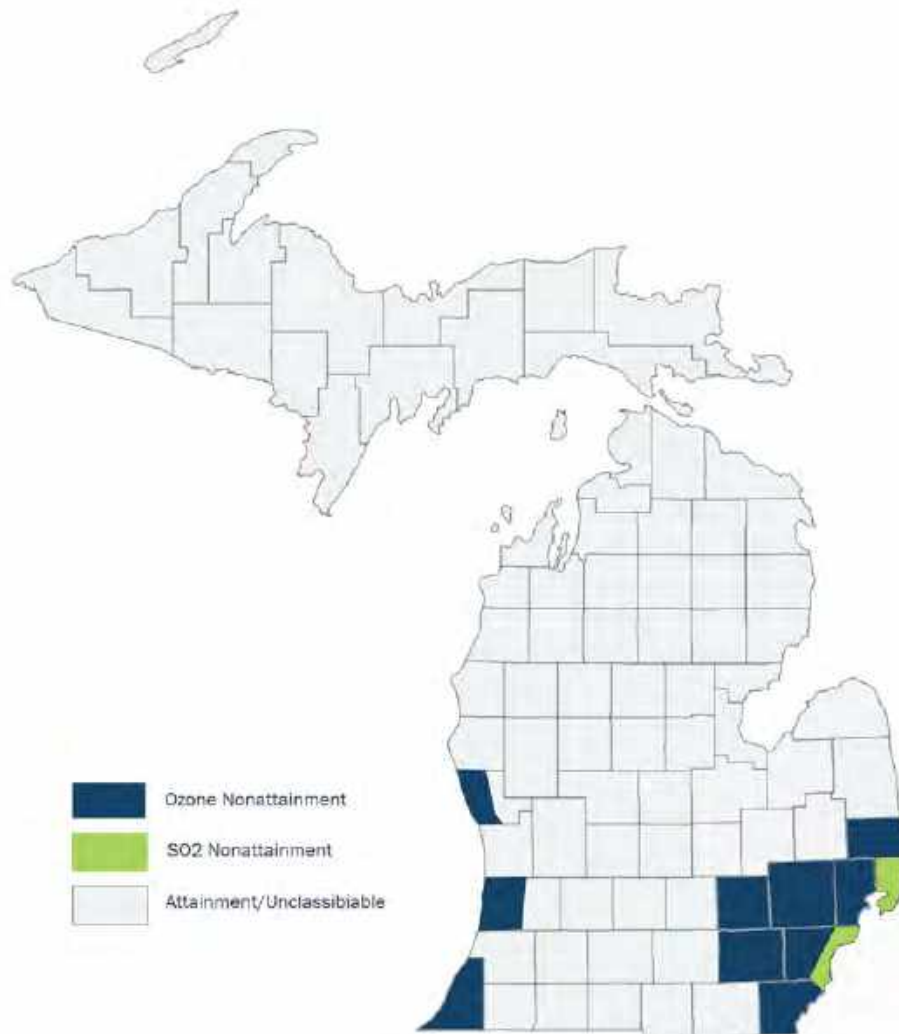
Current Attainment Status

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

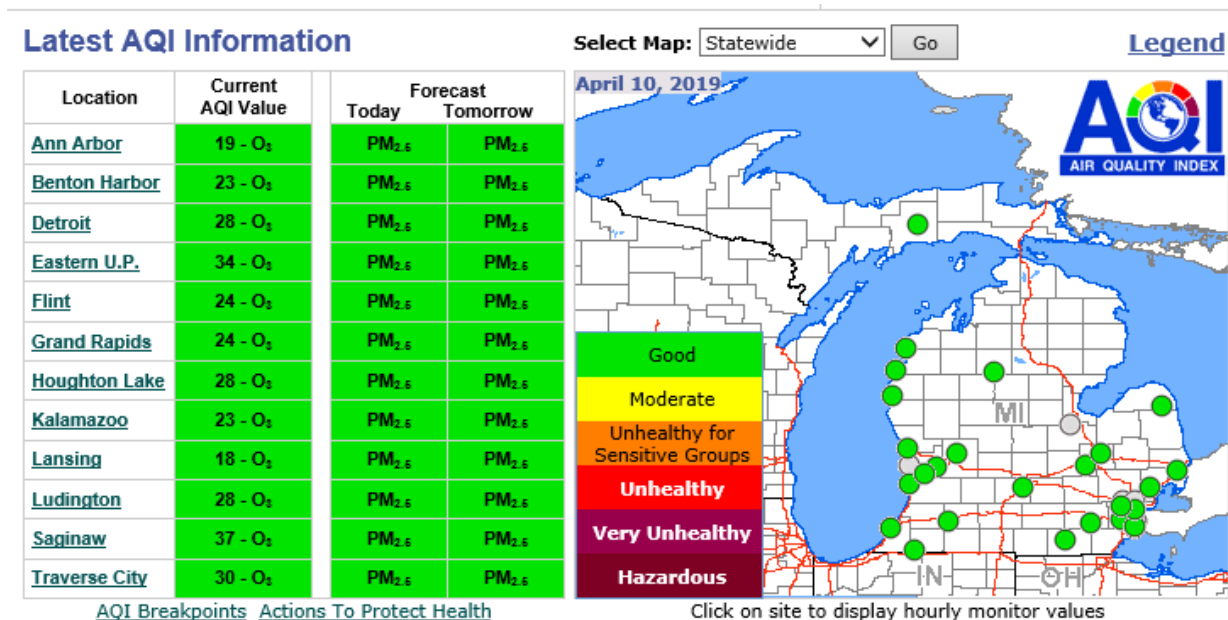


Mlair – Air Quality Information in Real-Time

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)

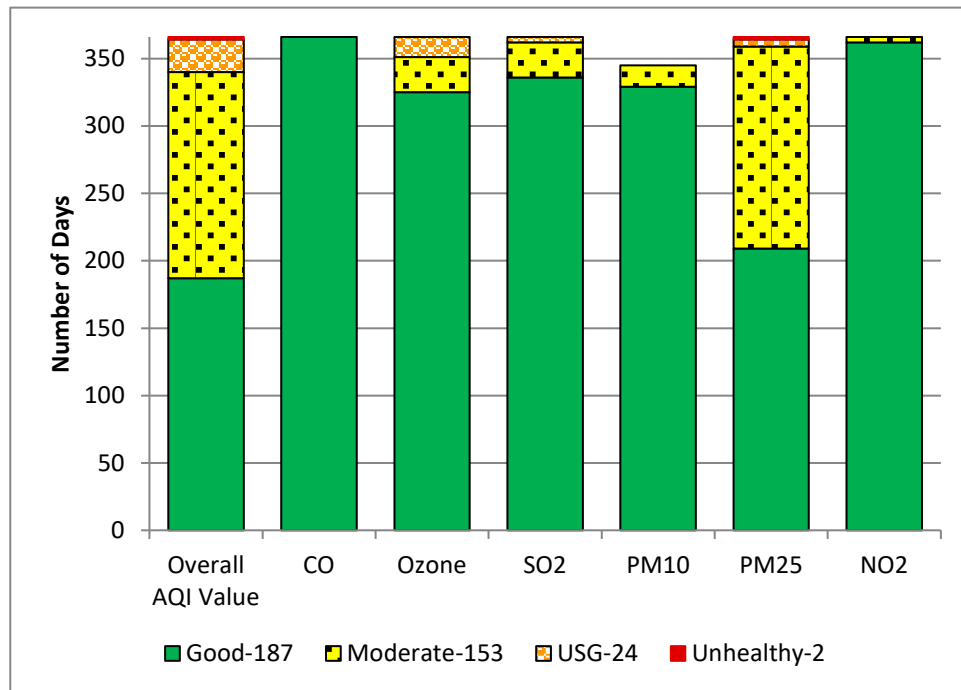
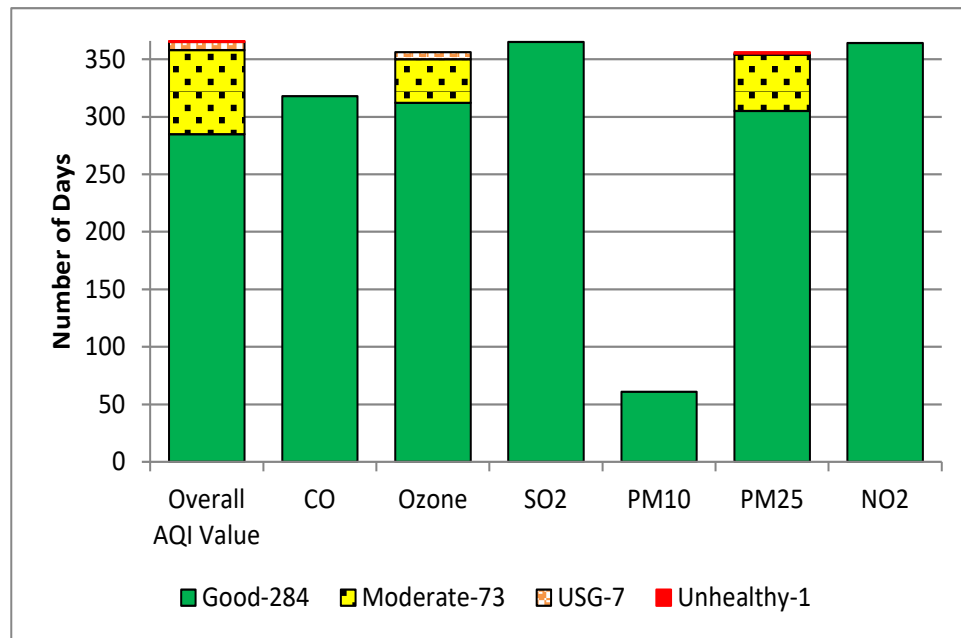


Figure 1.6: 2020 AQI Days Per Pollutant for Grand Rapids-Wyoming MSA, numbers next to categories are for the Overall AQI Value (First Bar on Graph)



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.

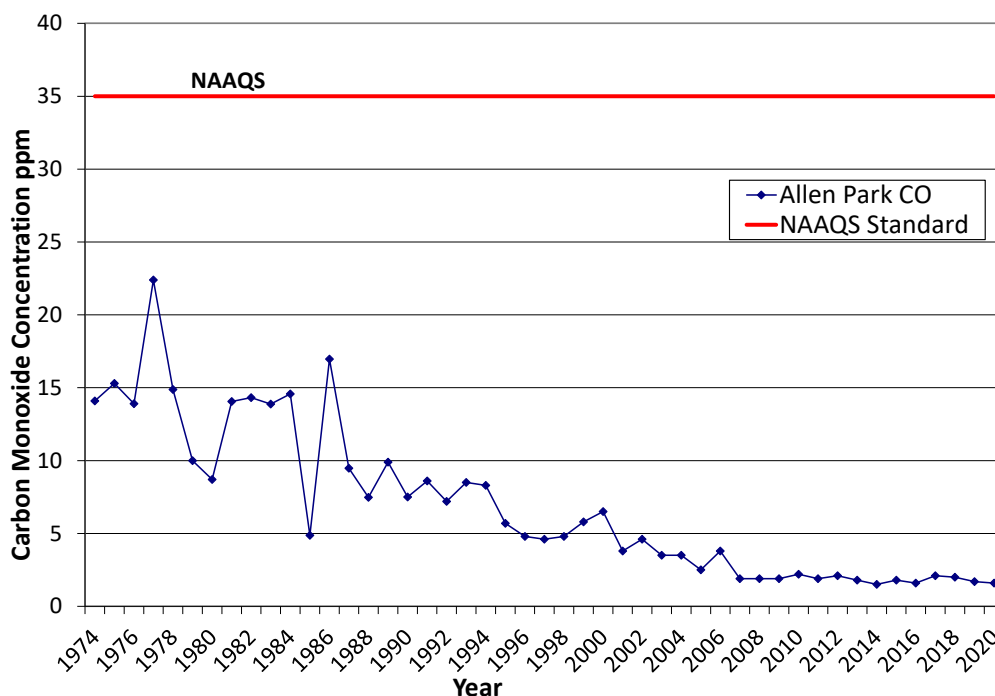
Sources: CO is given off whenever fuel or other carbon-based materials are burned. Outdoor exposure sources include automobile exhaust, industrial processes (metal processing and chemical production), and non-vehicle fuel combustion. Natural sources include volcanos, forest fires, and photochemical reactions 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)

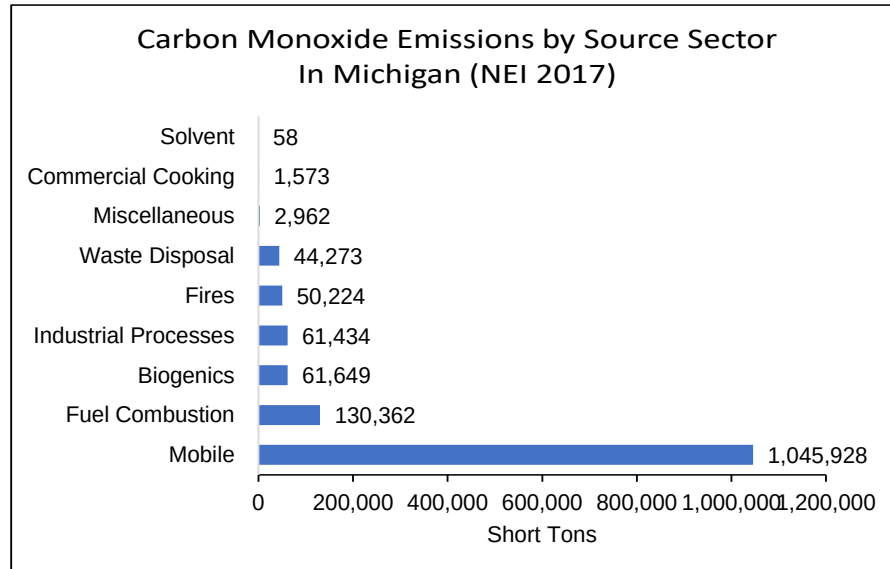


Figure 2.3: CO Emissions in 2017 (NEI)

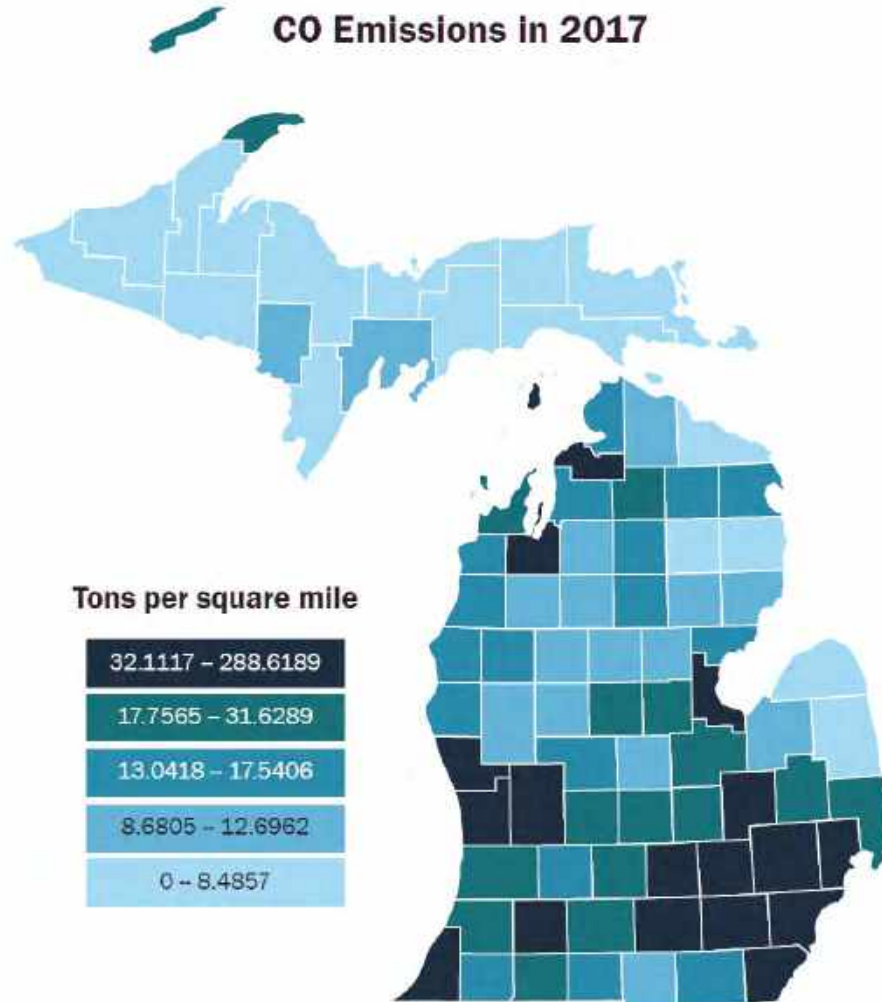


Figure 2.4 shows the location of each CO monitor that operated in 2020.

- 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

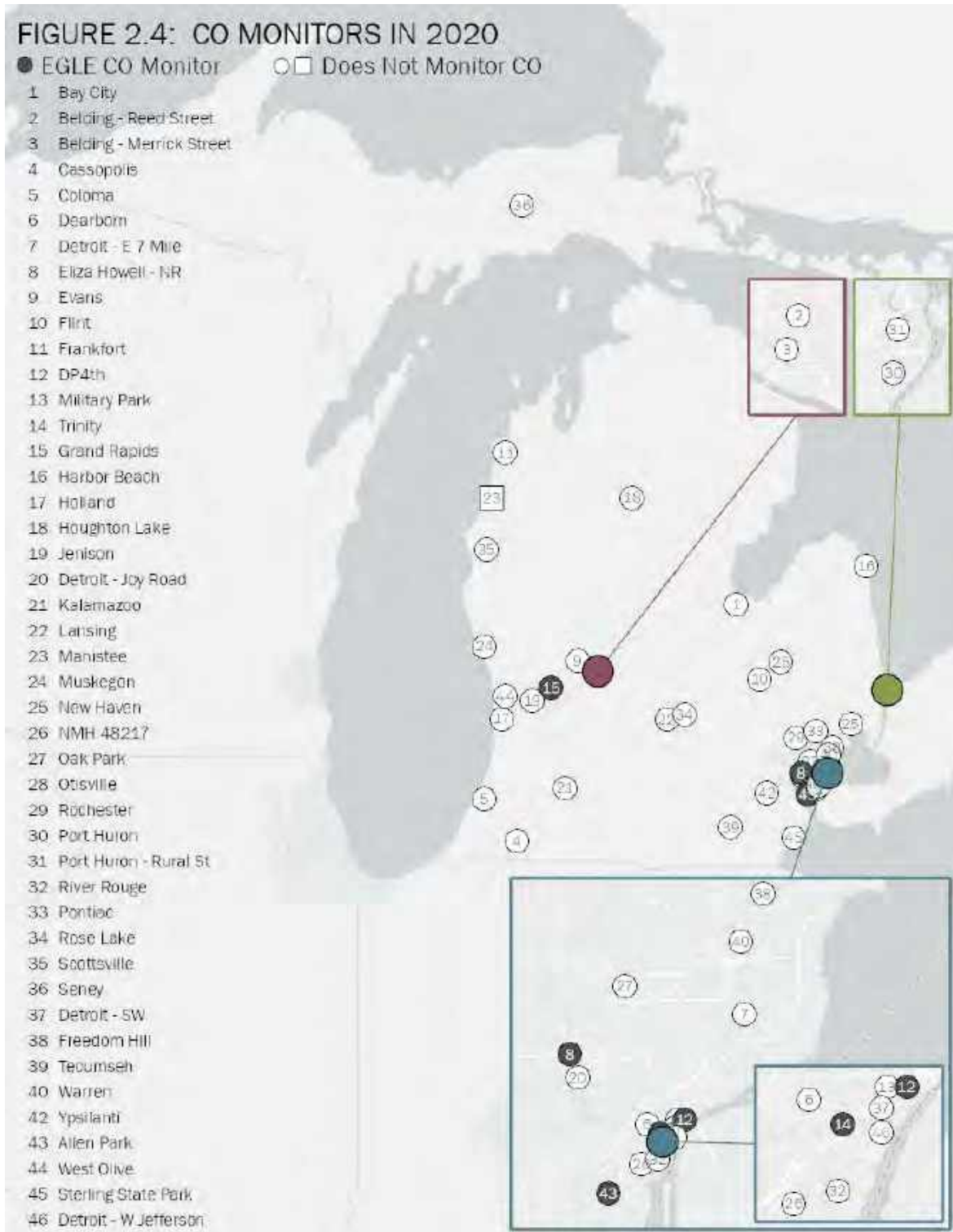


Figure 2.5 shows the second highest 1-hour CO concentrations for Michigan from 2015-2020, which demonstrates there have not been any exceedances of the 1-hour CO NAAQS.

Figure 2.5: CO Levels in Michigan from 2015-2020 (2nd Highest 1-Hour Maximum Values)

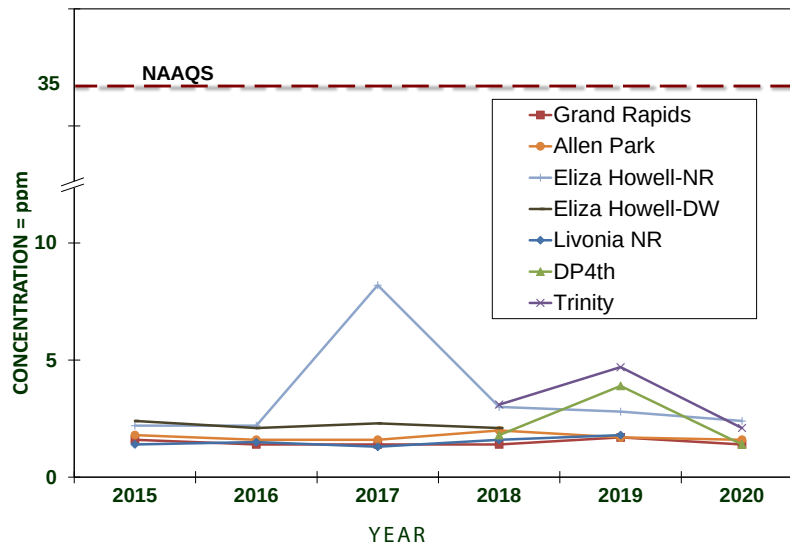
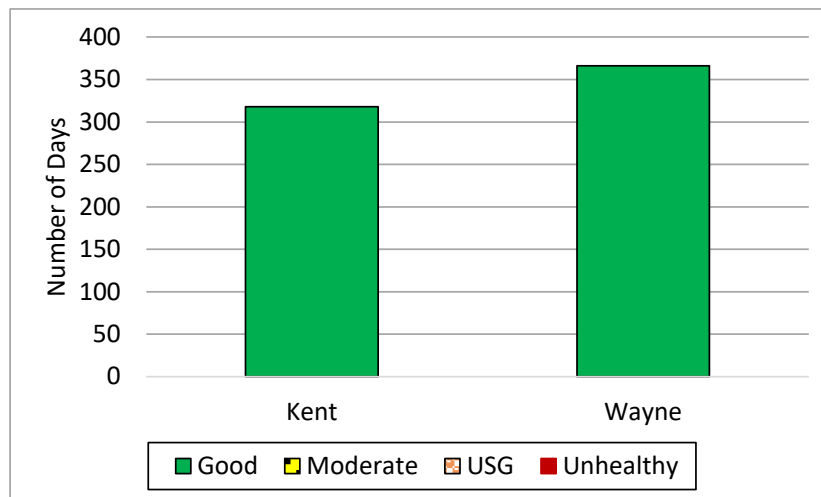


Figure 2.6 shows the AQI values per day in counties where CO is monitored. All days were in the good AQI range.

Figure 2.6: 2020 AQI Days for CO in Michigan Counties



CHAPTER 3: LEAD (PB)

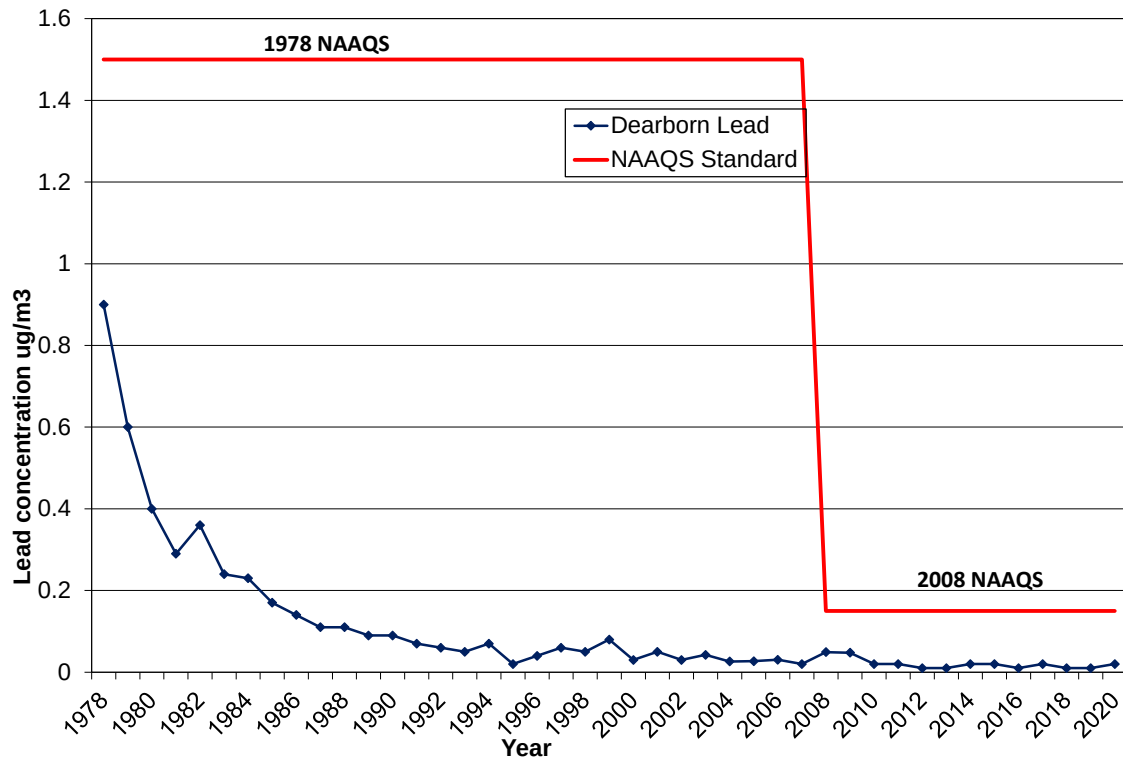
Lead is a highly toxic metal found in coal, oil, and other fuels. It is also found in older paints, municipal solid waste, and sewage sludge, and may be released to the atmosphere during combustion. In 2008, the USEPA lowered the Pb NAAQS from a maximum quarterly average of $1.5 \mu\text{g}/\text{m}^3$ 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).

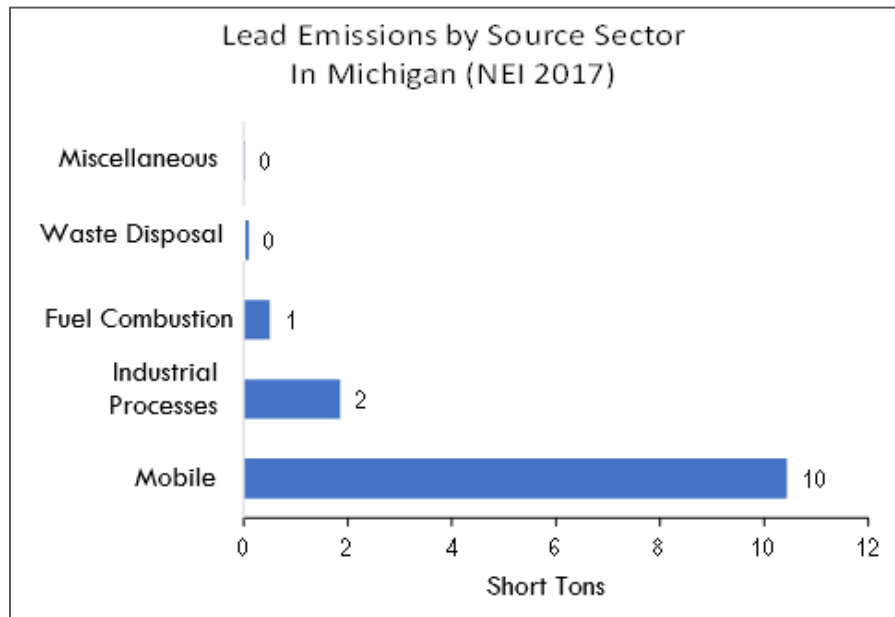
Figure 3.2: Pb Emissions by Source Sector

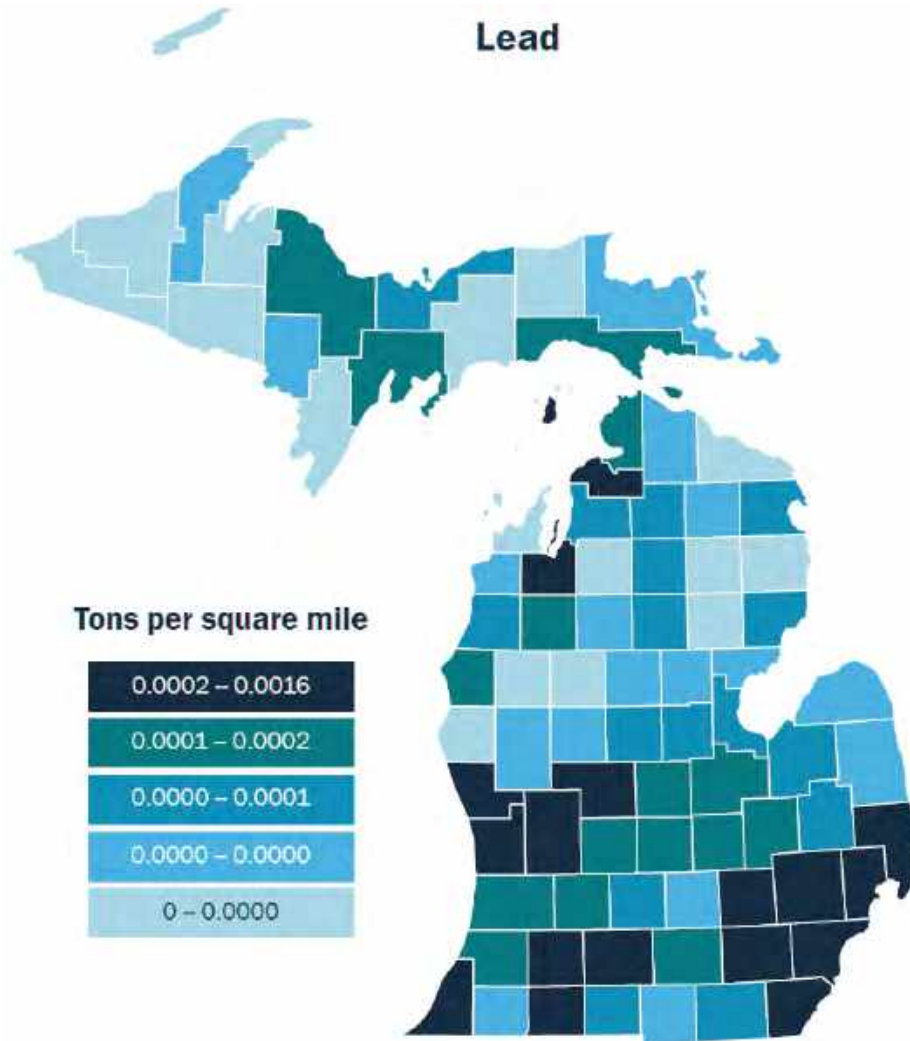
Figure 3.3: Pb Emissions in 2017 (NEI)

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

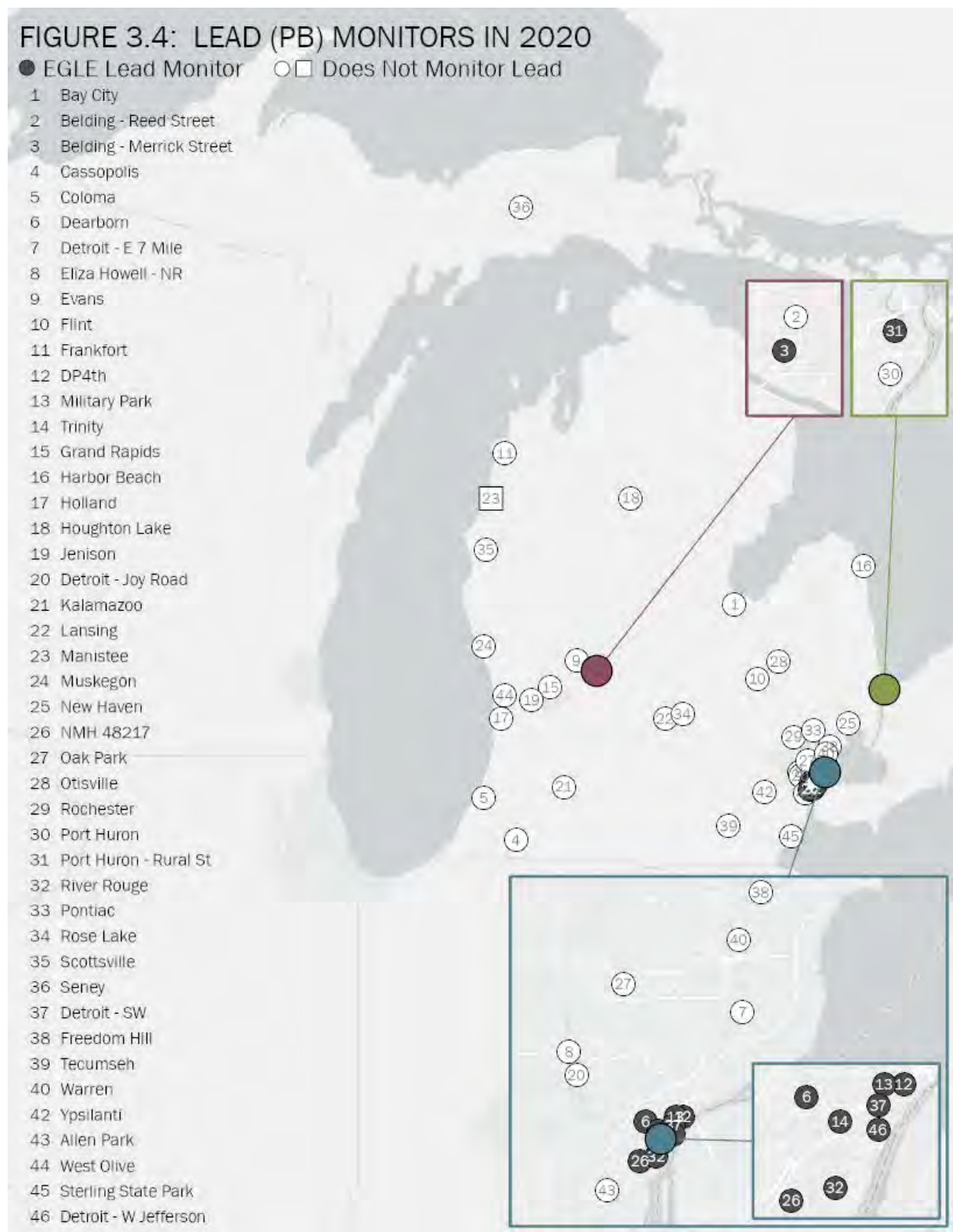
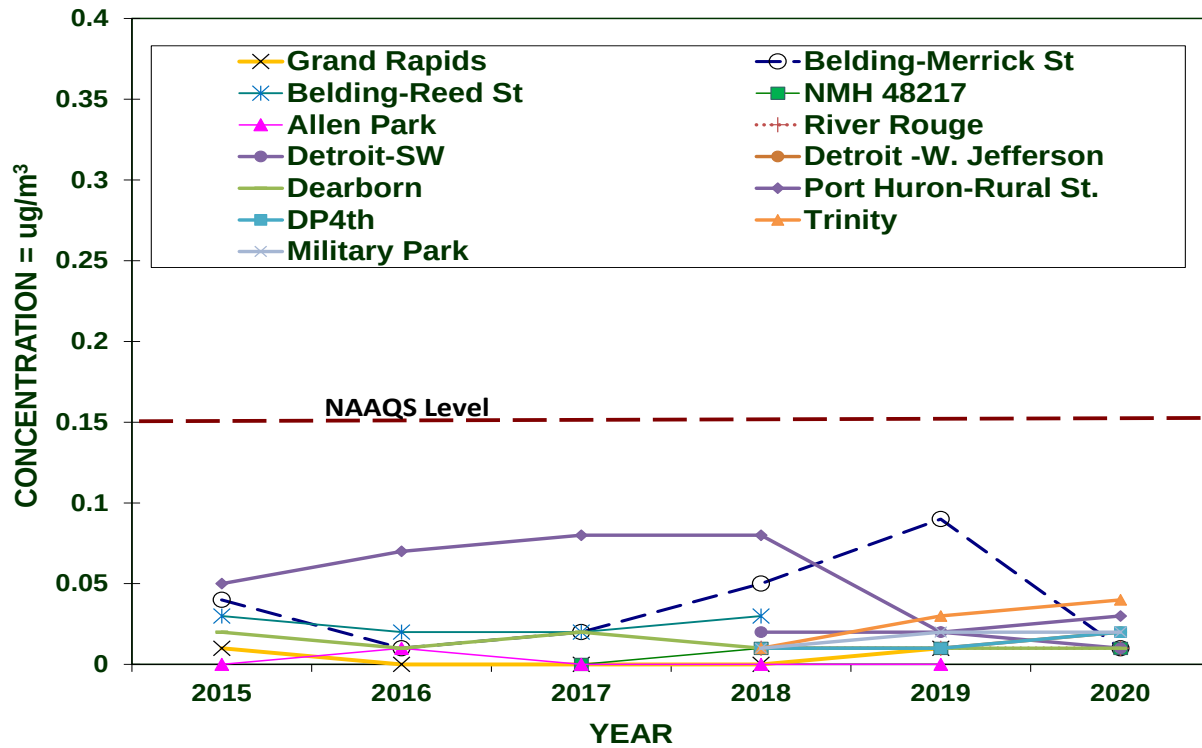


Figure 3.5 shows the maximum 3-month rolling average values for Pb from 2015 to 2020. All Pb monitor sites in Michigan are below the standard.

Figure 3.5: Lead Levels in Michigan from 2015-2020 (Maximum 3-month Average Values)



CHAPTER 4: NITROGEN DIOXIDE (NO₂)

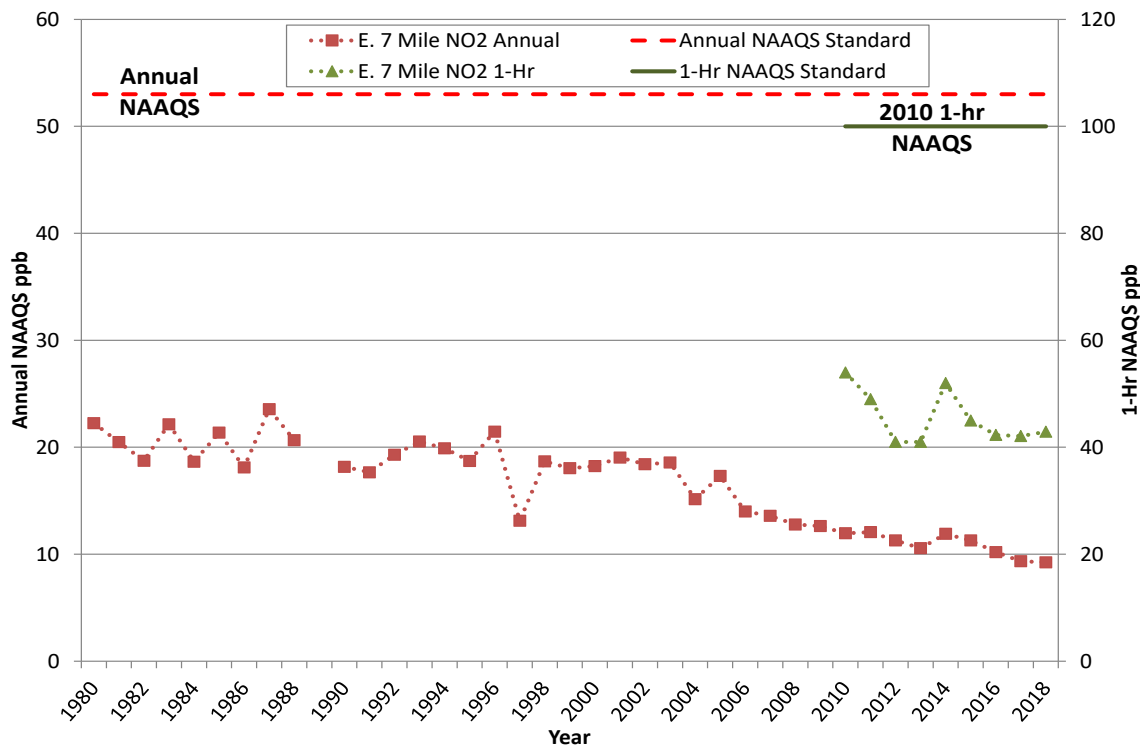
Nitrogen dioxide is a reddish-brown, highly reactive gas formed through oxidation of nitric oxide (NO). Upon dilution, it becomes yellow or invisible. High concentrations produce a pungent odor and lower levels have an odor like bleach. NO_x is the term used to describe the sum of NO, NO₂, and other 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).

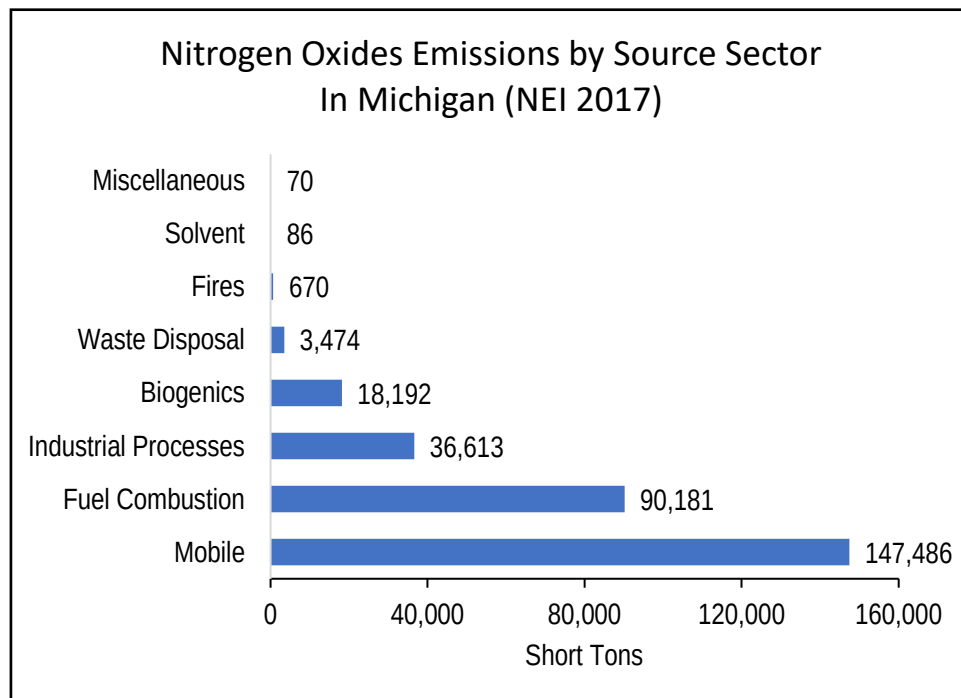
Figure 4.2: Nitrogen Oxide Emissions by Source Sector

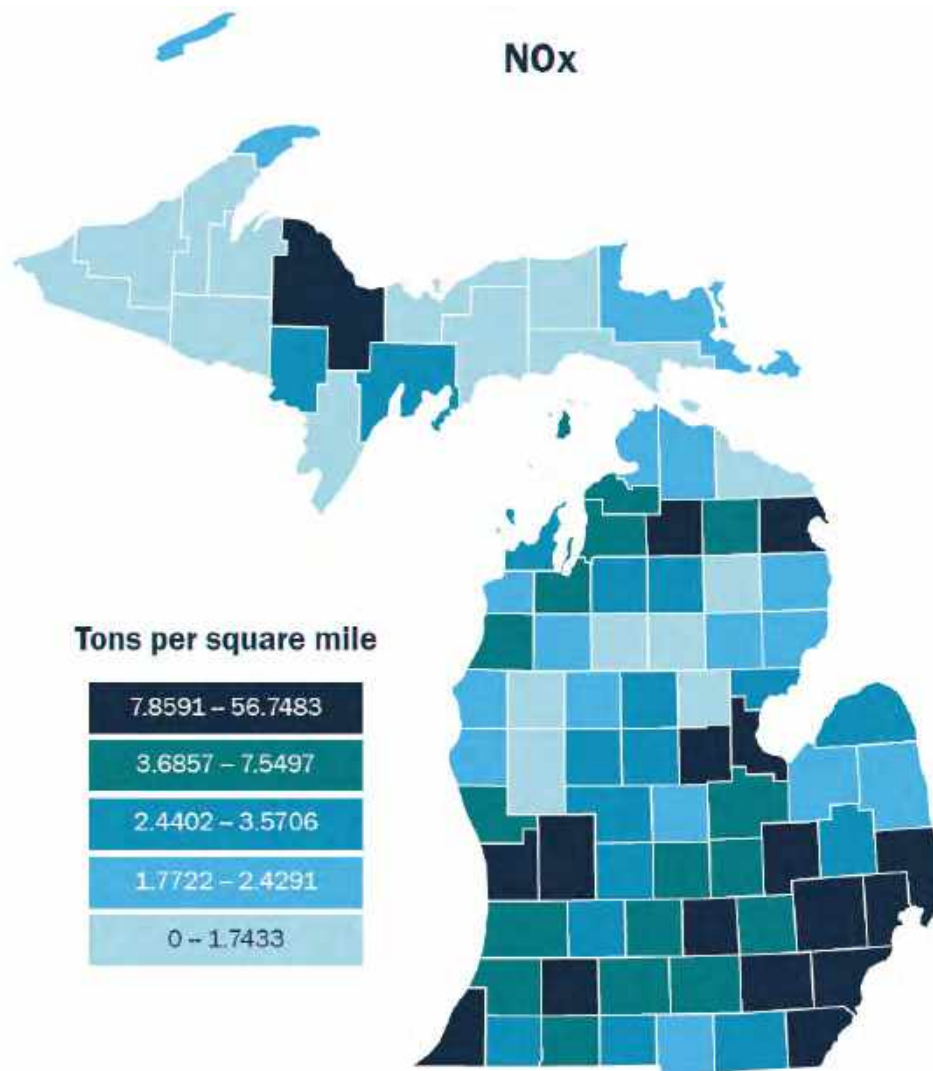
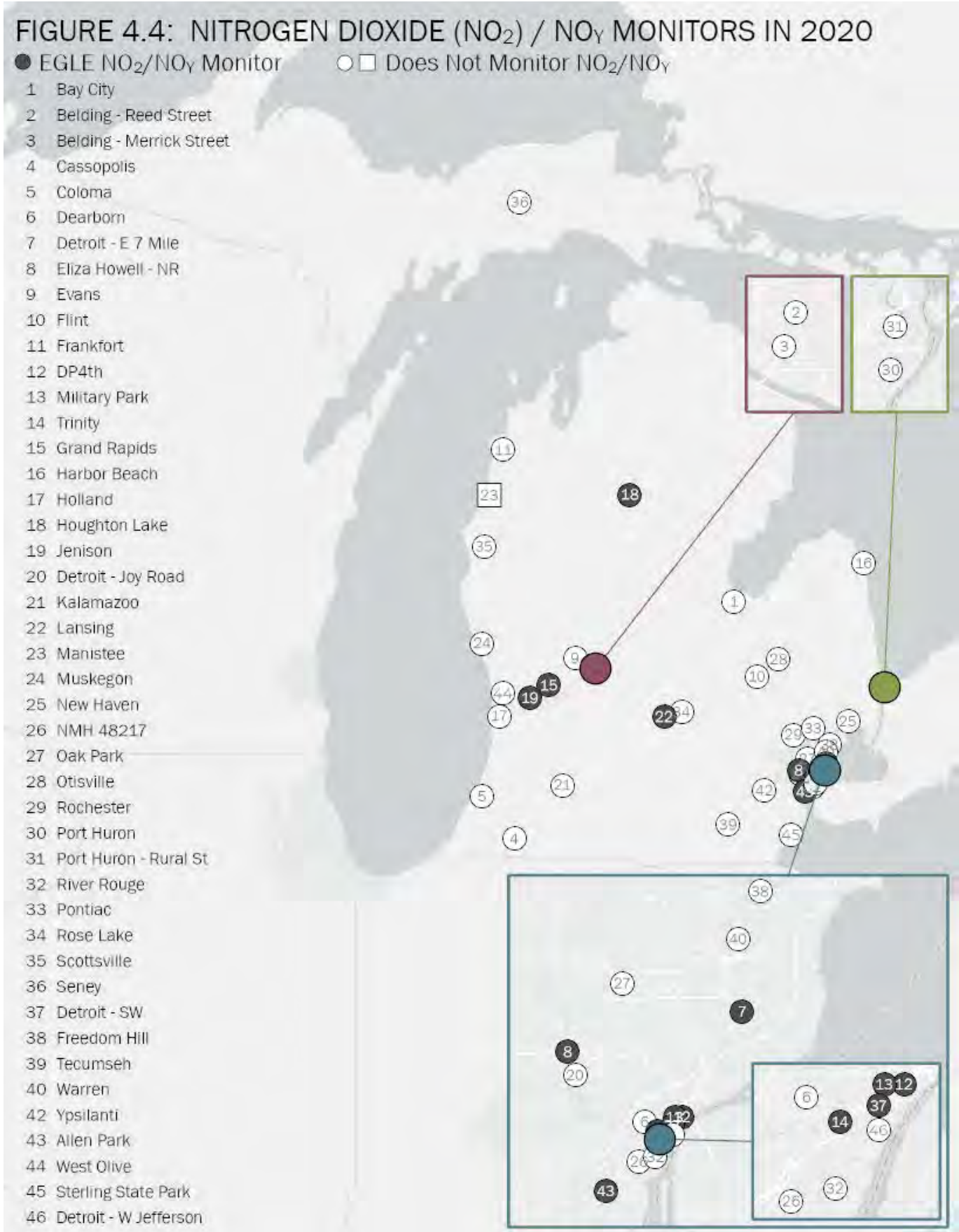
Figure 4.3: Nitrogen Oxide Emissions in 2017 (NEI)

Figure 4.4 shows the location of all NO₂ monitors that operated in 2020.

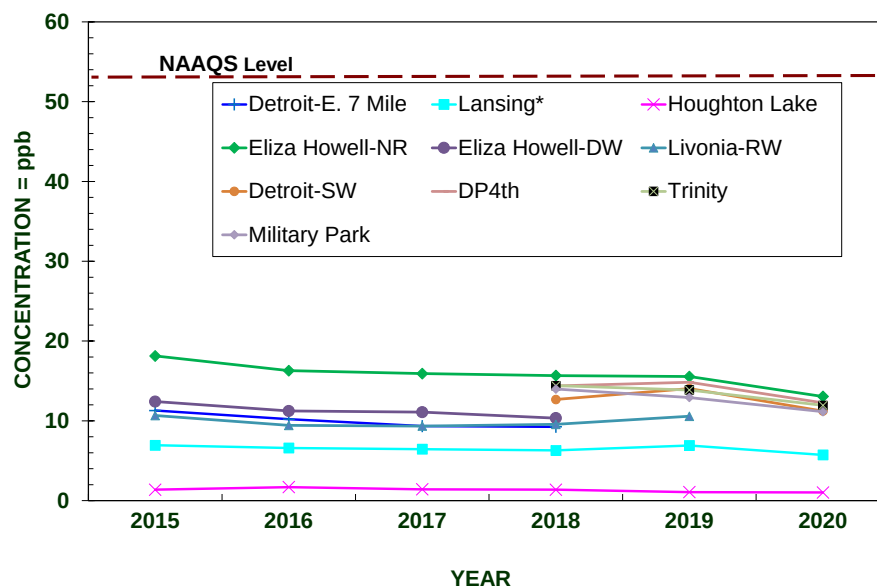
- Downwind urban scale site: Detroit-E 7 Mile in Detroit and Jenison for the Grand Rapids area.
- Near-roadway Network sites: Detroit Eliza Howell-NR site, the downwind site was shut down since it is not necessary for the near-road network. The Livonia roadway site needed to be moved since EGLE lost 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)**

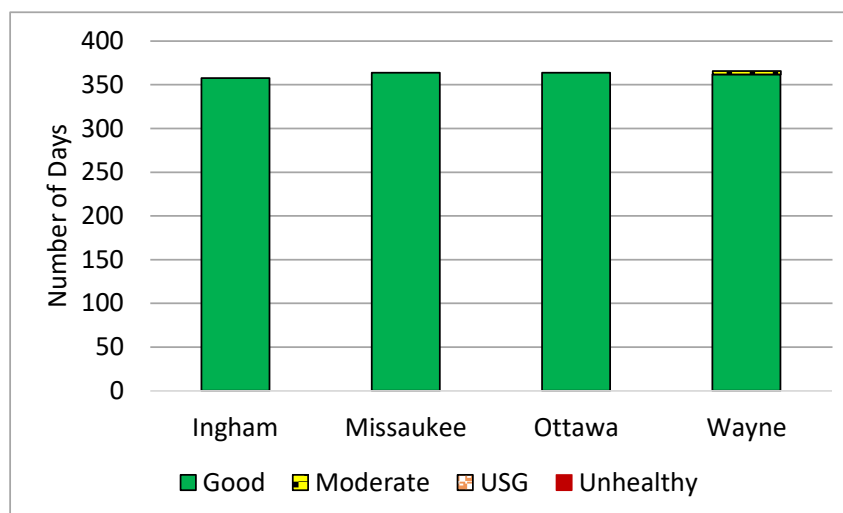


*Indicates site was moved in 2018 and concentrations were averaged together for both locations.

**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)

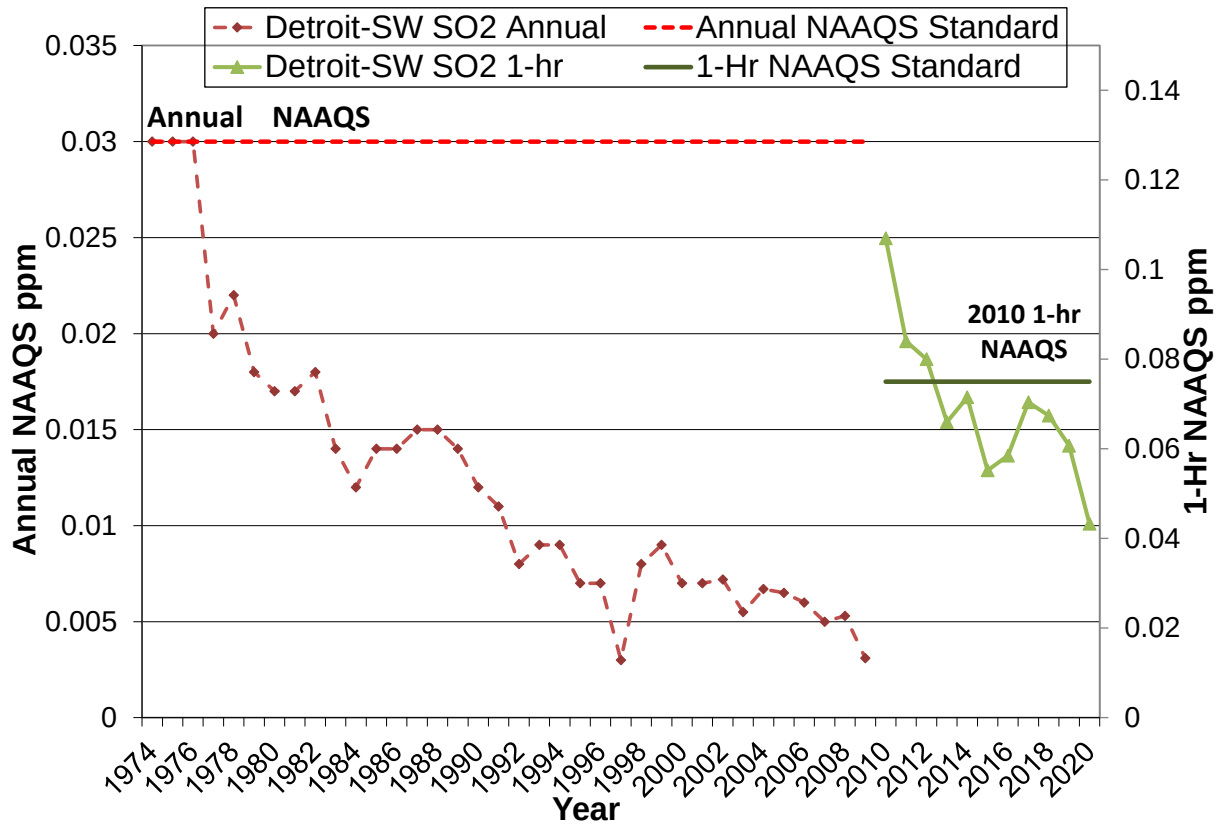
Sulfur dioxide is a gas formed by the burning of sulfur-containing material. Odorless at typical ambient concentrations, SO₂ can react with other atmospheric chemicals to form sulfuric acid. At higher concentrations it has a pungent, irritating odor like a struck match. When sulfur-bearing fuel is burned, 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).

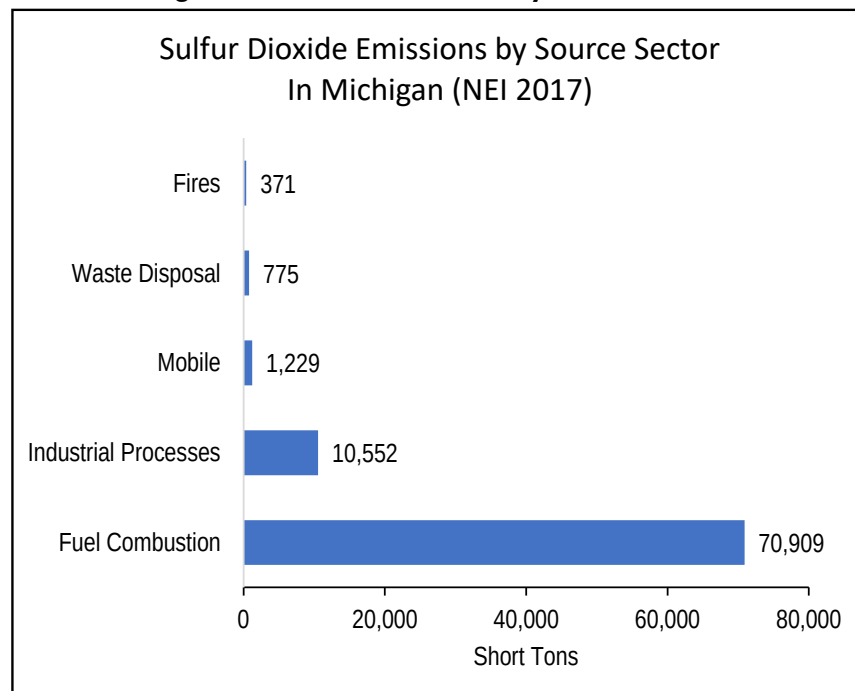
Figure 5.2: SO₂ Emissions by Source Sector

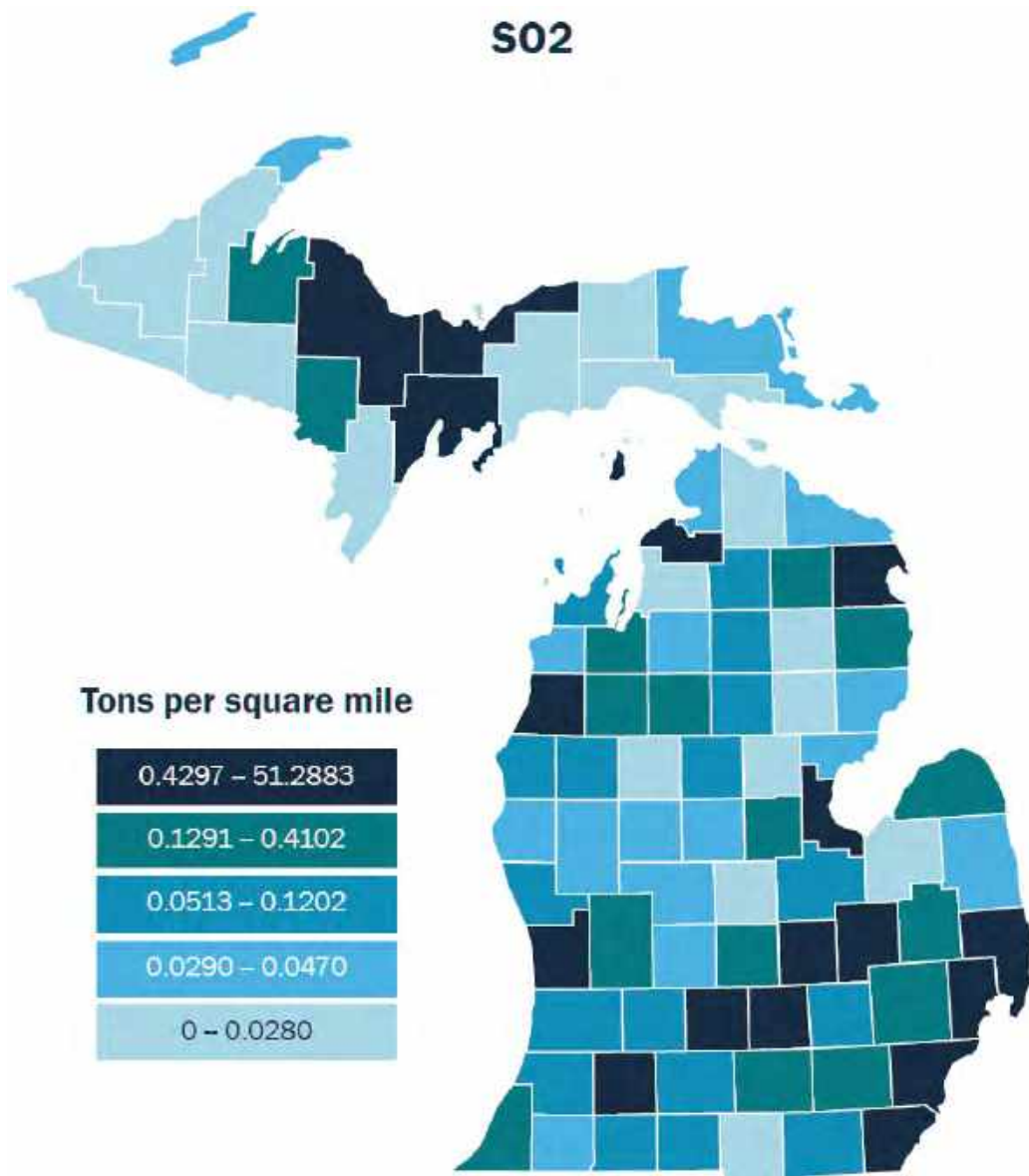
Figure 5.3: SO₂ Emissions in 2017 (NEI)

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.

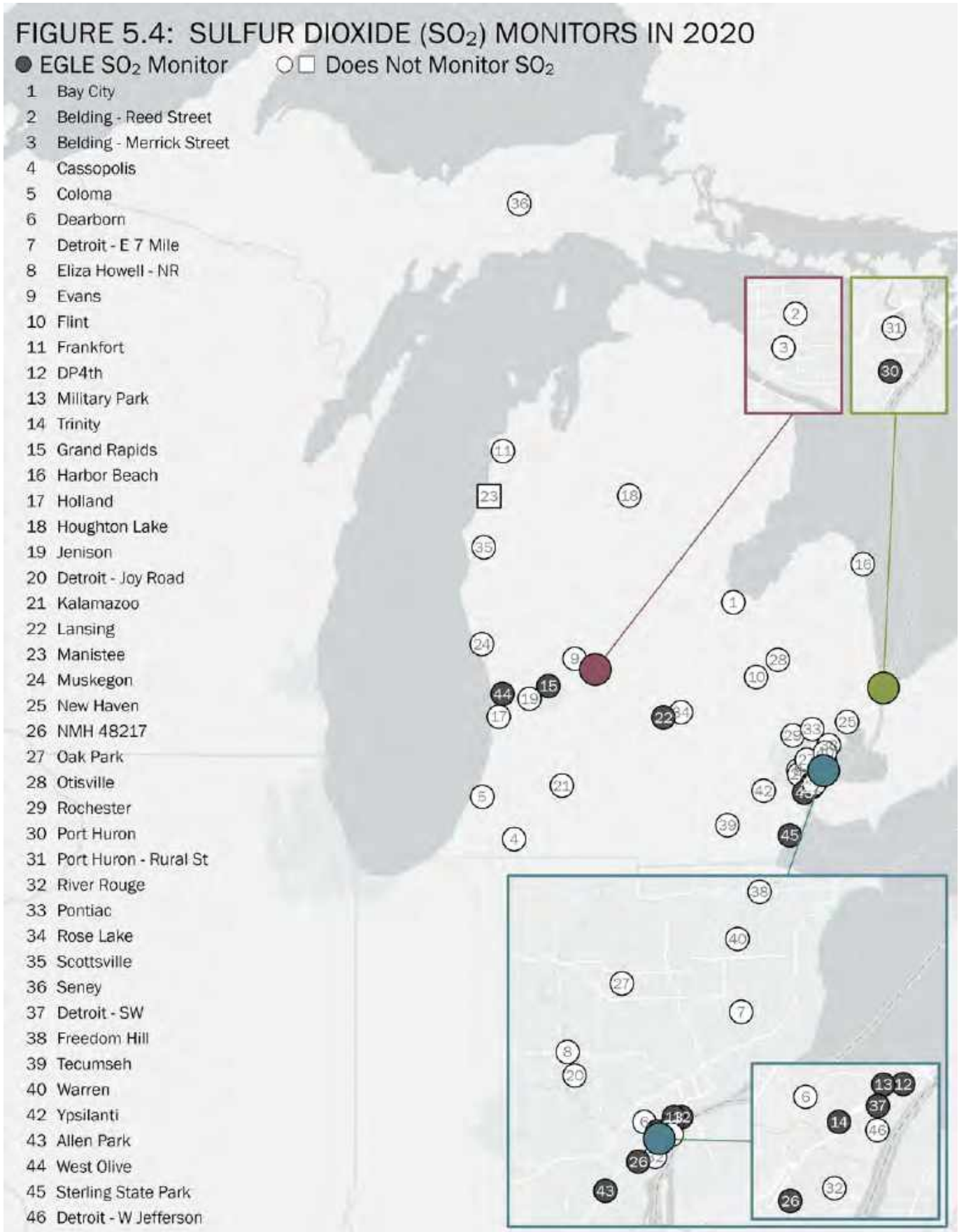
Figure 5.4: Sulfur Dioxide (SO₂) Monitors in 2020

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)

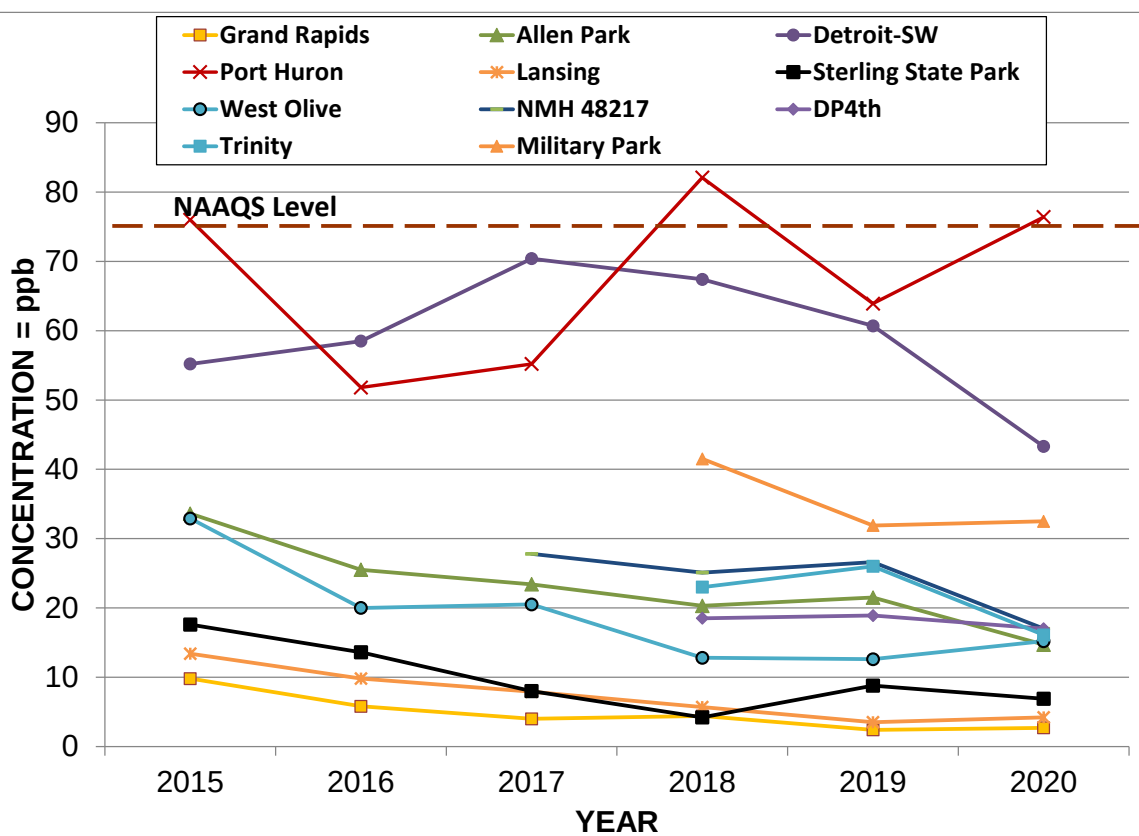
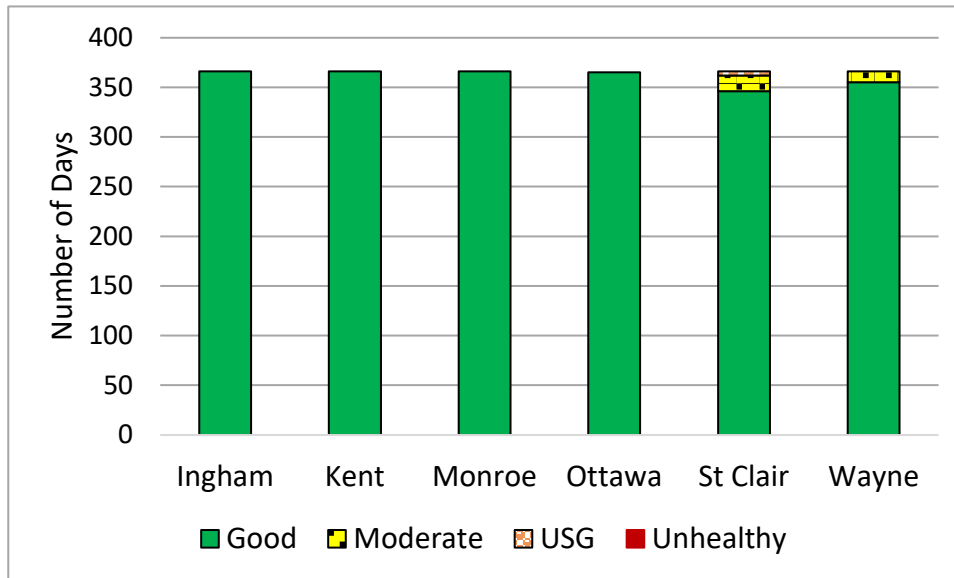


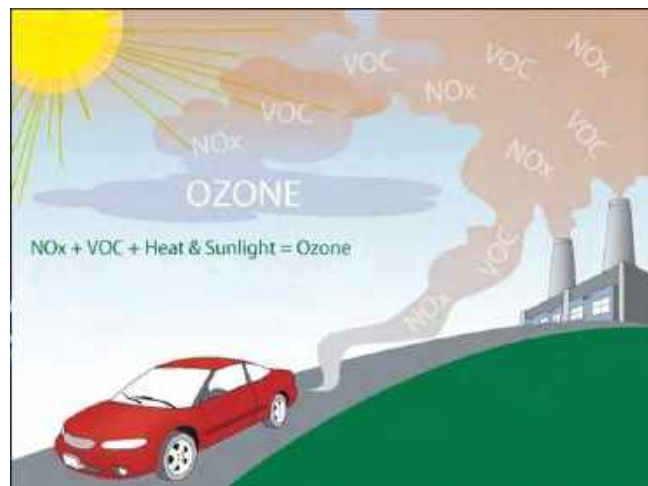
Figure 5.6 shows the AQI values per day in counties where SO₂ is monitored. All days were in the good AQI range except for 27 days in the moderate AQI range in St. Clair and Wayne Counties and four days in the Unsafe for Sensitive Groups (USG) in St. Clair County.

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.



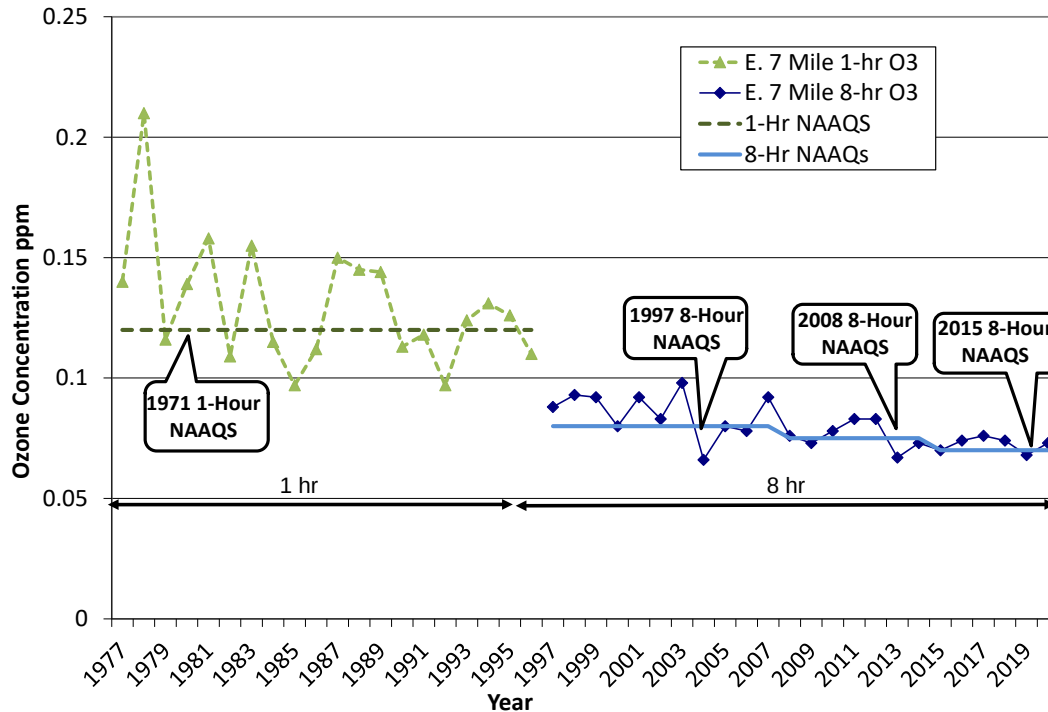
Sources: Major sources of NO_x and VOCs are engine exhaust, emissions from industrial facilities, combustion from power plants, gasoline vapors, chemical solvents, and biogenic emissions from natural sources. Ground-level O₃ can also be transported hundreds of miles under certain wind regimes. As a result, 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

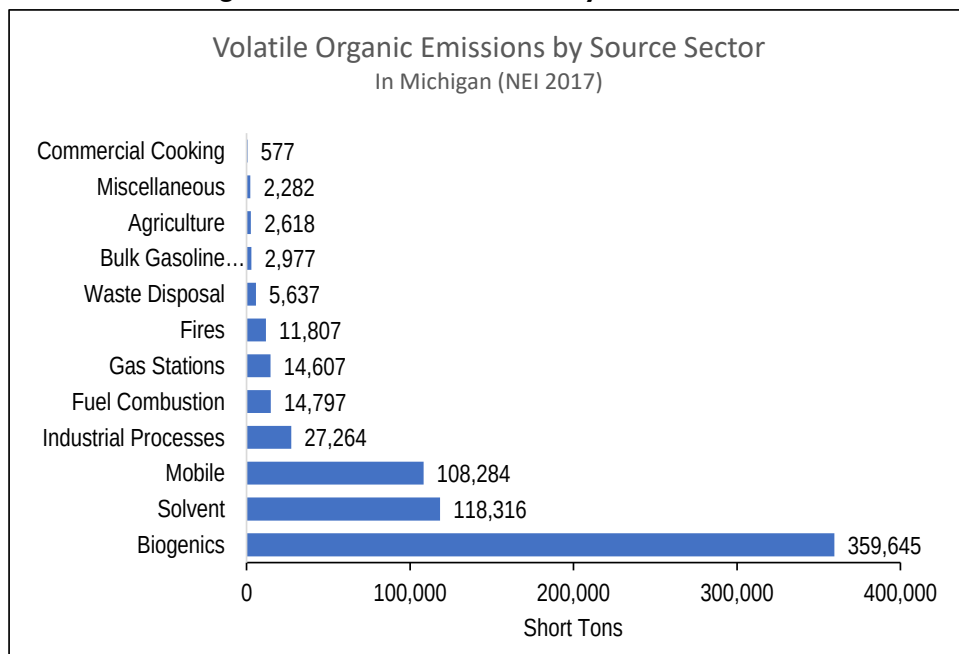


Figure 6.3: VOC Emissions in 2017

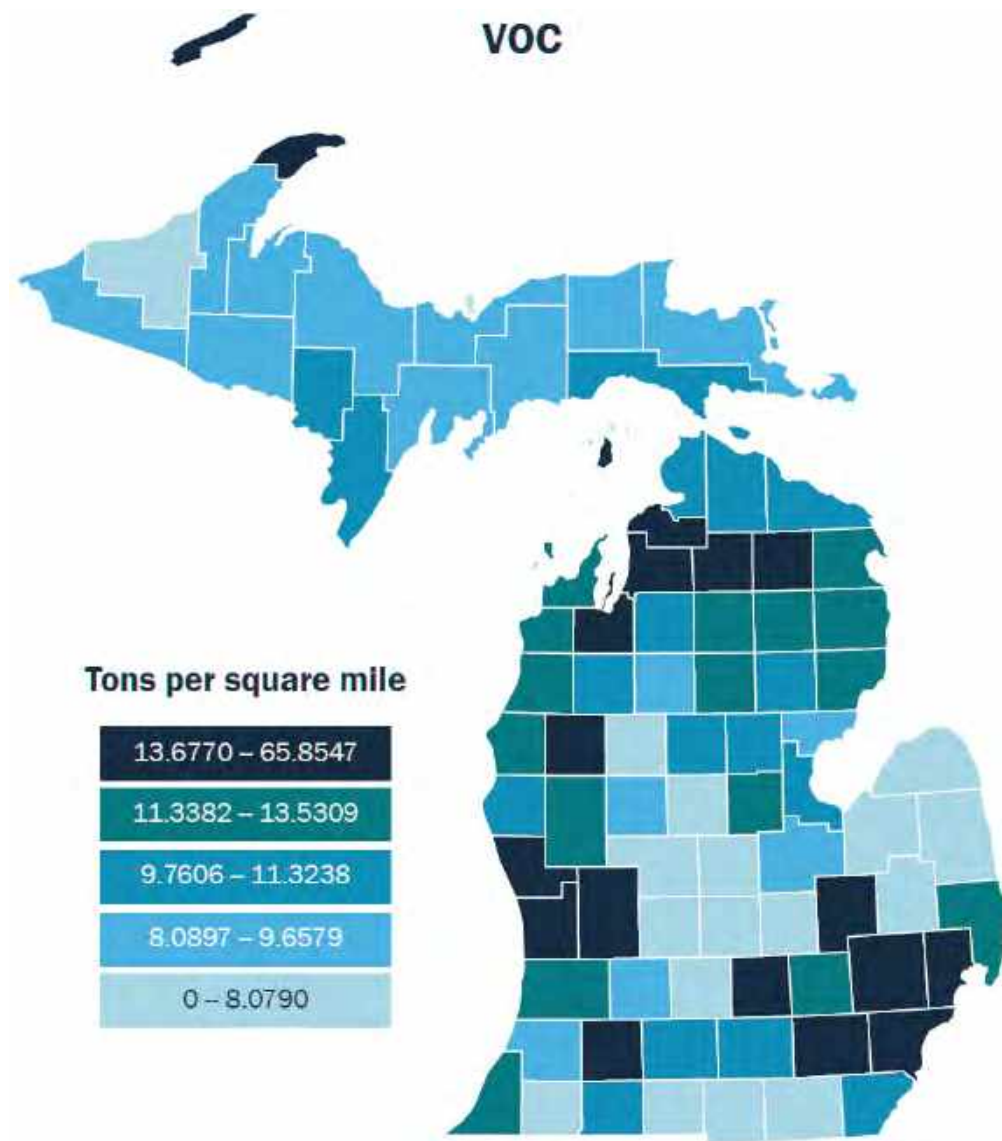


Figure 6.4 shows all O₃ air quality monitors active in Michigan at the beginning of the 2020 ozone season.

- 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

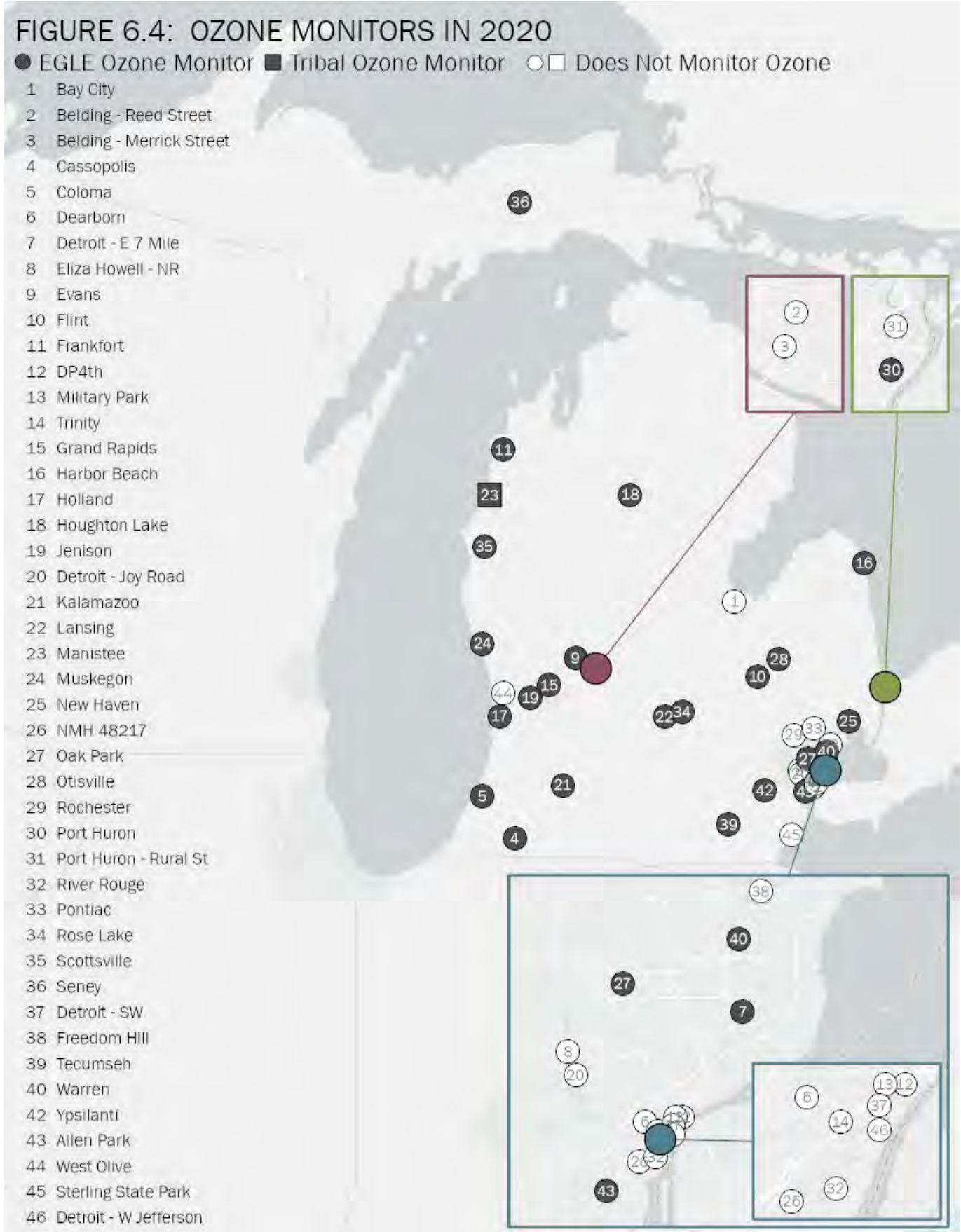


Table 6.1 shows the three-year averages of ozone. The USEPA uses these values (called design values) to determine attainment/nonattainment areas. The USEPA made their final designations for the 2015 standard on April 30, 2018 (effective August 3, 2018) based on 2014-2016 data. Livingston, Macomb, Monroe, 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).

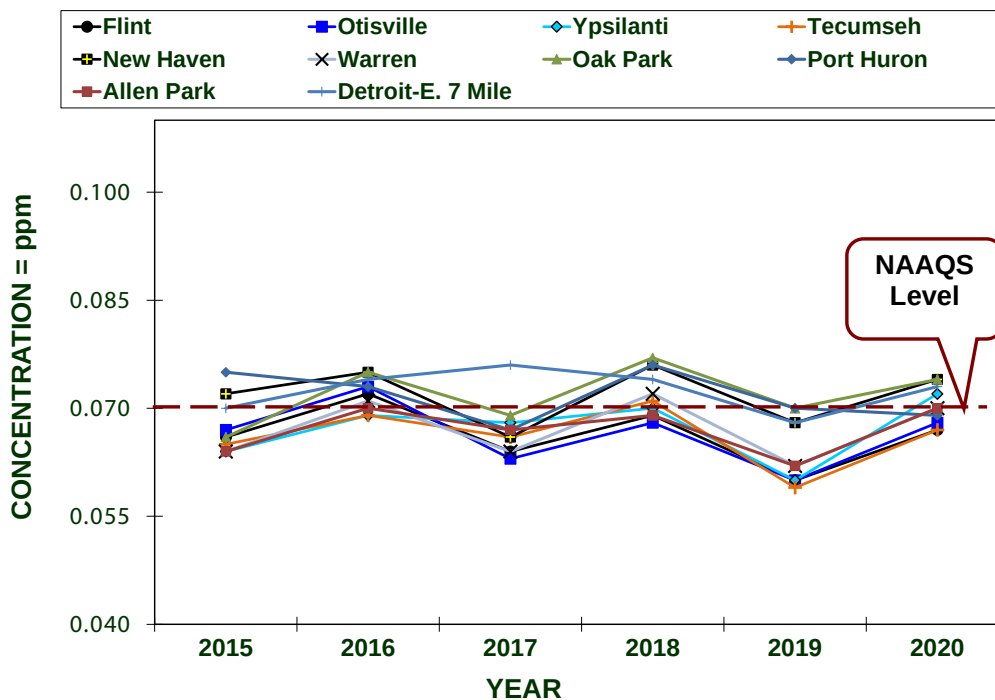


Figure 6.6: O₃ Levels in the Grand Rapids-Muskegon-Holland CSA from 2015-2020 (4th Highest 8-Hour O₃ Values)

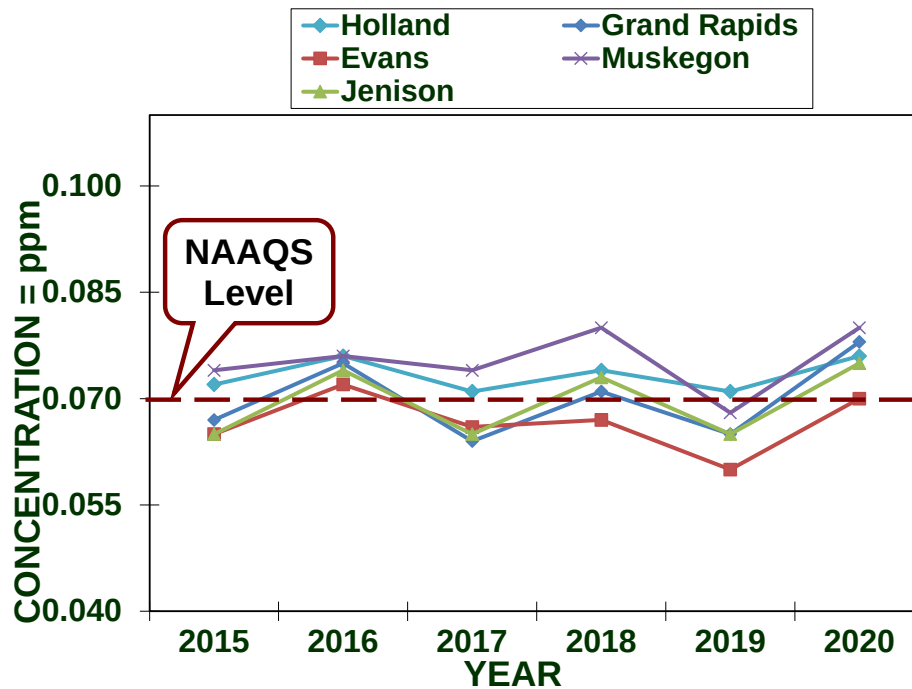


Figure 6.7: O₃ Levels in the Kalamazoo-Portage MSA, Lansing-E. Lansing-Owosso CSA, Niles-Benton Harbor MSA, & South Bend-Mishawaka (IN-MI) MSAs from 2015-2020 (4th Highest 8-Hour O₃ Values)

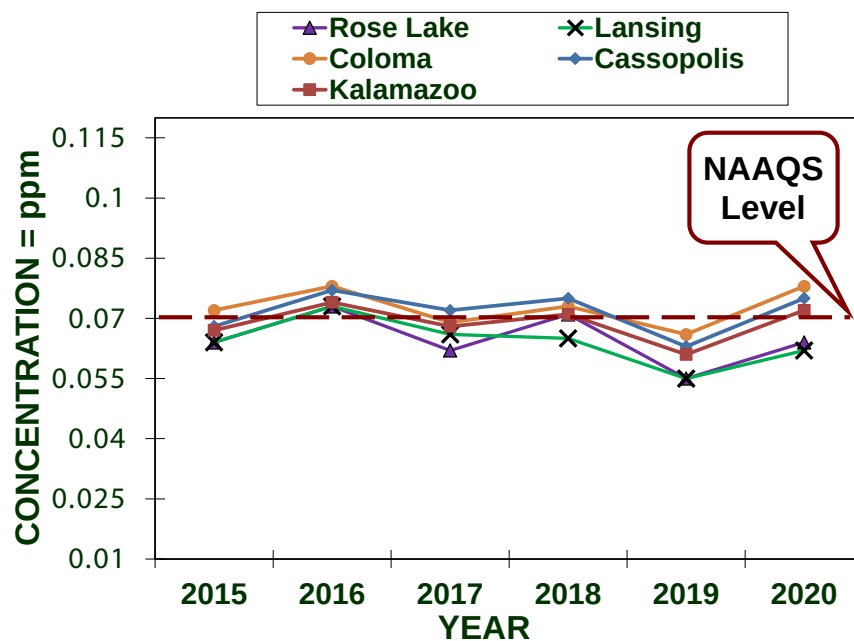


Figure 6.8: O₃ Levels in MI's Northern Lower and Upper Peninsula Areas from 2015-2020 (4th Highest 8-Hour O₃ Values)

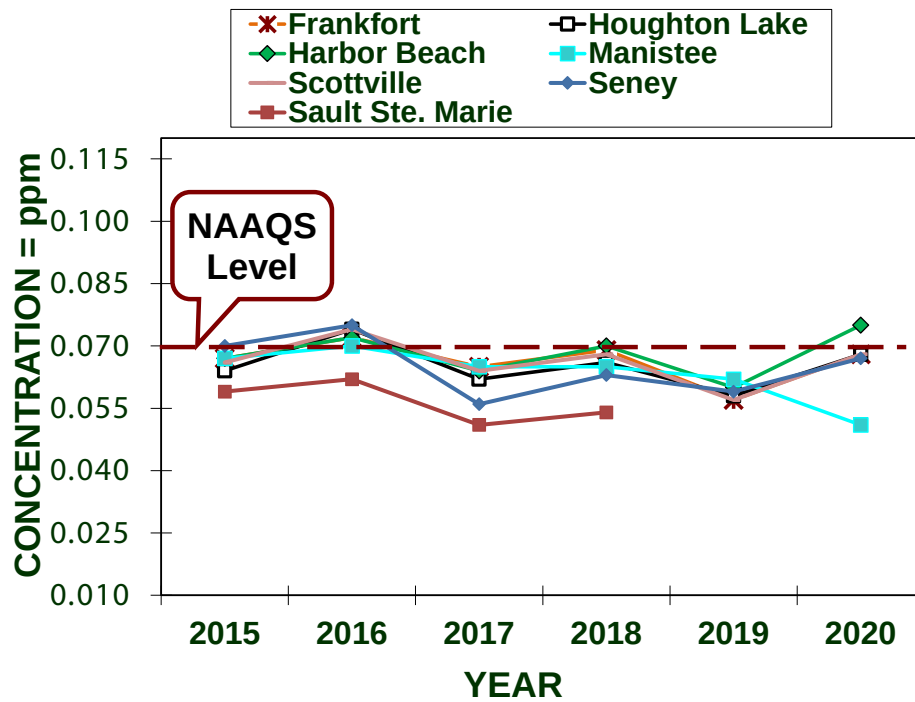
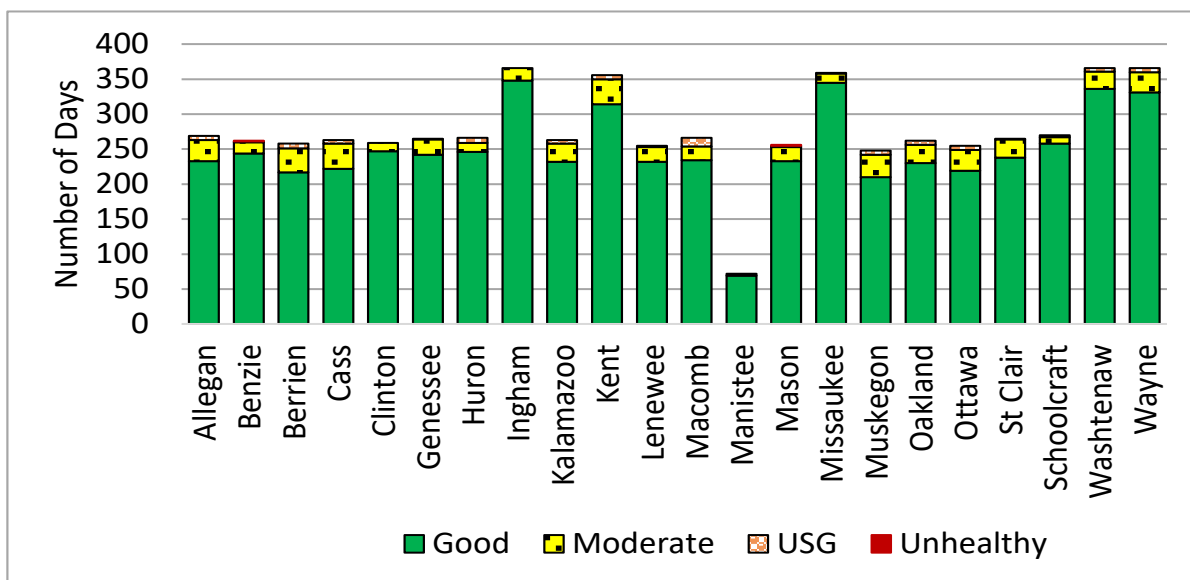


Figure 6.9 shows the AQI values per day in counties where ozone is monitored. Most days were in the good to moderate AQI range. Most counties had a few days in the USG range, Macomb County having the most USG days with 12 days. Two counties had one day each in the unhealthy AQI range: Benzie and Mason Counties.

Figure 6.9: 2020 AQI Days for Ozone in Michigan Counties



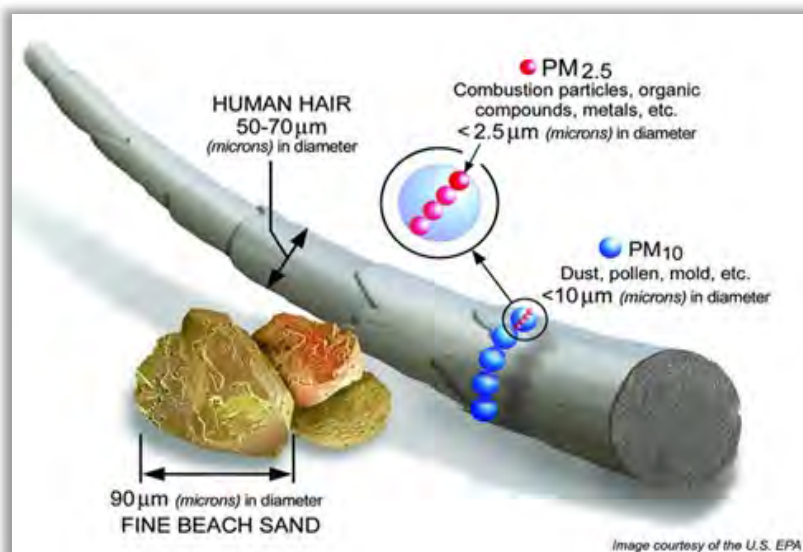
CHAPTER 7: PARTICULATE MATTER (PM₁₀, PM_{10-2.5}, PM_{2.5}, PM_{2.5} CHEMICAL SPECIATION AND TSP)

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 $\mu\text{g}/\text{m}^3$ not to be exceeded more than once per year over 3 years. PM_{2.5} has an annual average standard of 12 $\mu\text{g}/\text{m}^3$, and a 98th percentile 24-hour concentration of 35 $\mu\text{g}/\text{m}^3$ 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.

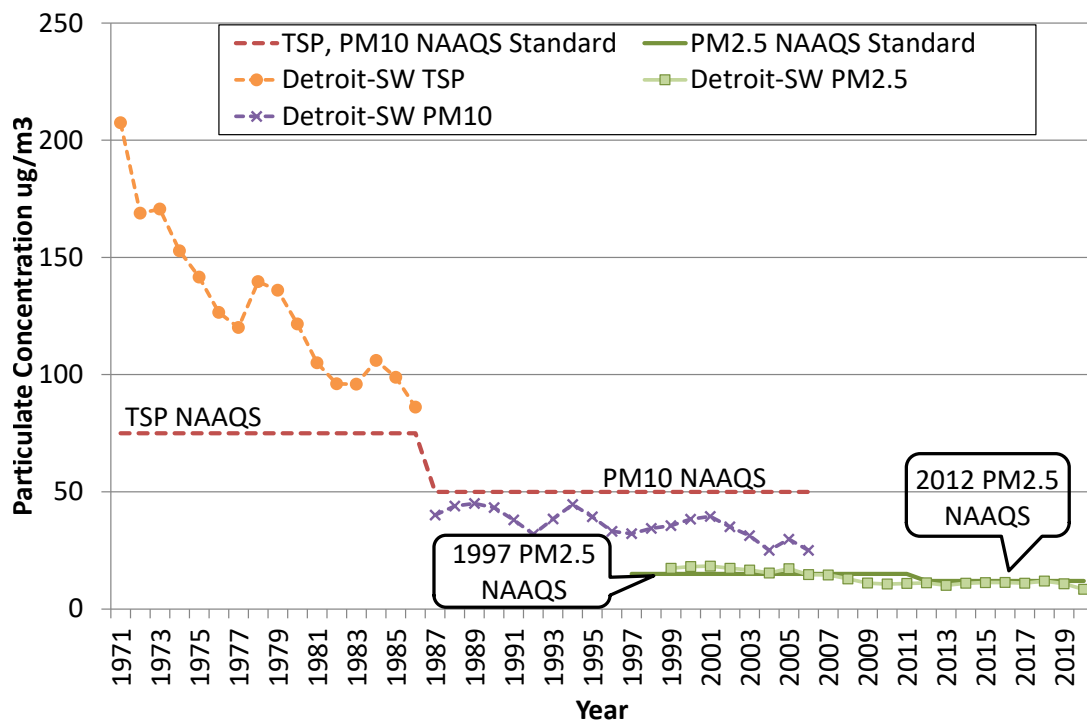
Population most at risk: People with heart or lung disease, the elderly, and children are at highest risk from exposure to PM.



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

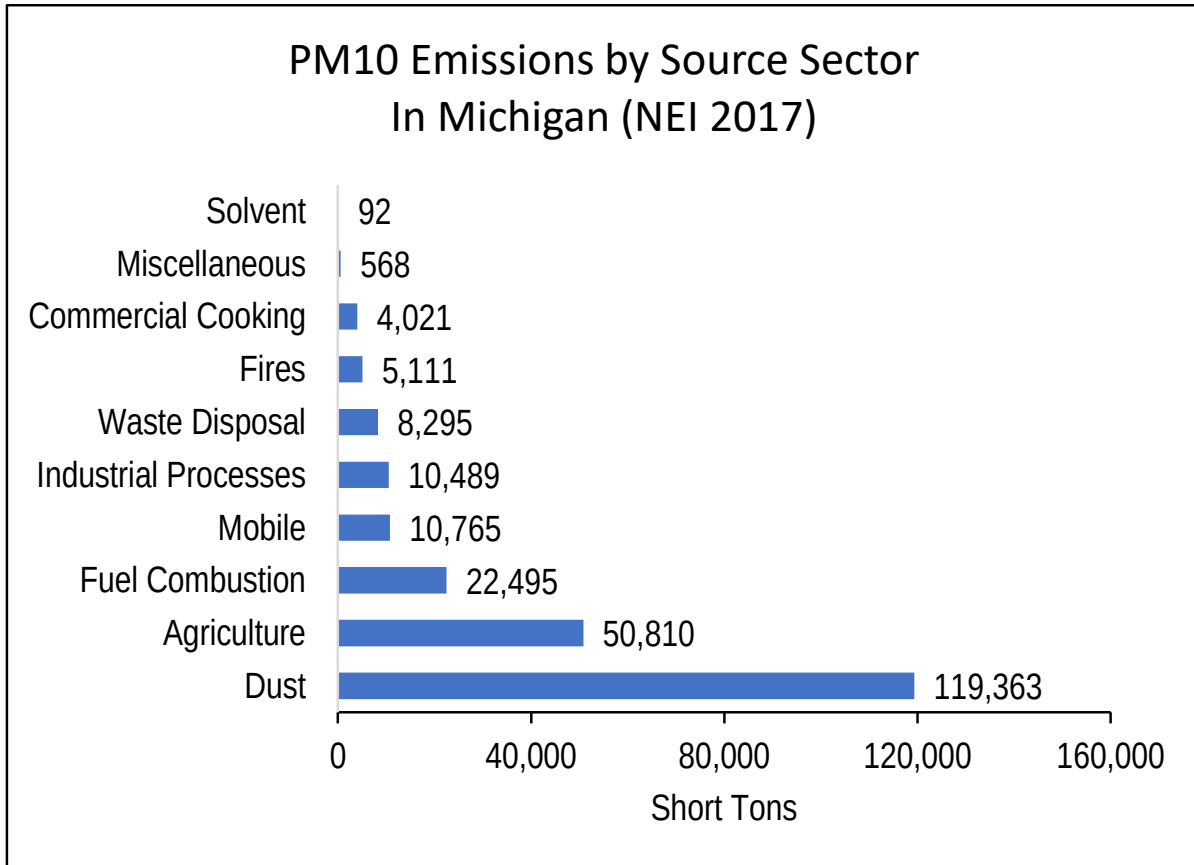
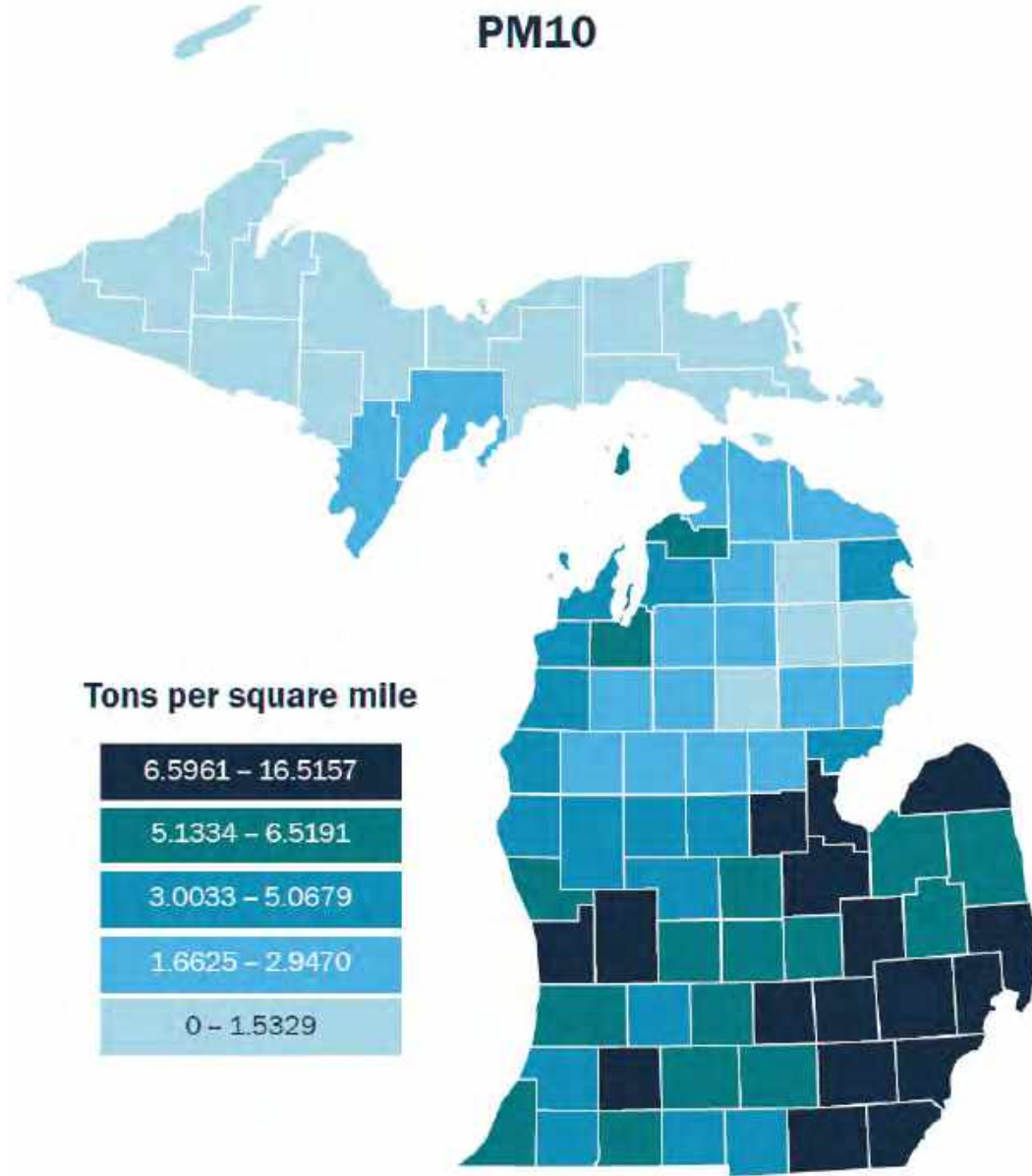


Figure 7.3: PM₁₀ Emissions in 2017

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.

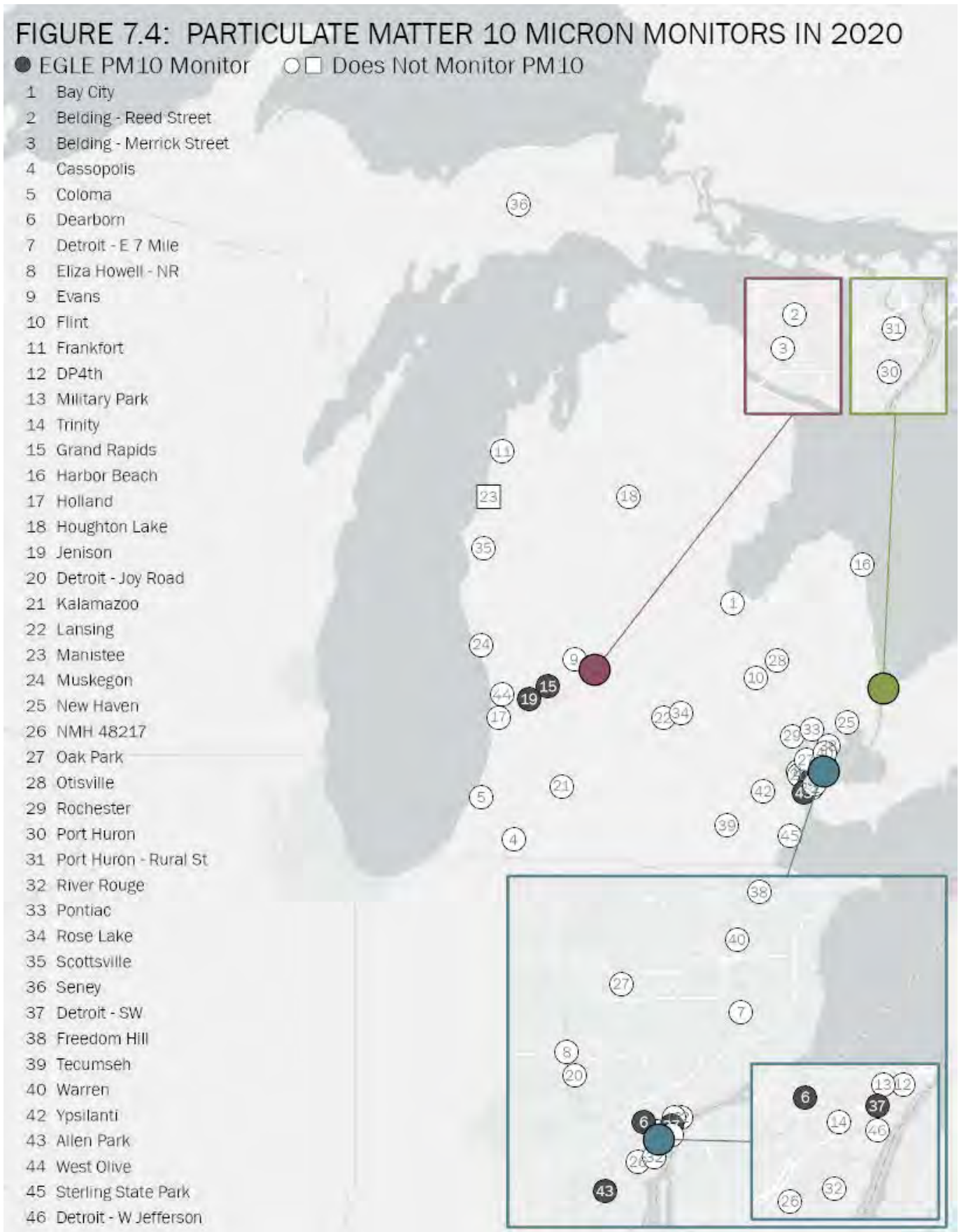
Figure 7.4: PM₁₀ Monitors in 2020

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

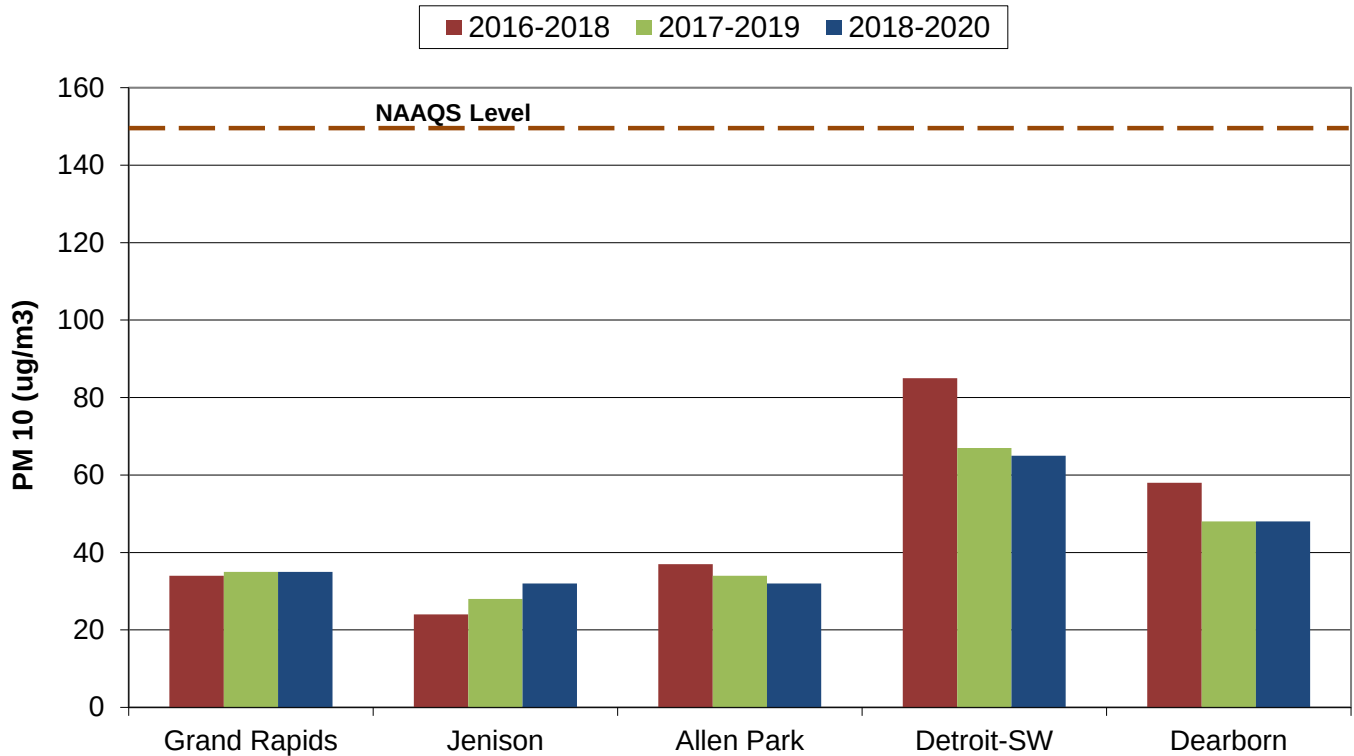
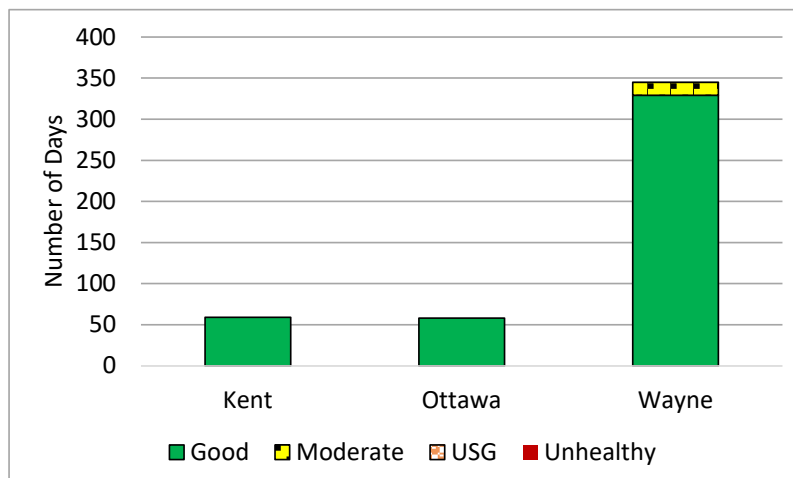


Figure 7.6 shows the AQI values per day in counties where PM_{10} is monitored. All days were in the good AQI range except for 16 days in the moderate AQI range in Wayne County.

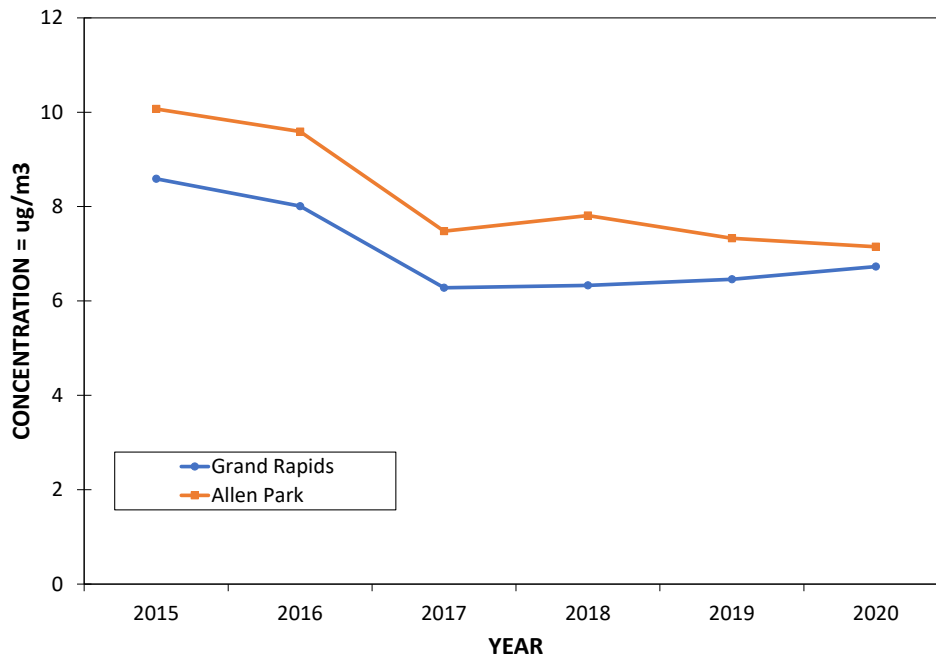
Figure 7.6: 2020 AQI Days for PM_{10} in Michigan Counties



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.

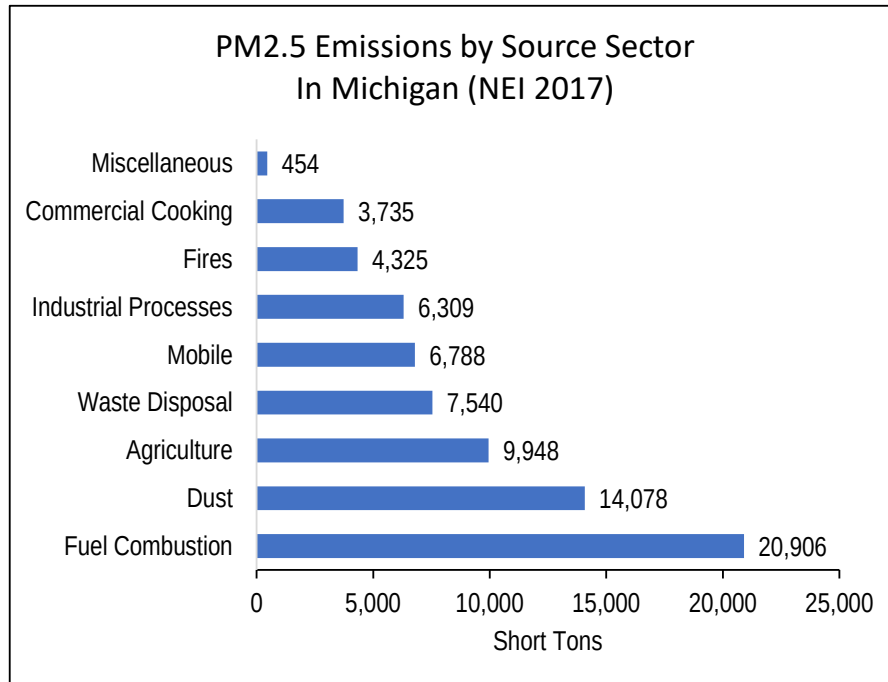
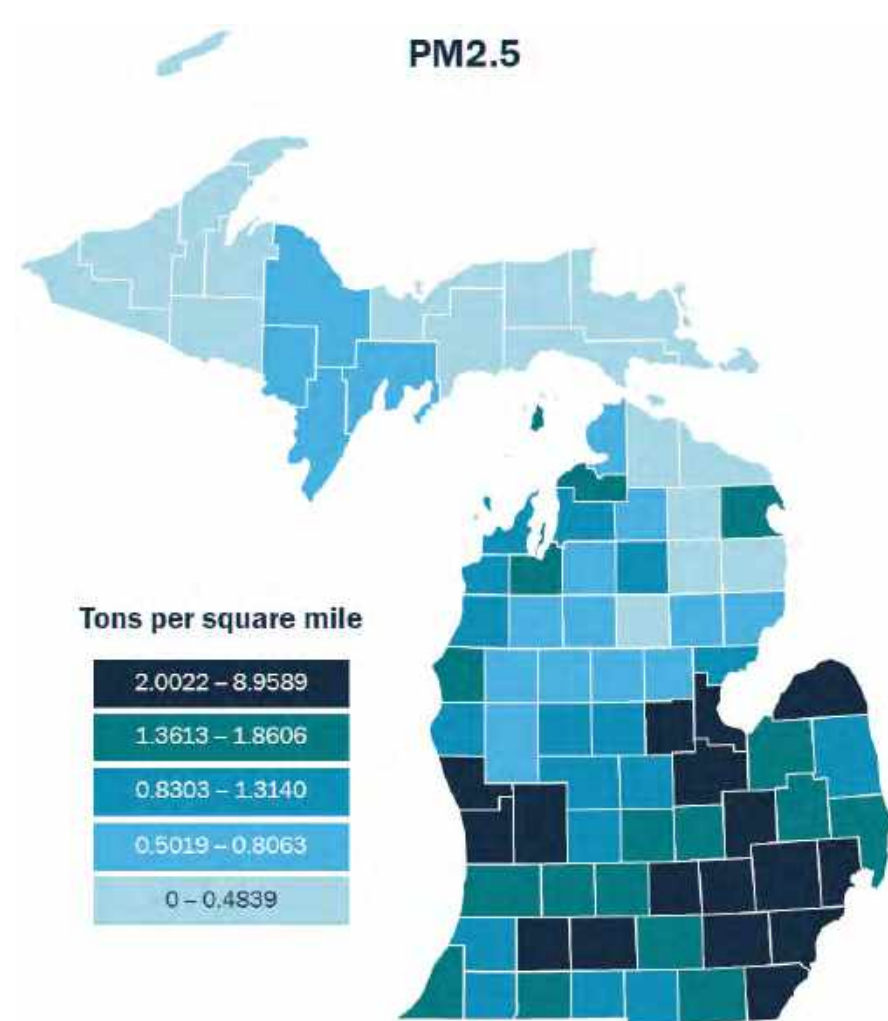
Figure 7.7: PM Coarse Levels in Michigan from 2015-2020 (Annual Arithmetic Mean)

**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.

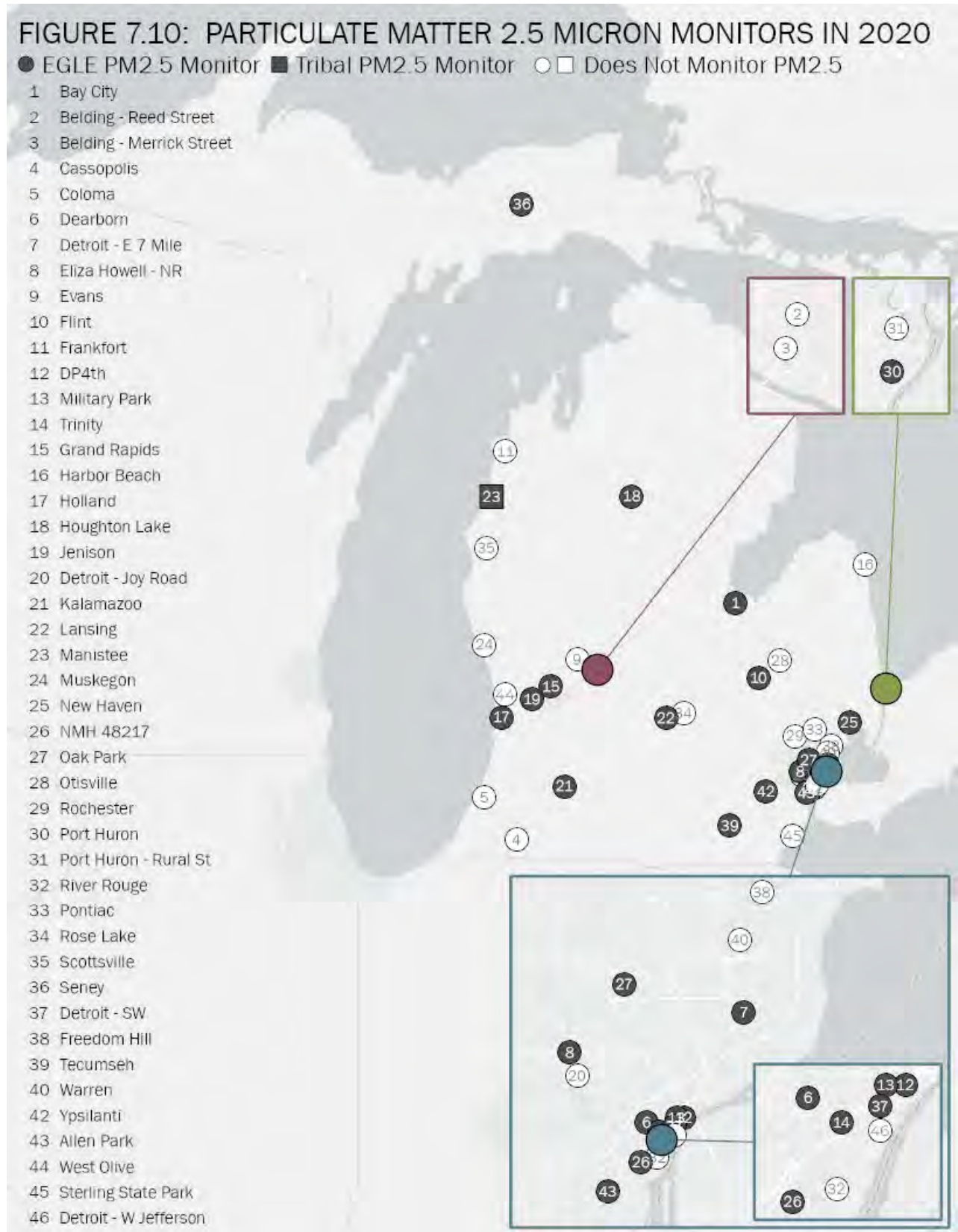
Figure 7.10 shows the location of each $PM_{2.5}$ monitor.

$PM_{2.5}$ 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

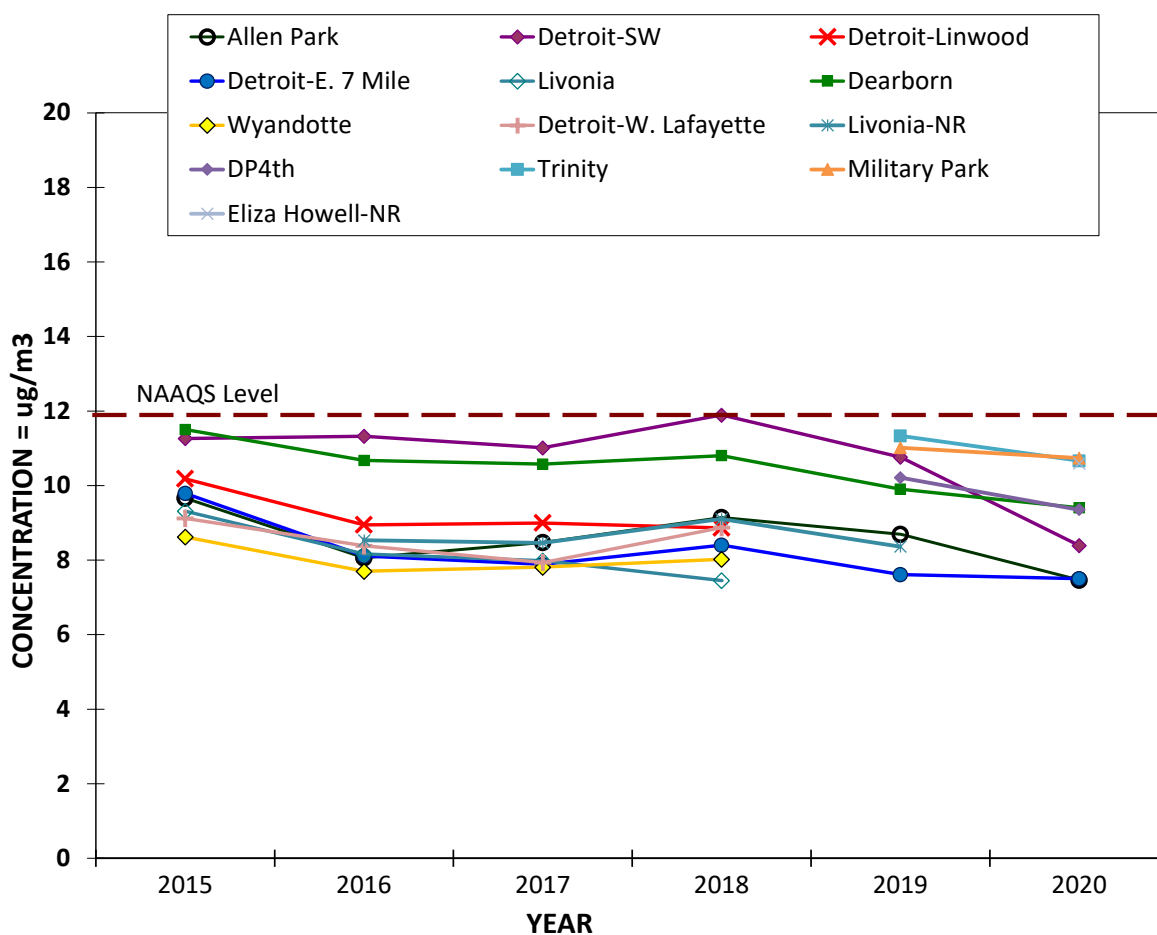


Figure 7.12: Detroit-Warren-Flint CSA (without Wayne County)
Annual Arithmetic Means for PM_{2.5} from 2015-2020

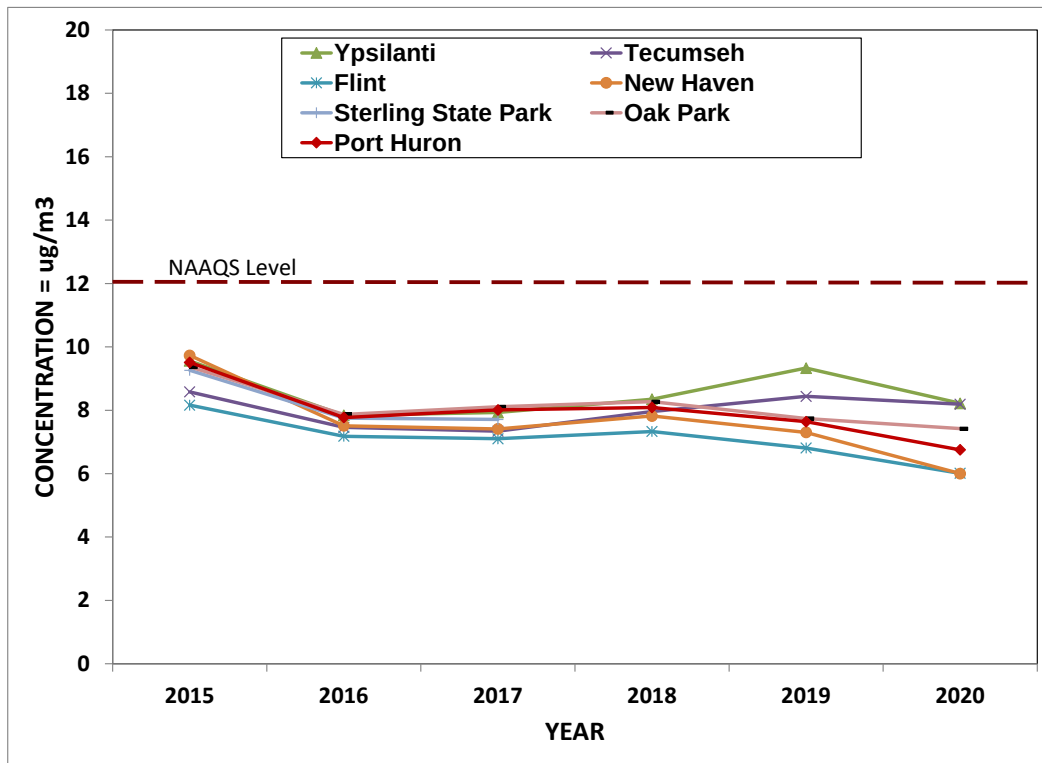


Figure 7.13: West MI - Grand Rapids-Muskegon-Holland CSA, Kalamazoo, and Benton Harbor MSAs
Annual Arithmetic Means for PM_{2.5} from 2015-2020

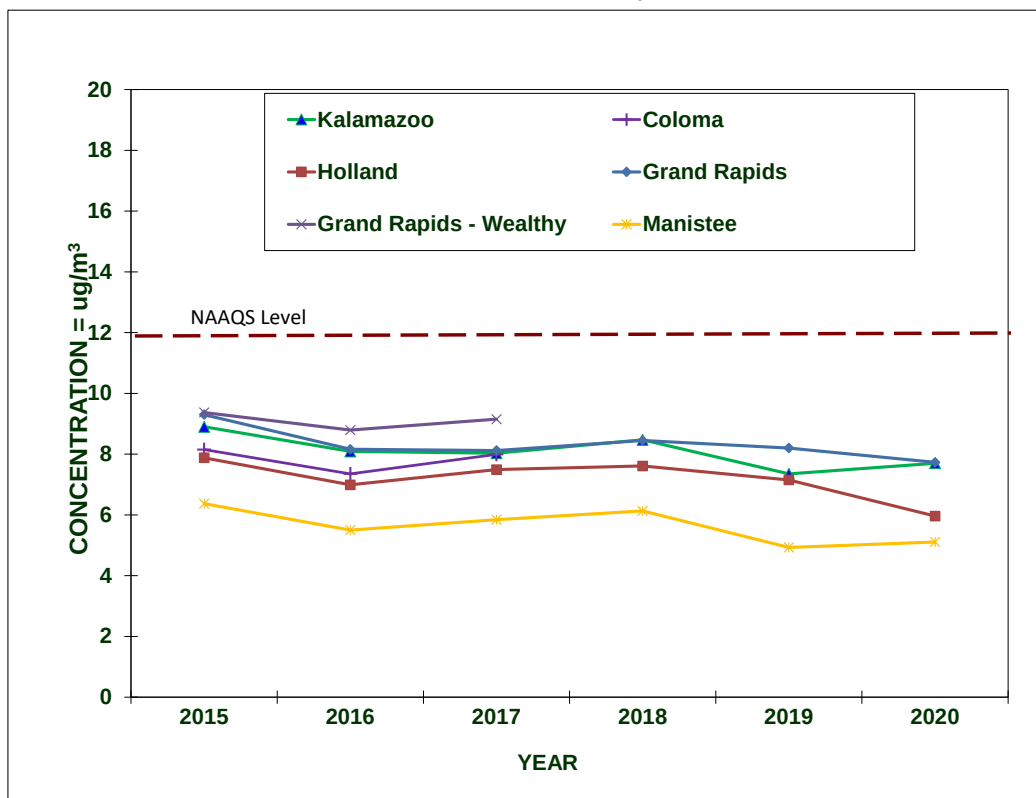


Figure 7.14: Lansing-E. Lansing CSA, Saginaw-Bay City CSA, Cadillac MSA and Upper Peninsula Annual Arithmetic Means for PM_{2.5} from 2015-2020

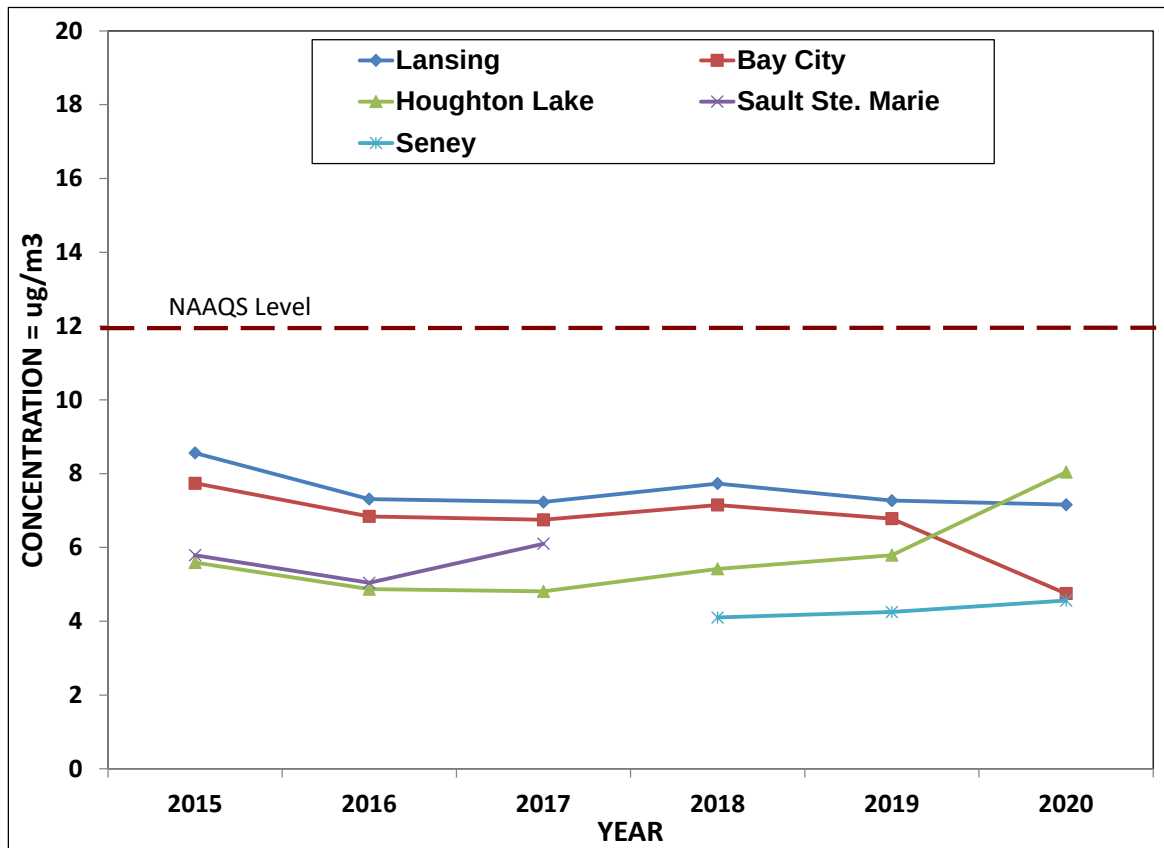
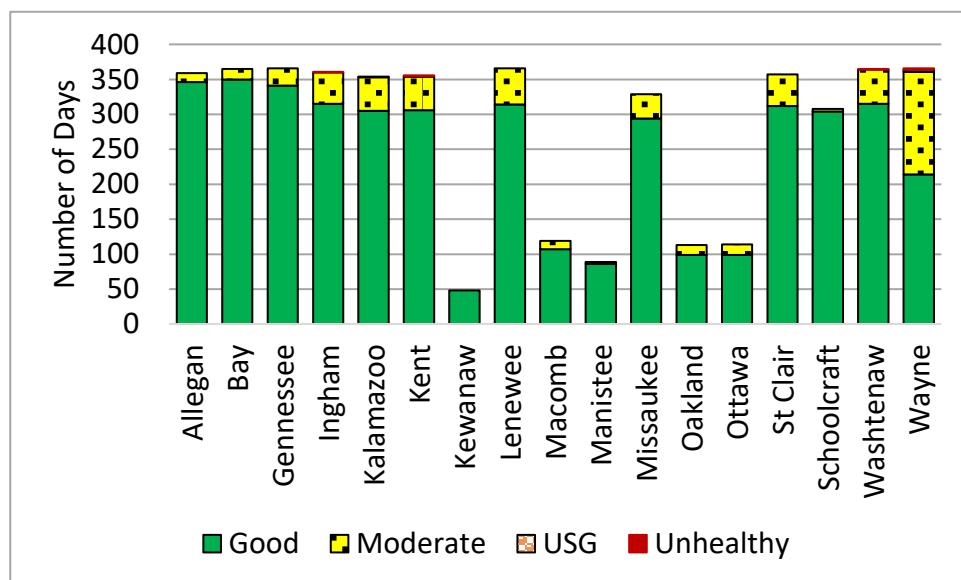


Figure 7.15 shows the AQI values per day in counties where PM_{2.5} is monitored. Most days were in the good to moderate AQI range. Three counties had five days in the USG AQI range, Kalamazoo, and Kent County each had one day, and Wayne County had three days in the USG AQI range. Four counties had AQI 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.

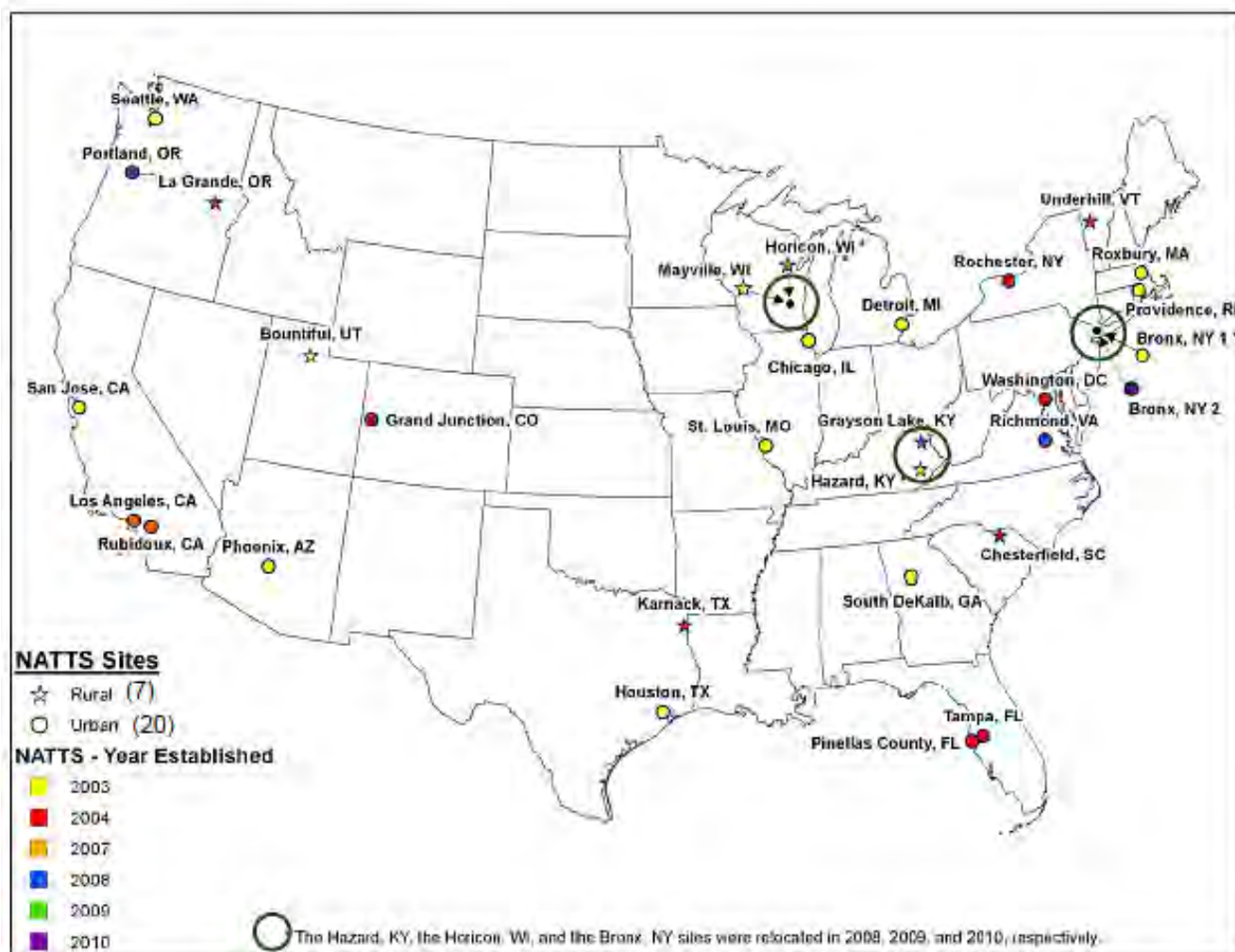
Table 8.1: 2019 Toxics Sampling Sites

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}.

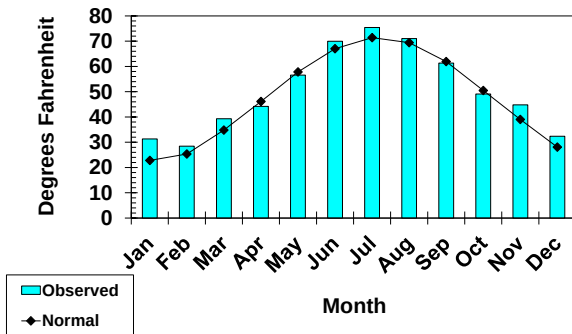
Figure 8.1: National Air Toxics Trends Sites



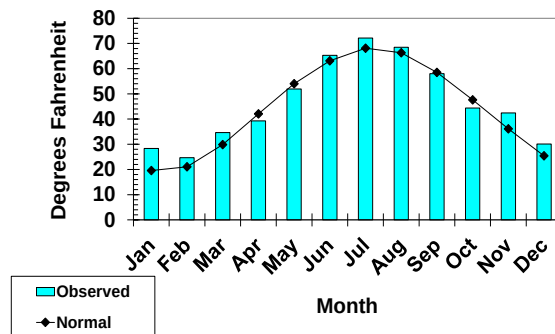
CHAPTER 9: METEOROLOGICAL INFORMATION

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.

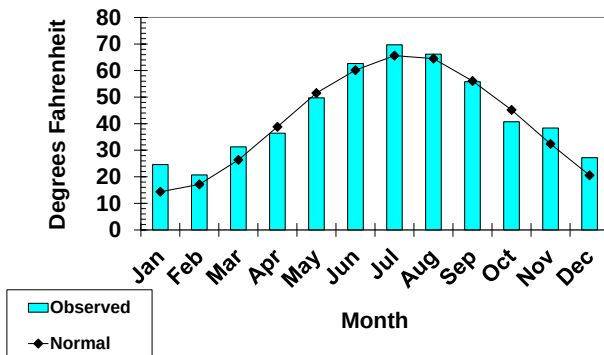
**Figure 9.1: Southern Lower Peninsula
Observed Average Monthly Temperatures vs.
Normal Average Monthly Temperatures**



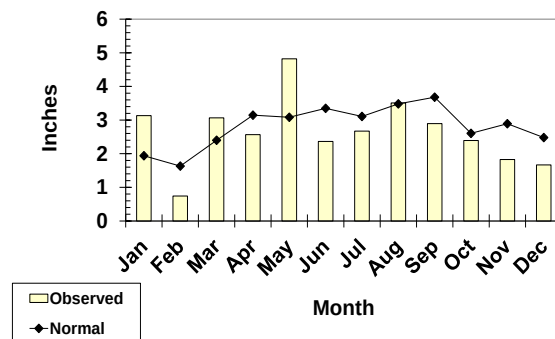
**Figure 9.2: Northern Lower Peninsula
Observed Average Monthly Temperatures vs.
Normal Average Monthly Temperatures**



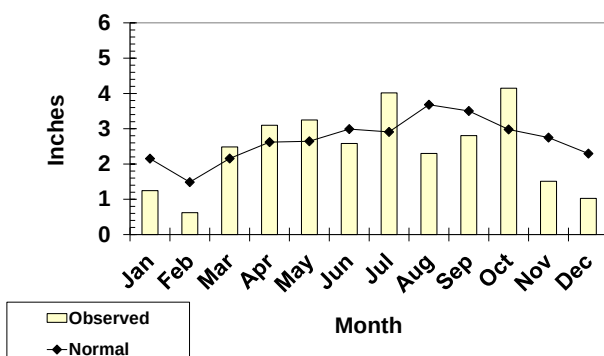
**Figure 9.3: Upper Peninsula
Observed Average Monthly Temperatures vs.
Normal Average Monthly Temperatures**



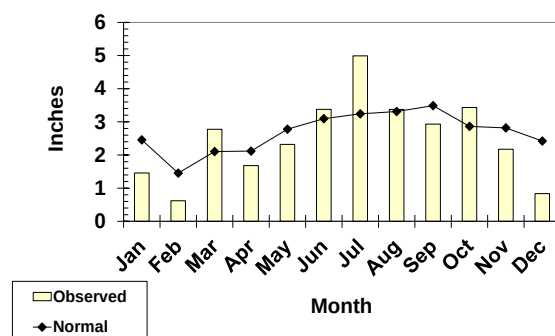
**Figure 9.4: Southern Lower Peninsula
Observed Monthly Precipitation vs.
Normal Monthly Precipitation**



**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

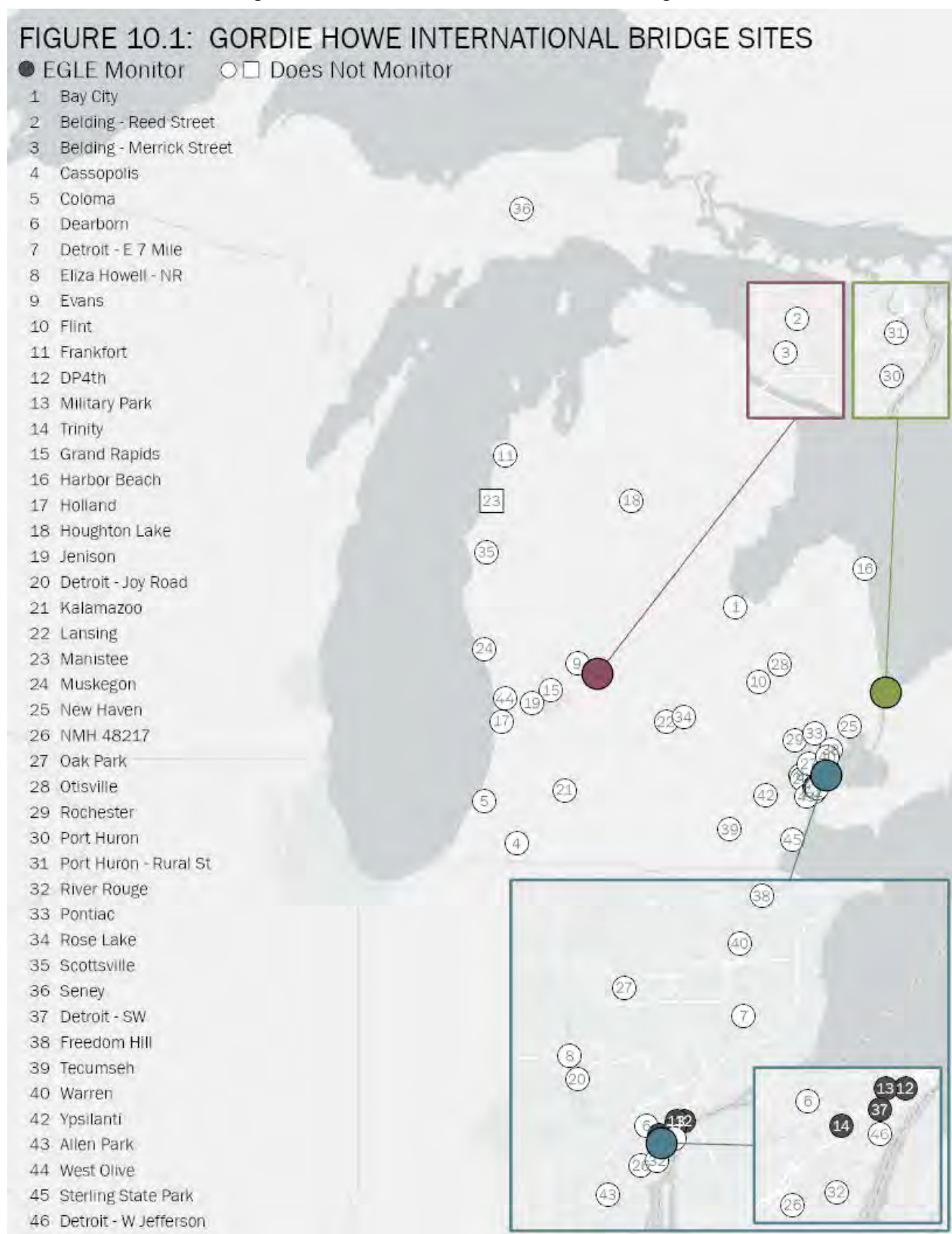
EGLÉ continues the sampling for the Gordie Howe International Bridge (GHIB). This project is a joint Canadian-American venture. The GHIB will be built linking Windsor, Ontario and Detroit, Michigan. Construction is slated to occur between 2018-2024. For additional information, go to:

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.



Air Quality Annual Report 2020

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

Air Quality Annual Report 2020

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

Air Quality Annual Report 2020

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

Air Quality Annual Report 2020

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).

Air Quality Annual Report 2020

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

Air Quality Annual Report 2020

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

AIR QUALITY ANNUAL REPORT 2019

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

AIR QUALITY ANNUAL REPORT 2019

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

AIR QUALITY ANNUAL REPORT 2019

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

AIR QUALITY ANNUAL REPORT 2019

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

AIR QUALITY ANNUAL REPORT 2019

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

AIR QUALITY ANNUAL REPORT 2019

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

AIR QUALITY ANNUAL REPORT 2019

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

AIR QUALITY ANNUAL REPORT 2019

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

AIR QUALITY ANNUAL REPORT 2019

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

AIR QUALITY ANNUAL REPORT 2019

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

AIR QUALITY ANNUAL REPORT 2019

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

AIR QUALITY ANNUAL REPORT 2019

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 inceptions 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

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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

February 9, 2022

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 twenty (20) 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 twenty (20) 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.

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.



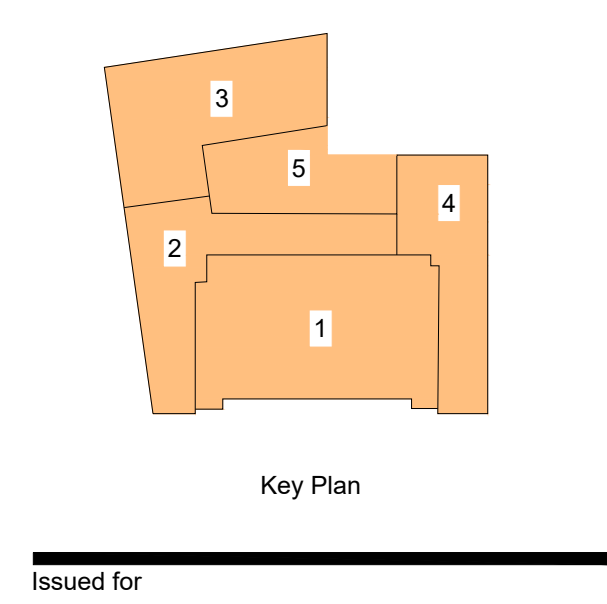
- SAT = Satellite Dish Location
- MDF = Main IT Closet
- IDF = Sub IT Closet
- Riser = Riser Closet
- UMC = Unit Media Center - (1) 2ct Fiber (1) RG6/11
- ▲ = Outlet (1) Cat6 (1) RG6/RG11
- ⬆ = Outlet (2) Cat6
- 📹 = Camera (1) Cat6 Purple
- WIFI = WIFI (1) Cat6 Green
- ☎ = Pool Phone (1) Cat6
- LR = Latch R -(1) Cat6 - (1) (18/4) - (1) 14/2 for Strike
- LI = Latch Intercom -(1) Cat6 - (1) (18/4) - (1) 14/2 for Strike
- LM = Latch M - Non Wired
- LC = Latch C - Non Wired
- ES = Latch C - Non Wired
- 🔌 = Power Supply
- VS = Volume Control (1) Cat6 (1) 14/2
- 🔊 = Audio Equipment/Stereo Receiver
- CS = Ceiling Speaker
- WS = Wall Speaker
- RS = Rock Speaker



FHS-BHM
Adams/Haynes Mixed
Use Development



- SAT = Satellite Dish Location
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Issued for

12.16.2021 100% SD

Drawn ☐ Preliminary

NLH ☐ Construction

Checked ☐ Record

RMM

Approved ☐ Do not scale

MW Use figured dimensions only

Bidpak Number

Job Number

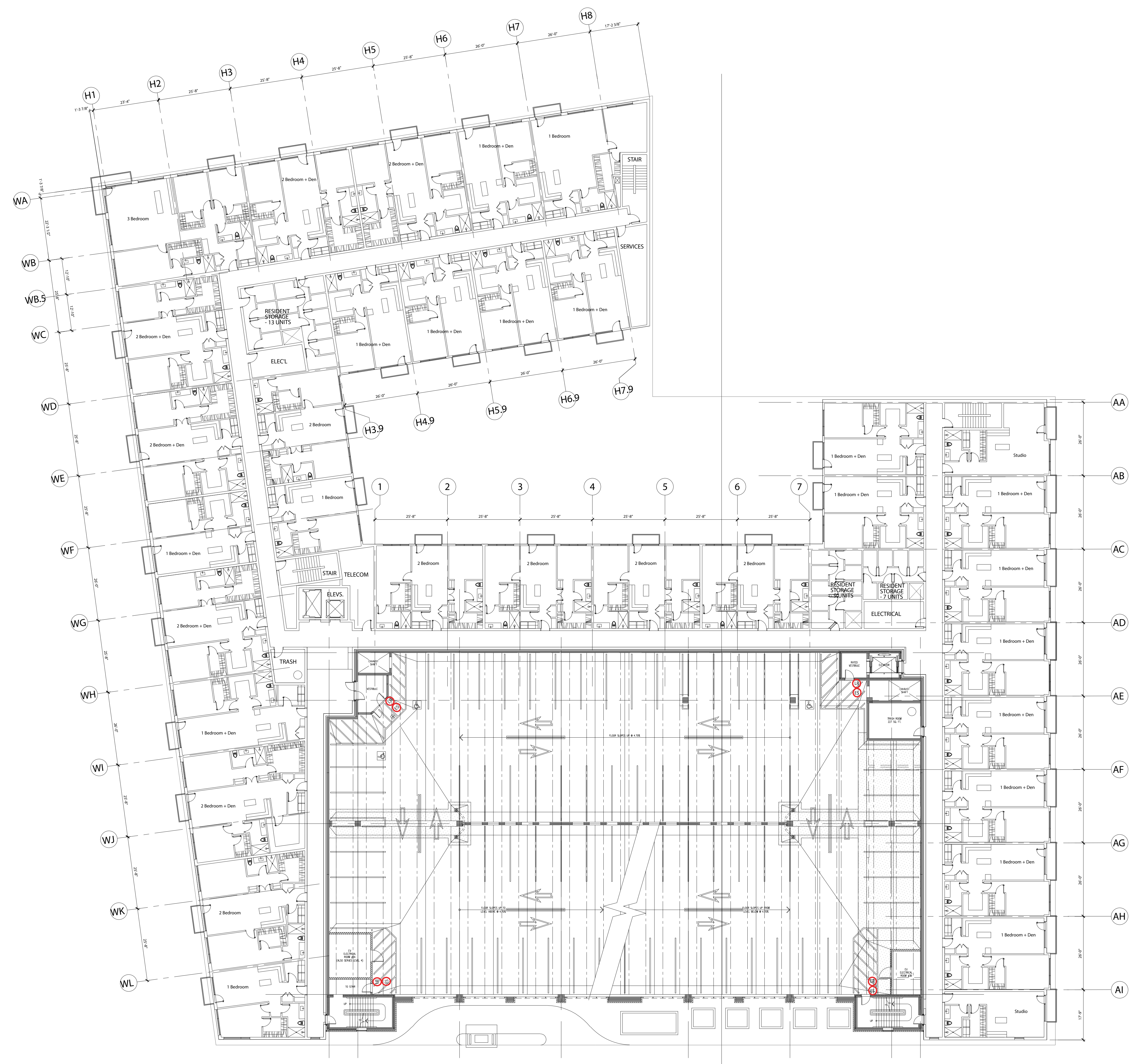
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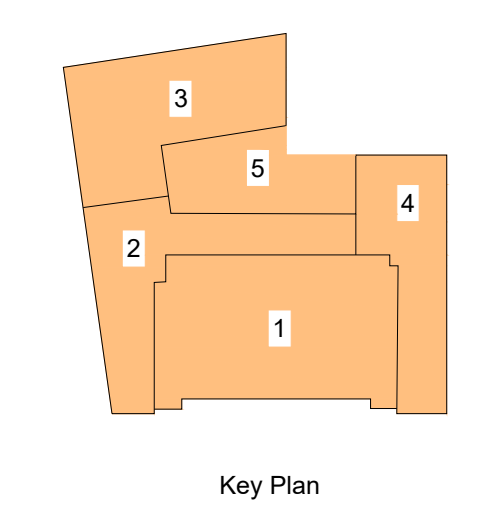
OVERALL

LEVEL 2 FLOOR PLAN

FHS-BHM
Adams/Haynes Mixed
Use Development



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- LC = Latch C - Non Wired
- ES = Latch C - Non Wired
- PS = Power Supply
- VC = Volume Control (1) Cat6 (1) 14/2
- AE = Audio Equipment/Stereo Receiver
- CS = Ceiling Speaker
- WS = Wall Speaker
- RS = Rock Speaker



Issued for

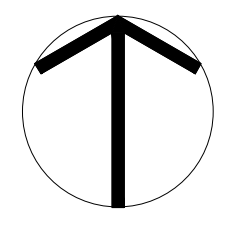
12.16.2021 100% SD

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

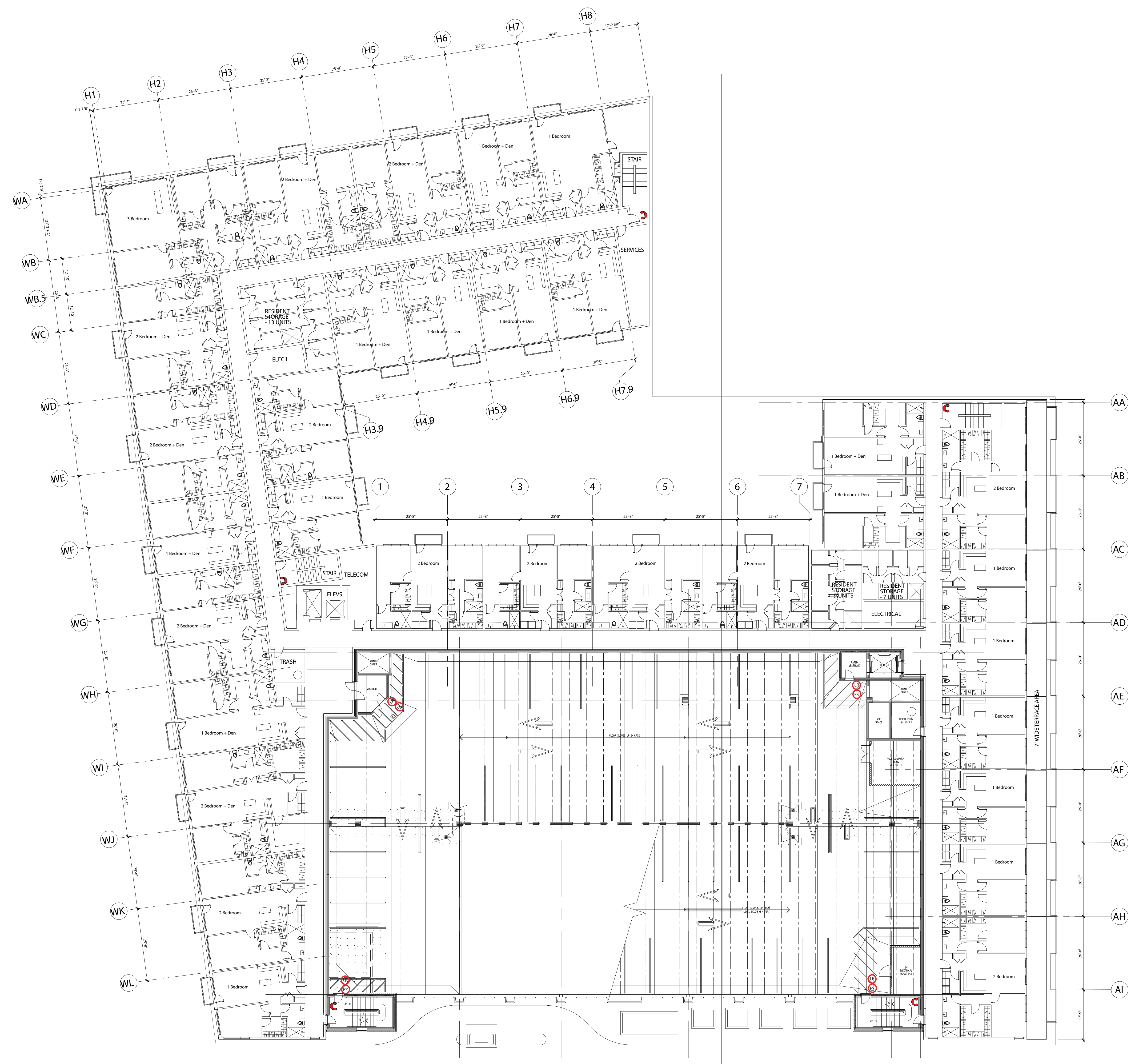
Job Number
2021089
Title
OVERALL
LEVEL 3 FLOOR PLAN

Sheet
A103

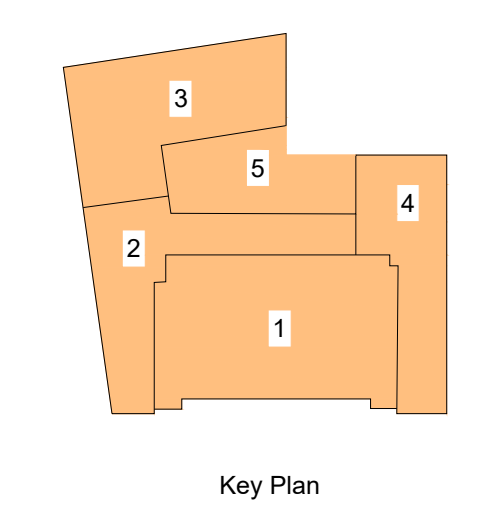
1 OVERALL LEVEL 3 FLOOR PLAN
A103 1/16"= 1'-0"



FHS-BHM
Adams/Haynes Mixed
Use Development



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- LM = Latch M - Non Wired
- LC = Latch C - Non Wired
- ES = Latch C - Non Wired
- PS = Power Supply
- GS = Volume Control (1) Cat6 (1) 14/2
- ER = Audio Equipment/Stereo Receiver
- CS = Ceiling Speaker
- WS = Wall Speaker
- RS = Rock Speaker



Issued for

1 OVERALL LEVEL 4 FLOOR PLAN
A104 1/16"= 1'-0"

12.16.2021 100% SD

Drawn	☐ Preliminary
NLH	☐ Construction
Checked	☐ Record

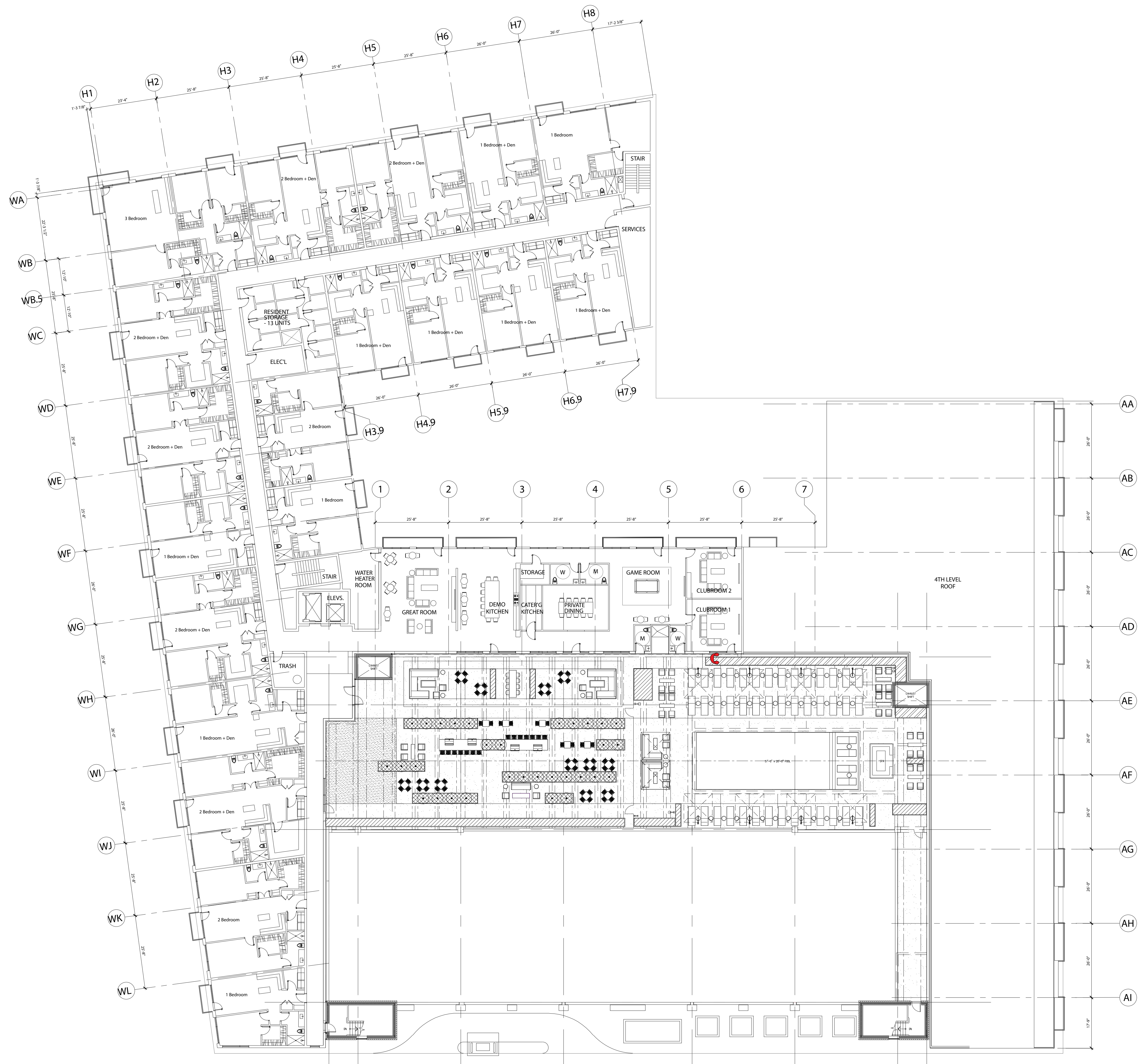
RMM
Approved

MW
Bidpak Number

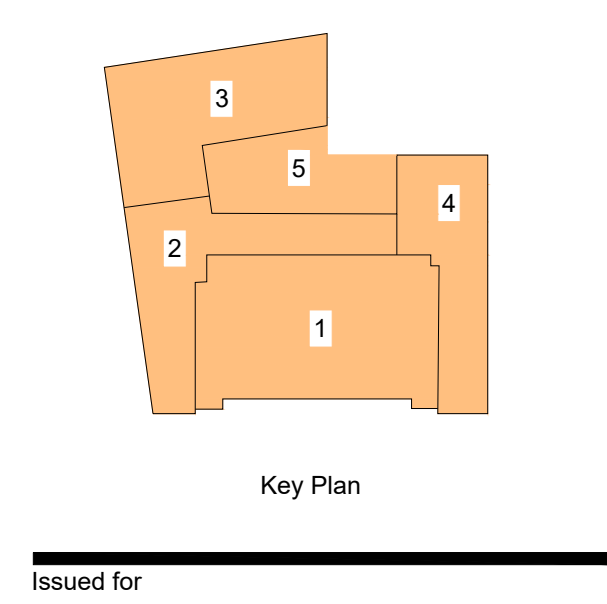
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dimensions only

Job Number
2021089

Title
OVERALL
LEVEL 4 FLOOR PLAN



- SAT = Satellite Dish Location
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- VS = Volume Control (1) Cat6 (1) 14/2
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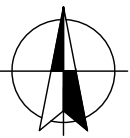
1 OVERALL LEVEL 5 FLOOR PLAN
A105 1/16"= 1'-0"

ADAMS/HAYNES DEVELOPMENT
1000 Haynes street
Michigan 48009

UNIT DATA 6TH FLOOR	
Area	Square Footage
Residential	18,343
Circulation, Storage and Trash	4680
Patio Space	3542
Total Gross S.F.	28,931
Total Net S.F.	26,565

UNIT DATA 6TH FLOOR (RESIDENTIAL)	
Type	# of Units
180C	1
18 (SHORT)	2
28 (SHORT)	6
18	1
28	1
18D	4
18D-2	1
28D-2	1
28-2	1
18C	1
Total Units	19

- = Satellite Dish Location
- = Main IT Closet
- = Sub IT Closet
- = Riser Closet
- = Unit Media Center - (1) 2ct Fiber (1) RG6/11
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4.10 LEED Project Checklist



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)



Application & Supporting Docs.



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

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@WWRP.LAW.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.

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

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

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

- 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.

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: _____

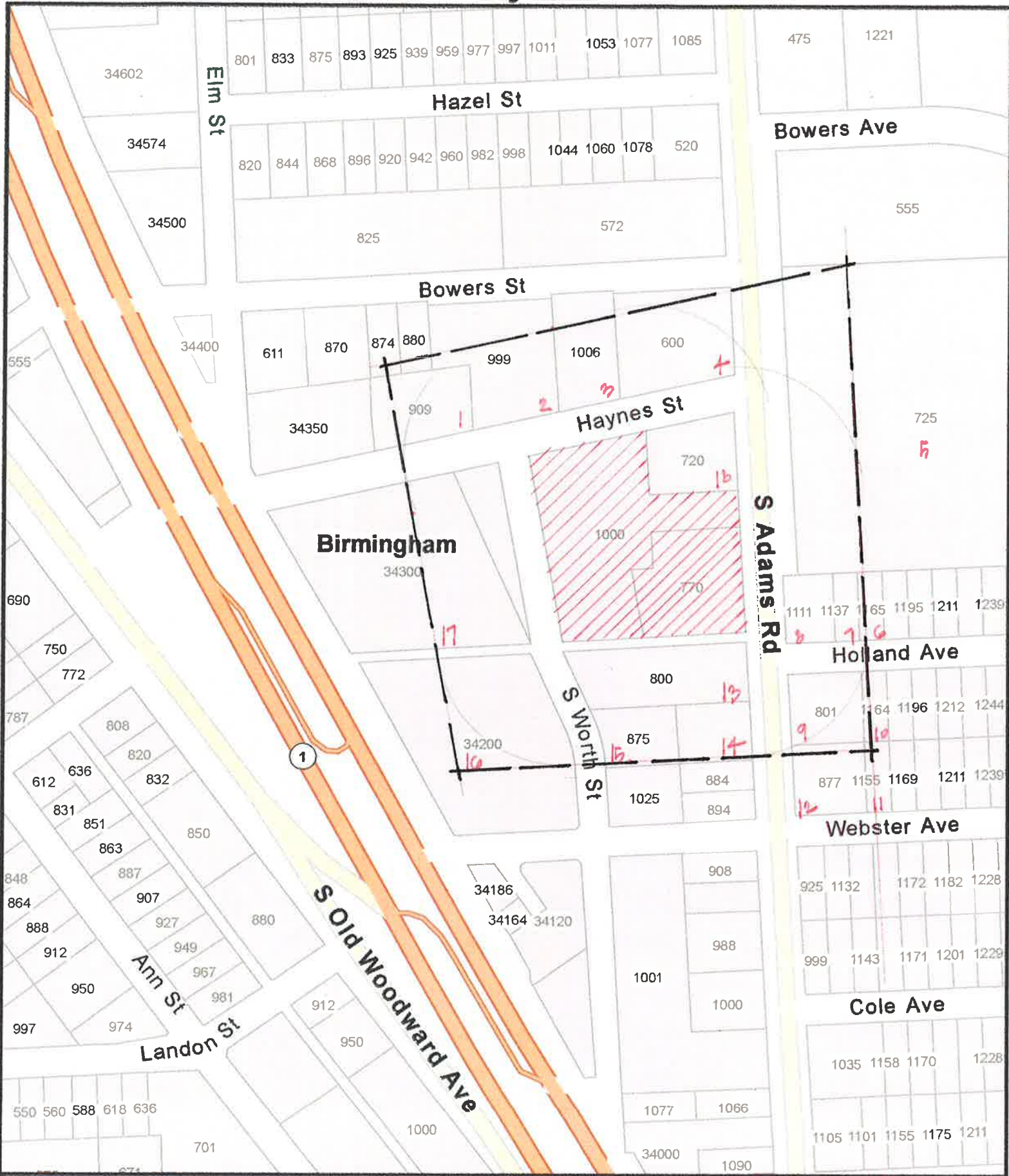
Screenwall material: _____
Location of screenwall: _____

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 (detached) - 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? _____

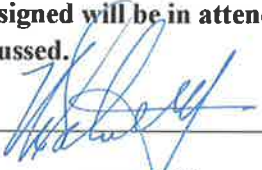
Property #6

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? _____

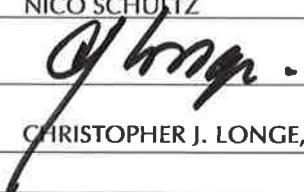
The undersigned states the above information is true and correct, and understands that it is the responsibility of the applicant to advise the Planning Division and / or Building Division of any additional changes made to an approved site plan. The undersigned further states that they have reviewed the 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:

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

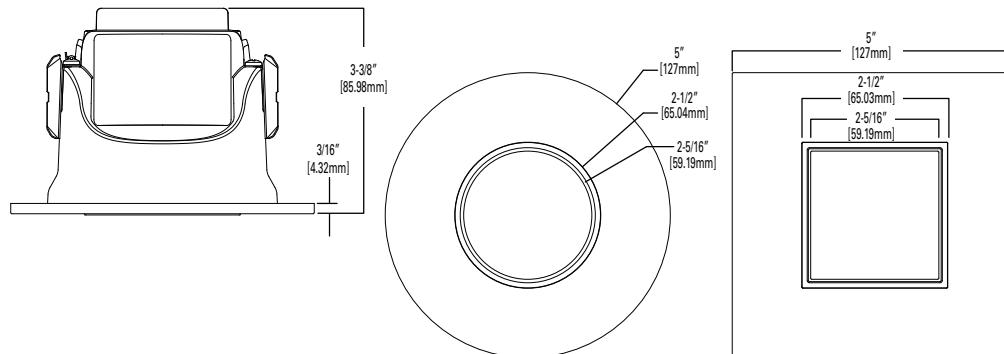


Refer to ENERGY STAR® Qualified Products List. Can be used to comply with California Title 24 High Efficacy requirements. Certified to California Appliance Efficiency Database under JAB8. Indoor LED nominal CCT of 4000K or less.



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)

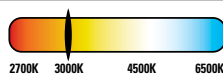
Photometry

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

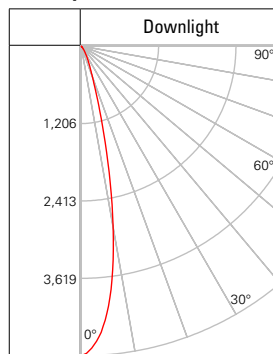
Color Metric Summary

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

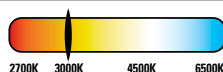
DD = distance down to illuminated work plane
FC = initial foot-candles at nadir
DIA = diameter

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

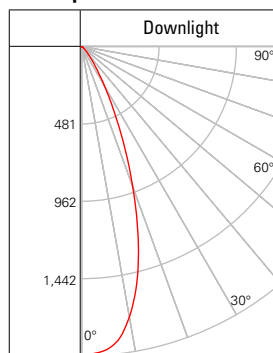
Color Metric Summary

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

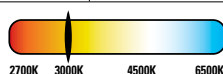
DD = distance down to illuminated work plane
FC = initial foot-candles at nadir
DIA = diameter

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

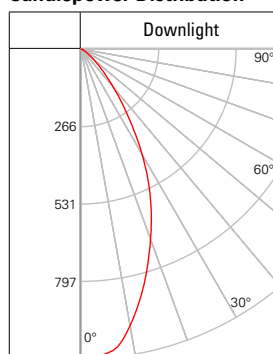
Color Metric Summary

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

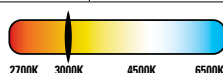
DD = distance down to illuminated work plane
FC = initial foot-candles at nadir
DIA = diameter

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

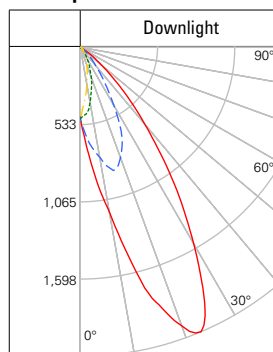
Color Metric Summary

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 Certification



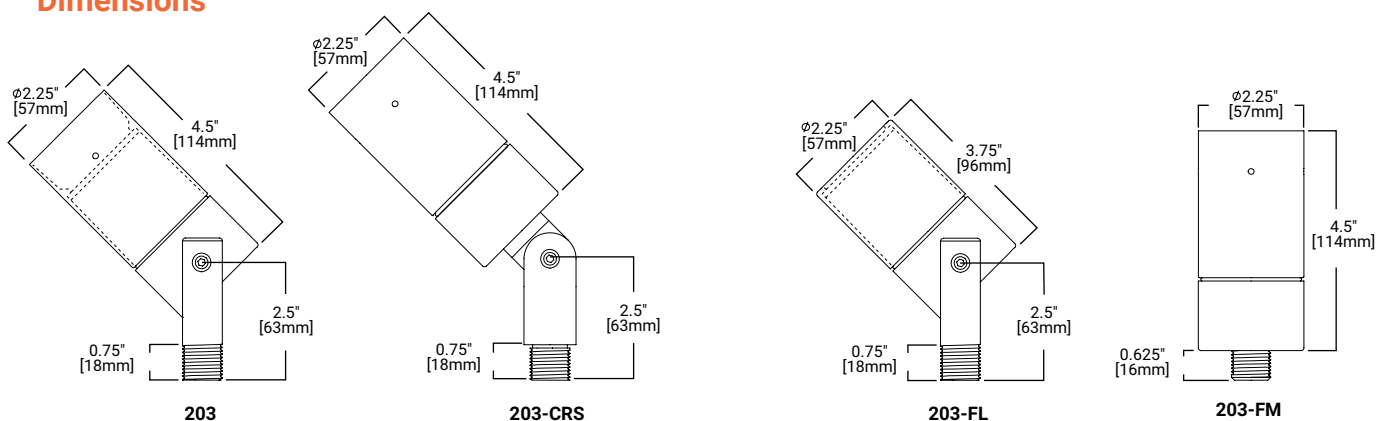
Product Features



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

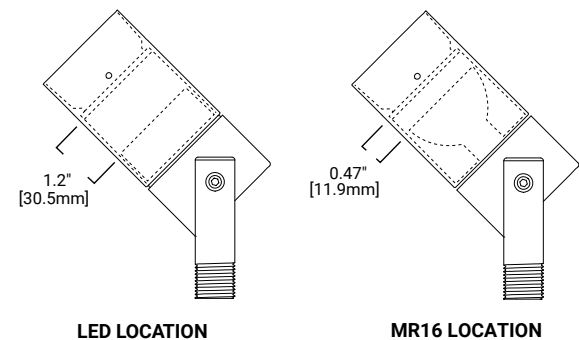
SAMPLE ORDER NUMBER: 203-FL-50MR16-12-NSS

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=LED or MR16 Cambria Accent Fixture	____=Standard Side Swivel Stem, 1/2" NPS CRS=Center Rear Swivel Stem, 1/2" NPS FM=Rear Flush Mount, 1/2" NPS FL=Flush Lens, Side Swivel Stem, 1/2" NPS	50MR16=50W max. Halogen MR16 (lamp not included) 8LED=8W LED 27=2700K 30=3000K 40=4000K* 5LED=5W LED AM=Amber* (585-595nm) 25=25° Narrow 10=10° Spot 25=25° Narrow 36=36° Wide	12=12V	Painted BK=Black BZ=Bronze CS=City Silver VE=Verde WT=White Premium Finish NBR=Natural Brass NCP=Natural Copper NBZ=Natural Bronze* NSS=Natural Stainless Steel
Notes	Notes	Notes * Not Title 20 compliant.	Notes	Notes * For natural bronze ROHS material consult factory.

Optical Accessories - Order Separately

Filters (2.00" Diameter)	Optical Lenses (2.00" Diameter)	Optical Louvers (2.00" Diameter)
F71 =Peach Dichroic F72 =Amber Dichroic F73 =Green Dichroic F74 =Medium Blue F75 =Yellow Dichroic F76 =Red Dichroic F77 =Dark Blue Dichroic F78 =Light Blue Dichroic F79 =Neutral Density Dichroic F80 =Magenta Dichroic F22 =Red Color F33 =Blue Color F44 =Green Color F55 =Yellow Color F66 =Mercury Vapor	LSL =Linear Spread Lens (elongates standard beam spread) DIF =Diffused lens (provides even illumination) OSL =Overall Spread Lens (increases standard beam spread)	LVR =45° Hex Cell Louver (reduces glare)
Notes	Notes	Notes

Lamp or LED Module Replacement



Mounting Accessories - Order Separately

Ground Mounting	Surface / Wall Mounting	Low Voltage Tree Mounting
Ground Mounting	Surface / Wall Mounting -specify powder paint finish (BK,BZ,CS,VE,WT)	Low Voltage Tree Mounting -specify finish (BK,BZ,CS,VE,WT)
GS01 =1-1/2" x 6-3/4" (38mm x 171mm) cast zinc ground spike. GS03 =2-3/8" x 6-5/8" (96mm x 168mm) aluminum ground spike with integral 12V wiring compartment. Specify powder paint finish (BK,BZ,CS,VE,WT) GS04 =1" x 16-1/2" (25mm x 419mm) aluminum ground spike with integral 12V wiring compartment. Specify powder paint finish (BK,BZ,CS,VE,WT) GS05 =1" x 16-1/2" (48mm x 438mm) black polycarbonate ground spike with 2"-13" height adjustment - requires fixture with extended stem. GS08 =1-7/8" x 8" (48mm x 203mm) black ABS ground spike. GS13 =3-3/4" x 4-1/2" (95mm x 114mm) brass/stainless steel 3 prong ground spike.	FS1 =2-7/8" x 4-5/8" (73mm x 117mm) rectangular wall plate or box cover with single 1/2 NPS mounting hole. FS2 =2-7/8" x 4-5/8" (73mm x 117mm) rectangular wall plate or box cover with dual 1/2 NPS mounting holes. RS1 =4-1/2" (144mm) machined aluminum standard round wall plate with single 1/2 NPS mounting hole. RS2 =4-1/2" (114mm) machined aluminum standard round wall plate with single 1/2 NPS mounting hole. TM01 =2-3/16" x 1-1/2" (71mm x 38mm) round mount for installation on trees or other wood surfaces with 1/2 NPS mounting hole. TM05 =3-7/8" x 2" (98mm x 51mm) rectangular tree/surface mount with wiring compartment and single 1/2 NPS mounting hole.	TM04 =2-1/2" x 4-1/4" (64mm x 108mm) expanding tree strap with self adjusting tension release for one fixture mount. Designed for a maximum tree diameter of 24" (610mm). TM04-2 =two fixture mount. TM04-3 =three fixture mount. TM04-4 =four fixture mount. TM07 =tree friendly ring with adjustable stand-offs. Accommodates 18"-24" (457mm - 610mm) tree diameter. TM07-2 =two fixture mount. TM07-3 =three fixture mount. TM07-4 =four fixture mount. TM07-6 =six fixture mount.
Notes	Notes	Notes

Product Specifications

Material

- Housing, hood and mounting stem are precision-machined from corrosion-resistant billet stock 6061-T6 aluminum, C360 brass, C932 bronze*, C110 copper or 303/304 stainless steel

Finish

- Fixtures constructed from 6061-T6 aluminum are double protected by an ROHS* compliant chemical film undercoating and polyester powdercoat paint finish, surpassing the rigorous demands of the outdoor environment
- A variety of standard colors are available

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

Hood

- Hood is removable for easy relamping and accepts up to three internal accessories at once (lenses, louvers, filters) to achieve multiple lighting effects
- Model 203, 203-CRS & 203-FM: Weep holes prevent water and mineral stains from collecting on the lens, even in the straight-up position
- Model 203-FL: The flush lens design reduces fixture length, minimizes debris collection and prevents water and mineral stains from collecting on the lens

Gasket

- Housing and hood are sealed with a high temperature silicone o-ring gasket to prevent water intrusion

Lens

- Tempered glass lens, factory sealed with high temperature adhesive to prevent water intrusion and breakage due to thermal shock

Mounting Stem

- Model 203 and 203-FL include fully adjustable side-mounted swivel stem, providing 340° tilt and 360° rotation for easy aiming
- Center rear swivel (203-CRS) or stationary rear flush mount (203-FM) models are also available
- All models include 1/2" NPS threaded male fitting
- Stainless steel aim-locking mechanisms are standard (not available on 203-FM)
- Lumière's exclusive Siphon Protection System (S.P.S.) prevents water from siphoning into the fixture through its own lead wires

Hardware

- Stainless steel hardware is standard to provide maximum corrosion-resistance

Socket

- Ceramic socket with 250° C Teflon® coated lead wires and GU5.3 bi-pin base.

Electrical

- Remote 12V transformer required (not included)
- Initial power draw on LED equipped fixtures is 12 watts
- When sizing transformer use 12 watts per LED fixture
- Nominal power draw after start up is 8 watts
- LEDs are more voltage sensitive than standard halogen MR16 lamps
- The LED module is designed to operate within the range 12V +/- 1.2V. Any less or more voltage can cause premature failures

Lamp

- Halogen lamp not included
- SORAA LED modules are included
- Available in three color temperatures (2700, 3000 and 4000) or Amber (585-595nm)
- Three distributions (spot, narrow, and flood)
- Both color temperature and distribution must be specified when ordering. Soraa lamp compatible (8W Max)

Compliance

- Tested to IESNA LM-79 and LM-80

Warranty

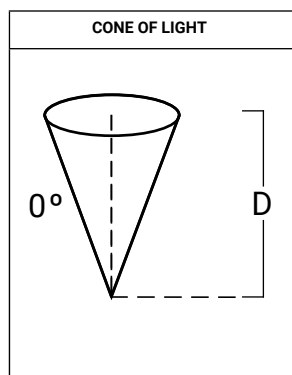
- Three year warranty standard.

*For natural bronze ROHS material consult factory.

Cambria 203 MR16 Halogen Photometric Data

[View IES files](#)

Horizontal Illuminance on Surface - Cambria 203 Standard Recessed Hood - 50W MR16



Filename	203-50MR16-12-BK-NSP.ies	
Lamp	50W MR16 NSP	
CBCP	11,000	
Distance	FC	Beam Diameter
2'	2550	1'6"
4'	638	1'0"
6'	283	1'6"
8'	159	2'0"
10'	102	3'0"
15'	45	4'0"

Filename	203-50MR16-12-BK-NFL.ies	
Lamp	50W MR16 NFL	
CBCP	3,200	
Distance	FC	Beam Diameter
2'	725	1'0"
4'	181	2'6"
6'	81	4'0"
8'	45	5'0"
10'	29	6'6"
15'	13	10'0"

CCT MULTIPLIER TABLE

LAMP WATTAGE	MULTIPLIER
20W	0.32
35W	0.57

Filename	203-50MR16-12-BK-FL.ies	
Lamp	50W MR16 FL	
CBCP	2,000	
Distance	FC	Beam Diameter
2'	431	1'6"
4'	106	3'0"
6'	48	5'0"
8'	27	6'6"
10'	17	8'0"
15'	7	12'0"

Filename	203-50MR16-12-BK-WFL.ies	
Lamp	50W MR16 WFL	
CBCP	1,200	
Distance	FC	Beam Diameter
2'	269	2'0"
4'	67	4'6"
6'	30	7'6"
8'	17	9'0"
10'	11	11'6"
15'	5	17'0"

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.
- Bare lamp data shown. Consult lamp manufacturers to obtain detailed specifications for their lamps.

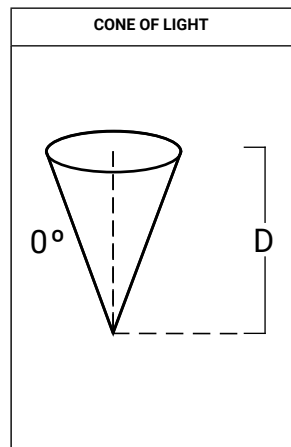
Cambria 203 LED Photometric Data

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
3. IMPORTANT: When sizing transformer use 12 watts per LED fixture. Nominal power draw after start up is 8 watts. Any less or more voltage can cause premature failures.

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)

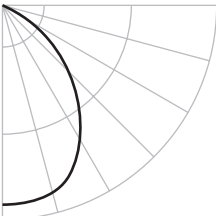
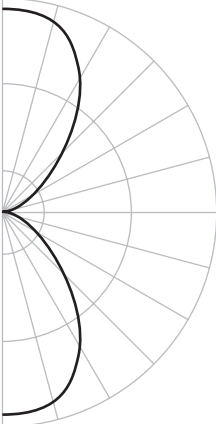
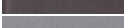
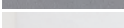
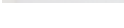
Finish: Brushed Aluminum (AL), Black (BK), Bronze (BZ), Graphite (GH), White (WT)

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;

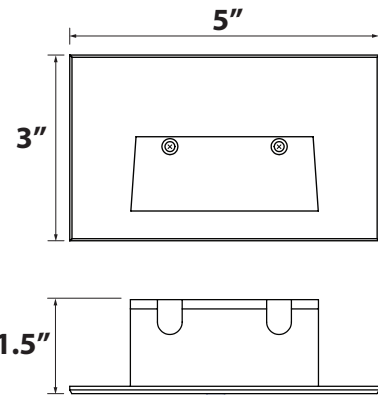
NOTE: If box is supplied by others it must have minimum inside dimensions of 3"(l) x 2"(w) x 2.5"(d) and plate mounting holes 3.22" to 3.30" apart on center.

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

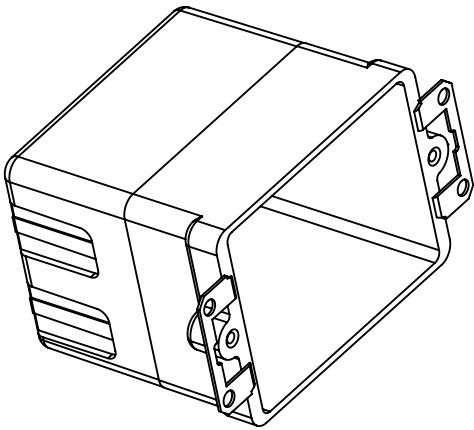
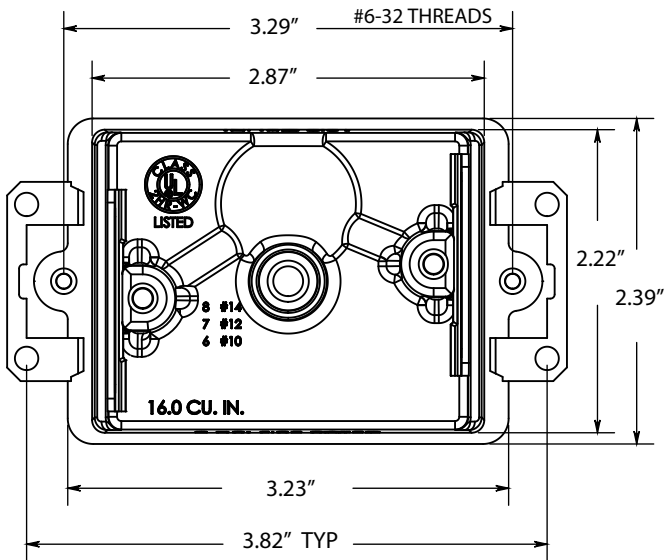
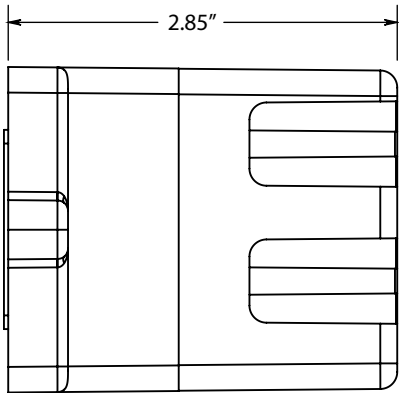
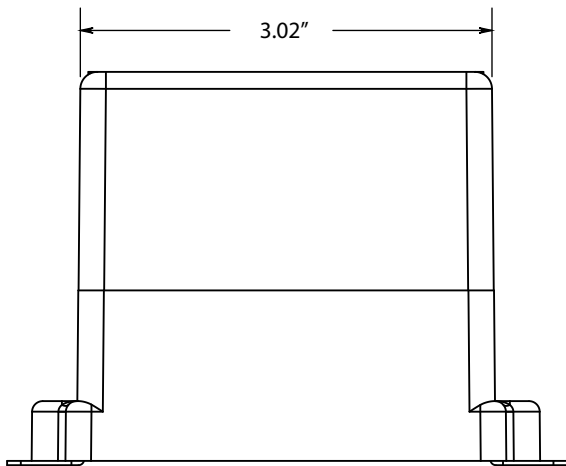
Black Texture (Standard)	Antique Verde	Bronze Texture	Camel	White Texture	Hunter Texture	Rust	Weathered Iron	Weathered Brown	Stucco	Rubbed Verde	Chrome Powder	Acid Rust	Acid Verde	Black Acid Treatment
-BLT	-ATV	-BRT	-CAM	-WTX	-HTX	-RST	-WIR	-WBR	-STU	-RBV	-CPR	-BAR/CAR	-BAV/CAV	-BAT



LED STEP LIGHTS SL-60 SERIES

TYPE

FA-SG-BOX
Single Gang Box



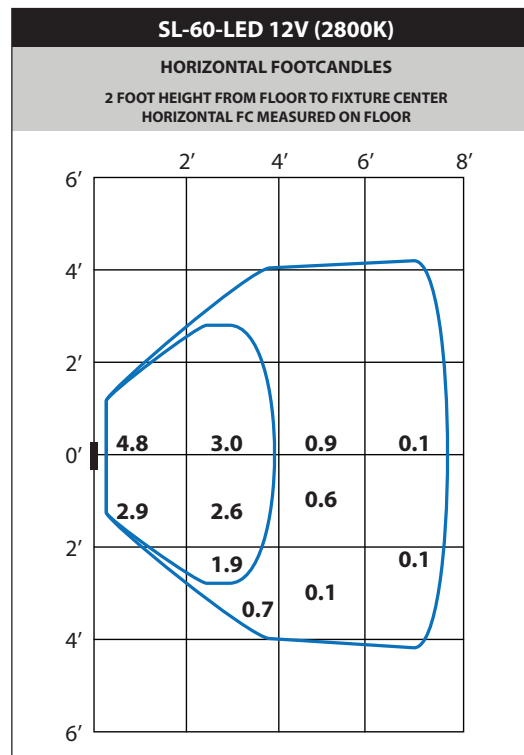
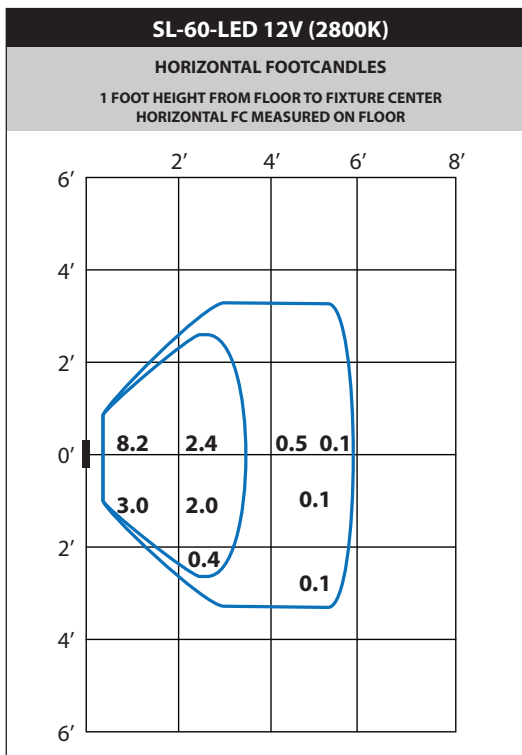
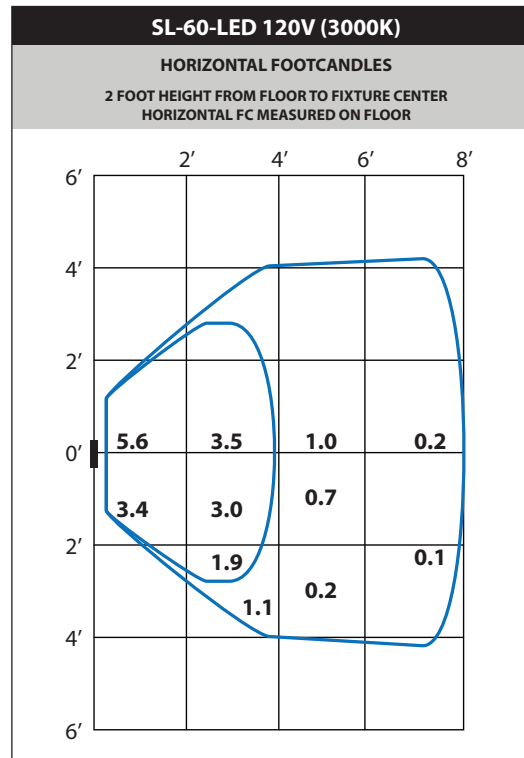
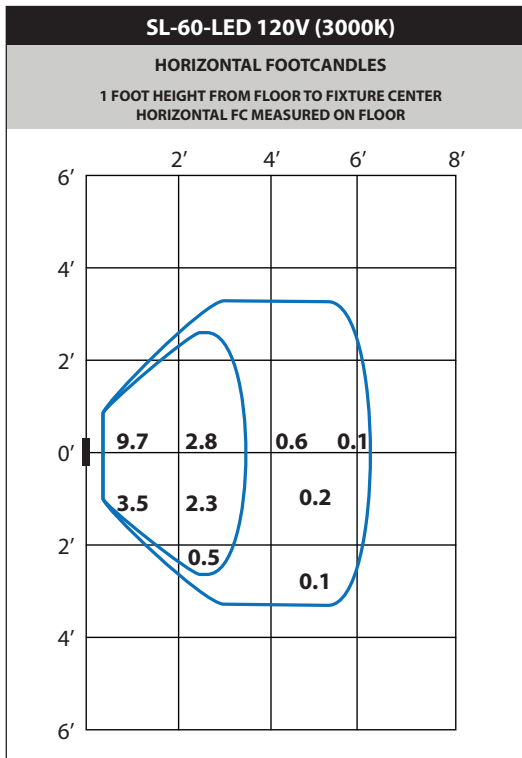
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-BLT	-ATV	-BRT	-CAM	-WTX	-HTX	-RST	-WIR	-WBR	-STU	-RBV	-CPR	-BAR/CAR	-BAV/CAV	-BAT



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

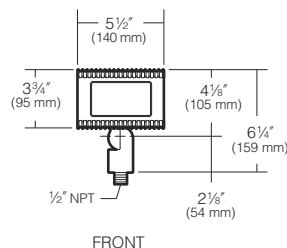
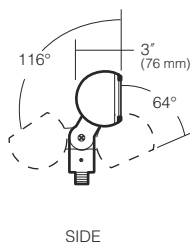
Certifications



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	Mounting Options
<u>Barn Doors</u>	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.
BD215BL Black	
BD215DB Dark Bronze	
BD215GR Verde Green	
<u>Fixed Hood</u>	
FH215BL Black	
FH215DB Dark Bronze	
FH215GR Verde Green	

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:

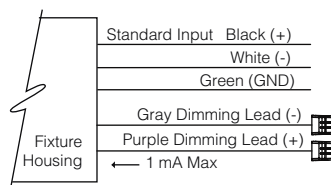
- Universal Voltage from 120 to 277V with a $\pm 10\%$ tolerance. Driver has a 0-10V dimming interface for multi-level illumination options. Driver is Underwriters Laboratories recognized.

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:

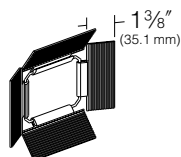
- For full warranty see <http://www.hubbellighting.com/resources/warranty>

OPTIONS

Barn Doors

BD215

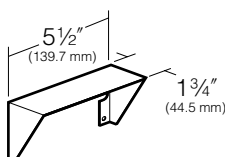
Extruded aluminum, fully adjustable. Provides beam and glare control. Available in Black, Dark Bronze or Verde Green finish.



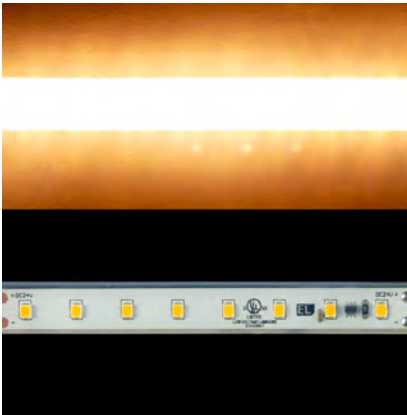
Fixed Hood

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

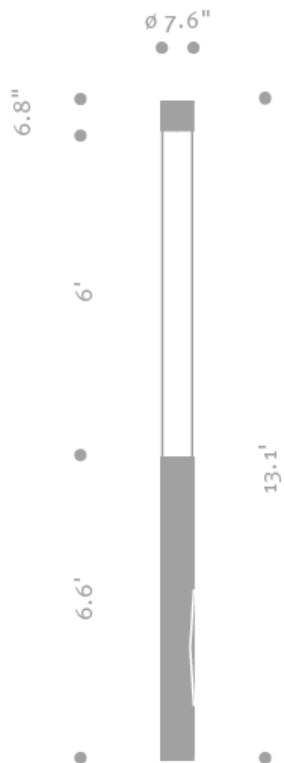
CSA/US Certified for Wet Locations

WARRANTY

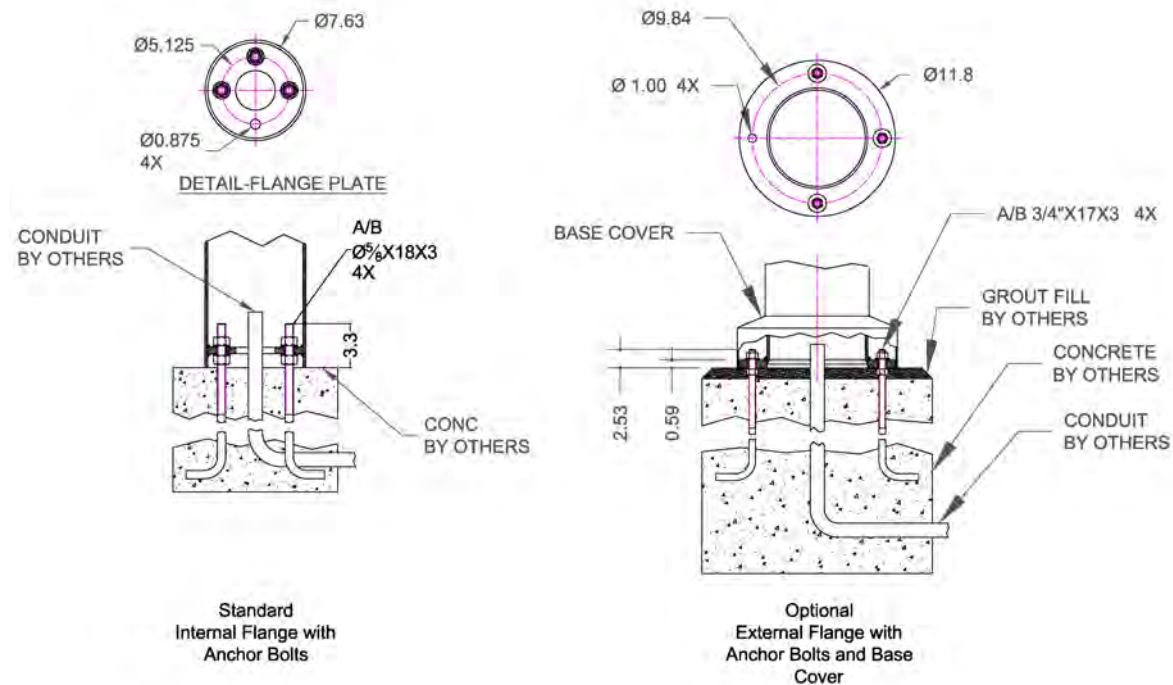
Limited product warranty period including LEDs is five years. Driver shall carry the manufacturer's limited warranty.

Additional information

Dimensions



Mounting detail



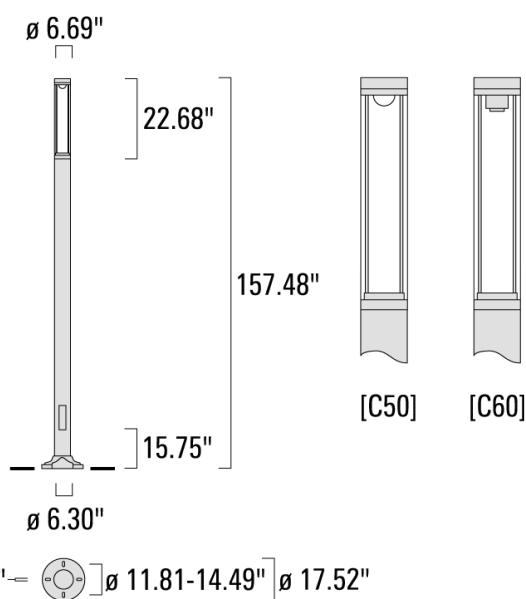
Specifications are subject to change without notification

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

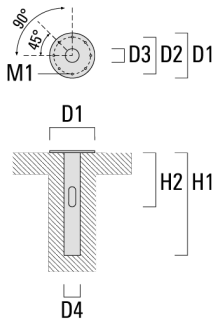
5/5



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.

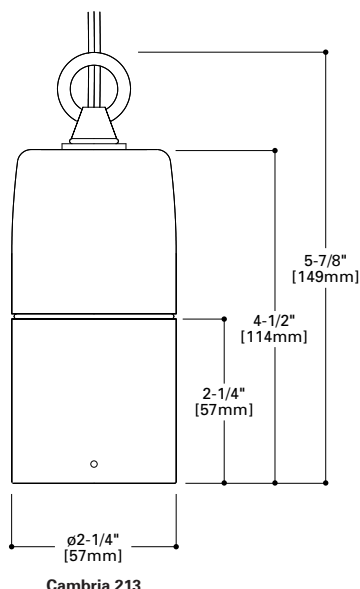


**CAMBRIA
213**

**10W LED
6W LED
50W (max.) MR16**
Halogen
Low Voltage

Accent/Flood

IP65



ORDERING INFORMATION

Sample Number: 213-6LED2712-12-BK

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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.**

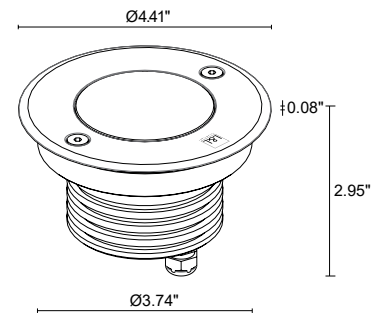
TECHNICAL DATA

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 - Diffuse		W - 16°x69°			
				D - Diffuse			

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

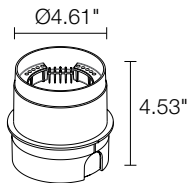
For other power supply options consult factory.

ACCESSORIES

Installation

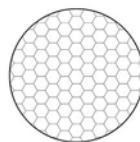


WC0105
Outer Casing
For in-grade use

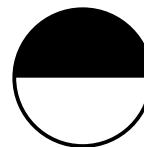


WG0400
Fixing Spring
For ceiling/wall use

Anti-glare



Honeycomb Louvre*
Can be provided on all fixed optics except for the sharp, diffuse and elliptical optics.
*Order together with lighting fixture

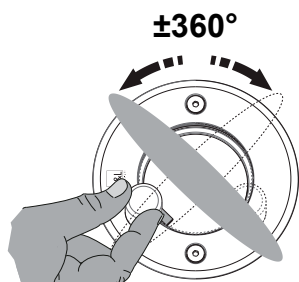


Anti-Glare Screen*
Can be provided on all optics except for diffuse optics.
*Order together with lighting fixture

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

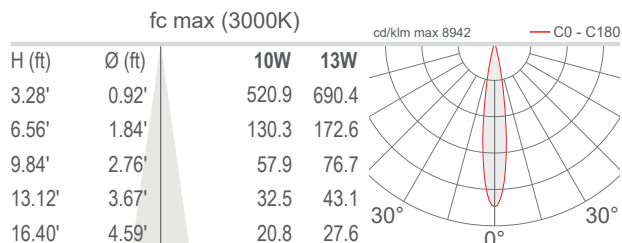
Job Name/Date:

Fixture Type Designation:

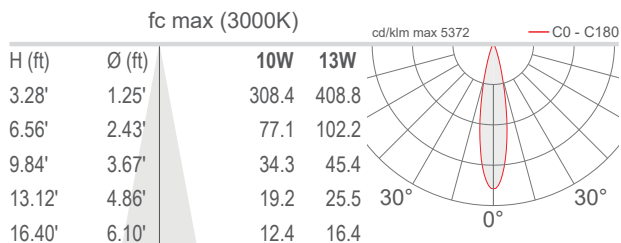
PHOTOMETRIC DATA

Note all Photometry is 3000K

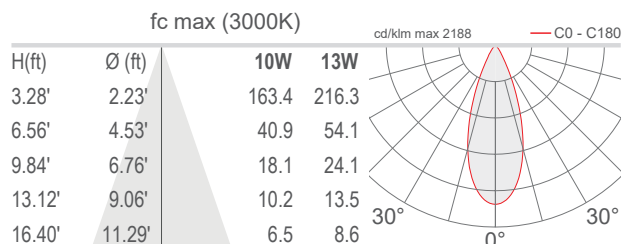
S - 16°



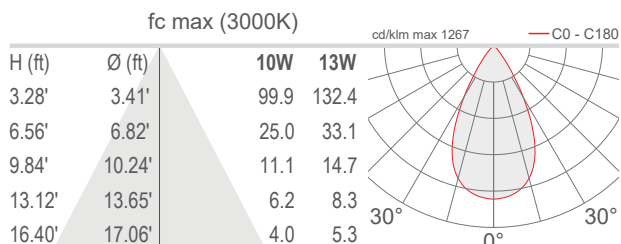
M - 21°



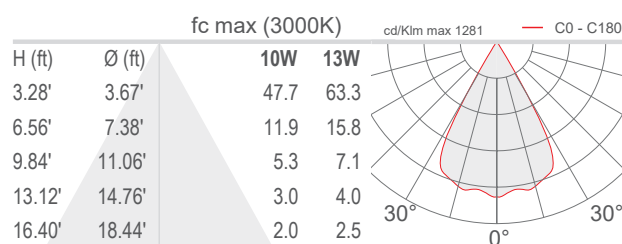
L - 38°



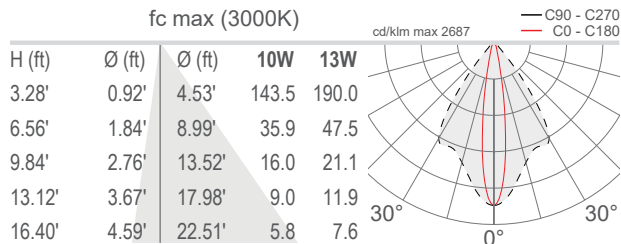
K - 55°



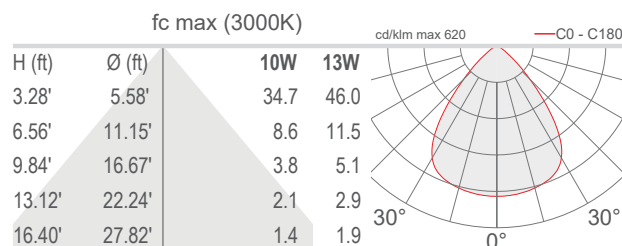
P - 58° Sharp



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



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

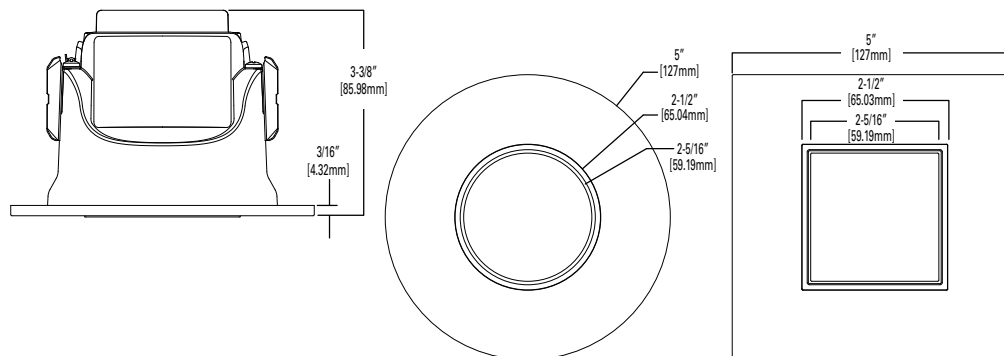


Refer to ENERGY STAR® Qualified Products List. Can be used to comply with California Title 24 High Efficacy requirements. Certified to California Appliance Efficiency Database under JAB8. Indoor LED nominal CCT of 4000K or less.



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)

FIN - model: WP-LED1

Endurance Wallpack

WAC LIGHTING
Responsible Lighting®



Fixture Type:

Catalog Number:

Project:

Location:

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)

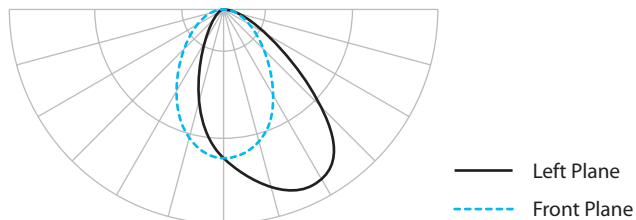
Finish: Architectural Bronze, Graphite, and White

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



PRODUCT DESCRIPTION

Die cast aluminum factory sealed housings with patent pending design for a water and dust proof IP66 rated outdoor luminaire

FEATURES

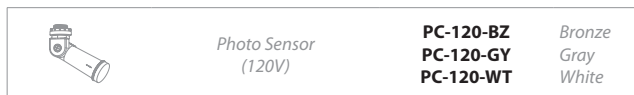
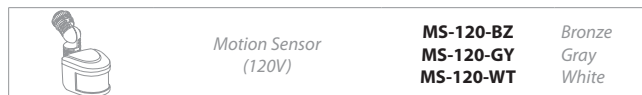
- Factory-Sealed LED Light Engine
- 20° Forward Throw Illumination
- Photo/Motion Sensor Compatible (Sold Separately)
- Built-in Level For Easy Adjustment
- Suitable to install in all directions
- Multi-Function Dimming: ELV (120V) or 0-10V
- 85 CRI
- 100,000 hour rated life

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)

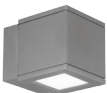
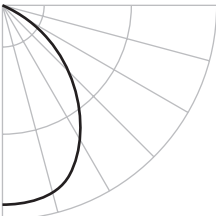
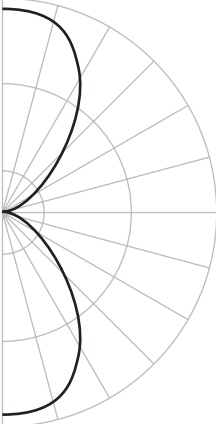
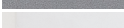
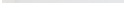
Finish: Brushed Aluminum (AL), Black (BK), Bronze (BZ), Graphite (GH), White (WT)

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" 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**

wacighting.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:

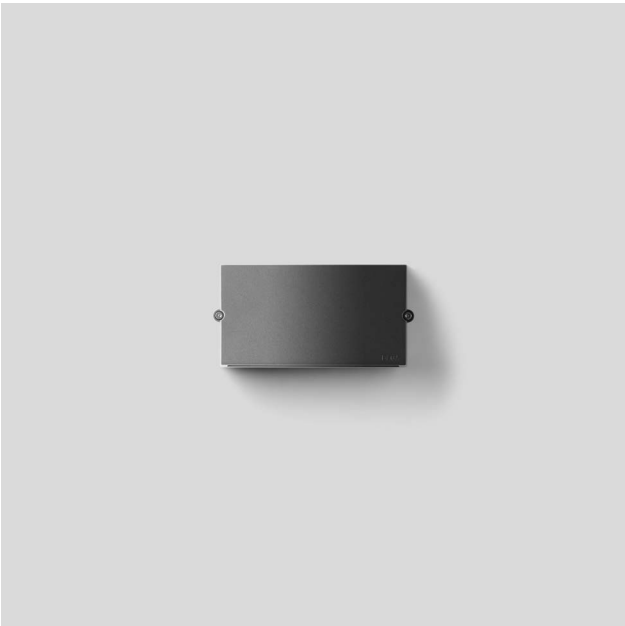
BEGA Product:

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

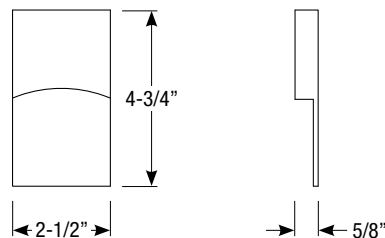
Available in bronze, silver metallic or white.

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;

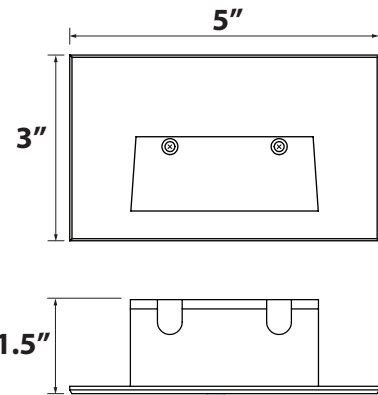
NOTE: If box is supplied by others it must have minimum inside dimensions of 3"(l) x 2"(w) x 2.5"(d) and plate mounting holes 3.22" to 3.30" apart on center.

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.
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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

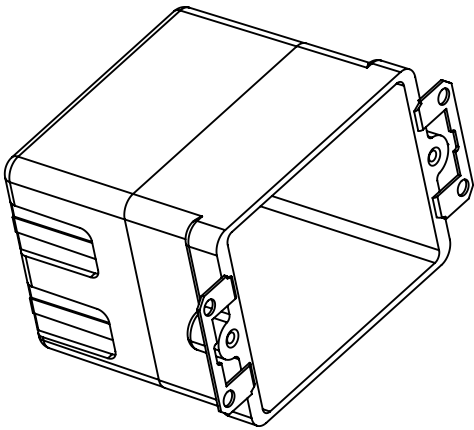
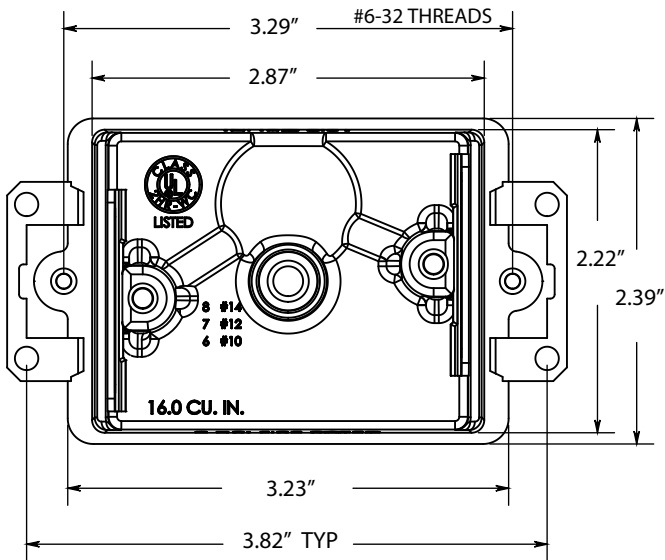
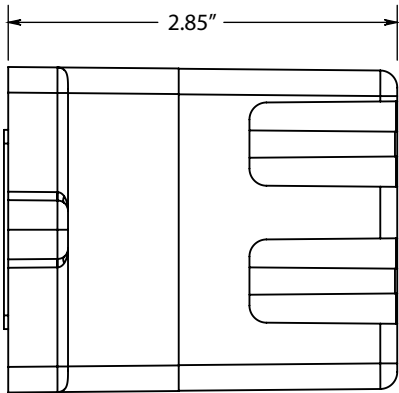
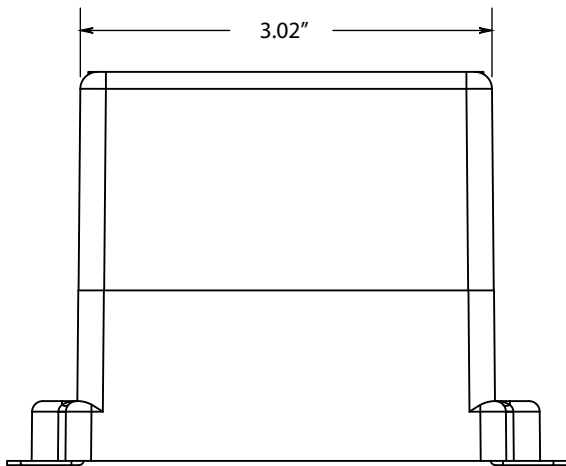
Black Texture (Standard)	Antique Verde	Bronze Texture	Camel	White Texture	Hunter Texture	Rust	Weathered Iron	Weathered Brown	Stucco	Rubbed Verde	Chrome Powder	Acid Rust	Acid Verde	Black Acid Treatment
-BLT	-ATV	-BRT	-CAM	-WTX	-HTX	-RST	-WIR	-WBR	-STU	-RBV	-CPR	-BAR/CAR	-BAV/CAV	-BAT



LED STEP LIGHTS SL-60 SERIES

TYPE

FA-SG-BOX
Single Gang Box



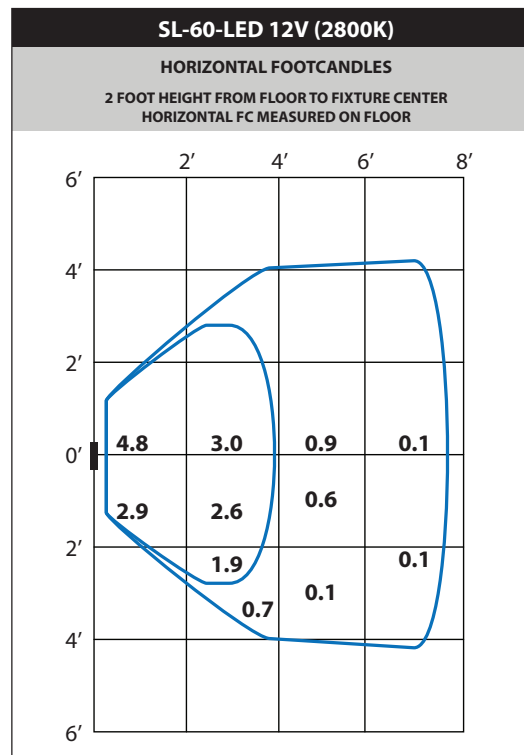
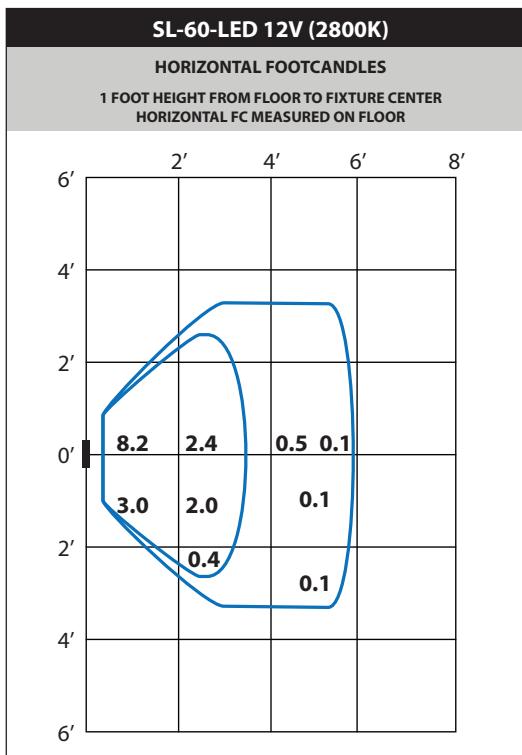
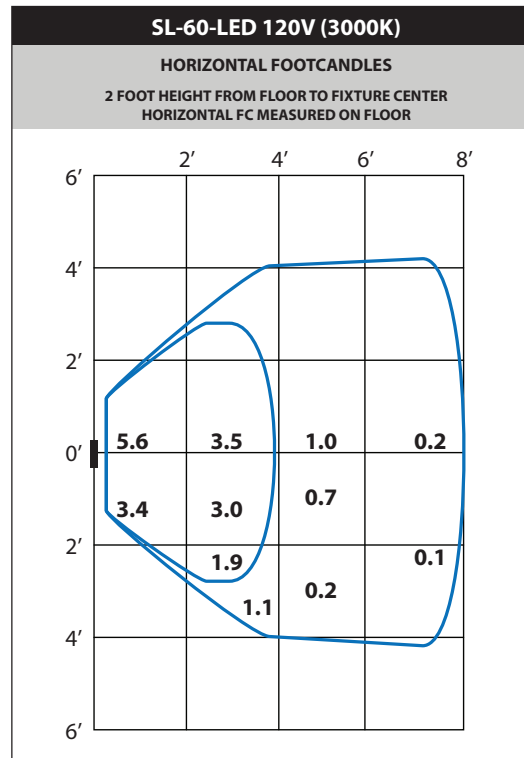
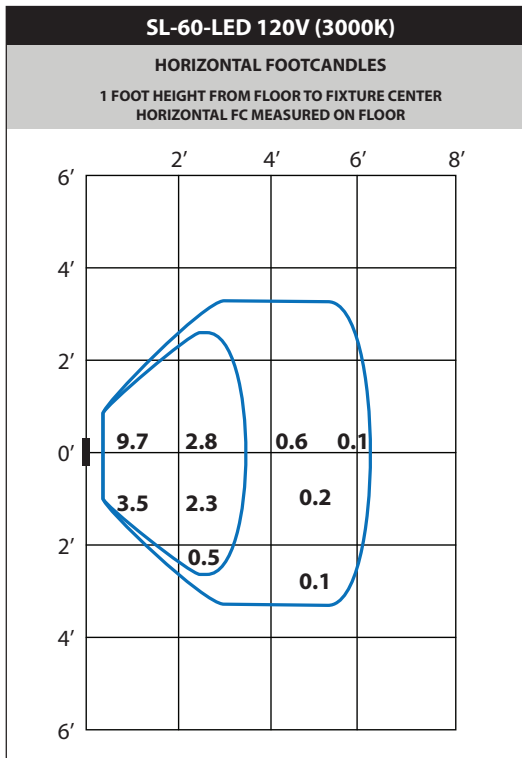
Black Texture (Standard)	Antique Verde	Bronze Texture	Camel	White Texture	Hunter Texture	Rust	Weathered Iron	Weathered Brown	Stucco	Rubbed Verde	Chrome Powder	Acid Rust	Acid Verde	Black Acid Treatment
-BLT	-ATV	-BRT	-CAM	-WTX	-HTX	-RST	-WIR	-WBR	-STU	-RBV	-CPR	-BAR/CAR	-BAV/CAV	-BAT



LED STEP LIGHTS SL-60 SERIES

TYPE

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

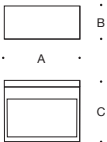
4000K - Product number + **K4**
3500K - Product number + **K35**
3000K - Product number + **K3 (EXPRESS)**
2700K - Product number + **K27**

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

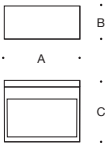
4000K - Product number + **K4**
3500K - Product number + **K35**
3000K - Product number + **K3**
2700K - Product number + **K27**

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

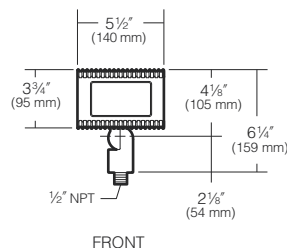
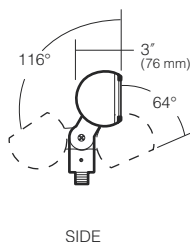
Certifications



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	Mounting Options
<u>Barn Doors</u>	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.
BD215BL Black	
BD215DB Dark Bronze	
BD215GR Verde Green	
<u>Fixed Hood</u>	
FH215BL Black	
FH215DB Dark Bronze	
FH215GR Verde Green	

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:

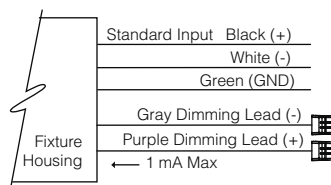
- Universal Voltage from 120 to 277V with a $\pm 10\%$ tolerance. Driver has a 0-10V dimming interface for multi-level illumination options. Driver is Underwriters Laboratories recognized.

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:

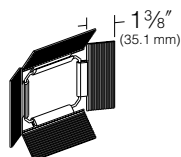
- For full warranty see <http://www.hubbellighting.com/resources/warranty>

OPTIONS

Barn Doors

BD215

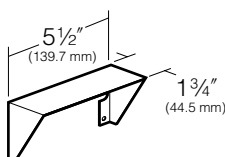
Extruded aluminum, fully adjustable. Provides beam and glare control. Available in Black, Dark Bronze or Verde Green finish.



Fixed Hood

FH215

Formed .062" thick aluminum. Provides glare control. Available in Black, Dark Bronze or Verde Green finish.

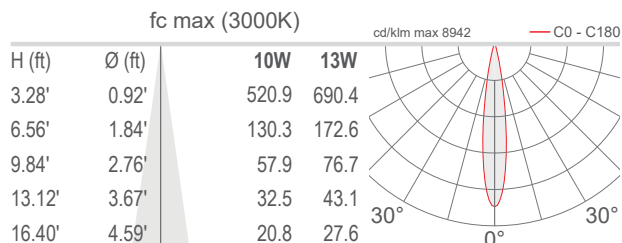


Kim Lighting reserves the right to change specifications without notice.

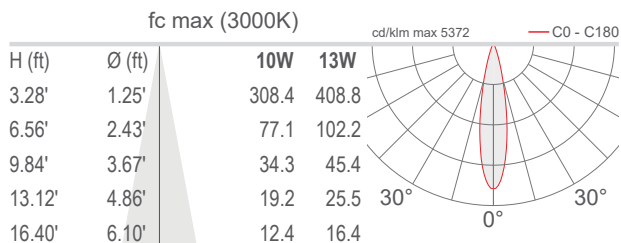
PHOTOMETRIC DATA

Note all Photometry is 3000K

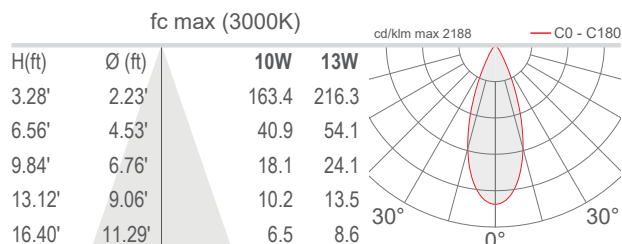
S - 16°



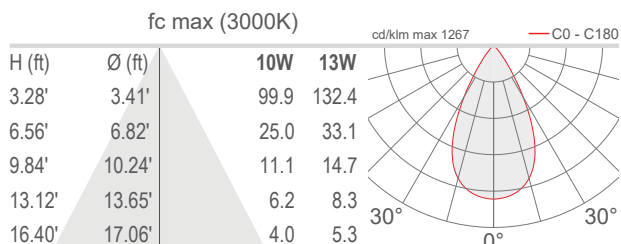
M - 21°



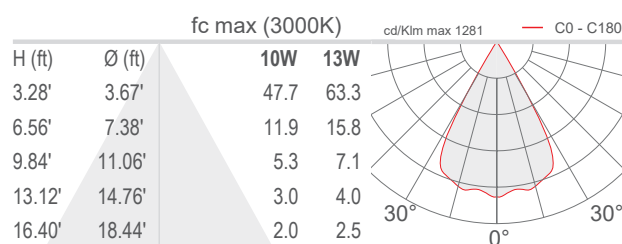
L - 38°



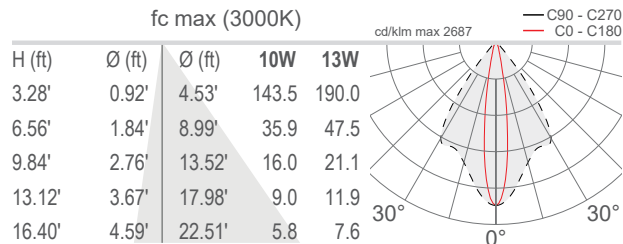
K - 55°



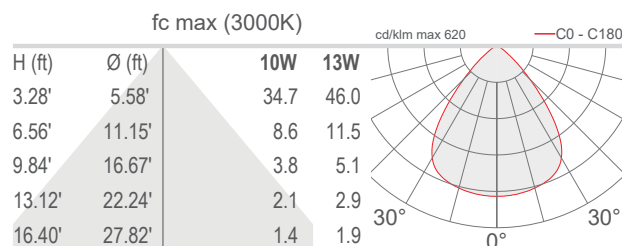
P - 58° Sharp



W - 16°x69° Orientabile / Adjustable



D - Diffuso / Diffuse

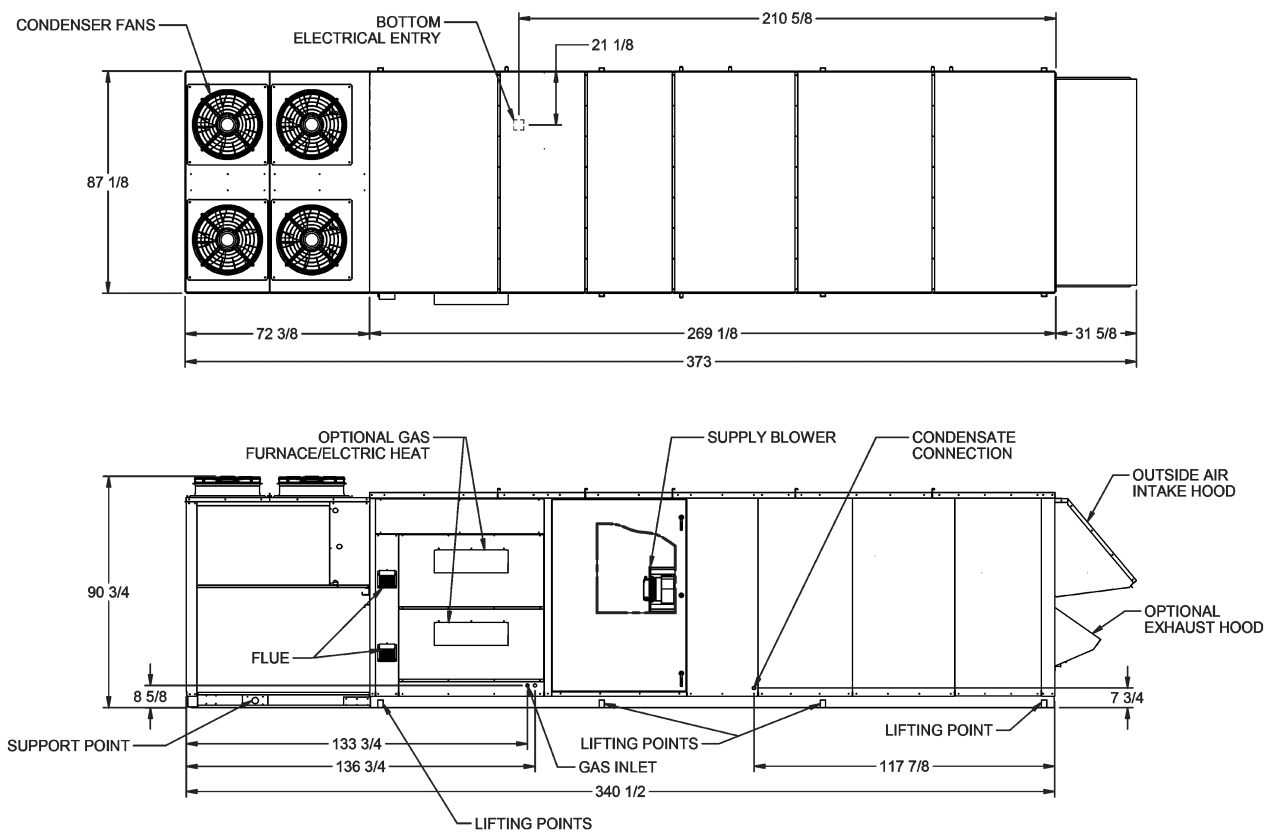


Job Name/Date:

Fixture Type Designation:

0504I-2598 - *R D4XL CAB-1

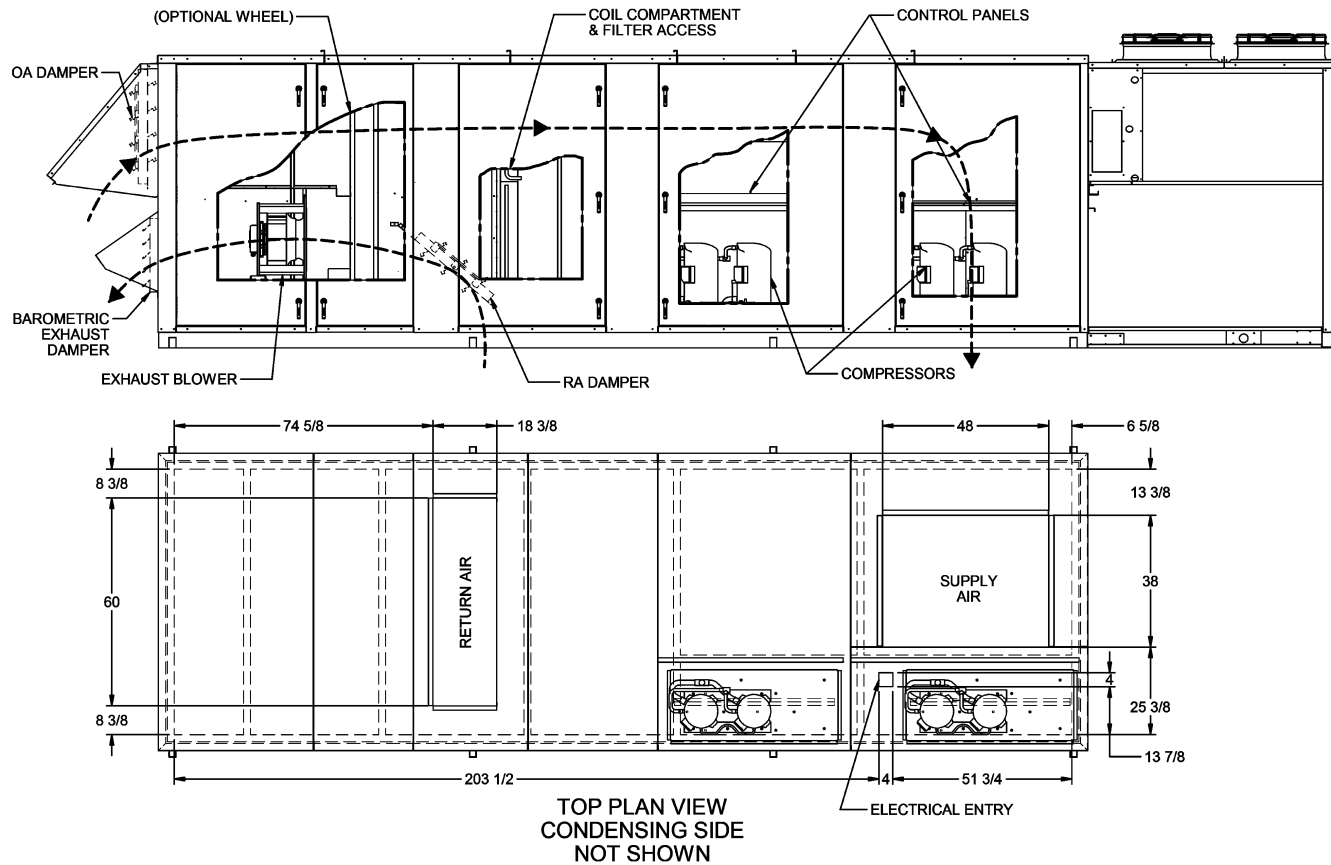
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0504I-2598 - 1
*R D4XL CAB
05/2017

0504I-2598 - *R D4XL CAB-2

Qty: 1 Tags: ERV-1

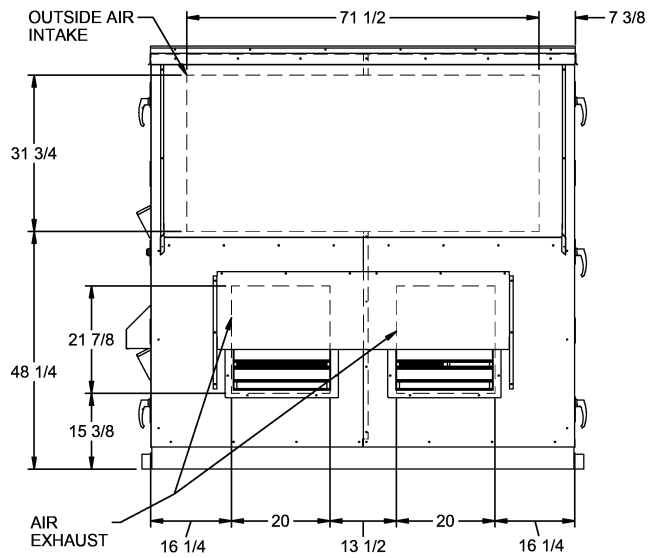


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*R D4XL CAB
05/2017

0504I-2598 - *R D4XL CAB-3

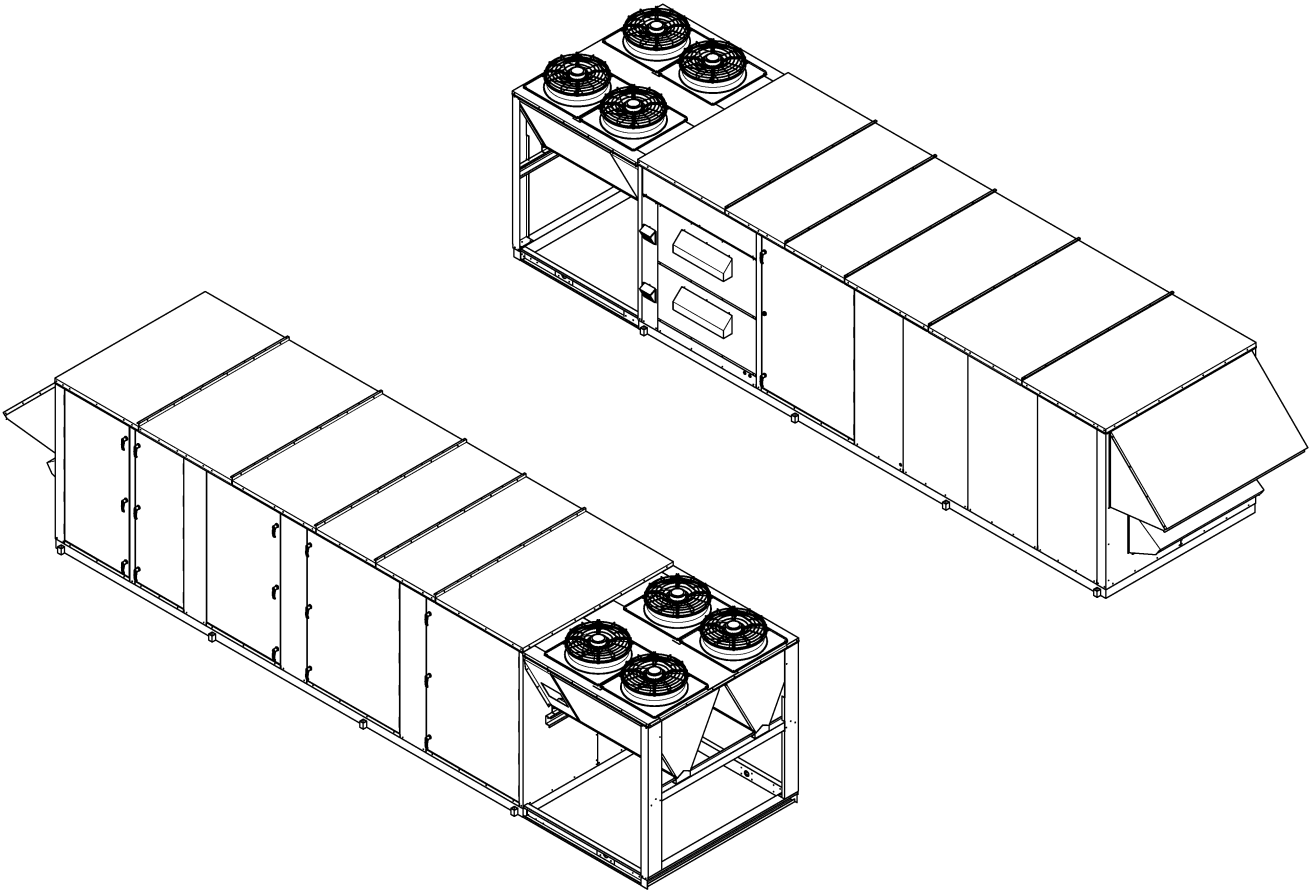
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0504I-2598 - 3
*R D4XL CAB
05/2017



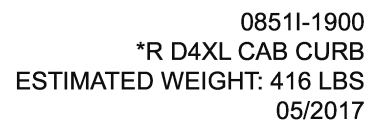
0504I-2598 - *R D4XL CAB-4

Qty: 1 Tags: ERV-1



0504I-2598 - 4
*R D4XL CAB
05/2017

Qty: 1 Tags: ERV-1





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

Supply Airflow:	6000	CFM	Ambient Air DB:	95.0	F
Outside Airflow:	6000	CFM			

Filter Information

Filters:	25x20(2), 25x16(2)
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	ft/min
Leaving Air DB / WB (Max. Reheat):	74.6 / 60.3	F	Cooling Coil Air PD:	0.54	in H ₂ O
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 H ₂ O

Energy Conservation Wheel ECW 484**Cooling**

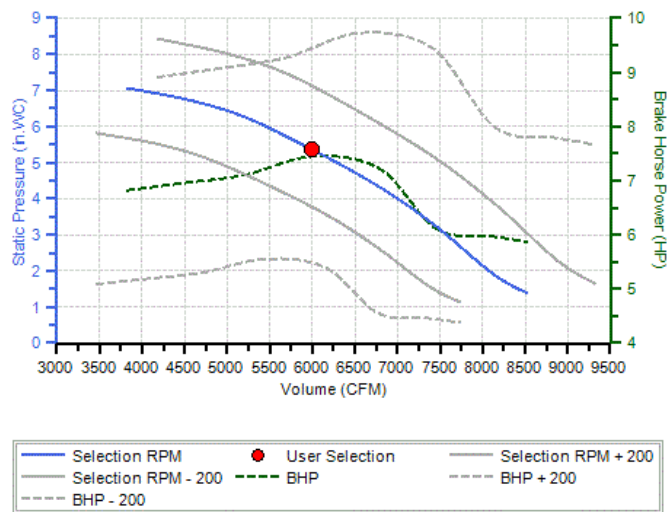
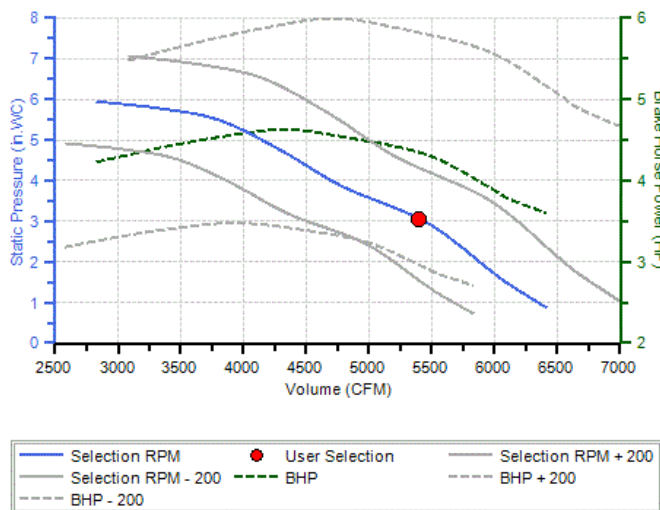
Outside Airflow:	6000	CFM	Outside Air DB / WB:	95.0 / 78.0	F
Pre-treated OA:	6000	CFM	Pre-treated OA DB / WB:	82.9 / 70.2	F
Return Airflow:	0	CFM	Return Air DB / WB:	75.0 / 63.0	F
Exhaust Airflow:	5400	CFM	Exhaust Air DB / WB:	87.7 / 72.5	F
			Supply Air PD:	1.30	in H ₂ O
			Exhaust Air PD:	1.22	in H ₂ O
			Total Capacity:	190.09	MBh

Heating

Outside Air DB / WB:	0.0 / 0.0	F
Pre-treated OA DB / WB:	37.3 / 35.6	F
Return Air DB / WB:	70.0 / 58.0	F
Exhaust Air DB / WB:	22.1 / 25.0	F
Supply Air PD:	1.50	in H ₂ O
Exhaust Air PD:	1.22	in H ₂ O
Total Capacity:	333.25	MBh

Filters:

Pleated Filter Media:	sq.ft	Latent Effectiveness:	58	%	Latent Effectiveness:	62	%
		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

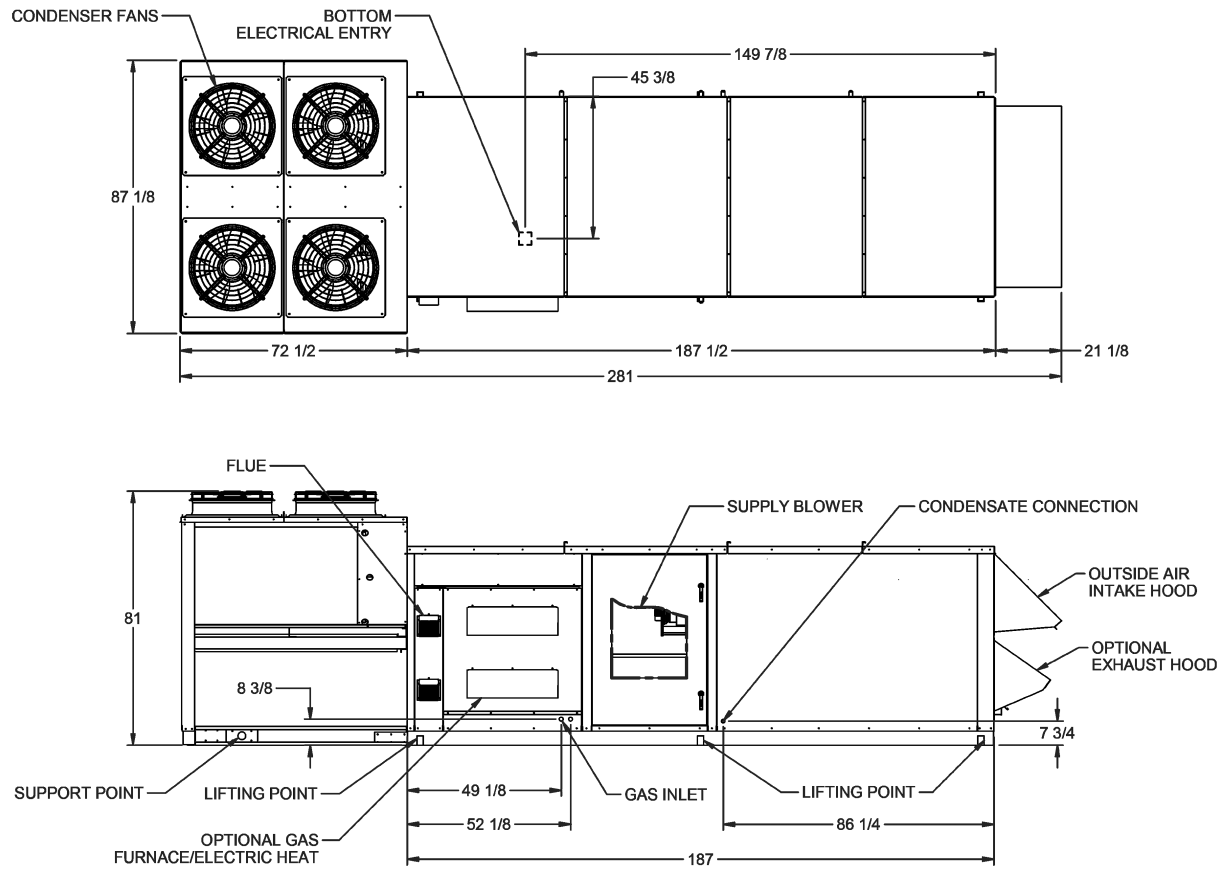
<u>Name/Type</u>	<u>Fan Service</u>	<u>Qty</u>	<u>HP (ea.)</u>	<u>FLA (ea.)</u>	<u>RLA (ea.)</u>	<u>LRA (ea.)</u>
ECW		1	0.5	1.3		
460-3 ODP Hi E (4 pole)	Exhaust	1	5	6.3		
Scroll		2			18.6	125.0
460-3 ODP Hi E (4 pole)	Supply	1	10	12.4		
630mm AC Condenser Fan	Condenser	4	1.3	1.6		

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

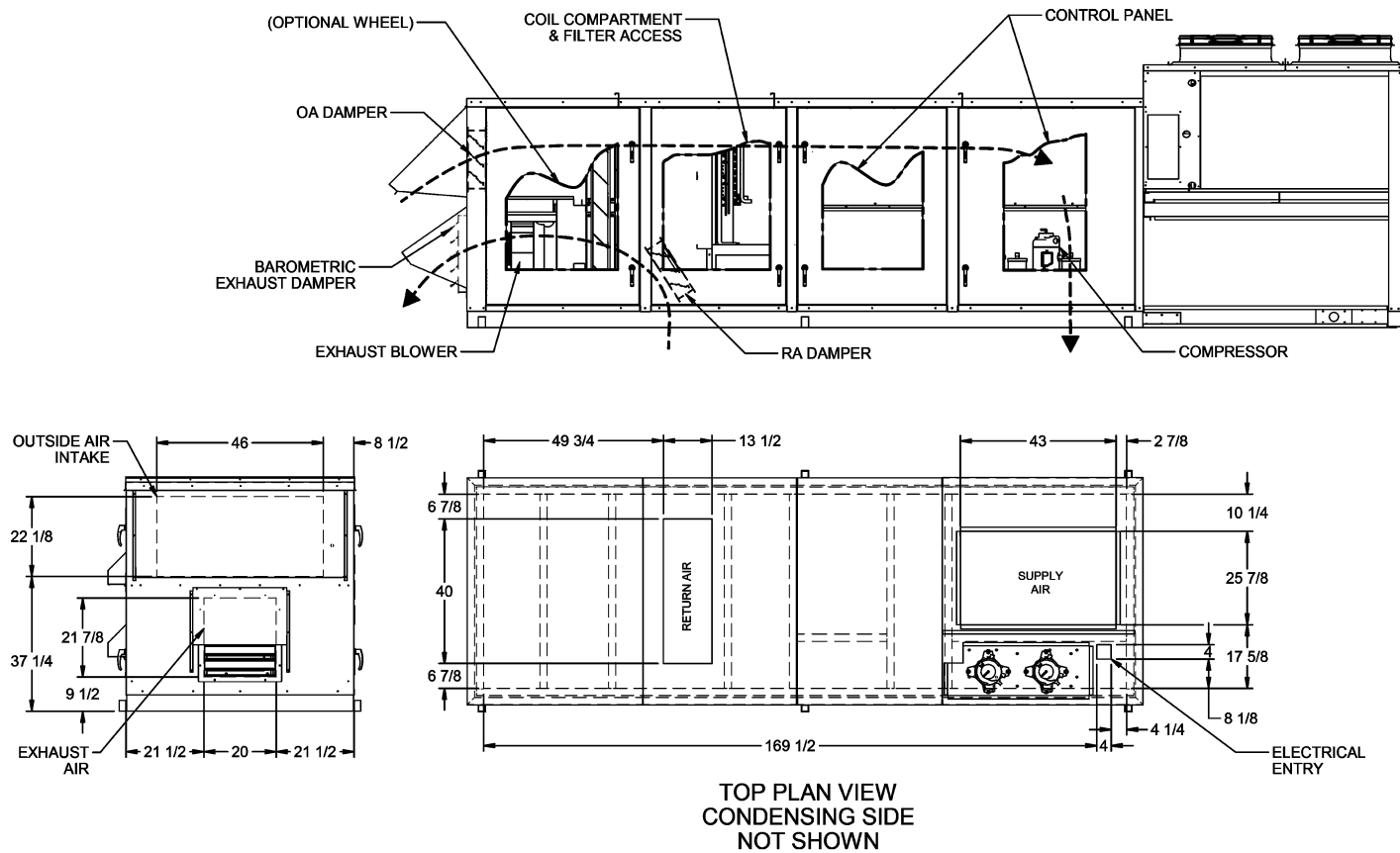
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0504I-2553 - 1
*R C4XL CAB
05/2017

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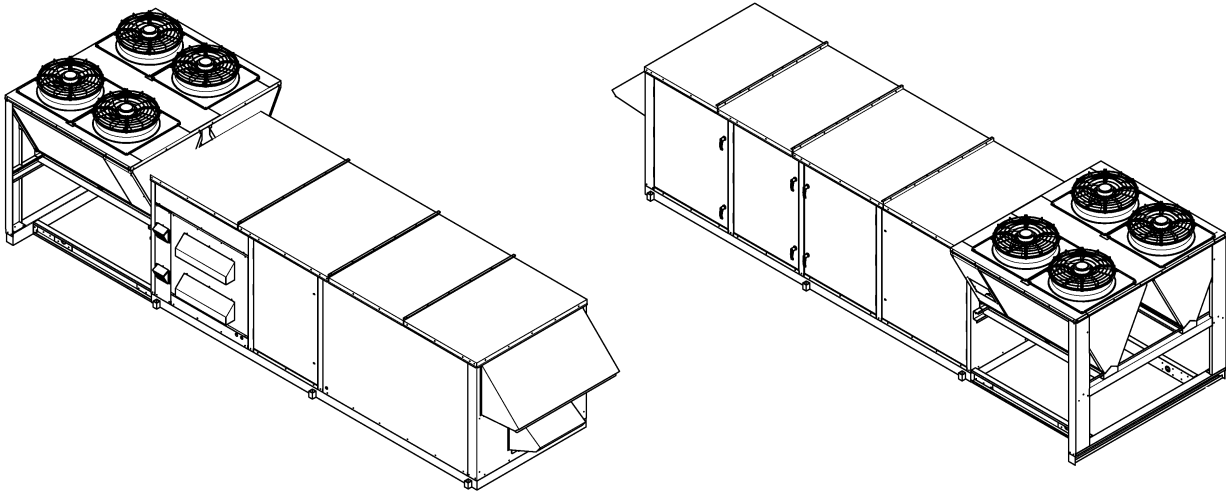


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*R C4XL CAB
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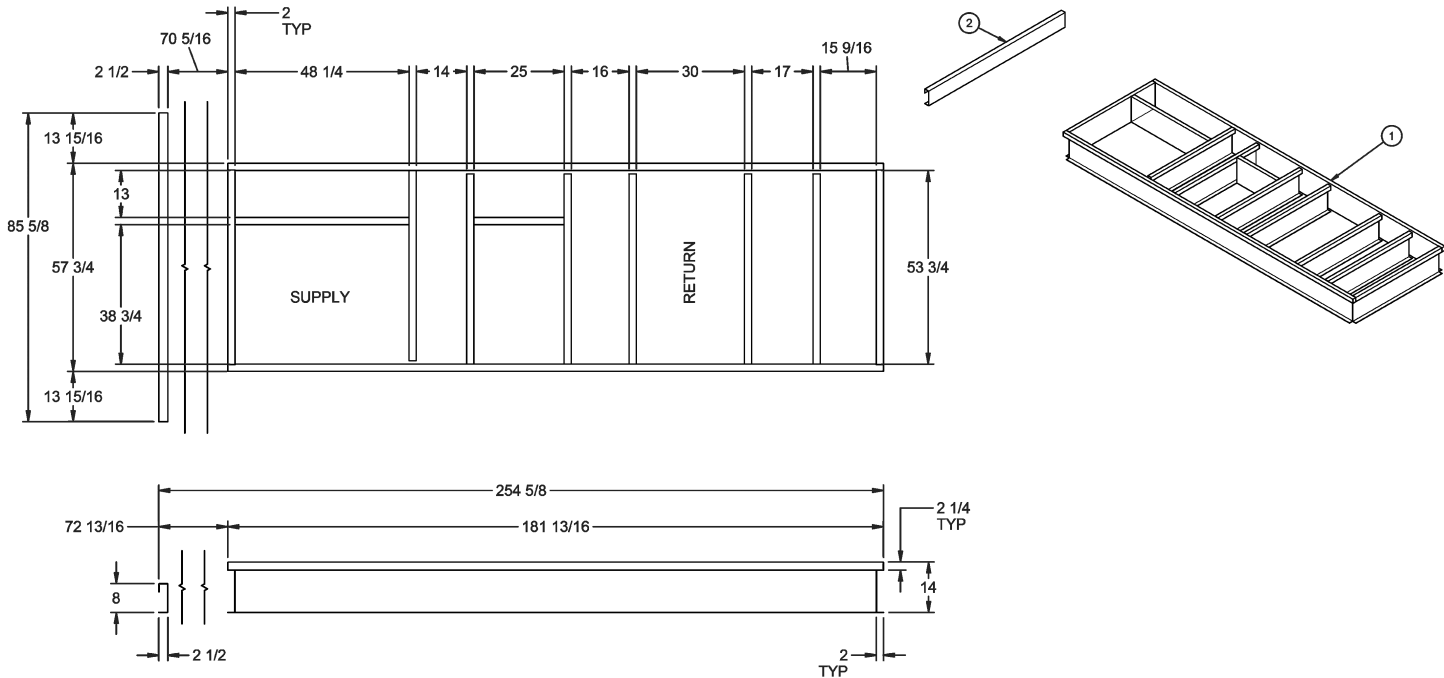
0504I-2553 - 3
*R C4XL CAB
05/2017



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



Nicholas Dupuis <ndupuis@bhamgov.org>

Is this a done deal?

3 messages

Patricia B. Shayne <pattishayne@gmail.com>
To: Nick Dupuis City Bham <ndupuis@bhamgov.org>

Fri, Mar 25, 2022 at 1:37 PM

Hi

Hi Matt. Can I vote this proposal down? Right down my block. DENSITY?

Patti

Brown St. development to complement RH

A proposed four-story, mixed-use building at 294 E. Brown Street with two floors of residential units and a public courtyard and passage connecting to the future RH (Restoration Hardware) site received preliminary approval on Wednesday, March 23, from the Birmingham Planning Board.

Sincerely,
Patti Shayne

Nicholas Dupuis <ndupuis@bhamgov.org>
To: "Patricia B. Shayne" <pattishayne@gmail.com>

Fri, Mar 25, 2022 at 1:53 PM

Hello,

This has been given preliminary site plan approval, but will be coming back for a final site plan approval in the coming months. You can submit a comment to me at any time to forward to the planning board.

[Quoted text hidden]

--

Nicholas J. Dupuis
Planning Director



Email: ndupuis@bhamgov.org
Office: 248-530-1856
Social: [Linkedin](#)

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.

Patricia B. Shayne <pattishayne@gmail.com>
To: Nicholas Dupuis <ndupuis@bhamgov.org>

Fri, Mar 25, 2022 at 2:47 PM

3/25/22, 3:57 PM

City of Birmingham MI Mail - Is this a done deal?

Comment. Too dense for the area.

Sincerely,
Patti Shayne

On Mar 25, 2022, at 1:53 PM, Nicholas Dupuis <ndupuis@bhamgov.org> wrote:

[Quoted text hidden]

AGENDA
REGULAR MEETING OF THE BIRMINGHAM PLANNING BOARD
WEDNESDAY APRIL 13, 2022
151 MARTIN ST., CITY COMMISSION ROOM 205, BIRMINGHAM MI *
*******7:30 pm*******

Michigan and Oakland County are at a substantial rate of COVID-19 community transmission. Per Occupational Safety and Health Administration (OSHA) mask guidance for areas of high or substantial community transmission levels, and to continue to protect essential government operations and functions, the city requires masks in City Hall for all employees, and for board and commission members. Masks are recommended for members of the public who attend city meetings. The city continues to provide KN-95 respirators for all in-person meeting attendees.

- A. Roll Call**
- B. Review and Approval of the Minutes**
- 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**
 - 1. **191 N. Chester – OneStream –Design Review request for new dumpster enclosure**
- J. Study Session**
 - 1. **Outdoor Dining Ordinance – Public Hearing**
 - 2. **Side Yard A/C Units – Study Session**
 - 3. **Barrier-Free Ramps – Study Session**
 - 4. **Front Yard Setbacks – Study Session**
- K. Miscellaneous Business and Communications:**
 - 1. Pre-Application Discussions
 - 2. Communications
 - 3. Administrative Approval Correspondence
 - 4. Draft Agenda – **April 27, 2022**
 - 5. Action List - 2022
 - 6. 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).

AGENDA
REGULAR MEETING OF THE BIRMINGHAM PLANNING BOARD
WEDNESDAY APRIL 27, 2022
151 MARTIN ST., CITY COMMISSION ROOM 205, BIRMINGHAM MI *
*******7:30 pm*******

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- A. Roll Call**
- B. Review and Approval of the Minutes**
- C. Chairpersons' Comments**
- D. Review of the Agenda**
- E. Unfinished Business**
- F. Rezoning Applications**
 - 1. **Watkins/Brown Property (No address, Parcel Identification Number: 1936151027) – Request to rezone property from R7 to R2**
- G. Community Impact Studies**
 - 1. **320 Martin – Request for a new 5-story addition to historic building**
- H. Special Land Use Permits**
 - 1. **243 E. Merrill – La Strada – Request for a new outdoor dining platform**
- I. Site Plan & Design Reviews**
 - 1. **320 Martin – Request for a new 5-story addition to historic building**
 - 2. **243 E. Merrill – La Strada – Request for a new outdoor dining platform**
- J. Study Session**
- K. Miscellaneous Business and Communications:**
 - 1. Pre-Application Discussions
 - 2. Communications
 - 3. Administrative Approval Correspondence
 - 4. Draft Agenda – **May 11, 2022**
 - 5. Action List - 2022
 - 6. Other Business
- L. Planning Division Action Items**
 - 1. Staff Report on Previous Requests
 - 2. Additional Items from Tonight's Meeting
- M. Adjournment**

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Planning Board Action List - 2022

Topic	General Goals	City Commission Directive?	Quarter	Status	
				In Progress	Complete
2040 Master Plan	Adopt a new comprehensive master plan.	☒	Ongoing	☒	☐
Outdoor Dining	Study the Outdoor Dining Ordinance re: enclosures, expansions, etc.	☒	1 st (January-March)	☒	☐
Window Standards (Glazing)	Update window standards to help support building renovation and the Energy Code requirements.	☐	1 st (January-March)	☒	☐
Barrier-Free Ramps	Reduce unintentional restrictions on handicap ramps in the front setbacks.	☐	2 nd (April-June)	☐	☐
Side Yard A/C	Update the ordinance to address issues with side yard a/c units.	☐	2 nd (April-June)	☐	☐
Front Setback Rules	Consider revisions to the setback ordinances in R1-R3 to address 200 ft. calculations rule.	☐	3 rd (July-September)	☐	☐
Lighting Standards	Remove conflicting regulations regarding photometric plans.	☐	3 rd (July-September)	☐	☐
Impervious Surface Definition	Clarify definition to promote the infiltration of storm water.	☐	4 th (October-December)	☐	☐
Health Club/Studio Use	Consider allowing health/fitness type activities in more areas of the City.	☐	4 th (October-December)	☐	☐

Next Up...

Topic	General Goals	City Commission Directive?	Quarter	Status	
				In Progress	Complete
Dumpster Enclosures	Expand the materials permitted/not permitted in dumpster enclosures.	☐	-	☐	☐
Balcony/Terrace Enclosures	Clarify and add regulations for the enclosure of outdoor living space.	☐	-	☐	☐
Lot Combination Process	Review the process for lot combinations to add clarity to approval standards.	☐	-	☐	☐
Mixed Use Requirements	Consider changing the requirements for the stacking of mixed uses.	☐	-	☐	☐
Review Processes for Public Projects	Clarify review process for projects on public property.	☐	-	☐	☐
SLUP Application Process	Clarify the SLUP process in terms of the order of board/commission review.	☐	-	☐	☐
Retail Definition	Revisit the retail definition to address any concerns about first floor uses.	☐	-	☐	☐
Medical Marijuana & CBD	Update the Zoning Ordinance to help regulate Medical Marijuana and CBD through ordinance language.	☐	-	☐	☐
Sustainability Initiatives	Prepare a sustainability agenda to increase Birmingham's resilience.	☐	-	☐	☐
Lighting Standards	Review lighting standards for residential districts to reduce light pollution and nuisance.	☐		☐	☐
Landscaping Standards	Consider amendments to permit synthetic planting materials.	☐		☐	☐
Social Districts	Study the state regulations and the City to help draw district boundaries.	☐		☐	☐
Food Trucks	Study the application of food trucks in the City in terms of locations, restrictions, etc.	☐		☐	☐