Agenda
City Commission Regular Meeting
Monday, April 13, 2026 - 7:00 PM
151 Martin Street, Birmingham, MI
City Commission Room 205

---

1. CALL TO ORDER AND PLEDGE OF ALLEGIANCE

Clinton Baller, Mayor

2. ROLL CALL

Alexandria Bingham, City Clerk

3. PROCLAMATIONS, CONGRATULATORY RESOLUTIONS, AWARDS, APPOINTMENTS, RESIGNATIONS AND CONFIRMATIONS, ADMINISTRATION OF OATHS, INTRODUCTION OF GUESTS AND ANNOUNCEMENTS.

A. Arbor Day 2026 Proclamation

B. DPS Staff Introduction — Golf Operations Manager, Austin Walker

C. Birmingham Police Staff Introductions and 2025 Awards

ANNOUNCEMENTS

A. Happy Birthday Commissioner Kolb!

APPOINTMENTS

A. Multi-Modal Transportation Board
   1. Laura Engelland
   2. Monte Huber

   To appoint _____ as a regular member to the Multi-Modal Transportation Board to serve a three-year term to expire March 24, 2029.

   To appoint _____ as a regular member to the Multi-Modal Transportation Board to serve a three-year term to expire March 24, 2029.

B. Martha Baldwin Park Board
   1. Katelyn Miner

   To appoint _____ as a regular member to the Martha Baldwin Park Board to serve the remainder of a four-year term to expire May 1, 2028.

C. Birmingham Area Cable Board
   1. Deanna Brown

To appoint _____ as a regular member to the Birmingham Area Cable Board to serve the remainder of a three-year term to expire May 1, 2029.

D. Planning Board
   1. Duncan Currie

To appoint _____ as a regular member to the Planning Board to serve the remainder of a three-year term to expire March 28, 2029.

E. Architectural Review Committee
   1. Javier Alvarez-Isasi

To appoint _____ as a regular member to the Architectural Review Committee to serve the remainder of a three-year term to expire April 11, 2029.

4. OPEN TO THE PUBLIC FOR MATTERS NOT ON THE AGENDA

The City of Birmingham welcomes public comment which may be limited to a certain number of minutes per person speaking, announced at the Mayor's discretion at the beginning of the public comment portion of the agenda, on items or discussions that do not appear anywhere else in the printed agenda. The Commission will not participate in a question and answer session and will take no action on any item not appearing on the posted agenda. The public can also speak to agenda items as they occur when the presiding officer opens the floor to the public. When recognized by the presiding officer, please state your name for the record, and direct all comments or questions to the presiding officer.

5. CONSENT AGENDA

All items listed on the consent agenda are considered to be routine and will be enacted by one motion and approved by a roll call vote. There will be no separate discussion of the items unless a Commissioner or citizen so requests, in which event the item will be removed from the general order of business and considered under the last item of new business.

A. Resolution to approve the City Commission regular meeting minutes of March 23, 2026.

B. Resolution to approve the warrant list, including Automated Clearing House payments, dated March 25, 2026, in the amount of $749,021.05.

C. Resolution to approve the warrant list, including Automated Clearing House payments, dated April 1, 2026, in the amount of $1,373,814.38.

D. Resolution to approve the warrant list, including Automated Clearing House payments and Electronic Funds Transfers, dated April 8, 2026, in the amount of $1,068,763.84.

E. Resolution to set the Public Hearing of Necessity for the replacement and improvements of sewer and water laterals meeting the requirements of assessments, for all properties within the project area on Wimbleton Drive from Oxford Road to Adams Road on Monday, May 4, 2026, at 7:00 P.M.; and

   If necessity is determined on May 4, 2026, to meet on May 18, 2026, at 7:00 P.M., for the purpose of conducting the Public Hearing to Confirm the Assessment Roll for the replacement and improvements of sewer and water lateral meeting the requirements for the assessments, for all properties within the project area on Wimbleton Drive from Oxford Road to Adams Road.

F. Resolution to set the Public Hearing of Necessity for the installation of cape seal treatment

for all properties within the project area on Wimbleton Drive from Oxford Road to Adams Road on Monday, May 4, 2026, at 7:00 P.M.; and

If necessity is determined on May 4, 2026, to meet on May 18, 2026, at 7:00 P.M., for the purpose of conducting the Public Hearing to Confirm the Assessment Roll for the installation of cape seal treatment for all properties within the project area on Wimbleton Drive from Oxford Road to Adams Road.

G. Resolution to approve the purchase of root control service, as quoted by Duke's Root Control, Inc. for the 2026 Sewer Root Control Program, in the amount not to exceed $153,735.63. Funding for this project has been budgeted in the following account:

Fund Account	Fund ID Number	Project Award
Sewer Fund	590.0-538.000-811.0000	$153,735.63

H. Resolution to approve the Addendum to the Construction Staging Area and Construction Coordination Agreement with Lavery Michigan Dealership Properties No. 1 LLC and Sachse Construction and Development for the coordination of construction activities related to 34350 Woodward Avenue on S. Elm Street and Haynes Street, and to authorize the Mayor and the City Clerk to sign the agreement on behalf of the City.

I. Resolution to set a public hearing date of May 4, 2026 to consider the Special Land Use and Final Site Plan & Design Review application for 126 S. Old Woodward - Snap Taco.

J. Resolution to approve the Program Year 2026 High Intensity Drug Trafficking Area (HIDTA) sub-recipient agreement between the County of Oakland and the City of Birmingham. Further, to authorize the Mayor to sign the agreement on behalf of the City.

K. Resolution to approve the maintenance agreement with the Michigan Department of Transportation for the City's gateway signs on Woodward Ave. and to authorize the Mayor to sign the agreement on behalf of the City.

6. CITY MANAGER'S REPORT

The City Manager's Report regularly occurs on the second City Commission meeting of the month. Additionally, reports from prior months can be viewed on the City's website: Bhamgov.org/manager

7. UNFINISHED BUSINESS

A. Public Hearing - 298 S. Old Woodward - Daxton - Special Land Use Permit Amendment, Final Site Plan & Design Review

1. Resolution to approve the Special Land Use Permit Amendment, Final Site Plan & Design Review for 298 S. Old Woodward, to permit the modification of the existing required off-street loading facility to make room for new in-house laundry facilities and a new trash compactor.

B. Resolution to approve the updated design for the North Old Woodward Project.

8. NEW BUSINESS

A. Public Hearing of Necessity for Staircase Special Assessment District (SAD) - 2025 and 2026 Asphalt Resurfacing Program

WHEREAS, Notice was given pursuant to Section 94-7 of the City Code, to each owner or party-in-interest of property and lots to be assessed, by first class mail, and by publication in a newspaper generally circulated in the City with at least 10 days notice; and

WHEREAS, The City Commission has conducted a public hearing and has determined it is necessary to proceed with the project of resurfacing existing asphalt roads, replacement of existing retaining wall in the City's right of way, replacement of a staircase in the City's right of way, and replacement of City sidewalk ramps; and

WHEREAS, The City has previously established a policy to defray the costs of replacing a staircase in the City's right of way by creating a Special Assessment District (SAD) consisting of the property that is benefiting from this treatment; and

WHEREAS, The City Commission, after the public hearing, has determined that the replacement of the staircase in the project area which is included with the 2025 and 2026 Asphalt Resurfacing Program is a necessity and is in the best interest of the City and will specially benefit the property included in the Staircase Special Assessment District; and

WHEREAS, The Commission has approved the detailed plans and estimates of cost prepared by the City Engineer; and

WHEREAS, The City Engineer has determined the boundaries of the staircase is located within the limits of the following street shall be installed as part of the 2025 and 2026 Asphalt Resurfacing Program (Contract #2-25(P) and #2-26(P)):

Brookside Avenue – Ravine Road to North Dead End

WHEREAS, The formula used in making the assessment is 100% of the improvement for staircase in the City's right of way (calculated at the rate of $2,500.00 per staircase riser for the property on the street that will have a new staircase installed in the City's right of way).

THEREFORE LET IT BE RESOLVED, The City Commission has determined that the scope of the public improvement as described is in the best interest of the City and will benefit the property listed in the assessment roll is a necessity, and the City Commission directs the Manager to prepare a Special Assessment Roll and present the same to the City Commission for confirmation and further set a Public Hearing for Confirmation of the Roll on April 27, 2026 and give notice for same.

Staircase

Sidwell Number	Street Address	Decorative Staircase Risers (EA)	Unit Cost for Assessment	Total Assessment	
1925329016	552 BROOKSIDE AVE	8.00	$2,500.00	$20,000.00	

B. Public Hearing - Special Land Use Permit and Final Site Plan & Design Review application for 211 Hamilton Row - No 28.

1. Resolution to approve the Special Land Use Permit, Final Site Plan & Design Review application for 211 Hamilton Row -- No 28 -- to permit a new food and drink establishment serving alcoholic liquors for on-premise consumption with the condition that the applicant complete the required investigation pursuant to Chapter 10, Section 10-43 of the Birmingham Code of Ordinances.

C. Initial Bistro Screening 2025-2026

1. Resolution to move forward with the bistro application for Daycap/Nightcap and permit the bistro to submit an application for Special Land Use Permit, Final Site Plan and Design Review to the Planning Board for review and recommendation.

   OR

   To take no action on the Daycap/Nightcap bistro application at this time.

D. Resolution to approve an agreement with Sachse Construction for Police Department Renovations and Expansion Construction Management Services in the amount not to exceed $269,347.00, and to authorize the Mayor and City Clerk to sign the agreement on behalf of the City; and further to appropriate and amend the 2025-2026 City Commission budget as follows:

General Fund		
<u>Revenue</u>		
Draw from Fund Balance	101.0-000.000-400.0000	$269,347.00
<u>Expenditures</u>		
Other Contractual Services	101.0-301.000-811.0000	$269,347.00

E. Resolution to award the 2025-2026 Sewer Rehabilitation Program #4-25(S) to Pamar Enterprises, Inc. in the amount of $714,499.00 and a 5% construction contingency for a total of $750,223.95. In addition, to authorize the Mayor and City Clerk to sign the agreement on behalf of the City contingent upon execution of the agreement and meeting all insurance and bond requirements by Pamar Enterprises, Inc.

F. Appointment of City Commissioner and Mayor Pro Tem:

1. Recognition of outgoing Mayor Pro Tem Long.
2. Acceptance of nominations for City Commissioner from City Commissioners.
   i. Richard Wetherhold
   ii. Ilir Doresi
   iii. Beth Correa
   iv. Gordon Thompson
   v. Brian Gordon
   vi. Debra Horner
   vii. Mary E. Jaye
   viii. Doug White
3. Appointment of City Commissioner.
4. Acceptance of nominations for Mayor Pro Tem from City Commissioners.

5. Election of Mayor Pro Tem.
6. Oath of Office to City Commissioner and Mayor Pro Tem.
7. Appointment of Mayor Pro Tem _____, to the Retirement Board.
8. Appointment of _____, to the Ad Hoc Senior/Recreation Center Committee.

G. Resolution to meet in closed session pursuant to MCL § 15.268, Sec.8(1)(d) of the Open Meetings Act to consider the purchase or lease of real property up to the time an option to purchase or lease that real property is obtained.

(A roll call vote is required, and the vote must be approved by a 2/3 majority of the commission. The commission will adjourn to closed session after all other business has been addressed in open session and reconvene to open session after the closed session, for purposes of taking formal action resulting from the closed session and for purposes of adjourning the meeting.)

H. Resolution to meet in closed session pursuant to MCL § 15.268, Sec.8(1)(e) of the Open Meetings Act to discuss pending litigation entitled The City of Birmingham v The Community House Association, Birmingham, Michigan, Oakland County Circuit/Business Court Case No.: 2025-219218 CB Honorable Michael Warren.

(A roll call vote is required, and the vote must be approved by a 2/3 majority of the commission. The commission will adjourn to closed session after all other business has been addressed in open session and reconvene to open session after the closed session, for purposes of taking formal action resulting from the closed session and for purposes of adjourning the meeting.)

I. Resolution to meet in closed session pursuant to MCL § 15.268, Sec.8(1)(e) of the Open Meetings Act to discuss pending litigation entitled *Paul Wells v City of Birmingham, et al,* U.S. District Court, Eastern District of Michigan, Court Case No. 2:25-cv-13640-TGB-APP.

(A roll call vote is required, and the vote must be approved by a 2/3 majority of the commission. The commission will adjourn to closed session after all other business has been addressed in open session and reconvene to open session after the closed session, for purposes of taking formal action resulting from the closed session and for purposes of adjourning the meeting.)

J. Commission Items for Future Discussion. A motion is required to bring up the item for future discussion at the next reasonable agenda, no discussion on the topic will happen tonight.

K. Commission discussion on items from a prior meeting.

9. REMOVED FROM CONSENT AGENDA

10. COMMUNICATIONS

A. Letter from Parrish Underwood, President and CEO of the YMCA

B. Communications regarding 400 E. Lincoln

C. Communications regarding the Community House

D. Communication regarding ICE

E. Communication regarding Oak Boulevard

F. Communication regarding the resident survey

11. REPORTS

A. Commissioner Reports

1. Notice of Intention to Appoint to the Historic District Study Committee

B. Commissioner Comments

C. Advisory Boards, Committees, Commissions' Report

D. Legislation

E. City Staff

1. 2025 Birmingham Police Department Annual Report

F. Information Only

12. ADJOURN

***This agenda was amended on April 10, 2026 at 1:55 p.m. to include communications 10B-10F and to correct some details in item 8D.**

City boards and committees meet in person, and most have a virtual option available to the public. Members of the public may attend the City Commission meeting in person at Birmingham City Hall or attend virtually.

Link to Access Virtual Meeting: https://zoom.us/j/655079760
Telephone Meeting Access: 877 853 5247 US Toll-free
Meeting ID Code: 655 079 760

City Hall is open to the public during regular business hours, Monday through Friday from 8 a.m. – 5 p.m. The Police Department lobby entrance on the east side of City Hall on Pierce Street operates as the after-hours public entrance.

Individuals requiring assistance to enter the building should request aid via the intercom system at the parking lot entrance gate on Henrietta Street.

Persons who require mobility, visual, hearing, or other assistance for effective participation in this public meeting should contact the City Clerk's Office at (248) 530-1880, or (248) 644-3405 (TDD) at least one day before the meeting to request help.

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) 644-3405 (para las personas con incapacidad auditiva) por lo menos un dia 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)

TREE CITY USA®
An Arbor Day Foundation Program

★★★ OFFICIAL PROCLAMATION ★★★

WHEREAS in 1872, the Nebraska Board of Agriculture established a special day to be set aside for the planting of trees, ***and***

WHEREAS this holiday, called Arbor Day, was first observed with the planting of more than a million trees in Nebraska, ***and***

WHEREAS Arbor Day is now observed throughout the nation and the world, ***and***

WHEREAS trees can be a solution to combating climate change by reducing the erosion of our precious topsoil by wind and water, cutting heating and cooling costs, moderating the temperature, cleaning the air, producing life-giving oxygen, and providing habitat for wildlife, ***and***

WHEREAS trees are a renewable resource giving us paper, wood for our homes, fuel for our fires, and countless other wood products, ***and***

WHEREAS trees in our city increase property values, enhance the economic vitality of business areas, and beautify our community, ***and***

WHEREAS trees — wherever they are planted — are a source of joy and spiritual renewal.

NOW, THEREFORE, I, Clinton Baller, Mayor of the City of Birmingham, do hereby proclaim April 23, 2026 as **ARBOR DAY** In the City of Birmingham, and I urge all citizens to celebrate Arbor Day and to support efforts to protect our trees and woodlands, ***and***

FURTHER, I urge all citizens to plant trees to gladden the heart and promote the well-being of this and future generations.

DATED THIS 23rd day of April, 2026

Mayor _____

Arbor Day Foundation®

MEMORANDUM

Department of Public Services

DATE: April 13, 2026

TO: Jana Ecker, City Manager

FROM: Scott Zielinski, DPS Director

SUBJECT: DPS Staff Introduction — Golf Operations Manager

The Department of Public Services is pleased to welcome Austin Walker as our new Golf Operations Manager. Austin brings a blend of education, experience, and enthusiasm to this role, with a clear passion for the sport of golf.

Austin comes to us from Lakes of Taylor Golf Club in Taylor, MI. A graduate of Western Michigan University with a degree in Sports Management, he has been around the golf industry for 15 years, both working and playing the sport. His professional career started at Gull Lake View Golf Resort in Richland, MI, working on marketing, lodging sales & clubhouse management. In 2022, he moved closer to home while working at Lakes of Taylor Golf Club in Taylor, MI as the Assistant Golf Operations Manager. He is enthusiastic to be part of the greater Birmingham community and looking forward to a great golf season!

In his spare time during the summer, he likes to golf with friends and family and boat on Lake St. Clair. In the winter, he enjoys playing hockey a couple of times a week.
We are excited to have Austin join our team!

MEMORANDUM

Police Department

DATE: April 13, 2026

TO: Jana Ecker, City Manager

FROM: Scott Grewe, Chief of Police

SUBJECT: Introduction of New Police Department Personnel and 2025 Departmental Awards and Citations

---

We are very excited to introduce the newest members of the Birmingham Police Department:

Officer Scott Vierk
Dispatcher Kateryna Shcherbata

The Birmingham Police Department proudly presents the 2025 Award and Citation recipients. The Police Department's awards committee reviewed all incidents from 2025 to submit award recommendations. The awards committee consists of members from several classifications within the department (Lieutenant, Sergeant, Officer, Dispatcher, and Civilian). These recommendations are submitted to the Chief's office for final review and approval.

I am proud to present the 2025 Birmingham Police Department award recipients:

Certificate of Merit:

Lt. Springer	Lt. Buttigieg	Sgt. Bukoski
Disp. Droulliard	Ofc. Debano	Ofc. Isaacson
Ofc. Kouza	Disp. Ryan	

Community Service Award:

Sgt. McCanham	Ofc. Toma

Life Saving Award:

Lt. Linke	Ofc. Isaacson	Disp. Licari

Pat Nagel Community Award: (Presented by the Birmingham Fire Department)
Resident Lisa Susalla

Civilian Citation Award:
Resident Syed Ahmed

Chief's Recognition Award:
Kenneth Hitchcock

Civilian of the Year:
Disp. Licari

Officer of the Year:
Ofc. Roberts

BIRMINGHAM

NOTICE OF INTENTION TO APPOINT TO THE MULTI-MODAL TRANSPORTATION BOARD

At the regular meeting of Monday, April 13, 2026, the Birmingham City Commission intends to appoint the following positions to the Multi-Modal Transportation Board:

- Two regular members to serve the remainder of three-year terms to expire March 24, 2029
- One regular member to serve the remainder of a three-year term to expire March 24, 2028
- Two alternate members to serve the remainder of three-year terms to expire October 27, 2028

Interested citizens may submit an application available at the City Clerk's office or online at www.bhamgov.org/boardopportunities. Applications must be submitted to the City Clerk's office on or before noon on Wednesday, April 8, 2026. These documents will appear in the public agenda for the regular meeting at which time the City Commission may make nominations and vote on appointments.

Duties

The purpose of the Multimodal Transportation Board shall be to assist in prioritizing active transportation, primarily to promote the safe and efficient movement of people and to advise the City Commission on the implementation of the multimodal transportation plan. In furtherance of its purpose, the board shall endeavor to provide the following:

a. Assist with the implementation of all current, relevant city plans (including by not limited to; Birmingham Green Sustainability and Climate Plan, Birmingham 2040 Plan, Parks & Recreation Master Plan, Historic Preservation Master Plan).
b. Promote the development and maintenance of the city's shared use, bicycle and pedestrian facilities.
c. Promote, through education, active transportation as an alternative means of transportation; and
d. Ensure sensitivity to active and accessible transportation issues which impact bicyclists and pedestrians.
e. Evaluation of other plans, policies, capital improvement projects, site plans, topics and ordinance amendments when assigned by the City Commission or City Manager.

Applicant(s) Presented for City Commission Consideration:

Applicant Name	Criteria/Qualifications
	The Multimodal Transportation Board shall consist of seven regular members. At

	least five board members shall reside within the city limits. The remaining board members may reside in surrounding jurisdictions. a. Members of the board shall have a clearly demonstrated interest or knowledge of active transportation. b. The City Commission may appoint two alternate members to serve as needed on the Multi-modal Transportation Board during their term of appointment. An alternate member may be called on a rotating basis to sit as a regular member of the Multimodal Transportation Board in the absence of a regular member. An alternate member shall have the same 5 voting rights as a regular member of the Multimodal Transportation Board when seated in the place of a regular member. c. Nonvoting ex officio members shall be appointed by the City Manager. They may include the City Engineer, City Planner, Police Chief, or their designated representative, or other representatives as the City Manager deems appropriate.
Laura Engelland	4.5-year resident and current board member, who works in marketing and strategy, seeking reappointment to the board.
Monte Huber	10-year resident and expert City pedestrian.

SUGGESTED COMMISSION ACTION:

To appoint _____ as a regular member to the Multi-Modal Transportation Board to serve a three-year term to expire March 24, 2029.

To appoint _____ as a regular member to the Multi-Modal Transportation Board to serve a three-year term to expire March 24, 2029.

NOTE: All members of boards and commissions are subject to the provisions of City of Birmingham City Code Chapter 2, Article IX, Ethics and the filing of the Affidavit and Disclosure Statement.

BIRMINGHAM
A WALKABLE CITY

Mya Brown <mbrown@bhamgov.org>

FromClerksOffice- APPLICATION FOR CITY BOARD OR COMMITTEE [#125]

1 message

'Wufoo' via Clerks Office <ClerksOffice@bhamgov.org> Wed, Mar 18, 2026 at 12:30 PM
Reply-To: no-reply@wufoo.com
To: clerksOffice@bhamgov.org

Board/Committee of Interest	Multi-Modal Transportation Board
Specific Category/Vacancy on Board (see below)	Continue my expired term / multi-modal transportation experience
Name	Laura Engelland
Residential Address	390 Larchlea Drive Birmingham, MI 48009 United States
Phone Number *	(248) 688-7556
Email **By providing your email to the City, you agree to receive news and notifications from the City. If you do not wish to receive these messages, you may unsubscribe at any time.**	ljengelland@gmail.com
Length of Residence	4.5 years
Occupation	Marketing/Strategy

Reason for Interest: Explain how your background and skills will enhance the board to which you have applied.

I am proud to continue serving on Birmingham's Multi-Modal Transportation Board and am eager to deepen my contribution. Over the past year, I've enjoyed engaging with residents, collaborating with city planners and engineers, and helping shape practical, forward-looking solutions. As a Birmingham homeowner raising a young family, I bring a daily, real-world perspective on walkability, biking, and accessibility. Professionally, my background in mobility, emerging technologies, and human-centered design enables me to connect resident needs with thoughtful, future-ready transportation strategies. I'm committed to supporting a safe, accessible, and vibrant Birmingham for all.

List your related employment experience

Federated Service Solutions – VP of Growth (Plymouth, MI; 2025)
• Oversee sales & marketing
• Drive sustainable growth of IT/network infrastructure business

Uphill Partners – Principal (Birmingham, MI; 2023-present)
• Family office dedicated to investment in local small business.
• Responsible for private and public relationship development and investment evaluation.

FINN – Vice President, Partnerships (Detroit, MI; 2021-2023)

• Start-up mobility services provider based in Munich, Germany; recently launched in US market.
• Led corporate partnership development between FINN and OEMs.

Ford Motor Company – multiple roles, latest Associate Director (Palo Alto, CA & Dearborn, MI; 2016-2021)
• Drove global primary research in the US, China, and Europe to identify, understand, and embed consumer needs in multi-modal product development. Identified ways to develop shared, multi-modal transportation systems, including methods to change consumer behavior and drive adoption.
• Followed a Universal Design approach to product development. Leveraged ethnographic studies of wide range of people, including the disabled, to understand gaps in current systems and customer needs.
• Navigated Ford through complicated regulatory and cost barriers to create enabling technologies for Smart City development.
• Led investigation of and provided recommendations for micro mobility (i.e. scooters) investment.
• Identified opportunities in nascent Advanced Air Mobility market. Presented landscape analysis and market entry pathways to CEO and C-suite team.
• Developed and presented strategy to address Ride Hail market. Defined business models, M&A pathways, and go-to-market implications, which justified spinout of AV LLC (Ford's autonomous vehicle unit) and informed pilot projects with 3rd parties.
• Developed and secured Board approval for global strategic plan for newly formed Enterprise Connectivity organization; plan led to creation of FordPro business unit.
• Built high-performing, cross-functional team of diverse talent across discipline, gender, race, and ethnicity to prioritize and execute wide range of projects across newly formed global organization.
• Negotiated $125M contract to deliver connected vehicle services worldwide after one full year of complex negotiations.

iRobot Corporation – Manager, Global Communications (Bedford, MA; 2011 – 2014)
• Drove business development and market adoption of consumer, B2B, and industrial robots by leading communications strategy, that involved events, product messaging, and executive speaking engagements, across 60 countries and 3 business units.
• Managed agencies on 3 continents in London, Shanghai, and New York City; traveled quarterly to Shanghai, Tokyo, Seoul, Munich, and Berlin.
• Spearheaded brand launch in China; achieved 200% of sales plan and thought leadership in market. Worked with sales and marketing to coordinate press conference in Shanghai and localize communications.

FleishmanHillard – Account Supervisor, Public Relations (New York, NY; 2008-2011)
• Planned and executed 100+ new product launches, such as AT&T iPhone and Emerging Devices, Barnes & Noble, and Chobani. Managed national media strategy, reviews, press events, and executive interviews.
• Served as on-camera spokesperson for AT&T.

List your related community activities

• City of Birmingham Multi-Modal Transportation Board volunteer – July 2025-present
• Active with University of Michigan alumni clubs, via mentorship, meet-ups and volunteering – 2016-present
• AIARE I Avalanche Certified – 2021
• Multiple Sclerosis charity bike rides 175 miles – 2013-2015
• University of Arkansas Alumni Club President, Boston – 2012-2014
• Inner City Scholarship Fund volunteer (tutor, student events) – 2008-2011

List your related educational experience

Master of Business Administration (MBA) with distinction — University of Michigan, Ann Arbor, MI
• Selected as Section President
• Business & Land Development Project in Sri Lanka

Bachelor of Science (BS), Marketing Management, magna cum laude — University of Arkansas, Fayetteville, AR
• NCAA D1 Track and Cross Country Athlete — 5-time NCAA Academic All-American
• Student-Athlete representative to NCAA compliance review process
• Top Marketing Student (graduating class) Award

IDEO University — Human Centered Design certifications
• Leading with Creativity – February 2020
• Insights for Innovation – July 2017

To the best of your knowledge, do you or a member of your immediate family have any direct financial or business relationships with any supplier, service provider or contractor of the City of Birmingham from which you or they derive direct compensation or financial benefit? If yes, please explain.	No
Do you currently have a relative serving on the board/committee to which you have applied?	No
Are you an elector (registered voter) in the City of Birmingham? *	Yes

BIRMINGHAM
A WALKABLE CITY

Mya Brown <mbrown@bhamgov.org>

FromClerksOffice- APPLICATION FOR CITY BOARD OR COMMITTEE [#129]

1 message

'Wufoo' via Clerks Office <ClerksOffice@bhamgov.org> Wed, Apr 1, 2026 at 4:54 PM
Reply-To: no-reply@wufoo.com
To: clerksOffice@bhamgov.org

Board/Committee of Interest	MULTI-MODAL TRANSPORTATION BOARD
Specific Category/Vacancy on Board (see below)	Open to what's needed
Name	Monte Huber
Residential Address	1186 Stanley Blvd Birmingham, MI 48009 United States
Business Address	1186 Stanley Blvd Birmingham, MI 48009 United States
Phone Number *	(248) 417-0293
Email **By providing your email to the City, you agree to receive news and notifications from the City. If you do not wish to receive these messages, you may unsubscribe at any time.**	montejhuber@gmail.com
Length of Residence	10 years
Occupation	Semi Retired

Reason for Interest: Explain how your background and skills will enhance the board to which you have applied.

No one walks in Birmingham more than I do. Daily, even in the Winter when it's 25 degrees or above. Literally, over about 320 days a year, I walk, and my wife is also with me on many of those.

We have multiple routes through town, bobbing and weaving through alleys and streets to cover 7.5, 10, and 12.5 miles. The latter includes the city blocks and neighborhoods across Birmingham. This has been going on for years.

I've been nearly hit by cars on multiple occasions (at least 15 in the past 3 years). I respect the crosswalks, but drivers aren't paying attention. My wife was hit by a car 2 years ago; fortunately, she suffered no injuries, but was saved by a split-second decision and gut instinct, or she wouldn't likely be alive (Driver at fault).

I know exactly which intersections and areas are the most dangerous for pedestrians, and the April newsletter was good timing because I wanted to reach out to someone about some of these dangerous areas. Which I'll still do.

My ultimate goal is pedestrian safety, proactively rather than after the fact. I seriously worry someone is going to get seriously hurt or worse with how cars pay no attention in some areas.

List your related educational experience	Master's Degree and Expert Walker! :)
To the best of your knowledge, do you or a member of your immediate family have any direct financial or business relationships with any supplier, service provider or contractor of the City of Birmingham from which you or they derive direct compensation or financial benefit? If yes, please explain.	No
Do you currently have a relative serving on the board/committee to which you have applied?	No
Are you an elector (registered voter) in the City of Birmingham? *	Yes

MULTI-MODAL TRANSPORTATION BOARD

Chapter 82, Sections 112-117 - Term: Three years.

The purpose of the Multimodal Transportation Board shall be to assist in prioritizing active transportation, primarily to promote the safe and efficient movement of people and to advise the City Commission on the implementation of the multimodal transportation plan. In furtherance of its purpose, the board shall endeavor to provide the following:

a) Assist with the implementation of all current, relevant city plans (including by not limited to; Birmingham Green Sustainability and Climate Plan, Birmingham 2040 Plan, Parks & Recreation Master Plan, Historic Preservation Master Plan).
b) Promote the development and maintenance of the city's shared use, bicycle and pedestrian facilities.
c) Promote, through education, active transportation as an alternative means of transportation; and
d) Ensure sensitivity to active and accessible transportation issues which impact bicyclists and pedestrians.
e) Evaluation of other plans, policies, capital improvement projects, site plans, topics and ordinance amendments when assigned by the City Commission or City Manager

The Multimodal Transportation Board shall consist of seven regular members. At least five board members shall reside within the city limits. The remaining board members may reside in surrounding jurisdictions.

Last Name / Home Address	First Name	Home / Business / E-Mail	Appointed	Term Expires
Davies 969 Bennaville Birmingham 48009	**Gordon**	(248)701-5462 *gordonhdavies@yahoo.com*	10/24/2022 Regular Member	3/24/2027
Dobrowitsky 826 Shepardbush Birmingham 48009	**Josh**	(248) 514-7311 *joshd247@gmail.com*	7/14/2025 Urban planning /architecture /design	3/24/2028
Engelland 390 Larchlea Drive Birmingham 48009	**Laura**	(248) 688-7556 *ljengelland@gmail.com*	10/28/2024 Regular Member	3/24/2026

Last Name Home Address	First Name	Home Business E-Mail	Appointed	Term Expires
Hillberg 1853 Fairview Birmingham 48009	**Patrick**	(248)797-1804 *patrick_hillberg@hotmail.com*	10/24/2022 Regular Member	3/24/2027
Hocker 898 Pilgrim Birmingham 48009	**David**	(3130 917-4718 *dhocker@globalfacilitiesinc.com*	4/21/2025 Regular member at large/plan experience	3/24/2028
VACATED	**10/27/2024**		Alternate	10/27/2028
Vacated	**12/2/2025**		Regular member-at-large from different geographical areas of the city	3/24/2028
Vacated	**2/25/2025**		Alternate	10/27/2028
Vacted	**3/23/2026**		Regular Member at large from a different geographical area of city	3/24/2029

Multi-Modal Transportation Board ATTENDANCE RECORD

Name of Board: Multi-Modal Transportation Board **Year:** 2025

Members Required for Quorum:

MEMBER NAME	1/2	2/6	3/6	4/3	5/1	6/5	7/3	8/7	9/4	10/2	SPEC MTG 10/23	11/6	12/3											Total Mtgs. Att.	Total Absent	Percent Attended Available
REGULAR MEMBERS																										
Mark Doolittle	CM	P	P	CM	CM	P	CM	A	NM	NM	P	NM	NM											4	1	80%
Tom Peard	CM	P	P	CM	CM	NA	NA	NA	NA	NA	NA	NM	NM											2	0	100%
Laura Engelland	CM	P	P	CM	CM	P	CM	P	NM	NM	P	NM	NM											5	0	100%
Gordon Davies	CM	P	P	CM	CM	P	CM	P	NM	NM	P	NM	NM											5	0	100%
Patrick Hilberg	CM	P	A	CM	CM	P	CM	P	NM	NM	P	NM	NM											4	1	80%
Rosie Koul	CM	P	P	CM	CM	P	CM	P	NM	NM	NA	NM	NM											4	0	100%
David C. Hocker	CM	P	P	CM	CM	P	CM	P	NM	NM	P	NM	NM											5	0	100%
Josh Dobrowitsky	NA	NA	NA	NA	NA	NA	NA	P	NM	NM	P	NM	NM											2	0	100%
																								0	0	#DIV/0!
ALTERNATES																										
Timothy Kennedy	NA	A	A	NA	NA	NA	NA	NA	NA	NA	NA	NM	NM											0	2	0%
Member 2																								0	0	#DIV/0!
Reserved																								0	0	#DIV/0!
Reserved																								0	0	#DIV/0!
Present or Available	0	7	6	0	0	6	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0			

KEY:

A = Member absent
P = Member present or available
CP = Member available, but meeting canceled for lack of quorum
CA = Member not available and meeting was canceled for lack of quorum
NA = Member not appointed at that time
NM = No meeting scheduled that month
CM = Meeting canceled for lack of business items

CITY BOARD/COMMITTEE ATTENDANCE RECORD

Name of Board: MULTI-MODAL TRANSPORTATION BOARD **Year:** 2024

Members Required for Quorum: 4

MEMBER NAME	1/4	2/1	SPECIAL MEETING 2/15	3/7	4/4	5/2	SPECIAL MEETING 5/16	6/6	8/1	9/5	SPECIAL MEETING 10/10	11/7	12/5	Total Mtgs. Att.	Total Absent	Percent Attended Available
REGULAR MEMBERS																
Patrick Hillberg	CM	CM	P	A	P	P	P	CA	P	P	P	P	P	9	2	82%
VACANT	CM	CM												0	0	
Z. Rosie Koul	CM	CM	A	P	A	A	A	CA	A	P	A	P	A	3	8	27%
David Hocker	CM	CM	P	P	P	A	A	CA	A	P	P	A	P	6	5	55%
Tom Peard	CM	CM	A	P	P	P	P	CA	P	P	P	P	P	9	2	82%
Gordon Davies	CM	CM	P	P	P	P	P	CA	P	P	P	P	A	9	2	82%
Mark Doolittle	CM	CM	P	P	A	A	A	CA	P	P	P	P	P	7	4	64%
ALTERNATES																
Laura Engelland	CM	CM	NA	NA	NA	NA	NA	NA	P	P	P	P	P	5	0	100%
Timothy Kennedy	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	P	P	2	0	100%
Jack Lassen (Student)	NA	NA	NA	A	P	P	A	CA	A	A		P	A	3	6	33%
Owen Reibscheid (Student)	NA	NA	NA	P	P	P	A	CA	A	P		A	A	4	5	44%
TOTAL	0	0	**4**	**6**	**6**	**5**		0	**5**	**8**		**8**	**6**			

KEY:

- **A** = Member absent
- **P** = Member present or available
- **CP** = Member available, but meeting canceled for lack of quorum
- **CA** = Member not available and meeting was canceled for lack of quorum
- **NA** = Member not appointed at that time
- **NM** = No meeting scheduled that month
- **CM** = Meeting canceled for lack of business items

Department Head Signature

AN ORDINANCE TO AMEND PART II OF THE CITY CODE, CHAPTER 82. – PLANNING, TO ADD ARTICLE VII. – MULTIMODAL TRANSPORTATION BOARD.

THE CITY OF BIRMINGHAM ORDAINS:

The City Code, Part II, Chapter 82. – Planning, Article VII. – Multimodal Transportation Board:

ARTICLE VII. – MULTIMODAL TRANSPORTATION BOARD

Sec. 82-112. – Scope of authority.

a) The Multimodal Transportation Board is a non-administrative board serving solely in an advisory capacity to the City Commission, City Manager and City Staff. In that capacity, the board may make recommendations to the City Commission but may not assume any legislative or administrative authority of the City Commission or any department or board established by the City Commission except as specifically provided in this chapter. The Multimodal Transportation Board is not authorized to expend City funds.

Sec. 82-113. – Purpose and duties.

The purpose of the Multimodal Transportation Board shall be to assist in prioritizing active transportation, primarily to promote the safe and efficient movement of people and to advise the City Commission on the implementation of the multimodal transportation plan. In furtherance of its purpose, the board shall endeavor to provide the following:

a) Assist with the implementation of all current, relevant city plans (including by not limited to; Birmingham Green Sustainability and Climate Plan, Birmingham 2040 Plan, Parks & Recreation Master Plan, Historic Preservation Master Plan).
b) Promote the development and maintenance of the city's shared use, bicycle and pedestrian facilities.
c) Promote, through education, active transportation as an alternative means of transportation; and
d) Ensure sensitivity to active and accessible transportation issues which impact bicyclists and pedestrians.
e) Evaluation of other plans, policies, capital improvement projects, site plans, topics and ordinance amendments when assigned by the City Commission or City Manager.

Sec. 82-114. – Composition.

a) The Multimodal Transportation Board shall consist of seven regular members. At least five board members shall reside within the city limits. The remaining board members may reside in surrounding jurisdictions. Members of the board shall have a clearly demonstrated interest or knowledge of active transportation.
b) The City Commission may appoint two alternate members to serve as needed on the Multi-modal Transportation Board during their term of appointment. An alternate member may be called on a rotating basis to sit as a regular member of the Multimodal Transportation Board in the absence of a regular member. An alternate member shall have the same

voting rights as a regular member of the Multimodal Transportation Board when seated in the place of a regular member.

c) Nonvoting ex officio members shall be appointed by the City Manager. They may include the City Engineer, City Planner, Police Chief, or their designated representative, or other representatives as the City Manager deems appropriate.

Sec. 82-115. – Terms.

a) Members of the Multimodal Transportation Board shall be appointed by the City Commission for terms of office of three years; except that two members of the first board shall be appointed to serve for a term of one year, two for terms of two years, and three for terms of three years. All members shall hold office until their successors are appointed. A vacancy occurring in the membership of the Multimodal Transportation Board for any cause shall be filled by a person appointed by the City Commission for the duration of the unexpired term.

Sec. 82-116. – Compensation

All members of the Multimodal Transportation Board shall serve without compensation.

Sec. 82-117. – Organization and meetings.

a) The board shall, from its appointed members, elect a chairperson and vice-chairperson. Each officer will serve a one-year term and may be re-elected. The chairperson shall preside over the board and shall have a right to vote. The vice-chairperson shall, in the case of absence or disability of the chairperson, perform the duties of the chairperson. An ex officio member shall act as administrator of the Committee and shall keep a record of all its proceedings.
b) At least four voting members of the Multimodal Transportation Board shall constitute a quorum for the transaction of its business.
c) All meetings of the Multimodal Transportation Board shall be open to the public, and any person or their duly constituted representative shall be entitled to appear and be heard on any matter applicable to the business at hand before the Multimodal Transportation Board makes its decision.
d) The concurring affirmative vote of four members of the Multimodal Transportation Board shall be required for approval of any resolution, motion or other action by the Multimodal Transportation Board.
e) The Multimodal Transportation Board shall hold meetings at such time and place as may be established by the Planning Director or an authorized representative.

Ordained this _____ day of _____, 2026. Effective upon publication.

_____
Clinton Baller, Mayor

_____
Alexandria D. Bingham, City Clerk

I, Alexandria D. Bingham, City Clerk of the City of Birmingham, do hereby certify that the foregoing ordinance was passed by the Commission of the City of Birmingham, Michigan at a regular meeting held _____, 2026 and that a summary was published _____, 2026.

_____
Alexandria D. Bingham, City Clerk

BIRMINGHAM

NOTICE OF INTENTION TO APPOINT TO THE MARTHA BALDWIN PARK BOARD

At the regular meeting of Monday, April 13, 2026, the Birmingham City Commission intends to appoint the following position to the Martha Baldwin Park Board:

- One regular member to serve the remainder of a four-year term to expire May 1, 2028

Interested citizens may submit an application available at the City Clerk's office or online at www.bhamgov.org/boardopportunities. Applications must be submitted to the City Clerk's office on or before noon on Wednesday, April 8, 2026. These documents will appear in the public agenda for the regular meeting at which time the City Commission may make nominations and vote on appointments.

Duties

The Martha Baldwin Park Board is responsible for the control and management of the Martha Baldwin Park. Members must be electors in the City of Birmingham.

Applicant(s) Presented for City Commission Consideration:

Applicant Name	**Criteria/Qualifications** Members must be electors in the City of Birmingham.
Katelyn Miner	5-year resident and registered voter with a Bachelor of Science in health care administration

SUGGESTED COMMISSION ACTION:

To appoint _____ as a regular member to the Martha Baldwin Park Board to serve the remainder of a four-year term to expire May 1, 2028.

NOTE: All members of boards and commissions are subject to the provisions of City of Birmingham City Code Chapter 2, Article IX, Ethics and the filing of the Affidavit and Disclosure Statement.

BIRMINGHAM
A WALKABLE CITY

Mya Brown <mbrown@bhamgov.org>

FromClerksOffice- APPLICATION FOR CITY BOARD OR COMMITTEE [#126]

1 message

'Wufoo' via Clerks Office <ClerksOffice@bhamgov.org> Sat, Mar 28, 2026 at 9:03 AM
Reply-To: no-reply@wufoo.com
To: clerksOffice@bhamgov.org

Board/Committee of Interest	Martha Baldwin Park Board
Specific Category/Vacancy on Board (see below)	Martha Baldwin Park Board
Name	Katelyn Miner
Residential Address	1884 West Melton Road Birmingham , MI 48009 United States
Phone Number *	(586) 764-5228
Email **By providing your email to the City, you agree to receive news and notifications from the City. If you do not wish to receive these messages, you may unsubscribe at any time.**	kateliza86@gmail.com
Length of Residence	5 years
Occupation	RN/Stay at home parent
Reason for Interest: Explain how your background and skills will enhance the board to which you have applied.	I am a registered nurse as well as a parent in the community and looking to be considered for the Martha Baldwin Park Board. I am looking to build connections with neighbors, local officials, and community organizations, which can expand my network and deepen my involvement to the community. Even though I do not have and direct board experience I am excited to learn and be involved in my community and set an example for my daughters to be involved in the community as they get older.
List your related employment experience	Health care/registered nurse
List your related community activities	Volunteering at my daughters school when I can
List your related educational experience	University of Detroit Mercy-BSN University of Detroit Mercy BS Health Care Administration

To the best of your knowledge, do you or a member of your immediate family have any direct financial or business relationships with any supplier, service provider or contractor of the City of Birmingham from which you or they derive direct compensation or financial benefit? If yes, please explain.	No
Do you currently have a relative serving on the board/committee to which you have applied?	No
Are you an elector (registered voter) in the City of Birmingham? *	Yes

MARTHA BALDWIN PARK BOARD

Chapter 78 - Section 78-56 Ordinance No. 65, Adopted May 10, 1915
Term: four years
Appointed by the City Commission

Qualifications: The board shall consist of four persons who shall be electors of the city.

Duties: The control and management of the Martha Baldwin Park shall be vested in the Martha Baldwin Park Board. (Section 78-56)

Last Name / Home Address	First Name	Home / Business / Fax / E-Mail	Appointed	Term Expires
Cillette 195 E Southlawn blvd	**Nicole**	312-937-7920 *cillette@gmail.com*		5/1/2027
Forrester 1252 S. Bates	**Linda**	(248) 761-2367 *linozfor@att.net*	6/26/2023	5/1/2027
Krivan 832 Madison	**David**	(248) 569-2800 *dkrivan71@gmail.com*	3/9/2026	5/1/2028
Vacated	**5/1/2024**			5/1/2028

ARTICLE III. - MARTHA BALDWIN PARK BOARD

Footnotes:
*--- (**3**) ---*
Cross reference— *Boards and commissions, § 2-171 et seq.*

Sec. 78-56. - Scope.

The control and management of the Martha Baldwin Park shall be vested in the Martha Baldwin Park Board.

(Code 1963, § 3.11)

Sec. 78-57. - Continuance of board.

The Martha Baldwin Park Board, heretofore established, is hereby continued in full force and effect.

(Code 1963, § 3.11)

Sec. 78-58. - Composition, appointment, terms.

The Martha Baldwin Park Board shall consist of four persons who shall be electors of the city, one of whom shall be appointed to office each year by the city commission to hold office from May 1 of the year in which appointed for a term of four years.

(Code 1963, § 3.11; Ord. No. 2180, 5-9-16)

Sec. 78-59. - Filling vacancies, removal of member.

Any vacancy occurring in the membership of the Martha Baldwin Park Board shall be filled for the remainder of the unexpired term by the city commission. The commission may remove any member of the board for cause.

(Code 1963, § 3.11)

Sec. 78-60. - Compensation.

The members of the Martha Baldwin Park Board shall serve without compensation therefor.

(Code 1963, § 3.11)

Sec. 78-61. - Tax for park purposes.

The city commission shall each year appropriate and raise by general tax not less than the sum of $25.00, which sum shall be expended for the improvement and maintenance of Martha Baldwin Park.

(Code 1963, § 3.11)

Secs. 78-62—78-80. - Reserved.

BIRMINGHAM

NOTICE OF INTENTION TO APPOINT TO THE BIRMINGHAM AREA CABLE BOARD

At the regular meeting of Monday, April 13, 2026, the Birmingham City Commission intends to appoint the following positions to the Birmingham Area Cable Board:

- Two regular members to serve the remainder of three-year terms to expire March 30, 2029
- One alternate member to serve the remainder of a three-year term to expire March 30, 2029
- One alternate member to serve the remainder of a three-year term to expire March 30, 2028

Interested citizens may submit an application available at the City Clerk's office or online at www.bhamgov.org/boardopportunities. Applications must be submitted to the City Clerk's office on or before noon on Wednesday, April 8, 2026. These documents will appear in the public agenda for the regular meeting at which time the City Commission may make nominations and vote on appointments.

Duties

- Advise the municipalities on matters relating to cable communications
- Monitor the franchisee's compliance with the franchise agreement and the cable communications ordinance
- Conduct performance reviews as outlined in Chapter 30, Article VII of the city code
- Act as liaison between the franchisee and the public
- Hear complaints from the public and seek their resolution from the franchisee
- Advise the various municipalities on rate adjustments and services according to the procedure outlined in Chapter 30, Article VI
- Advise the municipalities on renewal, extension or termination of a franchise
- Appropriate those moneys deposited in an account in the name of the Cablecasting Board by the member communities
- Oversee the operation of the education, governmental and public access channels
- Apprise the municipalities of new developments in cable communications technology
- Hear and decide all matters or requests by the operator (Comcast Cablevision)
- Hear and make recommendations to the municipalities of any request of the operator for modification of the franchise requirement as to channel capacity and addressable converters or maintenance of the security fund
- Hear and decide all matters in the franchise agreement which would require the operator to expend moneys up to fifty thousand dollars
- Enter into contracts as authorized by resolutions of the member municipalities
- Administer contracts entered into by the board and terminate such contracts

Applicant(s) Presented for City Commission Consideration:

Applicant Name	Criteria/Qualifications Members must be residents of the City of Birmingham.
Deanna Brown	25-year resident and current long-standing board member seeking reappointment.

SUGGESTED COMMISSION ACTION:

To appoint _____ as a regular member to the Birmingham Area Cable Board to serve the remainder of a three-year term to expire May 1, 2029.

NOTE: All members of boards and commissions are subject to the provisions of City of Birmingham City Code Chapter 2, Article IX, Ethics and the filing of the Affidavit and Disclosure Statement.

BIRMINGHAM
A WALKABLE CITY

Mya Brown <mbrown@bhamgov.org>

FromClerksOffice- APPLICATION FOR CITY BOARD OR COMMITTEE [#127]

1 message

'Wufoo' via Clerks Office <ClerksOffice@bhamgov.org> Sat, Mar 28, 2026 at 11:30 AM
Reply-To: no-reply@wufoo.com
To: clerksOffice@bhamgov.org

Board/Committee of Interest	Birmingham Area Cable Board
Specific Category/Vacancy on Board (see below)	board member
Name	Deanna Brown
Residential Address	662 Wallace St Birmingham, MI 48009 United States
Phone Number *	(248) 705-8371
Email **By providing your email to the City, you agree to receive news and notifications from the City. If you do not wish to receive these messages, you may unsubscribe at any time.**	deannadbrown@comcast.net
Length of Residence	25 years
Occupation	self employed
Reason for Interest: Explain how your background and skills will enhance the board to which you have applied.	Long time resident and current member of the BACB. I strongly believe that providing funding for technology and access to our communities is what makes our community members unique.
List your related employment experience	President Original 4 (online clothing retailer)
List your related community activities	Chair of BCS Blast (only school fundraiser) 2014-2018
To the best of your knowledge, do you or a member of your immediate family have any direct financial or business relationships with any supplier, service provider or contractor of the City of Birmingham from which you or they derive direct compensation or financial benefit? If yes, please explain.	No
Do you currently have a relative serving on the board/committee to which you have applied?	No
Are you an elector (registered voter) in the City of Birmingham? *	yes

CABLECASTING BOARD

Chapter 30 - Section 30-226 - Birmingham City Code
Meeting Schedule: 3rd Wednesday of the month - 7:45 A. M

The Board shall consist of 12 members, which includes 7 members who are residents of the City of Birmingham. Each member community shall also appoint one alternative representative. (30-226)

Last Name Home Address	First Name	Home Business E-Mail	Appointed	Term Expires
Abraham 898 Arlington	**George**	(248) 642-1257 *georgeabrahamjr@outlook.com*	5/14/2018 Birmingham resident	3/30/2027
Brown 662 Wallace St	**Deanna**	(248) 705-8371 *deannadbrown@comcast.net*	2/27/2023 Birmingham Resident	3/30/2026
Cleary 2001 Fairway	**Jim**	(248) 840- 8416 *clearyjp@gmail.com*	12/21/2020 Birmingham resident	3/30/2028
Eick 559 Greenwood	**R. David**	(248) 231-8067 *eickhouse@comcast.net*	12/14/2015 Birmingham resident	3/30/2027
Frykman 367 Suffield Ave	**William**	(313) 600-9911 *wfrykman@comcast.net*	1/12/2026 Birmingham resident	3/30/2027

For Cable Inquires:
Cathy White 248-336-9445
P.O. Box 165, Birmingham, MI 48012

Last Name	First Name	Home Business E-Mail	Appointed	Term Expires
Shand 1645 Buckingham Ave.	**Donovan**	(248) 330-0747 *dgshand@gmail.com*	12/4/2017 Birmingham resident	3/30/2026
Vacated	**3/30/2022**		ALTERNATE	3/30/2028
Vacated	**3/30/2023**		Alternate/ Birmingham Resident	3/30/2029

For Cable Inquires:
Cathy White 248-336-9445
P.O. Box 165, Birmingham, MI 48012

Sec. 30-226. Creation and membership of board.

(a) The Birmingham City Commission and the Village Councils of Beverly Hills, Bingham Farms, and Franklin have established a cablecasting board. The board shall continue to consist of 12 members, seven who are residents of the City of Birmingham who shall be appointed by the City of Birmingham, four who shall be residents of Beverly Hills who shall be appointed by that Village, one who shall be a resident of Bingham Farms who shall be appointed by that Village, and one who shall he a resident or appointed official of the Village of Franklin who shall he appointed by the Village. Each member shall also appoint one alternate representative. Members of the board shall serve without compensation and for such terms as their respective authorities shall determine. The City of Birmingham and the villages shall also have sole power to remove and/or replace their respective appointees.

(b) Each of the board's member communities is encouraged to appoint an elected or appointed official of that community to act as a liaison to the board, to attend board meetings, and to participate in board discussions.

(c) The Birmingham School District and the Baldwin Library are each also encouraged to appoint a representative to act as a liaison to the board and to participate in board discussions regarding matters relevant to their respective interests and constituencies.

(d) Seven members of the board shall constitute a quorum and the affirmative vote of a majority of the full board shall be required for board action.

(Ord. No. 1540, § 2.2909, 11-9-92; Ord. No. 1724, 3-20-00; Ord. No. 1757, 6-11-01)

BIRMINGHAM

NOTICE OF INTENTION TO APPOINT TO THE PLANNING BOARD

At the regular meeting of Monday, April 13, 2026, the Birmingham City Commission intends to appoint the following position to the Planning Board:

- One regular member to serve the remainder of a three-year term to expire March 28, 2029

Interested citizens may submit an application available at the City Clerk's office or online at www.bhamgov.org/boardopportunities. Applications must be submitted to the City Clerk's office on or before noon on Wednesday, April 8, 2026. These documents will appear in the public agenda for the regular meeting at which time the City Commission may make nominations and vote on appointments.

Duties

The Planning Board consists of seven regular and two alternate members who serve three-year terms without compensation. The board meets at 7:30 P.M. on the second and fourth Wednesday of each month to hear design reviews, zoning ordinance text amendments and any other matters which bear relation to the physical development or growth of the City.

Specifically, the duties of the Planning Board are as follows:

- Long range planning
- Zoning ordinance amendments
- Recommend action to the City Commission regarding special land use permits
- Site plan/design review for non-historic properties
- Joint site plan/design review for non-residential historic properties
- Rezoning requests
- Soil filling permit requests
- Requests for opening, closing or altering a street or alley

Applicant(s) Presented for City Commission Consideration:

Applicant Name	Criteria/Qualifications
	Members must consist of an architect duly registered in this state, a building owner in the Central Business or Shain Park Historic District, and the remaining members shall represent, insofar as possible, different occupations and professions such as, but not limited to, the legal profession, the financial or real estate professions, and the planning or design professions and must be residents of the City of Birmingham.

Duncan Currie	34-year resident, retired engineer, and current board alternate seeking appointment to a regular member position.

SUGGESTED COMMISSION ACTION:

To appoint _____ as a regular member to the Planning Board to serve the remainder of a three-year term to expire March 28, 2029.

NOTE: All members of boards and commissions are subject to the provisions of City of Birmingham City Code Chapter 2, Article IX, Ethics and the filing of the Affidavit and Disclosure Statement.

BIRMINGHAM
A WALKABLE CITY

Mya Brown <mbrown@bhamgov.org>

FromClerksOffice- APPLICATION FOR CITY BOARD OR COMMITTEE [#128]

1 message

'Wufoo' via Clerks Office <ClerksOffice@bhamgov.org> Wed, Apr 1, 2026 at 11:14 AM
Reply-To: no-reply@wufoo.com
To: clerksOffice@bhamgov.org

Board/Committee of Interest	Planning Board
Specific Category/Vacancy on Board (see below)	Regular Member
Name	Duncan Currie
Residential Address	579 Ridgedale Ave Birmingham, MI 48009 United States
Business Address	579 Ridgedale Ave Birmingham, MI 48009 United States
Phone Number *	(248) 921-5544
Email **By providing your email to the City, you agree to receive news and notifications from the City. If you do not wish to receive these messages, you may unsubscribe at any time.**	duncan.o.currie@gmail.com
Length of Residence	34 years
Occupation	Engineer - retired
Reason for Interest: Explain how your background and skills will enhance the board to which you have applied.	Currently an alternate member on the Planning Board. I believe that my background as an engineer gives me the ability to better understand some of the more technical aspects of a design proposal, complementing the legal aspects, of which the board is well represented.
List your related employment experience	Engineer at Ford for 38 years Contract engineer at United Metal products for 3 years Owner/property manager of residential real estate in Grosse Pointe Park Owner/property manager of residential real estate in Ann Arbor
List your related community activities	Alternate Member of Planning Board since 2025
List your related educational experience	Bachelor of Science degree in Mechanical Engineering from U of M - Ann Arbor Various business-related classes (non-degree) from U of M and Wayne State Numerous courses in corporate behavior, engineering, design, finance, manufacturing while at Ford

To the best of your knowledge, do you or a member of your immediate family have any direct financial or business relationships with any supplier, service provider or contractor of the City of Birmingham from which you or they derive direct compensation or financial benefit? If yes, please explain.	No
Do you currently have a relative serving on the board/committee to which you have applied?	No
Are you an elector (registered voter) in the City of Birmingham? *	Yes

PLANNING BOARD

Chapter 82 – Section 82-27 – Seven Members
Job Requirements: An architect duly registered in this state, a building owner in the Central Business or Shain Park Historic District, and remaining members, must represent, insofar as possible, different occupations and professions such as, but not limited to, the legal profession, the financial or real estate professions, and the planning or design professions.
Terms: Three Years
Appointment by City Commission
Meeting Schedule: Second and Fourth Wednesday of the month at 7:30 PM.

Last Name / Home Address	First Name	Home / Business / E-Mail	Appointed	Term Expires
Boyce 348 George St.	**Janelle**	(248) 321-3207 *jlwboyce@hotmail.com*	12/10/2007 Design profession	3/28/2029
Boyle 840 Wimbleton	**Robin**	(248) 961-1514 *r.boyle@wayne.edu*	4/19/2004 Planning professor	3/28/2028
Clein 1556 Yosemite	**Scott**	(313) 330-0217 *s.clein@comcast.net*	3/22/2010 Civil engineer/urban design	3/28/2028
Currie 579 Ridgedale Ave	**Duncan**	(248)9215544 *duncan.o.currie@gmail.com*	Alternate/Mechanical Engineer	3/28/2027
Jeffares 1381 Birmingham Blvd	**Stuart**	(248) 321-2120 *stuartjeffares@gmail.com*	12/14/2015 Real estate profession	3/28/2027

Last Name Home Address	First Name	Home Business E-Mail	Appointed	Term Expires
Ramin 1701 Maryland	**Nasseem**	(248) 765-9446 *nramin@dykema.com*	11/20/2017 Alternate/attorney	3/28/2027
Share 1040 Gordon Lane	**Daniel**	(248) 642-7340 *dshare@bsdd.com*	11/24/2014 Building owner	3/28/2027
Vacant	**3/23/2026**		Regular Member	3/28/2029
Williams 1628 Latham St.	**J. Bryan**	(248) 420-3522 (248) 433-7289 *jwilliams@dickinsonwright.com*	4/16/2007 Attorney	3/28/2027

Name of Board: PLANNING BOARD **Year:** 2024

Members Required for Quorum: 4

MEMBER NAME																				Total Mtgs. Att.	Total Absent	Percent Attended Available
REGULAR MEMBERS	1/10	1/24	2/28	3/13	3/27	5/8	5/22	6/26	7/10	7/24	8/14	8/28	9/11	9/25	10/9	11/13	12/11					
Janelle Boyce	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P				16	1	94%
Robin Boyle	P	A	P	A	A	P	P	A	P	P	P	P	P	A	P	P	P				12	5	71%
Scott Clein	A	P	P	P	A	P	P	P	P	P	P	P	P	P	P	A	P				14	3	82%
Stuart Jeffares	P	A	P	P	P	P	P	P	P	P	P	P	A	A	A	P	P				13	4	76%
Bert Koseck	P	P	A	P	A	P	P	P	A	P	P	P	P	A	P	P	P				13	4	76%
Daniel Share	P	P	P	P	P	P	A	P	P	A	P	P	P	P	A	P	P				14	3	82%
J. Bryan Williams	A	P	P	P	P	P	P	P	P	A	P	P	A	P	P	P	P				14	3	82%
ALTERNATES																							
Naseem Ramin	P	P	A	A	P	A	A	P	A	A	P	A	A	A	P	A	A				6	11	35%
Jason Emerine	P	A	A	A	A	A	P	P	P	A	P	P	P	P	P	P	P				11	6	65%
																					0	0	#DIV/0!
																					0	0	#DIV/0!
TOTAL	**6**	**6**	**6**	**6**	**5**	**7**	**7**	**8**	**7**	**5**	**9**	**8**	**6**	**5**	**7**	**7**	**8**	0	0	0			

KEY:

A = Member absent
P = Member present or available
CP = Member available, but meeting canceled for lack of quorum
CA = Member not available and meeting was canceled for lack of quorum
NA = Member not appointed at that time
NM = No meeting scheduled that month
CM = Meeting canceled for lack of business items

Planning Board ATTENDANCE RECORD

Name of Board: Planning Board **Year:** 2025

Members Required for Quorum: 4

MEMBER NAME	1/8	1/22	2/12	2/26	3/12	3/26	4/9	4/23	5/14	5/28	6/11	6/25	7/9	7/23	8/13	8/27	9/10	10/22	11/12	12/10	SPEC MTG 4/30	Total Mtgs. Att.	Total Absent	Percent Attended Available
REGULAR MEMBERS																								
JANELLE WHIPPLE-BOYCE	CM	A	P	P	CM	P	P	P	P	P	P	P	P	P	P	P	A	A	P	P	P	16	3	84%
ROBIN BOYLE	CM	P	P	P	CM	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	18	1	95%
SCOTT CLEIN	CM	P	P	P	CM	A	A	P	P	P	P	P	P	P	P	P	P	P	A	A	P	15	4	79%
STUART JEFFARIES	CM	P	P	P	CM	A	P	A	P	A	P	A	P	P	P	A	A	A	A	P	P	11	8	58%
BERT KOSECK	CM	A	A	A	CM	P	P	A	P	A	P	P	A	P	P	P	P	P	A	A	P	11	8	58%
DANIEL SHARE	CM	P	P	P	CM	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	A	17	2	89%
BRYAN WILLIAMS	CM	P	P	P	CM	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	A	17	2	89%
ALTERNATES																								
DUNCAN CURRIE	CM	NA	NA	NA	CM	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	A	13	3	81%
NASSEEM RAMIN	CM	P	P	P	CM	P	A	P	A	P	P	A	P	A	P	A	A	P	P	P	A	12	7	63%
STUDENTS																								
CARTER ANDERSON	NA	NA	P	P	CM	A	P	A	P	P	A	P	A	A	A	P	A	A	A	A	A	7	11	39%
OLIVIA BETANZOS	NA	NA	P	A	CM	A	P	A	P	P	A	A	A	A	A	A	A	A	A	A	A	4	14	22%
Present or Available	0	**6**	**7**	**7**	0	**7**	**7**	**5**	**7**	**7**	**9**	**6**	**8**	**7**	**9**	**7**	**6**	**7**	**6**	**7**	**5**			

KEY:
- **A** = Member absent
- **P** = Member present or available
- **CP** = Member available, but meeting canceled for lack of quorum
- **CA** = Member not available and meeting was canceled for lack of quorum
- **NA** = Member not appointed at that time
- **NM** = No meeting scheduled that month
- **CM** = Meeting canceled for lack of business items

Department Head Signature

Planning Board ATTENDANCE RECORD

Name of Board: Planning Board **Year:** 2026

Members Required for Quorum: 4

MEMBER NAME	1/14	1/28	2/11	2/25	3/11	3/25															SPEC MTG	Total Mtgs. Att.	Total Absent	Percent Attended Available
REGULAR MEMBERS																								
JANELLE WHIPPLE-BOYCE	CM	P	CM	CM	P																	2	0	100%
ROBIN BOYLE	CM	P	CM	CM	A																	1	1	50%
SCOTT CLEIN	CM	P	CM	CM	A																	1	1	50%
STUART JEFFARIES	CM	P	CM	CM	A																	1	1	50%
BERT KOSECK	CM	A	CM	CM	A																	0	2	0%
DANIEL SHARE	CM	P	CM	CM	P																	2	0	100%
BRYAN WILLIAMS	CM	P	CM	CM	P																	2	0	100%
ALTERNATES																								
DUNCAN CURRIE	CM	P	CM	CM	P																	2	0	100%
NASSEEM RAMIN	CM	A	CM	CM	P																	1	1	50%
STUDENTS																								
-																						0	0	#DIV/0!
-																						0	0	#DIV/0!
Present or Available	0	**7**	0	0	**5**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			

KEY:
- **A** = Member absent
- **P** = Member present or available
- **CP** = Member available, but meeting canceled for lack of quorum
- **CA** = Member not available and meeting was canceled for lack of quorum
- **NA** = Member not appointed at that time
- **NM** = No meeting scheduled that month
- **CM** = Meeting canceled for lack of business items

Department Head Signature

ARTICLE II. PLANNING BOARD[1]

Sec. 82-26. Created.

There is hereby created a planning board for the city. The planning board is a locally organized board and is not established under the Municipal Planning Commission Act, Act No. 285 of the Public Acts of Michigan of 1931 (MCL 125.31 et seq.), as amended.

(Code 1963, § 5.401)

Sec. 82-27. Composition.

(a) The planning board shall consist of seven regular members whose residences are located in the city.

(b) One member of the planning board shall be an architect duly registered in this state, if such person is available. The other members shall represent, insofar as possible, different occupations and professions such as, but not limited to, the legal profession, the financial or real estate professions, and the planning or design professions. One of the members of the planning board shall be a building owner in the central business district or Shain Park Historic District.

(c) The city manager, city engineer and city planner, or the authorized representatives of any of them, and the student representative, shall be members ex officio of the planning board and shall have all rights of membership thereon, except the right to vote.

(d) The city commission may also appoint not more than two alternate members for the same term as regular members of the planning board. The alternate member may be called on a rotating basis to sit as a regular member of the planning board in the absence of a regular member. An alternate member may also be called to service in the place of a regular member for the purpose of reaching a decision on a case in which the regular member has abstained for reasons of conflict of interest. The alternate member having been appointed shall serve in the case until a final decision has been made. The alternate member shall have the same voting rights as a regular member of the planning board.

(Code 1963, § 5.401; Ord. No. 1811, 7-28-03; Ord. No. 2147, 10-27-14)

Sec. 82-28. Terms.

Members of the planning board shall be appointed by the city commission for terms of office of three years; except that two members of the first board shall be appointed to serve for a term of one year, two for terms of two years, and three for terms of three years. All members shall hold office until their successors are appointed. A vacancy occurring in the membership of the planning board for any cause shall be filled by a person appointed by the city commission for the duration of the unexpired term.

(Code 1963, § 5.401)

---

[1]Cross reference(s)—Boards and commissions, § 2-171 et seq.

Sec. 82-29. Removal of members.

(a) Members of the planning board may, after a public hearing, be removed for cause.

(1) As used in this section, the term "cause" is defined as a determination by the city commission that a sufficient reason exists, as determined and defined by the city commission in its sole discretion, for the removal of a member of the planning board. The decision by the city commission to remove a member of the planning board shall be final and binding upon such member of the planning board and no appeal shall arise therefrom.

(2) As used in this section, the term "public hearing" is designed as an open meeting at which the determination is made by the city commission, in its sole discretion, that cause exists for the removal of a member of the planning board. For purposes of an orderly presentation, the city attorney shall serve as chairperson of the public hearing, and the city manager, or his/her designee, may present information to the city commission with respect to the potential removal of a member of the planning board. The city manager or his/her designee will be afforded the opportunity to address the city commission with respect to such information for a period not to exceed 30 minutes. The affected member of the planning board or his/her designated representative will be afforded the opportunity to address the city commission with respect to such information for a period not to exceed 30 minutes. The presentation of information by the city manager or his/her designee and the presentation of information by the affected member or his/her designated representative may, in accordance with applicable law, be conducted in a closed session. This Section shall not be construed as creating a right to a due process or evidentiary hearing.

(b) This section shall not be construed as creating or bestowing upon a member of the planning board any employment status, property interest or any vested interest or right to continued membership on the planning board.

(Code 1963, § 5.402; Ord. No. 1817, 1-5-04)

Sec. 82-30. Compensation.

The members of the planning board shall serve as such without compensation.

(Code 1963, § 5.401)

Sec. 82-31. Organization and meetings.

(a) The planning board shall, from its appointed members, elect a chairman and vice-chairman whose terms of office shall be fixed by the planning board. The chairman shall preside over the planning board and shall have the right to vote. The vice-chairman shall, in the case of absence or disability of the chairman, perform the duties of the chairman. The city planner or his authorized representative shall act as secretary of the planning board and shall keep a record of all of its proceedings.

(b) At least four members of the planning board shall constitute a quorum for the transaction of its business.

(c) The planning board shall:

(1) Adopt rules for the transaction of its business, which provide for the time and place of holding regular meetings.

(2) Provide for the calling of special meetings by the chairman or by at least two members of the planning board.

(3) Keep a full and complete record of its resolutions, transactions, findings and determinations, which record shall be available to the city commission and to the public upon request.

(d) All meetings of the planning board shall be open to the public, and any person or his duly constituted representative shall be entitled to appear and be heard on any matter applicable to the business at hand before the planning board makes its decision.

(e) The concurring affirmative vote of four members of the planning board shall be required for approval of plans before it for review or for the adoption of any resolution, motion or other action by the planning board.

(Code 1963, § 5.403)

Sec. 82-32. Assistance.

The planning board may call upon the city manager for such services and data from the various departments as it may require. The planning board may recommend to the city commission the securing of such professional and consulting services as it may require; however, no expenditures of funds shall be made or contracts entered into for providing such professional or consulting services unless the same shall first be approved and authorized by the city commission.

(Code 1963, § 5.404)

Sec. 82-33. Duties.

(a) It shall be the function and duty of the planning board to advise the city commission in regard to the proper development of the city. The planning board is specifically charged with carrying out the goals, objectives and intent of the city's adopted master plan and urban design plan and other development-oriented plans which may subsequently be adopted. The planning board is authorized to consult and cooperate with the planning, historic district and legislative bodies of other governmental units in any area outside the boundaries of the city. The planning board is authorized to prepare a recommendation for the physical development of the city, either in its entirety, or in part. Such recommendation, together with accompanying maps, plats, charts and descriptive matter, shall illustrate the planning board suggestions for the development of such territory.

(b) The planning board is authorized to consider and act upon applications for soil filling permits under the provisions of section 50-126 et seq.

(c) The planning board is authorized to recommend for the guidance of the city commission amendments to this Code relating to the control and development of lands within the city's historic districts. The planning board may, from time to time, amend, extend or add to such recommendations; and the same shall be made with the general purpose of guiding and accomplishing a coordinated, adjusted and harmonious development of the municipality and its environs. The planning board may hold such public meetings and/or hearings from time to time, as it may deem advisable or necessary in connection with the proper performance of its functions under this article.

(d) Not later than April 1 of each year, the planning board shall prepare and submit to the city manager a tentative outline of its program for the ensuing year. Joint meetings of the city commission and of the planning board shall be held at least semi-annually, at a time designated by the mayor. It shall be the duty of the mayor to call such meeting in accordance with the provisions of this section.

(Code 1963, § 5.405; Ord. No. 1777, 1-28-02; Ord. No. 1838, 6-28-04; Ord. No. 1858, 3-7-05)

Sec. 82-34. Review and recommendations.

(a) The planning board shall have the responsibility for site plan and design review for nonhistoric properties and joint site plan review of historic properties with the design review board as outlined in chapter 127 of this Code. It shall be the function of the planning board to pass upon all matters referred to it by the city commission and to give to the city commission the benefit of its judgment with relation to such matters so referred. Matters so referred may include but not necessarily be restricted to:

(1) Requests for changes to the zoning map;

(2) Requests for amendments to the zoning ordinance text;

(3) Requests for closing, opening or altering a street or an alley;

(4) Requests for issuing building permits;

(5) Requests for special land use permits; and

(6) Any other matters which bear relation to the physical development or growth of the municipality.

(b) When any recommendation has been made by the planning board, the same shall be referred to the city commission or other appropriate city boards.

(Code 1963, § 5.406; Ord. No. 1882, 7-24-06)

Secs. 82-35—82-55. Reserved.

BIRMINGHAM

NOTICE OF INTENTION TO APPOINT TO THE ARCHITECTURAL REVIEW COMMITTEE

At the regular meeting of Monday, April 13, 2026, the Birmingham City Commission intends to appoint the following position to the Architecture Review Committee:

- One regular member to serve the remainder of a three-year term to expire April 11, 2029

Interested citizens may submit an application available at the City Clerk's office or online at www.bhamgov.org/boardopportunities. Applications must be submitted to the City Clerk's office on or before noon on Wednesday, April 8, 2026. These documents will appear in the public agenda for the regular meeting at which time the City Commission may make nominations and vote on appointments.

Duties

The purpose of the Architectural Review Committee is to review certain public improvement projects initiated by the City and referred to the committee by the City Manager or his/her designee. The committee is expected to offer opinions as to what physical alterations or enhancements could be made to these projects in order to improve the aesthetic quality of the project and the City's overall physical environment.

Members of this Committee will be appointed by the City Commission. The Committee shall consist of three Michigan licensed architects who reside in the City of Birmingham.

Applicant(s) Presented for City Commission Consideration:

Applicant Name	**Criteria/Qualifications**
	Michigan Licensed Architect & resident of the City of Birmingham
Javier Alvarez-Isasi	5-year resident and architect seeking reappointment to the board.

SUGGESTED COMMISSION ACTION:

To appoint _____ as a regular member to the Architectural Review Committee to serve the remainder of a three-year term to expire April 11, 2029.

NOTE: All members of boards and commissions are subject to the provisions of City of Birmingham City Code Chapter 2, Article IX, Ethics and the filing of the Affidavit and Disclosure Statement.

APR 02 2026 3 PM
RECEIVED
CLERK'S OFFICE

BIRMINGHAM
A WALKABLE CITY

OFFICE USE ONLY
Retention: Active +2 years

APPLICATION FOR CITY BOARD OR COMMITTEE

Thank you for your interest in serving on a Board or Committee. The purpose of this form is to provide the City Commission with basic information about applicants considered for appointment. NOTE: Completed applications are included in the City Commission agenda packets. The information included on this form is open to the public. All Board and Committee members are subject to the provisions of the Ethics Ordinance (Chapter 2, Article IX of the City Code).

Information on various Boards and Committees and a list of current openings can be found on the City website at www.bhamgov.org/boardopportunities. Applications must be submitted to the city clerk's office at or before noon on the Wednesday prior to the City Commission meeting.

(Please print clearly)

Board/Committee of Interest: Architectural Review Committee

Specific Category/Vacancy on Board: _____ (see back of this form for information)

Name: Javier Alvarez-Isasi

Phone: 718-490-9833

Residential Address: 937 Smith Ave

Email *: jalvarez.isasi@gmail.com

Residential City, Zip: Birmingham, MI 48009

Length of Residence: 5 years.

Business Address: 500 Griswold

Occupation: Architect

Business City, Zip: Detroit, MI, 48226

Reason for Interest: Explain how your background and skills will enhance the board to which you have applied

My background as an architect and developer could bring and enhance the committee.

List your related employment experience: I have experiences in residential, commercial and healthcare.

List your related community activities: Member of the board for friends of the Baldwin Public Library Board.

List your related educational experience: Architectural Design.

To the best of your knowledge, do you or a member of your immediate family have any direct financial or business relationships with any supplier, service provider or contractor of the City of Birmingham from which you or they derive direct compensation or financial benefit? If yes, please explain: No, I don't

Do you currently have a relative serving on the board/committee to which you have applied? No, I don't.

Are you an elector (registered voter) in the City of Birmingham? Yes, I am

Javier Alvarez-Isasi
Signature of Applicant

4/1/26
Date

Return the completed and signed application form to: City of Birmingham, City Clerk's Office, 151 Martin, Birmingham, MI 48009 or by email to clerksoffice@bhamgov.org or by fax to 248.530.1080.

Updated 3/24/2021

**By providing your email 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.*

ARCHITECTURAL REVIEW COMMITTEE

Resolution #: 03-101-04

Purpose: To review certain public improvement projects initiated by the city and referred to the committee by the city manager or his/her designee. The committee is expected to offer opinions as to what physical alterations or enhancements could be made to these projects in order to improve the aesthetic quality of the project and the city's overall physical environment.

Members: The committee shall consist of three Michigan licensed architects who reside in the City of Birmingham.

Term: Three years

Last Name Home Address	First Name	Home Business E-Mail	Appointed	Term Expires
Alvarez-Isasi 937 Smith	**Javier**	(718) 490-9833 *jalvarez.isasi@gmail.com*	9/18/2023 Michigan Licensed Architect & Resident of Birmingham	4/11/2026
Bertollini 1275 Webster	**Larry**	(248) 646-6677 *lbertollini@att.net*	6/25/2012 Michigan Licensed Architect & Resident of Birmingham	4/11/2027
Motyl 1859 Yorkshire	**Benjamin**	(215) 704-4198 *benmotyl@gmail.com*	10/28/2025 Michigan Licensed Architect & Resident of Birmingham	4/11/2028

ARCHITECTURAL REVIEW COMMITTEE FOR REVIEW OF CERTAIN PUBLIC IMPROVEMENT PROJECTS

Whereas, the Downtown Birmingham 2016 report Process Two, page 45, of the final report dated November 1, 1996 found that certain discretionary aesthetic decisions are, of necessity, made by City staff, and

Whereas, in the discussion of Process Two it was noted that the physical design of certain improvements within the City do not receive the benefit of an eye worthy of a City that considers itself the artistic capital of the region, and

Whereas, in the recommendation of Process Two it was suggested that the position of consulting town architects could be created to advise staff in matters of design review, and

Whereas, the Planning Division recommended, in a report to the City Commission dated February 23, 2004, that an architectural review Ad Hoc committee be created for a one year trial period, and

Whereas, on March 29, 2004, the City Commission created an Architectural Review Ad Hoc committee for a one year trial period for purposes of reviewing certain public improvement projects and offering advisory opinions, and

Whereas the City Commission has determined that the involvement of the Ad Hoc Architectural Review Committee has been beneficial and should be created as a standing committee.

Now Therefore Be It Resolved that an Architectural Review Committee for review of certain public improvement projects is hereby established as a standing committee and is subject to the following provisions:

1. A three member committee shall consist of three Michigan licensed architects who reside in the City of Birmingham. The members shall be appointed by the City Commission for a term of three years fro the date of appointment. The initial terms of the committee shall be one term for one (1) year, one term for (2) years, and one term for three (3) years beginning from the date of appointment. Thereafter, all terms shall be for three years. Members shall serve without compensation and shall serve until replaced. Members may be removed by majority vote of the city commission.
2. The purpose of the Architectural Review Committee shall be to meet in properly noticed public meetings to review certain <u>public</u> improvement projects initiated by the City and referred to the committee by the City Manager or his/her designee. The committee is expected to offer advisory opinions as to what physical alterations or enhancements could be made to these projects in order to improve the aesthetic quality of the project and the City's overall physical environment.

3. Only those public projects which are initiated after the appointment of all Ad Hoc Architectural Committee members and which are referred by the City Manager or his/her designee shall be reviewed by the committee. Generally, only those projects which are above grade improvements, and/or for which no other appointed board or committee review is conducted, and/or for which no adopted City standard is in place for the proposed improvement would be reviewed by the committee.

4. It is intended that the review process will not cause additional time to be added to the improvement process so as to be seamless in the review of certain public improvement projects. It is anticipated that the committee and appropriate City staff will arrange for an orderly flow of meetings early enough in the improvements process to minimize the added cost of any aesthetic enhancement that may be added to a public improvement. The City Manager or his/her designee will be the final determinant in deciding whether to incorporate the advisory recommendations or not. The determination will be reported to the committee and included in the minutes/records of the committee.

5. The City staff will keep minutes/records of the meetings of the committee which will be available to the public.

CITY COMMISSION MEETING MINUTES
APRIL 11, 2005
MUNICIPAL BUILDING, 151 MARTIN
7:30 PM

I. CALL TO ORDER AND PLEDGE OF ALLEGIANCE

Mayor Rackeline J. Hoff called the meeting to order at 7:30PM.

II. ROLL CALL

Present: Mayor Hoff
Commissioner Carney
Commissioner McDaniel
Commissioner McKeon
Commissioner Moore
Commissioner Plotnik
Commissioner Thorsby

Absent: None

Administration: Manager Markus, Deputy Clerk Broski, Attorney Currier, Planners Ecker and Bashiri, Management Specialist Valentine, Police Chief Patterson, Deputy Chief Studt, EPS Director Dembiec, PSD Director Heiney

III. PROCLAMATIONS, CONGRATULATORY RESOLUTIONS, AWARDS, APPOINTMENTS, RESIGNATIONS AND CONFIRMATIONS, ADMINISTRATION OF OATHS AND INTRODUCTION OF GUESTS

04-103-05 APPOINTMENT TO THE PUBLIC ARTS BOARD

MOTION: Motion by Plotnik:
To appoint Christine Schefman, District Art Gallery, 955 S. Eton, to the Public Arts Board to serve a three-year term to expire January 28, 2008.

VOTE: Yeas, 7
Absent, None

04-104-05 ARCHITECTURAL REVIEW COMMITTEE

In response to Commissioner Thorsby, the City Manager reviewed the activities of the committee over the past year.

Commissioner McDaniel expressed concern with taking the committee out of the ad hoc category. He questioned what the city gains by making it a standing committee.

Mr. Markus explained that in removing the ad hoc status, the commission can still dissolve the committee or remove a member if they desire. He stated that the intent was to try it for a year, if beneficial, make it permanent.

MOTION: Motion by Plotnik, seconded McKeon:

Whereas, the Downtown Birmingham 2016 report Process Two, page 45, of the final report dated November 1, 1996 found that certain discretionary aesthetic decisions are, of necessity, made by City staff, and

Whereas, in the discussion of Process Two it was noted that the physical design of certain improvements within the City do not receive the benefit of an eye worthy of a City that considers itself the artistic capital of the region, and

Whereas, in the recommendation of Process Two it was suggested that the position of consulting town architects could be created to advise staff in matters of design review, and

Whereas, the Planning Division recommended, in a report to the City Commission dated February 23, 2004, that an architectural review Ad Hoc committee be created for a one year trial period, and

Whereas, on March 29, 2004, the City Commission created an Architectural Review Ad Hoc committee for a one year trial period for purposes of reviewing certain public improvement projects and offering advisory opinions, and

Whereas the City Commission has determined that the involvement of the Ad Hoc Architectural Review Committee has been beneficial and should be created as a standing committee.

Now Therefore Be It Resolved that an Architectural Review Committee for review of certain public improvement projects is hereby established as a standing committee and is subject to the following provisions:

1. A three member committee shall consist of three Michigan licensed architects who reside in the City of Birmingham. The members shall be appointed by the City Commission for a term of three years from the date of appointment. The initial terms of the committee shall be one term for one (1) year, one term for (2) years, and one term for three (3) years beginning from the date of appointment. Thereafter, all terms shall be for three years. Members shall serve without compensation and shall serve until replaced. Members may be removed by majority vote of the city commission.
2. The purpose of the Architectural Review Committee shall be to meet in properly noticed public meetings to review certain public improvement projects initiated by the City and referred to the committee by the City Manager or his/her designee. The committee is expected to offer advisory opinions as to what physical alterations or enhancements could be made to these projects in order to improve the aesthetic quality of the project and the City's overall physical environment.
3. Only those public projects which are initiated after the appointment of all Ad Hoc Architectural Committee members and which are referred by the City Manager or his/her designee shall be reviewed by the committee. Generally, only those projects which are above grade improvements, and/or for which no other appointed board or committee review is conducted, and/or for which no adopted City standard is in place for the proposed improvement would be reviewed by the committee.
4. It is intended that the review process will not cause additional time to be added to the improvement process so as to be seamless in the review of certain public improvement projects. It is anticipated that the committee and appropriate City staff will arrange for an orderly flow of meetings early enough in the improvements process to minimize the added cost of any aesthetic

enhancement that may be added to a public improvement. The City Manager or his/her designee will be the final determinant in deciding whether to incorporate the advisory recommendations or not. The determination will be reported to the committee and included in the minutes/records of the committee.

5. The City staff will keep minutes/records of the meetings of the committee which will be available to the public.

In response to a question from Clinton Baller, Mr. Markus explained that the duties of the committee will not change.

VOTE: Yeas, 7
Nays, None
Absent, None

In response to a question from Mayor Hoff, Christopher Longe expressed that it is a worthwhile committee.

MOTION: Motion by McKeon:
To appoint Michael Willoughby to the Architectural Review Committee for a one-year term to expire April 11, 2006.

VOTE: Yeas, 7
Absent, None

MOTION: Motion by McDaniel:
To appoint Christopher Longe to the Architectural Review Committee for a two-year term to expire April 11, 2007

VOTE: Yeas, 7
Absent, None

MOTION: Motion by Plotnik:
To appoint Scott Bonney to the Architectural Review Committee for a three-year term to expire April 11, 2008.

VOTE: Yeas, 7
Absent, None

The Deputy Clerk administered the oath of office to the appointed board members.

The Mayor recognized Chuck Moss, County Commissioner.

IV. CONSENT AGENDA

7:45PM

04-105-05 APPROVAL OF THE CONSENT AGENDA

The following items were removed from the consent agenda:

City Commission Minutes
Monday, March 23, 2026 - 7:00 p.m.
151 Martin Street, Birmingham
City Commission Room 205
Vimeo Link: https://vimeo.com/event/3470

---

1. CALL TO ORDER AND PLEDGE OF ALLEGIANCE

Clinton Baller, Mayor, opened the meeting with the Pledge of Allegiance.

2. ROLL CALL

City Clerk Bingham called the roll.

Present: Mayor Clinton Baller
Mayor Pro Tem Anthony Long
Commissioner Andrew Haig
Commissioner Brad Host
Commissioner Kevin Kozlowski
Commissioner William Kolb
Commissioner Therese Longe

Absent: None

Staff: City Manager Ecker; Fire Chief Bartalino, City Clerk Bingham, City Planner Blizinski, City Engineer Coatta, Assistant City Manager Fairbairn, Planning Director Dupuis, Police Chief Grewe, Deputy Treasurer Katz, City Attorney Kucharek

3. PROCLAMATIONS, CONGRATULATORY RESOLUTIONS, AWARDS, APPOINTMENTS, RESIGNATIONS AND CONFIRMATIONS, ADMINISTRATION OF OATHS, INTRODUCTION OF GUESTS AND ANNOUNCEMENTS.

ANNOUNCEMENTS

Regarding Antisemitism and the March 13, 2026 Attack on Temple Israel in West Bloomfield

Birmingham Historic Preservation Master Plan Receives Award from Michigan Historic Preservation Network

Happy Birthday Mayor Baller

APPOINTMENTS

03-059-26 Planning Board

Ms. Whipple-Boyce was interviewed for the appointment.

MOTION: Motion by Long:
To appoint Janelle Whipple-Boyce as a regular member to the Planning Board to serve a three-year term to expire March 28, 2029

VOICE VOTE
Ayes: Haig, Long, Host, Longe, Baller, Kozlowski, Kolb
Nays: None
Recused: None

CC Bingham swore in Ms. Whipple-Boyce.

4. OPEN TO THE PUBLIC FOR MATTERS NOT ON THE AGENDA

David Bloom commented regarding the former parking assessment district, the negative impacts of antisemitism, the importance of collegial relations between City government and Commissioners, and a vintage store relocating to Birmingham due to the high level of foot traffic.

Mike Clift commented regarding keeping the pool operational at 400 E. Lincoln and the resulting economic value to the community from doing so.

Jeff Hofeltz commented concerns about a Dollar Tree potentially replacing the CVS.

03-060-26 To Move Item H2 to be Addressed Presently

MOTION: Motion by Long, seconded by Kolb:
To move Item H2 on the agenda, Birmingham Police Department's Position on Immigration Enforcement, up on the agenda to be heard now.

VOICE VOTE
Ayes: Haig, Long, Host, Longe, Baller, Kozlowski, Kolb
Nays: None
Recused: None

03-061-26 Birmingham Police Department's Position on Immigration Enforcement

PC Grewe presented the item and answered questions.

Public Comment
Lila Brickner commented concern about the effects of Immigration and Customs Enforcement (ICE)

operations and encouraged the City to publicize its intended approach to potential (ICE) operations within the City.

Stacy Schreiber supported the Police Department's stated approach to potential ICE operations within the City and commented regarding this approach's applicability to all people within Birmingham.

Mr. Clift commented concerns regarding ICE agents operating without uniforms or badges within the City.

Charles Mcintyre concurred with the other commenters on the item and supported the Police Department's stated approach to potential ICE operations within the City.

MOTION: Motion by Long, seconded by Host:
To make a motion adopting a resolution to support the Birmingham Police Department's position to comply with all applicable local, state, and federal laws while providing compassionate and equitable police services to all those who live, work, and travel in our community. Furthermore, to support the Police Department's refusal to work with federal law enforcement for the sole purpose of immigration enforcement and the department's position to not participate in a 287(g) agreement.

VOICE VOTE
Ayes: Haig, Long, Host, Longe, Baller, Kozlowski, Kolb
Nays: None
Recused: None

5. CONSENT AGENDA

03-062-26 Consent Agenda

MOTION: Motion by Long, seconded by Haig:
To move the consent agenda including Items A through G.

ROLL CALL VOTE
Ayes: Haig, Longe, Baller, Host, Kozlowski, Kolb, Long
Nays: None
Recused: None

A. Resolution to approve the City Commission workshop meeting minutes of March 9, 2026.

B. Resolution to approve the City Commission regular meeting minutes of March 9, 2026.

C. Resolution to approve the warrant list, including Automated Clearing House payments dated March 11, 2026, in the amount of $5,393,399.61.

D. Resolution to approve the warrant list, including Automated Clearing House payments dated

March 18, 2026, in the amount of $843,554.19.

E. Resolution to set a public hearing date of April 13, 2026 to consider the Special Land Use Permit, Final Site Plan & Design Review application for 211 Hamilton Row - No 28.

F. Resolution to approve the City's emergency operations plan promulgation document. Further, to direct the Mayor, City Manager, and Fire Chief to sign the document on behalf of the City.

G. Resolution to accept the resignation of Mayor Pro Tem Anthony Long from the City Commission effective on April 13, 2026 at the end portion of the City Commission meeting, to thank him for his service and to direct the City Clerk to begin the process of filling the vacancy.

6. CITY MANAGER'S REPORT

CM Ecker presented the report.

Commissioners made the following comments:

- The Celebrate Birmingham Hometown Parade and Party will be Sunday, May 17th, at 1 p.m.
- For the artificial intelligence (AI) phone answering systems, ensuring that there is a clear 'out pathway' to speak to a person throughout the phone call will be important. Many AI phone answering systems fail because of out pathway issues.
- The City should publicize the bio of the new golf pro that will be working with the City.

Public Comment

Mr. Bloom supported the City in seeing if it might be able to offer some kind of support to an organization that might be able to operate the pool at 400 E. Lincoln, and opposed adding a sustainability fee to other parking fees.

7. UNFINISHED BUSINESS

Community Survey Updated Draft

ACM Fairbairn presented the item. Staff and the team from Cobalt Community Research answered questions.

Commissioners discussed the following regarding the item:

- This was an iterative process and the work group's feedback was appropriately integrated into the present draft.
- Question four, about perceptions of safety, should have a follow-up 'why' or 'explain' question.
- The handwritten text boxes should be longer.
- Alternatively, the text boxes do not need to be longer because the second half of longer comments on surveys tend to have less useful information.
- Reasons for and against including questions about Woodward were provided. While the City

does not control it, Woodward remains a significant source of concern for residents and omitting any mention of it might confuse the public.

- Commission consensus was to include the Woodward questions as part of question six with an annotation clarifying that Woodward is a State road and that the City does not control it.
- For question eight, 'of the improved streets' should be changed to 'of the unimproved streets'. 'Only' should be changed to 'partially' or 'primarily' by.
- While question eight may not provide as much data as the Commission may desire to start, it indicates where more granular data collection could be appropriate.
- For question eight, 'all' could be changed to something like 'where every resident helps to cover the costs of improving unimproved roads', and the parenthetical could be removed.
- For question eight, there could be a follow up about how much residents would be willing to pay annually to have the roads in Birmingham improved. This could provide a sense about the feasibility of a bond. Commission consensus was that figure ranges should likely be provided, and recommended by the work group.
- There was some feeling that drinking water reliability is not a concern within Birmingham, and therefore a question about it would not likely yield useful data.
- There was Commission consensus that the work group should recommend revisions to question 11 to allow for more open-ended comments about utilities, with specific phrasing to be determined.
- The text box for question 20 should be changed to allow for open-ended comments regarding anything from questions 16 through 19.
- For question 21, 'Don't know' should be replaced with 'Not applicable' or 'Not used'.
- A resident submitted comments by email a few hours before the present meeting. Those comments should be reviewed for accuracy and possible integration as appropriate. One amendment that might be made from those comments could be changing the tax dollar graphic under 'Planning and Future Considerations' so that 'Birmingham Public Schools' reads 'Schools'.
- For question 25, the 'Recreation programs' questions should be done in age order. 'Municipal facilities' should likely be changed to 'municipal buildings'.
- It seemed unlikely that 'building inspection and permitting' would likely be selected as a resident priority under question 25. It was unclear whether 'attracting and supporting local businesses' should be included since resident taxes do not fund those efforts.
- There was some concern that the breadth of topics covered in question 25 might not deliver usable data.
- There was Commission consensus that question 25 could use a bit more refinement.
- Question 26 should ask about annual amounts instead of monthly amounts. The ranges should be scaled up accordingly.
- For 'How long have you been living in this community?', the last option should be changed to 11+ years so as not to duplicate 10 years.

8. NEW BUSINESS

03-063-26 Confirmation of SAD Roll 917 2026 Cape Seal Program

The Mayor opened the public hearing at 8:58 p.m.

DT Katz presented the item.

John Deplanche, 450 Oak #202, commented his appreciation of the temporary patches done on Oak, supported more permanent solutions to the road surface on Oak, and supported diverting at least some truck traffic from Oak.

Seeing no further public comment, the Mayor closed the public hearing at 9:05 p.m.

MOTION: Motion by Long, seconded by Kolb:
To make a motion adopting a resolution confirming special assessment roll 917 as follows:

WHEREAS, Special Assessment Roll, designated Roll No. 917, has been heretofore prepared for Collection; and

WHEREAS, notice was given pursuant to Section 94-7 of the City Code, to each owner or party-in-interest of property to be assessed; and

WHEREAS, the Commission has deemed it practicable to cause payment of the cost thereof to be made after the time of construction; and

WHEREAS, the Commission Resolution 02-035-26 provided it would meet this 23rd day of March, 2026 for the sole purpose of reviewing the assessment roll; and

WHEREAS, at said hearing held this March 23, 2026, all those property owners or their representatives present have been given an opportunity to be heard specifically concerning costs appearing in said special assessment roll;

NOW, THEREFORE, BE IT RESOLVED, that Special Assessment Roll No. 917 be in all things ratified and confirmed, and that the City Clerk be and is hereby instructed to endorse said roll, showing the date of confirmation thereof, and to certify said assessment roll to the City Treasurer for collection at or near the time of construction of the improvement.

BE IT FURTHER RESOLVED, that the special assessment shall be payable in five (5) payments as provided in Section 94-10 of the Code of the City of Birmingham, with an annual interest rate of seven and three-quarters percent (7.75%) on all unpaid installments.

The Sidwell number, street address, and cape seal assessment for each of the properties is located in section 8A on page 134, 135, 136, and 137 of tonight's agenda.

ROLL CALL VOTE
Ayes: Haig, Long, Host, Kolb, Kozlowski, Baller, Longe
Nays: None

Recused: None

03-064-26 Public Hearing for Confirmation of the Roll - Bird Phase 1B Project Confirmation of the Roll for Special Assessment District Roll 918

The Mayor opened the public hearing at 9:10 p.m.

DT Katz presented the item.

Seeing no public comment, the Mayor closed the public hearing at 9:11 p.m.

MOTION: Motion by Longe, seconded by Kolb:
To make a motion adopting a resolution confirming special assessment roll 918 as follows:

WHEREAS, Special Assessment Roll, designated Roll No. 918, has been heretofore prepared for Collection; and

WHEREAS, notice was given pursuant to Section 94-7 of the City Code, to each owner or party-in-interest of property to be assessed; and

WHEREAS, the Commission has deemed it practicable to cause payment of the cost thereof to be made after the time of construction; and

WHEREAS, the Commission Resolution 03-051-26 provided it would meet this 23rd day of March, 2026 for the sole purpose of reviewing the assessment roll; and

WHEREAS, at said hearing held this March 23, 2026, all those property owners or their representatives present have been given an opportunity to be heard specifically concerning costs appearing in said special assessment roll;

NOW, THEREFORE, BE IT RESOLVED, that Special Assessment Roll No. 918 be in all things ratified and confirmed, and that the City Clerk be and is hereby instructed to endorse said roll, showing the date of confirmation thereof, and to certify said assessment roll to the City Treasurer for collection at or near the time of construction of the improvement.

BE IT FURTHER RESOLVED, that the special assessment shall be payable in five (5) payments as provided in Section 94-10 of the Code of the City of Birmingham, with an annual interest rate of seven and three-quarters percent (7.75%) on all unpaid installments.

The Sidwell numbers, street addresses, estimated water SAD costs, and estimated sewer SAD costs can be found in tonight's agenda Section 8B, pages 190 and 191.

ROLL CALL VOTE
Ayes: Haig, Long, Host, Kolb, Kozlowski, Baller, Longe

Nays: None
Recused: None

03-065-26 Special Land Use Permit, Final Site Plan & Design Review for 600 N. Old Woodward Suites 101 & 203 — Old World Pizzeria

The Mayor opened the public hearing at 9:15 p.m.

CP Blinzinski presented the item. Cyrus Garmo, owner, spoke on behalf of the item.

Seeing no public comment, the Mayor closed the public hearing at 9:19 p.m.

Staff and Mr. Garmo answered questions from the Commission.

Commissioners discussed the following regarding the item:

- If delivery were offered in the future, there would be a concern about parking near the restaurant being utilized by delivery vehicles.
- In order to increase the restaurant's family friendliness, it would be beneficial if the owner and the landlord could work together to create increased outdoor seating in the common outdoor area.
- If the common outdoor area has increased usage, it would be important to keep that area very clean in order to reduce the possibility of rodent issues.

MOTION: Motion by Long, seconded by Longe:
To make a motion to adopt the resolution to approve the Special Land Use Permit, Final Site Plan & Design Review for 600 N. Old Woodward Suites 101 & 203 — Old World Pizzeria — to permit a new food and drink establishment to open in the O2 Zoning District.

ROLL CALL VOTE
Ayes: Haig, Long, Host, Kolb, Kozlowski, Baller, Longe
Nays: None
Recused: None

03-066-26 Bird Phase 1B Project #7-26 (W) to F.D.M. Contracting, Inc.

CE Coatta presented the item.

MOTION: Motion by Longe, seconded by Long:
To award the Bird Phase 1B Project #7-26 (W) to F.D.M. Contracting, Inc. in the amount of $1,298,186.82 plus a 10% construction contingency for a total of $1,428,005.50. In addition, to authorize the Mayor and Clerk to sign the agreement on behalf of the City contingent upon execution of the agreement and meeting all the insurance and bond requirements by F.D.M. Contracting, Inc. Funding for this project has been budgeted in the following accounts:

Fund Account	Fund ID Number	Project Award	10% Contingencies	Total
Local Street Fund	203.0-449.001-981.0100	$502,545.99	$50,254.60	$668,474.95
Sewer Fund	590.0-537.000-981.0100	$400,213.49	$40,021.35	$691,371.45
Water Fund	591.0-544.000-981.0100	$395,427.34	$39,542.73	$483,413.70
Total Construction Costs		$1,298,186.82	$129,818.68	$1,428,005.50

Commissioners discussed the following regarding the motion:

- The soil study report from G2 was helpful, and similar reports should be provided to the Commission whenever available. The methods employed in the study might also be helpful for other road construction projects in the future.

ROLL CALL VOTE
Ayes: Haig, Long, Host, Kolb, Kozlowski, Baller, Longe
Nays: None
Recused: None

03-067-26 Ordinance to amend Chapters 82 and 110 of the Birmingham Code of Ordinances to move and update the enabling language for the Multi-Modal Transportation Board

CP Blizinski presented the item and staff answered questions.

Commissioners discussed the following regarding the item:

- It would be good that staff would be soliciting the MMTB's feedback.
- These changes would also allow the Board to proactively raise opportunities for improving safety in Birmingham.
- It would be appropriate to integrate public transit in some way.
- The way the ordinance is written, the Commission would have the discretion to assign specific topics to the MMTB to study.
- Commissioners largely seemed to understand the meaning of 'active transportation', though there was a remark on the lack of an included definition in the ordinance language.

MOTION: Motion by Long, seconded by Haig:
To make a motion adopting an ordinance to amend Chapter 110 – Transportation Systems to remove Article II in its entirety.

AND

To make a motion adopting an ordinance to amend Chapter 82 – Planning, to add Article VII, to amend the multimodal transportation board composition, terms, compensation, organization and meetings,

scope of authority and purpose and duties.

AND

To make a motion to lift the moratorium and to have the Multimodal Board begin meeting again at a date and times to be set by City staff.

ROLL CALL VOTE
Ayes: Haig, Long, Host, Kolb, Kozlowski, Baller, Longe
Nays: None
Recused: None

03-068-26 Closed Session Pursuant to MCL § 15.268, Sec.8(1)(d) of the Open Meetings Act

MOTION: Motion by Host, seconded by Long:
To meet in closed session pursuant to MCL § 15.268, Sec.8(1)(d) of the Open Meetings Act to consider the purchase or lease of real property up to the time an option to purchase or lease that real property is obtained.

ROLL CALL VOTE
Ayes: Host, Kolb, Long, Kozlowski, Baller, Longe
Nays: None
Recused: Haig

The Commission entered into closed session at 10:23 p.m. and returned from closed session at 10:53 p.m.

Commission Items for Future Discussion

03-069-26 Short Term Rental Ordinance Review

MOTION: Motion by Host, seconded by Kozlowski:
To be proactive and review Ann Arbor's, Ferndale's, and New York City's short term rental ordinances.

VOICE VOTE
Ayes: Haig, Host, Kolb, Kozlowski
Nays: Long, Baller, Longe
Recused: None

Commission discussion on items from a prior meeting

03-070-26 City Procedure Regarding Builders' Bonds and Road Repair

Commissioners discussed the following regarding the item:

- The Commission should consider increasing the amount of the builders' bonds.
- Since this is a new policy, the City has not retained any builders' bonds to fix roads so far.
- Staff should return with a history of the use of builders' bonds for street repairs in the City, information on where the $5,000 is kept if retained, clarity on whether the builder or the City completes the road repairs, clarity on whether the City would prevent a Certificate of Occupancy from being issued until road repairs are completed, and whether these funds can be applied to the future resurfacing or improvements of the relevant street.
- Moving forward, it is appropriate to compile data on whether the $5,000 builder bond requirement is adequate to cover costs, and how often it is necessary to retain and use the builders' bonds for road repairs.
- It will be necessary to discuss how damage caused by builders beyond the road surface immediately adjacent to the road in question should be treated.

MOTION: Motion by Host, seconded by Haig:
To put on the agenda City procedures regarding builders' bonds, and road repair.

VOICE VOTE
Ayes: Long, Baller, Longe, Haig, Host, Kolb, Kozlowski
Nays: None
Recused: None

9. REMOVED FROM CONSENT AGENDA

10. COMMUNICATIONS

11. REPORTS

A. Commissioner Reports
    1. Notice of Intention to Appoint to the Board of Building Trades Appeals
    2. Notice of Intention to Appoint to the Brownfield Redevelopment Authority
    3. Notice of Intention to Appoint to the Birmingham City Commission
    4. Notice of Intention to Appoint to the Parks and Recreation Board
B. Commissioner Comments

MPT Long commented regarding his resignation and his appreciation of the opportunity to serve. He encouraged interested residents to apply for the Commission position.

Commissioners expressed appreciation of MPT Long's service.

Commissioner Host expressed dissatisfaction with the possibility of the pool and portions of 400 E. Lincoln becoming unavailable for use under City ownership.

The Mayor encouraged Commissioner Host and others to offer proposals for utilizing the pool and/or the unprogrammed portions of 400 E. Lincoln.

C. Advisory Boards, Committees, Commissions' Report
D. Legislation
E. City Staff
    1. Planning Department Annual Report 2025-2026
F. Information Only

12. ADJOURN

The Commission motioned to adjourn at 10:53 p.m.

Alexandria Bingham, City Clerk

Laura Eichenhorn, City Transcriptionist

City of Birmingham
Warrant List Dated 03/25/2026

Check Number	Early Release	Vendor #	Vendor	Amount
PAPER CHECK				
308436		BDREFUND	1SOURCE LLC	300.00
308437	*	005430	21ST CENTURY MEDIA- MICHIGAN	1,434.50
308438	*	005430	21ST CENTURY MEDIA- MICHIGAN	399.50
308439	*	005430	21ST CENTURY MEDIA- MICHIGAN	399.50
308440	*	005430	21ST CENTURY MEDIA- MICHIGAN	353.45
308441	*	005430	21ST CENTURY MEDIA- MICHIGAN	767.50
308442	*	005430	21ST CENTURY MEDIA- MICHIGAN	862.00
308443	*	005430	21ST CENTURY MEDIA- MICHIGAN	767.50
308444	*	005430	21ST CENTURY MEDIA- MICHIGAN	862.00
308445	*	005430	21ST CENTURY MEDIA- MICHIGAN	613.40
308446	*	005430	21ST CENTURY MEDIA- MICHIGAN	613.40
308447	*	005430	21ST CENTURY MEDIA- MICHIGAN	399.55
308448	*	005430	21ST CENTURY MEDIA- MICHIGAN	169.48
308449		005705	4IMPRINT, INC	1,394.79
308450		BDREFUND	AARON DWIGHT BAUGHEY	6,000.00
308451		000167	ANDERSON ECKSTEIN WESTRICK INC	5,850.00
308452	*	MISC	APWA MICHIGAN CHAPTER	799.00
308453	*	006759	AT&T	116.23
308454	*	006759	AT&T	210.85
308455	*	006759	AT&T	437.26
308456	*	006759	AT&T	437.26
308457	*	003703	AT&T MOBILITY	1,544.07
308458		009911	AXES & IRONS	707.46
308459		002231	BILLINGS LAWN EQUIPMENT INC.	7.63
308460		BDREFUND	BIRMINGHAM BOWERS LLC	10,000.00
308461		BDREFUND	C E Gleeson Constructors	31,000.00
308462		010207	LIFELINE TRAINING	897.00
308463		009078	CANON SOLUTIONS AMERICA INC	29.31
308464		009985	CED TECHNOLOGIES INTERNATIONAL INC	717.97
308465		004269	CENTER POINT LARGE PRINT	94.50
308466		BLREFUND	COMMON GROUND	1,269.90
308467		000627	CONSUMERS ENERGY	36.77
308467	*	000627	CONSUMERS ENERGY	14,385.80
308468	*	009145	CREATIVE COLLABORATIONS	3,800.00
308469	*	009815	CULLIGAN OF ANN ARBOR/DETROIT	56.95
308470		005318	DEWOLF & ASSOCIATES, LLC	595.00
308471		MISC	DORSEY COLLEGE - EMS/AHA	229.00
308472		BDREFUND	DR SHAWN MOBLEY-SULICH	1,750.00
308473	*	000179	DTE ENERGY	93.19
308474		004493	ELITE IMAGING SYSTEMS, INC	1,839.37
308475	*	000936	FEDEX	47.07
308476		BDREFUND	FIRST KIDS PRESCHOOL	100.00

City of Birmingham
Warrant List Dated 03/25/2026

Check Number	Early Release	Vendor #	Vendor	Amount
308477		006654	FLEETPRIDE INC	171.99
308478		001056	GALLS, LLC	3,510.00
308479		BDREFUND	GARLITZ, BETTY J	1,750.00
308480		000726	GUARDIAN ALARM	475.00
308480	*	000726	GUARDIAN ALARM	356.62
308481	*	001956	HOME DEPOT CREDIT SERVICES	306.90
308482		009884	HURON VALLEY GUNS LLC	4.50
308483		000340	INDUSTRIAL BROOM SERVICE, LLC	544.00
308484		010198	IAFCI	600.00
308485		BDREFUND	IONESCU, EMIL	500.00
308486	*	009401	IRENE S WASSEL	1,088.00
308487	*	MISC	JOSHUA PARKS	6.10
308488		010065	K & M TIRE INC	956.00
308489	*	010089	K & R TRUCK SALES	300.00
308490		BDREFUND	KALAS, WILLIAM	200.00
308491		BDREFUND	KASTLER CONSTRUCTION INC	200.00
308492		BDREFUND	KBJ GROUP LLC	720.00
308493		010025	KBW CRIMINAL LAW	563.20
308494		BDREFUND	KEEGAN BEAUFORE	500.00
308495	*	009133	KIMBERLY FENCE & SUPPLY INC	1,500.00
308496	*	000353	KNAPHEIDE TRUCK EQUIPMENT	2,027.22
308497	*	MISC	KYLE OTTERBEIN	63.67
308498	*	009963	LAW OFFICE OF ROBERT J MORAD PLLC	384.00
308499		BDREFUND	LYNCH CUSTOM HOMES	850.00
308500		010003	MANOOGIAN LAW PLLC	1,241.60
308501	*	010211	MARY'S MAGICAL FACES LLC	250.00
308502	*	000369	MCMI	4,561.38
308503		BDREFUND	MENUCK, CRAIG	1,000.00
308504		009176	MICHIGAN APCO	1,200.00
308505		000230	MIKE SAVOIE CHEVROLET INC	682.57
308506	*	000477	OAKLAND COUNTY	31,799.48
308507	*	009478	ODP BUSINESS SOLUTIONS, LLC	1,362.60
308508		007823	PITNEY BOWES GLOBAL FINANCIAL SERVI	493.83
308509		009612	PLAYAWAY PRODUCTS LLC	530.92
308510	*	009951	PRINTMASTERS	113.45
308511		BDREFUND	PRM CUSTOM BUILDERS LLC	2,400.00
308512	*	009394	RABAA & NACHAWATI PLLC	384.00
308513	*	MISC	REBECCA LADEMAN	110.00
308514		BDREFUND	RENEWAL BY ANDERSEN	500.00
308515	*	009949	SMALL LAW PLLC	1,216.00
308516	*	007507	RIEDELL SHOES INC	256.29
308517		000218	ROYAL OAK P.D.Q. LLC	258.15
308518	*	002806	SAM'S CLUB/SYNCHRONY BANK	380.14

City of Birmingham
Warrant List Dated 03/25/2026

Check Number	Early Release	Vendor #	Vendor	Amount
308519		BDREFUND	SEBOLD AND KAGE INC	1,000.00
308520		BDREFUND	SL CONTRACTORS LLC	100.00
308521		BDREFUND	SOULLIERE STONE DESIGN	1,600.00
308522		BDREFUND	ST JAMES CHURCH	100.00
308523		BDREFUND	SUPERIOR EXCAVATING INCORPORATED	1,190.00
308524	*	009384	THE EDITH BLAKNEY LAW FIRM, PLLC	384.00
308525		BDREFUND	THORNTON GROOMS INC.	1,500.00
308526		BDREFUND	THORNTON & GROOMS INC.	2,000.00
308527		BDREFUND	TONY AMOUD & ASSOCIATES INC	2,500.00
308528		BDREFUND	TRADEMARK CONSTRUCTION SERVICES	100.00
308529		005481	TRI-COUNTY INTL TRUCKS, INC.	139.40
308530		010142	THIRD EXCURSION	2,700.00
308531	*	000158	VERIZON WIRELESS	459.74
308532	*	000158	VERIZON WIRELESS	308.16
308533	*	000158	VERIZON WIRELESS	89.96
308534		009026	WELLS FARGO VENDOR FIN SERV	854.99
308535	*	TAXMISC	WHYMAN FAMILY TRUST	897.49
308536		MISC	WILLIAM P FAUST PUBLIC LIBRARY	40.00
308537		005657	WINTER EQUIP CO, INC	1,535.19
308538	*	008408	WISS, JANNEY, ELSTNER ASSOC. INC	4,450.00
308539	*	004512	WOLVERINE POWER SYSTEMS	425.00
			SUBTOTAL PAPER CHECK	$181,079.70
ACH TRANSACTION				
15502	*	007329	ALL AMERICAN ARENA PRODUCTS LLC	808.93
15503	*	007345	BEVERLY HILLS ACE	799.00
15504	*	009396	CECILIA QUIRINDONGO BAUNSOE	384.00
15505	*	009122	CLAIRE CHUNG	756.25
15506	*	007835	SARAH CHUNG	537.50
15507		000605	CINTAS CORPORATION	207.44
15508	*	000605	CINTAS CORPORATION	106.70
15509	*	010213	CITY OF BIRMINGHAM #273	25,378.99
15510		001750	COMERICA BANK - RETIREMENT	1,649.50
15510		001750	COMERICA BANK - RETIREMENT	313,287.42
15511		003176	COMERICA BANK - RHC	43.08
15511		003176	COMERICA BANK - RHC	16,682.00
15512		009920	CORPORATE DINING CONCEPTS	279.00
15513	*	009557	ZECO, LLC	550.00
15514	*	009181	DELTA TEMP SERVICES INC	1,091.00
15515	*	000565	DORNBOS SIGN & SAFETY INC	87.45
15516		003801	JANA ECKER	524.00
15517		001230	FIRE SYSTEMS OF MICHIGAN LLC	600.05
15517	*	001230	FIRE SYSTEMS OF MICHIGAN LLC	1,139.55
15518	*	009387	FRAIBERG & PERNIE PLLC	5,422.55

City of Birmingham
Warrant List Dated 03/25/2026

Check Number	Early Release	Vendor #	Vendor	Amount
15519	*	010153	FRAIBERG, MATTHEW	1,536.00
15520	*	000243	GRAINGER	193.60
15521		007927	MICHELLE HOLLO	358.75
15522		000331	HUBBELL ROTH & CLARK INC	14,675.00
15522	*	000331	HUBBELL ROTH & CLARK INC	913.96
15523		000261	J.H. HART URBAN FORESTRY	31,518.63
15524		009298	JCR SUPPLY INC	216.70
15525	*	003458	JOE'S AUTO PARTS, INC.	819.66
15526	*	001798	BRUCE JOHNSON	150.00
15527	*	008827	KANOPY, INC	449.65
15528	*	004085	KONE INC	8,170.00
15529	*	009386	LAW OFFICE OF BRIAN P. FENECH	4,736.00
15530	*	005550	LEE & ASSOCIATES CO., INC.	5,291.70
15531		000795	LIBRARY DESIGN ASSOCIATES, INC.	495.00
15532	*	003527	LOWER HURON SUPPLY CO INC	378.21
15533		002013	MIDWEST TAPE	10,936.83
15534	*	005634	GINA MOODY	89.64
15535	*	009844	MYA BROWN	251.01
15536		008336	NBS COMMERCIAL INTERIORS	856.00
15537	*	001194	NELSON BROTHERS SEWER	331.00
15538		001864	NOWAK & FRAUS ENGINEERS	9,495.00
15539	*	006359	NYE UNIFORM COMPANY	300.00
15540	*	010154	PERNIE, ERIC	1,702.40
15541		002852	QMI GROUP INC	146.52
15542	*	003554	RKA PETROLEUM	9,425.55
15543	*	000478	ROAD COMM FOR OAKLAND CO	3,484.82
15544		006832	SAFEWARE INC.	338.10
15545	*	005759	SCHENA ROOFING & SHEET METAL CO INC	781.70
15546	*	003785	SIGNS-N-DESIGNS INC	767.00
15547		000254	SOCRRA	81,619.00
15548		005787	SOUTHEASTERN EQUIPMENT CO. INC	2,531.70
15549		000273	TERMINAL SUPPLY CO.	122.71
15550		005861	UNIQUE MGMT SERVICE, INC	72.10
15551		010201	VVK PR + CREATIVE LLC	4,445.00
15552		000666	NATIONAL LADDER & SCAFFOLD	8.00
			SUBTOTAL ACH TRANSACTION	$567,941.35

City of Birmingham
Warrant List Dated 03/25/2026

Meeting of 04/13/2026

Check Number	Early Release	Vendor #	Vendor	Amount
			GRAND TOTAL	$749,021.05

All bills, invoices and other evidences of claim have been audited and approved for payment.

Mary Chavez
Finance Director/ Treasurer

*-Indicates checks released in advance and prior to commission approval in order to avoid penalty or to meet contractual agreement/obligation.

City of Birmingham
Warrant List Dated 04/01/2026

Check Number	Early Release	Vendor #	Vendor	Amount
PAPER CHECK				
308540	*	000855	48TH DISTRICT COURT	2,880.00
308541	*	000855	48TH DISTRICT COURT	3,000.00
308542	*	008751	ADOBE INC	5,911.68
308543		010219	ALLEGION ACCESS TECHNOLOGIES LLC	315.00
308544		009440	ALLIANCE ENTERTAINMENT, LLC	186.99
308545	*	000161	ALPHA PSYCHOLOGICAL SERVICES PC	795.00
308546		006324	ALTA CONSTRUCTION EQUIPMENT LLC	386.44
308547		009126	AMAZON CAPITAL SERVICES INC	559.95
308548		010221	AMERICAN UNDERGROUND CORPORATION	1,000.00
308549		MISC	APWA MICHIGAN CHAPTER	825.00
308550	*	006759	AT&T	685.34
308551	*	006759	AT&T	639.35
308552	*	010056	BEAUCHAMP WATER TREATMENT SOLUTIONS	437.95
308553	*	005003	BIRMINGHAM BLOOMFIELD COMMUNITY	2,441.30
308554		003526	BOUND TREE MEDICAL, LLC	258.00
308555	*	007359	BRADY INDUSTRIES	405.55
308556	*	005717	BSB COMMUNICATIONS, INC.	568.75
308557		003907	CADILLAC ASPHALT, LLC	6,524.70
308558	*	009078	CANON SOLUTIONS AMERICA INC	157.57
308559	*	003904	CAPITAL ONE BANK	17,422.43
308562	*	000444	CDW GOVERNMENT INC	156.80
308563		009167	COL'S FAMILY RESTAURANT	26.50
308564		003923	CUMMINS SALES AND SERVICE	22,129.00
308565	*	009549	DAN'S LAWN MAINTENANCE	1,400.00
308566		000233	DEAN SELLERS	78.03
308567		000575	DEMCO, INC	565.13
308568	*	000179	DTE ENERGY	6,799.01
308569	*	000179	DTE ENERGY	226.76
308570	*	000179	DTE ENERGY	33.04
308571	*	000179	DTE ENERGY	1,812.19
308572	*	000179	DTE ENERGY	54.21
308573	*	000179	DTE ENERGY	290.91
308574	*	000179	DTE ENERGY	7,161.31
308575	*	000179	DTE ENERGY	2,350.50
308576	*	000179	DTE ENERGY	6,616.03
308577	*	000179	DTE ENERGY	4,074.41
308578	*	000179	DTE ENERGY	17.41
308579	*	000179	DTE ENERGY	1,943.60
308580		000179	DTE ENERGY	17.41
308581	*	000179	DTE ENERGY	194.00
308582	*	000179	DTE ENERGY	20.98
308583	*	000179	DTE ENERGY	96.07

City of Birmingham
Warrant List Dated 04/01/2026

Check Number	Early Release	Vendor #	Vendor	Amount
308584	*	000179	DTE ENERGY	31.25
308585	*	000179	DTE ENERGY	196.85
308586	*	000179	DTE ENERGY	24.87
308587	*	000179	DTE ENERGY	20.94
308588	*	000179	DTE ENERGY	18.28
308589	*	000179	DTE ENERGY	36.09
308590	*	000179	DTE ENERGY	87.96
308591	*	000179	DTE ENERGY	106.46
308592		010223	DUBIN LAW PLLC	800,000.00
308593		007505	EAGLE LANDSCAPING & SUPPLY	916.00
308594		008164	GARY EISELE	50.03
308595	*	003253	ESRI, INC	10,064.00
308596	*	008007	GREAT LAKES WATER AUTHORITY	8,997.15
308597	*	001956	HOME DEPOT CREDIT SERVICES	1,892.40
308598	*	009563	HOWIES HOCKEY INC	206.06
308599	*	009374	CIT INTERNATIONAL INCORPORATED	560.00
308600		000342	INTERSTATE BATTERIES OF SE MICH	908.80
308601		MISC	JOSHUA KING	17.40
308602		010065	K & M TIRE INC	157.00
308603	*	009133	KIMBERLY FENCE & SUPPLY INC	1,646.01
308604	*	000362	KROGER COMPANY	110.99
308605		009533	LIBRARY IDEAS, LLC	946.69
308606		010216	LUXIE KOUZA	81.72
308607	*	009085	MGSE SECURITY LLC	2,480.00
308608	*	009143	MICHAEL SHUKWIT	250.00
308609		004687	MICHIGAN DEPT. OF TRANSPORATION	128,791.04
308610	*	001228	STATE OF MICHIGAN-BOILERS	150.00
308611	*	006461	MID AMERICA RINK SERVICES	1,704.00
308612		000230	MIKE SAVOIE CHEVROLET INC	209.00
308613		009748	NORTHSTAR PAINTING	23,114.00
308614	*	008712	OAKLAND COUNTY HEALTH DIVISION	1,074.40
308615	*	004370	OCCUPATIONAL HEALTH CENTERS OF MI	792.00
308616		008669	OHM ADVISORS INC	7,650.00
308617	*	001883	PIONEER DOOR COMPANY INC	1,000.00
308618		009612	PLAYAWAY PRODUCTS LLC	80.99
308619		009154	POWERDMS INC	9,060.17
308620	*	009951	PRINTMASTERS	1,550.00
308621		004137	R & R FIRE TRUCK REPAIR INC	3,381.53
308622	*	008342	RAIN MASTER CONTROL SYSTEMS	38.85
308623	*	002806	SAM'S CLUB/SYNCHRONY BANK	1,995.88
308624	*	009009	SIGNATURE CLEANING LLC	8,892.58
308625	*	008073	SITEONE LANDSCAPE SUPPLY, INC	480.52
308626		000265	STEEL EQUIPMENT CO.	101.68

City of Birmingham
Warrant List Dated 04/01/2026

Check Number	Early Release	Vendor #	Vendor	Amount
308627		004544	STRYKER SALES CORPORATION	675.82
308628		010172	VERTICAL SUPPLY GROUP INC	2,317.98
308629	*	001279	US FIGURE SKATING ASSOC.	1,007.00
308630	*	000158	VERIZON WIRELESS	699.60
308631	*	000158	VERIZON WIRELESS	149.85
308632	*	000158	VERIZON WIRELESS	98.50
308633	*	004497	WATERFORD REGIONAL FIRE DEPT.	175.00
308634	*	002171	WEISSMAN'S COSTUMES	3,792.89
308635		005657	WINTER EQUIP CO, INC	2,791.26
308636	*	005112	WOLVERINE FREIGHTLINER-EASTSIDE INC	98.93
308637		004512	WOLVERINE POWER SYSTEMS	615.00
308638	*	009460	BRANDON WYNN	1,068.28
			SUBTOTAL PAPER CHECK	$1,134,828.00
ACH TRANSACTION				
15553		010025	KBW CRIMINAL LAW	563.20
15554	*	007345	BEVERLY HILLS ACE	49.98
15555	*	007624	BIRMINGHAM OIL CHANGE CENTER, LLC	116.95
15556	*	003282	LISA MARIE BRADLEY	531.00
15557	*	007835	SARAH CHUNG	625.00
15558		000605	CINTAS CORPORATION	232.18
15559		000605	CINTAS CORPORATION	60.83
15560	*	000605	CINTAS CORPORATION	193.18
15561		009195	CROWN CASTLE FIBER LLC	6,949.39
15562		000196	EJ USA, INC.	369.04
15563	*	009851	EMINENT EXCAVATING LLC	154,500.00
15564	*	001230	FIRE SYSTEMS OF MICHIGAN LLC	410.50
15565	*	000243	GRAINGER	122.84
15566	*	006666	GRID 4 COMMUNICATIONS INC.	248.30
15567	*	001672	HAYES PRECISION INC	115.00
15568		000331	HUBBELL ROTH & CLARK INC	34,245.61
15569	*	003458	JOE'S AUTO PARTS, INC.	208.23
15570	*	003404	LADUKE ROOF.& SHT.METAL CORP	13,436.00
15571		004362	LEATHERS & ASSOCIATES INC	181.91
15572	*	005550	LEE & ASSOCIATES CO., INC.	9,194.60
15573		009663	MACQUEEN EQUIPMENT, LLC	1,165.07
15574		002013	MIDWEST TAPE	1,084.33
15575	*	007856	NEXT	923.80
15576	*	009706	NORTHSTAR MAT SERVICE	444.82
15577	*	003963	DAVID PAPANDREA	495.00
15578		008028	PK SAFETY SUPPLY	456.00
15579		000486	PLANTE & MORAN PLLC	7,605.00
15580	*	001181	ROSE PEST SOLUTIONS	139.00
15581	*	006591	MICHAEL SLACK	785.60

City of Birmingham
Warrant List Dated 04/01/2026

Check Number	Early Release	Vendor #	Vendor	Amount
15582	*	002037	TOTAL ARMORED CAR SERVICE, INC.	303.97
15583	*	004379	TURNER SANITATION, INC	340.00
15584	*	005806	ULINE	855.36
15585	*	007278	WHITLOCK BUSINESS SYSTEMS, INC.	2,034.69
			SUBTOTAL ACH TRANSACTION	$238,986.38
			GRAND TOTAL	$1,373,814.38

All bills, invoices and other evidences of claim have been audited and approved for payment.

Mary Chavez
Finance Director/ Treasurer

*-Indicates checks released in advance and prior to commission approval in order to avoid penalty or to meet contractual agreement/obligation.

City of Birmingham
Warrant List Dated 04/08/2026

Check Number	Early Release	Vendor #	Vendor	Amount
PAPER CHECK				
308639	*	005430	21ST CENTURY MEDIA- MICHIGAN	583.54
308640		BDREFUND	AAFAQ AHMAD CHUGHTAI	100.00
308641		BDREFUND	AKZ HOMES	100.00
308642		BDREFUND	AMERICAN STANDARD ROOFING	200.00
308643		009202	AQUARIUM DESIGN INC	245.00
308644		BDREFUND	BABI CONSTRUCTION INC	2,000.00
308645		BDREFUND	BIRMINGHAM PLBG CO INC	200.00
308646		BDREFUND	BLOOMINGDALE HOLDINGS AND PROP LLC	5,000.00
308647		BDREFUND	BLOOMINGDALE HOMES INC	1,000.00
308648	*	009860	BOB'S SANITATION SERVICE, INC.	1,100.00
308649	*	009078	CANON SOLUTIONS AMERICA INC	248.21
308650		007732	CAPITAL TIRE, INC.	552.00
308651		008959	CASS COLLISION CLAWSON, INC	4,822.12
308652		008540	CERTIFIED LABORATORIES	921.95
308653		MISC	CLINTON-MACOMB PUBLIC LIBRARY	23.95
308654	*	000627	CONSUMERS ENERGY	1,604.00
308655		BDREFUND	CUSTOM DECK CREATIONS	200.00
308656		BDREFUND	DARRELL FLOYD	1,000.00
308657		BDREFUND	DAVID STEPHENS	100.00
308658		010022	DAVIS & STATON, INC	33.00
308659	*	008266	JAMIE DEBANO	108.10
308660		000575	DEMCO, INC	321.60
308661		BDREFUND	DENNIS ROBERT ROOFING	100.00
308662		BDREFUND	DRIP FREE EXTERIORS	100.00
308663	*	000179	DTE ENERGY	19.67
308664	*	000179	DTE ENERGY	61.71
308665	*	000179	DTE ENERGY	207.40
308666	*	000274	E-Z-GO DIVISION OF TEXTRON INC	732.88
308667		007505	EAGLE LANDSCAPING & SUPPLY	458.00
308668		BDREFUND	ECCLESTONE, JENNIFER MARIE	200.00
308669		010008	ELIZABETH C. CHIAPELLI, PLLC	768.00
308670	*	MISC	ENAMELPINS INC	453.50
308671		001495	ETNA SUPPLY	1,725.36
308672		BDREFUND	ETON MARKET, LLC	100.00
308673		000585	FARMINGTON COMM. LIBRARY	4,494.00
308674		001589	FBINAA MICHIGAN CHAPTER	1,590.00
308675		001489	FEDERAL PIPE & SUPPLY CO., INC	1,542.00
308676		007136	FERGUSON ENTERPRISES, INC.	2,408.66
308677		BDREFUND	FIRST CHOICE REMODELING LLC	500.00
308678		BDREFUND	FREDERICK LINSTEDT	100.00
308679	*	010073	FRESCO COMMERICAL CLEANING	720.00
308680		BDREFUND	GARDNER SIGNS INC	200.00

City of Birmingham
Warrant List Dated 04/08/2026

Check Number	Early Release	Vendor #	Vendor	Amount
308681		000726	GUARDIAN ALARM	100.00
308681	*	000726	GUARDIAN ALARM	200.00
308682		010180	HALLAHAN & ASSOCIATES, PC	40.80
308683		010006	HJP LEGAL	2,867.20
308684	*	001956	HOME DEPOT CREDIT SERVICES	477.47
308685		000342	INTERSTATE BATTERIES OF SE MICH	48.02
308686		MISC	JAMES ADAMS	265.00
308687	*	009403	JUSTIN ZAYID	2,304.00
308688		BDREFUND	KLODIANA HOXHA CAKE	300.00
308689		000353	KNAPHEIDE TRUCK EQUIPMENT	2,183.69
308690		004904	KONICA MINOLTA BUSINESS SOLUTIONS	16,008.86
308691		BDREFUND	KROLL CONSTRUCTION CO	100.00
308692	*	010177	SHERMAN ABDO	678.40
308693		000784	LAKESHORE LEARNING	169.96
308694		010013	LAW OFFICE OF ZENA ISSHAK, PPLC	486.40
308695		009913	LEAH BLIZINSKI	130.20
308696		009533	LIBRARY IDEAS, LLC	404.46
308697		000797	THE LIBRARY NETWORK	2,636.17
308698		MISC	LISA WAYNER	595.13
308699		010003	MANOOGIAN LAW PLLC	1,267.20
308700		BDREFUND	MAPLE GAS PROPERTY 2 LLC	200.00
308701		BDREFUND	MARTINO ENTERPRISES INC	100.00
308702	*	000888	MCKENNA ASSOCIATES INC	46,628.13
308703		009351	MERRITT CIESLAK DESIGN PLC	8,000.00
308704		MRREFUND	MICHAEL HAWKINS	70.00
308705	*	009200	MICHAEL MORRISON	250.00
308706		001497	MICHIGAN STATE POLICE	400.00
308707	*	006461	MID AMERICA RINK SERVICES	19.31
308708		000230	MIKE SAVOIE CHEVROLET INC	161.34
308709		010091	O'NEIL ENGINEERED SYSTEM, INC.	27,616.55
308710		BDREFUND	OAKES ROOFING SIDING & WINDOWS INC	100.00
308711		BDREFUND	ON THE LEVEL HOME IMPROVEMENT	100.00
308712		BDREFUND	ORCHARD DEVELOPMENT AND CONSTRUCTIO	11,375.00
308713		BDREFUND	PELLA WINDOWS & DOORS, INC.	500.00
308714	*	009614	PROGRESSIVE PLUMBING SUPPLY CO	261.82
308715		008852	REDGUARD FIRE & SECURITY INC	300.00
308716		BDREFUND	RENEWAL BY ANDERSEN	500.00
308717	*	009949	SMALL LAW PLLC	768.00
308718	*	002806	SAM'S CLUB/SYNCHRONY BANK	392.74
308719		BDREFUND	SCHWARTZ, SAMUEL G	300.00
308720		010215	PMG MASTER HOLDINGS LLC	964.92
308721	*	MISC	SENTRY AIR SYSTEMS INC	399.39
308722		010043	STAMELL LAW, PLLC	1,152.00

City of Birmingham
Warrant List Dated 04/08/2026

Check Number	Early Release	Vendor #	Vendor	Amount
308723	*	MISC	STATE OF MICHIGAN	75.00
308724		BLREFUND	STEPHEN SIMON	1,129.24
308725		010218	SUPERIOR GROUNDCOVER, INC	3,700.00
308726		BDREFUND	TEMPLETON BUILDING COMPANY	1,100.00
308727	*	009384	THE EDITH BLAKNEY LAW FIRM, PLLC	384.00
308728		BDREFUND	VENTURES DESIGN	600.00
308729	*	000158	VERIZON WIRELESS	131.60
308730	*	000158	VERIZON WIRELESS	1,149.24
308731	*	000158	VERIZON WIRELESS	76.02
308732	*	000158	VERIZON WIRELESS	295.56
308733	*	000158	VERIZON WIRELESS	49.26
308734	*	000158	VERIZON WIRELESS	1,053.36
308735		BDREFUND	WALLSIDE INC	500.00
308736		BDREFUND	WINDOW PRO HOLDINGS LLC	500.00
308737	*	007620	WJE-WISS, JANNEY, ELSTNER ASSOC.INC	10,800.00
308738		004512	WOLVERINE POWER SYSTEMS	685.00
308739	*	000309	ZEP SALES AND SERVICE	212.03
308740		010085	ZYNNOVATION LLC	1,713.79
			SUBTOTAL PAPER CHECK	$192,920.91
EFT TRANSFER				
" "	*	009593	BLUE CROSS BLUE SHIELD OF MICHIGAN	76,062.23
" "		009636	HEALTHEQUITY, INC	4,494.43
			SUBTOTAL EFT TRANSFER	$80,556.66
ACH TRANSACTION				
15606	*	003243	AMERICAN PRINTING SERVICES INC	2,670.00
15607	*	003946	ARAMARK	664.06
15608		009609	BALIAN LEGAL, PLC	1,152.00
15609	*	000517	BEIER HOWLETT PC	43,243.25
15610	*	008840	BIRMINGHAM PUBLIC SCHOOLS-TAXES	384,683.89
15611	*	009396	CECILIA QUIRINDONGO BAUNSOE	1,011.20
15612		000902	CENGAGE LEARNING INC	3,964.50
15613	*	009122	CLAIRE CHUNG	581.25
15614	*	007835	SARAH CHUNG	306.25
15615		000605	CINTAS CORPORATION	272.98
15616	*	000605	CINTAS CORPORATION	198.36
15617		001367	CONTRACTORS CONNECTION INC	158.05
15618		009873	D/A CENTRAL INC.	7,939.88
15619	*	001077	DUNCAN PARKING TECH INC	6,202.35
15620	*	009998	EMME KRAMER	231.00
15621	*	000995	EQUATURE	7,886.83
15622		001230	FIRE SYSTEMS OF MICHIGAN LLC	132.05
15622	*	001230	FIRE SYSTEMS OF MICHIGAN LLC	432.25

City of Birmingham
Warrant List Dated 04/08/2026

Check Number	Early Release	Vendor #	Vendor	Amount
15623	*	009387	FRAIBERG & PERNIE PLLC	5,422.55
15624	*	010153	FRAIBERG, MATTHEW	1,536.00
15625	*	004604	GORDON FOOD	19.96
15626	*	001663	SCOTT GREWE	801.28
15627		000948	HYDROCORP	11,393.00
15628		000261	J.H. HART URBAN FORESTRY	33,307.74
15629		000186	JACK DOHENY COMPANIES INC	592.24
15630	*	009482	JAMIL KIM	1,680.00
15631		009298	JCR SUPPLY INC	440.58
15632	*	009559	JENETTE MAITZ	2,871.01
15633	*	003458	JOE'S AUTO PARTS, INC.	744.83
15634	*	007244	CHRISTOPHER JUDKINS	192.65
15635	*	003404	LADUKE ROOF.& SHT.METAL CORP	3,933.50
15636	*	009392	LAMB LEGAL CONSULTING SERVICES	384.00
15637	*	005550	LEE & ASSOCIATES CO., INC.	2,083.28
15638		009663	MACQUEEN EQUIPMENT, LLC	2,248.86
15639	*	009888	MEGAN BECK	663.75
15640		002013	MIDWEST TAPE	513.23
15641	*	004876	NATIONAL LEAGUE OF CITIES	2,256.00
15642		001194	NELSON BROTHERS SEWER	354.00
15642	*	001194	NELSON BROTHERS SEWER	973.00
15643	*	007856	NEXT	31,658.00
15644	*	006359	NYE UNIFORM COMPANY	950.00
15645	*	008843	OAKLAND COUNTY TREASURER- TAX PYMNT	384,755.42
15646	*	009395	ORLANDO LAW PRACTICE PC	384.00
15647	*	009827	PARKER TECHNOLOGY, LLC	3,991.73
15648	*	001753	PEPSI COLA	440.35
15649		000486	PLANTE & MORAN PLLC	8,843.75
15650	*	002852	QMI GROUP INC	145.50
15651		006729	QUENCH USA INC	470.85
15652	*	003554	RKA PETROLEUM	8,091.21
15653	*	001181	ROSE PEST SOLUTIONS	48.00
15654		000254	SOCRRA	91,020.00
15655		005787	SOUTHEASTERN EQUIPMENT CO. INC	2,998.64
15656	*	004379	TURNER SANITATION, INC	95.00
15657	*	005806	ULINE	729.78
			SUBTOTAL ACH TRANSACTION	$1,068,763.84

City of Birmingham
Warrant List Dated 04/08/2026

Meeting of 04/13/2026

Check Number	Early Release	Vendor #	Vendor	Amount
			GRAND TOTAL	$1,342,241.41

All bills, invoices and other evidences of claim have been audited and approved for payment.

Mary Chavez
Finance Director/ Treasurer

*-Indicates checks released in advance and prior to commission approval in order to avoid penalty or to meet contractual agreement/obligation.

MEMORANDUM

Engineering Department

DATE: April 13, 2026

TO: Jana Ecker, City Manager

FROM: Melissa Coatta, City Engineer

SUBJECT: Wimbleton Phase 2 Project, Contract #6-26(W)
Set Public Hearing Dates for Hearings of Necessity and Confirmation of Roll for Sewer and Water Lateral Special Assessments District (SAD)

INTRODUCTION:

As part of the City's 2025-2026 Capital Improvement Plan, Wimbleton Drive from Oxford Road to Adams Road will receive water main replacement, sewer improvements, and the installation of a cape seal treatment. The City intends to replace private sewer and water laterals meeting "useful life" criteria in the right-of-way in an effort to protect the public investments being made in this project. The City will establish a Special Assessment District to collect the costs associated with the replacement of private sewer and water laterals from affected property owners.

BACKGROUND:

The City will replace the existing 6-inch water main on Wimbleton Avenue, originally installed in 1925, with a 12-inch water main. The existing sewer ranges in size from 8 inches to 12 inches and will be replaced or lined depending on its condition. In addition, a new storm sewer will be installed as part of the project.

Consistent with City policy established to protect public investment in capital improvement projects, the City intends to replace all sewer laterals that are 50 years of age or older, are less than 6 inches in diameter, or are constructed of an unsuitable material. Water services that are 60 years of age or older, are less than 1 inch in diameter, or are constructed of an unsuitable material, will also be replaced as part of the project. All unsuitable sewer laterals will be replaced with 6-inch schedule 40 PVC, and water services will be replaced with either a new 1-inch diameter service or matched to the existing diameter service if it is larger than 1 inch. Only the lengths of sewer and/or water laterals within the road right-of-way will be replaced and assessed as part of the project.

In accordance with requirements from the Michigan Department of Environmental, Great Lakes, and Energy (EGLE), any lead water service lines must be fully removed from the water main to the water meter located on private property. Any such lead water services identified within the project area will be replaced as part of this project. Per EGLE regulations, the City is prohibited

from charging property owners for costs associated with the replacement of lead water services.

Parcels located within the project area that may be subject to the Sewer and Water Lateral SAD are highlighted on the attached map. At the Hearing of Necessity, the Engineering Department will provide additional details confirming the final list of properties included in the assessment district, along with estimated construction costs to be assessed.

LEGAL REVIEW:
Chapter 94 – Special Assessments of the Birmingham City Code outlines the process by which a special assessment is conducted in the City of Birmingham. This project will follow the prescribed City Code procedures.

FISCAL IMPACT:
Revenue generated from the Sewer and Water Lateral SAD for the Wimbleton Phase 2 Project will cover the construction costs incurred by the City for the construction of these improvements.

SUSTAINABILITY:
Replacing sewer and laterals that do not meet the City's requirements during a construction project will protect the newly constructed road from disturbance by sewer and/or water lateral replacements in the future.

DESIGN CONSIDERATIONS:
N/A

PUBLIC COMMUNICATIONS:
Notice of the Hearing of Necessity and Confirmation of Roll is to be distributed by the Clerk's Office. The Engineering Department will hold a property owners meeting on Thursday, April 16, 2026, from 5:30 pm to 6:30 pm to explain the associated work, the proposed assessment cost, and to answer questions.

SUMMARY:
The Engineering Department recommends that a Public Hearing of Necessity to form a Special Assessment District for the replacement of sewer and water laterals as part of the Wimbleton Phase 2 Project be held at the regularly scheduled City Commission meeting on May 4, 2026, followed by a Public Hearing for Confirmation of the Roll on May 18, 2026.

ATTACHMENTS:
1. Map of Proposal Special Assessment District for Sewer and Water Laterals

SUGGESTED COMMISSION ACTION:
Make a motion adopting a resolution to set the Public Hearing of Necessity for the replacement and improvements of sewer and water laterals meeting the requirements of assessments, for all properties within the project area on Wimbleton Drive from Oxford Road to Adams Road on Monday, May 4, 2026, at 7:00 p.m.; and

If necessity is determined on May 4, 2026, to meet on May 18, 2026, at 7:00 p.m., for the purpose of conducting the Public Hearing to Confirm the Assessment Roll for the replacement and improvements of sewer and water laterals meeting the requirements for the assessments, for all properties within the project area on Wimbleton Drive from Oxford Road to Adams Road.

Wimbleton Drive Phase 2 Project Area

Limits of Projects

Properties Within Water Lateral SAD

Properties Within Sewer Lateral SAD

Properties Within Sewer and Water Lateral SAD

Wimbleton Drive Phase 2 Project Area

Limits of Projects

Properties Within Water Lateral SAD

Properties Within Sewer Lateral SAD

Properties Within Sewer and Water Lateral SAD

Wimbleton Drive Phase 2 Project Area

Limits of Projects

Properties Within Water Lateral SAD

Properties Within Sewer Lateral SAD

Properties Within Sewer and Water Lateral SAD

MEMORANDUM

Engineering Department

DATE: April 13, 2026

TO: Jana Ecker, City Manager

FROM: Melissa Coatta, City Engineer

SUBJECT: Wimbleton Phase 2 Project, Contract #6-26(W)
Set Public Hearing Dates for Hearings of Necessity and Confirmation of Roll for Paving Special Assessment District (SAD)

INTRODUCTION:

As part of the City's 2025-2026 Capital Improvement Plan, Wimbleton Drive from Oxford Road to Adams Road, will undergo water main replacement and sewer improvements. The roadway within the project limits will also receive cape seal surface treatment in accordance with the City Commission resolution adopted on October 27, 2025.

BACKGROUND:

The Wimbledon Phase 2 Project was presented to the City Commission at its regular meeting on October 27, 2025. At that meeting, the Commission adopted a resolution authorizing the Engineering Department to proceed with final design of the project, including water main replacement, sewer improvements, and cape seal treatment of the roadway.

Consistent with City policy, the cost of cape seal improvements on unimproved streets is partially defrayed through a Special Assessment District (SAD) established for the benefiting properties. Parcels within the project area subject to the paving SAD are identified on the attached map. The Engineering Department will present estimated construction costs to be assessed at the Hearing of Necessity.

LEGAL REVIEW:

Chapter 94 – Special Assessments of the Birmingham City Code outlines the process by which a special assessment is conducted in the City of Birmingham. This project will follow the prescribed City Code procedures.

FISCAL IMPACT:

Revenue generated from the Paving Special Assessment District (SAD) for the Wimbledon Phase 2 Project will be used to defray the construction costs incurred by the City for these improvements.

SUSTAINABILITY:

As part of the project, additional catch basins will be installed at low points along the cape-sealed roadway. Runoff from the road will be directed to a new separated storm system that discharges into the Rouge River.

DESIGN CONSIDERATIONS:
At the October 27, 2025 regular meeting, the Commission adopted a resolution directing the Engineering Department to proceed with a final design with a 26' wide roadway that matches the City's standard street width.

PUBLIC COMMUNICATIONS:
Notice of the Hearing of Necessity and Confirmation of Roll is to be distributed by the Clerk's Office. The Engineering Department will hold a property owners meeting on Thursday, April 16, 2026, at 5:30 p.m. to explain the associated work, the proposed assessment cost, and to answer residents' questions.

SUMMARY:
The Engineering Department recommends that a Public Hearing of Necessity to form a Special Assessment District for Paving as part of the Wimbleton Phase 2 Project be held at the regularly scheduled City Commission meeting on May 4, 2026, followed by a Public Hearing for Confirmation of the Roll on May 18, 2026.

ATTACHMENTS:
1. Map of Proposal Special Assessment District for Paving

SUGGESTED COMMISSION ACTION:
Make a motion adopting a resolution to set the Public Hearing of Necessity for the installation of cape seal treatment for all properties within the project area on Wimbleton Drive from Oxford Road to Adams Road on Monday, May 4, 2026, at 7:00 p.m.; and

If necessity is determined on May 4, 2026, to meet on May 18, 2026, at 7:00 p.m., for the purpose of conducting the Public Hearing to Confirm the Assessment Roll for the installation of cape seal treatment for all properties within the project area on Wimbleton Drive from Oxford Road to Adams Road.

Wimbleton Drive Phase 2 Project Area

Limits of Projects

Properties within Paving SAD

Wimbleton Drive Phase 2 Project Area

Wimbleton Drive Phase 2 Project Area

Limits of Projects

Properties within Paving SAD

MEMORANDUM

Engineering Department

DATE: April 13, 2026

TO: Jana Ecker, City Manager

FROM: Melissa Coatta, City Engineer
Mark Akram, Civil Engineer

SUBJECT: 2026 Sewer Root Control Program Award

INTRODUCTION:

The Engineering Department in cooperation with the Department of Public Services recommends conducting an additional round of annual root control treatment for selected sewer segments throughout the City. The City has previously contracted with Duke's Root Control, Inc. to perform this work through HGACBuy. It is recommended that this year's work also be awarded to Duke's Root Control, Inc. using HGACBuy pricing.

BACKGROUND:

Root control treatment of sewer segments is a standard maintenance practice used to eliminate tree root intrusion within the sanitary sewer system. The process involves injecting a chemical foam into sewer pipes through manholes. This foam causes roots to become friable and gradually break away over time. The chemicals used are formulated for municipal sewer systems and are not harmful to humans, animals, or trees when applied as intended.

HGACBuy is a nationwide government procurement service that the City of Birmingham has been a member of since 2012. All contracts available to participating members of HGACBuy have been awarded by a public competitive procurement process compliant with State statutes. HGACBuy offers expedited procurement, volume purchasing discounts, on-duty professional staff assistance, research and development of technical specifications, and contract administration.

Duke's Root Control, Inc. has experience providing root control services throughout the country. The City has previously used Duke starting in 2022 to address "Year 2" segments from the City's Stormwater, Asset Management, and Wastewater (SAW) Grant Program. Since that time, Duke's Root Control, Inc. has completed the annual root control program in 2023, 2024 and 2025. The scope of work for the 2026 program includes 34,929 feet of 8-inch to 36-inch sewer.

LEGAL REVIEW:

Purchasing through a cooperative purchasing service, such as HGACBuy, complies with the City's procurement policies related to competitive bidding. The City Attorney has reviewed the

proposed Commission action and has no objection. Before issuing the notice to proceed, Duke's Root Control must provide evidence of insurance coverage meeting the City's requirements.

FISCAL IMPACT:
This program was budgeted for in the 2025-2026 budget in the Sewer Fund, Other Contractual Services, account number 590.0-538.000-811.0000. The total cost for the project is estimated to be $153,735.63. The project award will be funded by the following accounts:

Fund Account	Fund ID Number	Project Award
Sewer Fund	590.0-538.000-811.0000	$153,735.63

SUSTAINABILITY:
Continued maintenance on sewer segments is sustainable and cost-effective as it extends the service life of the pipe versus spot repairs or removal and replacement of the pipe.

DESIGN CONSIDERATIONS:
N/A

PUBLIC COMMUNICATIONS:
Sewer service will not be interrupted with this proposed work and no action is required by property owners. The Engineering Department will issue notices to property owners in advance of the work being performed on their section of the sewer system.

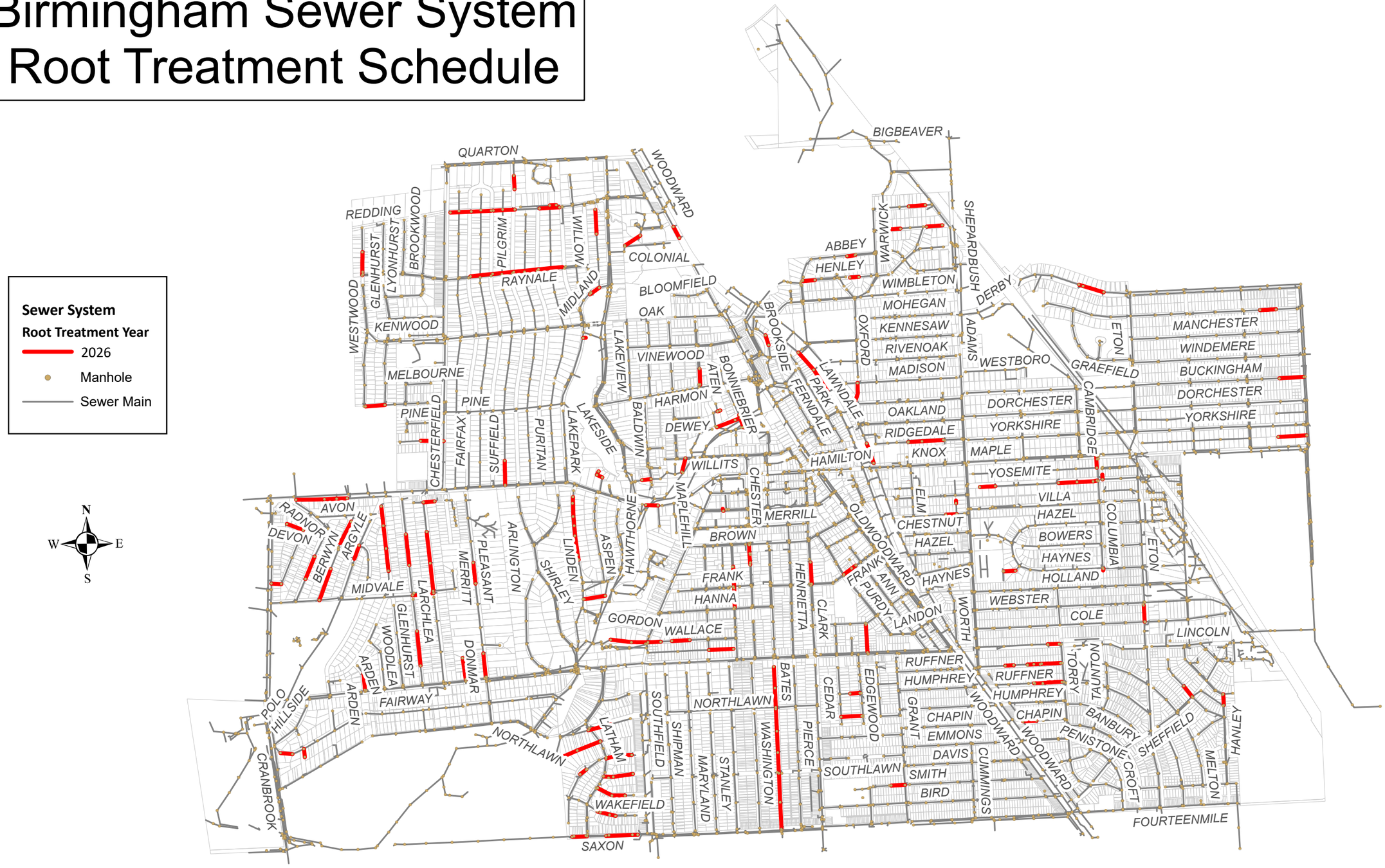
SUMMARY:
It is recommended that the 2026 Sewer Root Control Program be awarded to Duke's Root Control, Inc. through HGACBuy, and that the Engineering Department be authorized to issue a purchase order in the amount of $153,735.63.

ATTACHMENTS:
1. Location Map of sewer segments recommended for root control treatment
2. HGACBuy Contract Pricing Worksheet from Duke’s Root Control, Inc. for the 2026 Sewer Root Control Program

SUGGESTED COMMISSION ACTION:
Make a motion adopting a resolution to approve the purchase of root control service, as quoted by Duke's Root Control, Inc. for the 2026 Sewer Root Control Program, in the amount not to exceed $153,735.63. Funding for this project has been budgeted in the following account:

Fund Account	Fund ID Number	Project Award
Sewer Fund	590.0-538.000-811.0000	$153,735.63

Birmingham Sewer System
Root Treatment Schedule



Based on frequency and severity of root intrusions

HRC
HUBBELL, ROTH & CLARK, INC
CONSULTING ENGINEERS SINCE 1915

N:\Masters\GIS\municipal\Birmingham\Utilities\Root_Treatment_from_20130165\20240109_Root_Treatment_11_17\20240109_Root_Treatment_11_17.aprx

HGACBuy	CONTRACT PRICING WORKSHEET For Catalog & Price Sheet Type Purchases	Contract No.:	SC06-24	Date Prepared:	11-Mar

This Worksheet is prepared by Contractor and given to End User. If a PO is issued, both documents MUST be faxed to H-GAC @ 713-993-4548. Therefore please type or print legibly.

Buying Agency:	City of Birmingham	**Contractor:**	DUKE'S ROOT CONTROL, INC.
Contact Person:	Mark Akram	**Prepared By:**	Mike Hagan / Christina Urbina
Phone:		**Phone:**	800-447-6687
Fax:		**Fax:**	
Email:	makram@bhamgov.org	**Email:**	mhagan@dukes.com / csteam@dukes.com

Catalog / Price Sheet Name:	SEWER CLEANING, HYDRO EXCAVATING, INSPECTION EQUIPMENT,AND MISCELLANEOUS SERVICES
General Description of Product:	**Chemical Root Control**

A. Catalog / Price Sheet Items being purchased - Itemize Below - Attach Additional Sheet If Necessary

Quan	Description	Unit Pr	Total
4992.1	Chemical Root Control - 6"-8" Dia. - Per LF	2.02	10084.042
15822.5	Chemical Root Control - 10"-12" Dia. - Per LF	2.43	38448.675
4711	Chemical Root Control - 13"-16" Dia. - Per LF	4.61	21717.71
6678.5	Chemical Root Control - 18"-22" Dia. - Per LF	8.2	54763.7
2472	Chemical Root Control - 24"-30" Dia. - Per LF	10.54	26054.88
253	Chemical Root Control - 32"-36" Dia. - Per LF	10.54	2666.62
	Chemical Root Control - 37"-48" Dia. - Per LF	10.54	0
			0
			0
			0
			0
			0
		Total From Other Sheets, If Any:	
		Subtotal A:	153735.627

B. Unpublished Options, Accessory or Service items - Itemize Below - Attach Additional Sheet If Necessary
(Note: Unpublished Items are any which were not submitted and priced in contractor's bid.)

Quan	Description	Unit Pr	Total
			0
			0
			0
			0
		Total From Other Sheets, If Any:	
		Subtotal B:	0

Check: Total cost of Unpublished Options (B) cannot exceed 25% of the total of the Base Unit Price plus Published Options (A+B).	**For this transaction the percentage is:**	0%

C. Trade-Ins / Special Discounts / Other Allowances / Freight / Installation / Miscellaneous Charges

Subtotal C:	0

Delivery Date:	**9/7/2026**	**D. Total Purchase Price (A+B+C):**	153735.627

HGACBuy THE SMART PURCHASING SOLUTION

MEMORANDUM

Engineering Department

DATE: April 13, 2026

TO: Jana Ecker, City Manager

FROM: Melissa Coatta, City Engineer

SUBJECT: 34350 Woodward Avenue – Fred Lavery Construction Staging and Construction Coordination Agreement, Request for Extension and Revised Staging in the City's Right-of-Way

---

INTRODUCTION:

Lavery Michigan Dealership Properties No. 1 LLC has requested modifications to the Construction Staging and Construction Coordination Agreement that was approved by the City Commission on November 10, 2025. The agreement allows the use of the City's right-of-way as a construction staging area for the project located at 34350 Woodward Avenue.

City staff recommend approval of the revised agreement between the City, Lavery Michigan Dealership Properties No. 1 LLC, and Sachse Construction and Development. The agreement outlines the rights and responsibilities associated with the use of the City's right-of-way along S. Elm Street and Haynes Street.

The current agreement is set to expire on March 31, 2027. The applicant has requested revisions to allow staging activities within the right-of-way to support completion of all work along Woodward Avenue by early August 2026. Additionally, due to complications encountered during demolition activities, the applicant is requesting a two-month extension of the agreement, revising the expiration date to May 31, 2027.

BACKGROUND:

Lavery Michigan Dealership Properties No. 1 LLC and Sachse Construction and Development were previously approved to utilize a portion of the City's right-of-way along S. Elm Street and Haynes Street for construction staging associated with the new building, through March 31, 2027.

City staff recommend approval of an addendum to the existing agreement between the City, Lavery Michigan Dealership Properties No. 1 LLC, and Sachse Construction and Development. The addendum provides for continued use of the right-of-way, as well as the restoration of the right-of-way and/or installation of streetscape improvements along S. Elm Street and Haynes Street upon project completion.

The proposed amendment includes a two-month extension of the agreement, revising the expiration date to May 31, 2027, as requested due to unforeseen complications encountered during demolition. It also incorporates modifications to the Stage 1 detour and road and sidewalk closure plan (Revised Exhibit D, appended). These changes will allow work along Woodward Avenue to be completed prior to the Dream Cruise in August 2026, while maintaining safe pedestrian crossings at the Elm/Haynes/Woodward intersection and providing necessary road closures to safely complete construction activities.

LEGAL REVIEW:

The City Attorney has reviewed and approved the proposed Construction Staging and Construction Coordination Agreement Amendment between the City, Lavery Michigan Dealership Properties No. 1 LLC, and Sachse Construction and Development. The City Attorney has also reviewed the requested amendment for extension and drafted an addendum to the original agreement for an extension of the term until May 31, 2027, and for alteration of Exhibit D.

FISCAL IMPACT:

There are no proposed fiscal impacts to the City. All proposed improvements on S. Elm Street and Haynes Street will be completed at the expense of Lavery Michigan Dealership Properties No. 1 LLC and/or Sachse Construction and Development. The existing parking spaces on S. Elm Street and Haynes Street, located within the construction staging area, are not metered.

SUSTAINABILITY:

N/A

DESIGN CONSIDERATIONS:

The proposed streetscape on S. Elm Street and Bates Street conforms to the City's downtown streetscape standards for sidewalk, exposed aggregate, benches, and street lighting.

PUBLIC COMMUNICATIONS:

The Engineering Department and Building Department have met with Lavery Michigan Dealership Properties No. 1 LLC and Sachse Construction and Development concerning coordination, and the City has approved their logistics plan.

SUMMARY:

Staff recommends that the City Commission approve the Addendum to the Construction Staging Area and Construction Coordination Agreement with Lavery Michigan Dealership Properties No. 1 LLC and Sachse Construction and Development to ensure the proper use of the City's right-of-way for construction staging and to ensure the restoration of the City's property.

ATTACHMENTS:

1. Addendum to the Construction Staging Area and Construction Coordination Agreement
2. Redlined Addnedum to the Construction Staging Area and Construction Coordination Agreement
3. 34350 Woodward Ave Construction Staging and Construction Coordination Agreement

with exhibits, including the new amended Exhibit D

SUGGESTED COMMISSION ACTION:
Make a motion adopting a resolution to approve the Addendum to the Construction Staging Area and Construction Coordination Agreement with Lavery Michigan Dealership Properties No. 1 LLC and Sachse Construction and Development for the coordination of construction activities related to 34350 Woodward Avenue on S. Elm Street and Haynes Street, and to authorize the Mayor and the City Clerk to sign the agreement on behalf of the City.

ADDENDUM TO THE AGREEMENT FOR CONSTRUCTION STAGING AREA AND CONSTRUCTION COORDINATION AGREEMENT

THIS ADDENDUM to the Agreement dated November 10, 2025 by and between the **CITY OF BIRMINGHAM,** having its principal municipal office at 151 Martin Street, Birmingham, MI and **LAVERY MICHIGAN DEALERSHIP PROPERTIES** having its principal office at 440 Lake Park, Birmingham, MI 48009 and **SACHSE CONSTRUCTION & DEVELOPMENT** having its principal office at 260 E. Brown Street, MI 48009 does hereby amend the following paragraphs in its original Agreement dated November 10, 2025, as follows:

2. **Construction Staging Area.** The City shall permit Fred Lavery and/or Sachse to utilize public property along S. Elm Street and Haynes Street as a CSA in accordance with **Exhibit B.** Fred Lavery and/or Sachse shall be responsible, at their own expense, for the removal and reinstallation of DTE street lighting in the CSA on S. Elm Street and Haynes Street at their sole cost. Sachse shall also be responsible and for the installation and maintenance of signs, barricades, fencing, and gates to enclose the CSA and to prohibit access to the staging area by the public. Fred Lavery and/or Sachse shall utilize Yodock 2001 MB barricades with 6' high chain link fencing with privacy stripping mounted on top to enclose the CSA. Appropriate signage shall be erected indicating that the staging area is closed to the public and directing pedestrians to alternate access routes. The barriers and signage shall not be constructed until requisite approvals and permits are given and issued by the City, and thereafter shall be constructed in accordance with applicable laws, ordinances, and regulations and the drawing marked as **Exhibit D** ,amended as of April 13, 2026, at Sachse's sole cost and to the satisfaction of the City in the City's sole opinion.

8. **Pedestrian Circulation.** Fred Lavery and/or Sachse shall ensure pedestrian route signage is installed in accordance with the pedestrian plan which is part of the Logistics Plan attached as **Exhibit E** and amended **Exhibit D**, amended as of April 13, 2026.

12. **Term of Agreement.** This Agreement shall commence on the Effective Date, provided, however, that Fred Lavery and/or Sachse shall notify the City not less than seven (7) days in advance of the date when Fred Lavery and/or Sachse intends to commence construction of the Building, or on May 31, 2027 or when Certificate of Occupancy is issued, whichever occurs first, subject to an automatic extension of up to 60 days upon written notice from Fred Lavery and/or Sachse and agreement by the City not less than thirty (30) days prior to termination date that an extension is necessary in order to complete the Building. Further extensions may be granted in the exercise of reasonable discretion if delays are caused by circumstances outside the reasonable control of Fred Lavery and Sachse in the City's discretion.

All other provisions of the Agreement by and between the City of Birmingham and Lavery Michigan Dealership Properties No. 1 LLC and Sachse Construction and dated November 10, 2025 shall remain in full force and effect.

IN WITNESS WHEREOF, the said parties have caused this Addendum to be executed on this 8th day of April, 2026.

LAVERY MICHIGAN DEALERSHIP PROPERTIES NO. 1 LLC

By: Frederick A Lavery

Its: Frederick A. Lavery Jr. Member

STATE OF Michigan)
) ss:
COUNTY OF Oakland)

On this 8th day of April, 2025, before me personally appeared _____, who acknowledged that with authority on behalf of **LAVERY MICHIGAN DEALERSHIP PROPERTIES NO. 1, LLC** to do so he/she signed this Agreement.

Sandra Jean Meeki
Notary Public
_____County, Michigan
Acting in _____ County, Michigan

My commission expires: _____

SANDRA JEAN MEIKI
Notary Public, State of Michigan
County of Oakland
My Commission Expires May 13, 2031
Acting in the County of Oakland

SACHSE CONTRUCTION & DEVELOPMENT

By: _____

Its: Superintendent

STATE OF Michigan)
) ss:
COUNTY OF Oakland)

On this 8th day of April, 2025, before me personally appeared _____, who acknowledged that with the authority on behalf of **SACHSE CONSTRUCTION & DEVELOPMENT** to do so he/she signed this Agreement.

Sandra Jean Melki
Notary Public
_____County, Michigan
Acting in _____ County, Michigan

My commission expires: _____

SANDRA JEAN MELKI
Notary Public, State of Michigan
County of Oakland
My Commission Expires May 13, 2031
Acting in the County of Oakland

CITY OF BIRMINGHAM

By: _____
Clinton Baller, Mayor

Dated: _____

By: _____
Alexandria D. Bingham, City Clerk

Dated: _____

Approved:

_____
Jana Ecker, City Manager
(Approved as to substance)

_____
Mary M. Kucharek, City Attorney
(Approved as to substance)

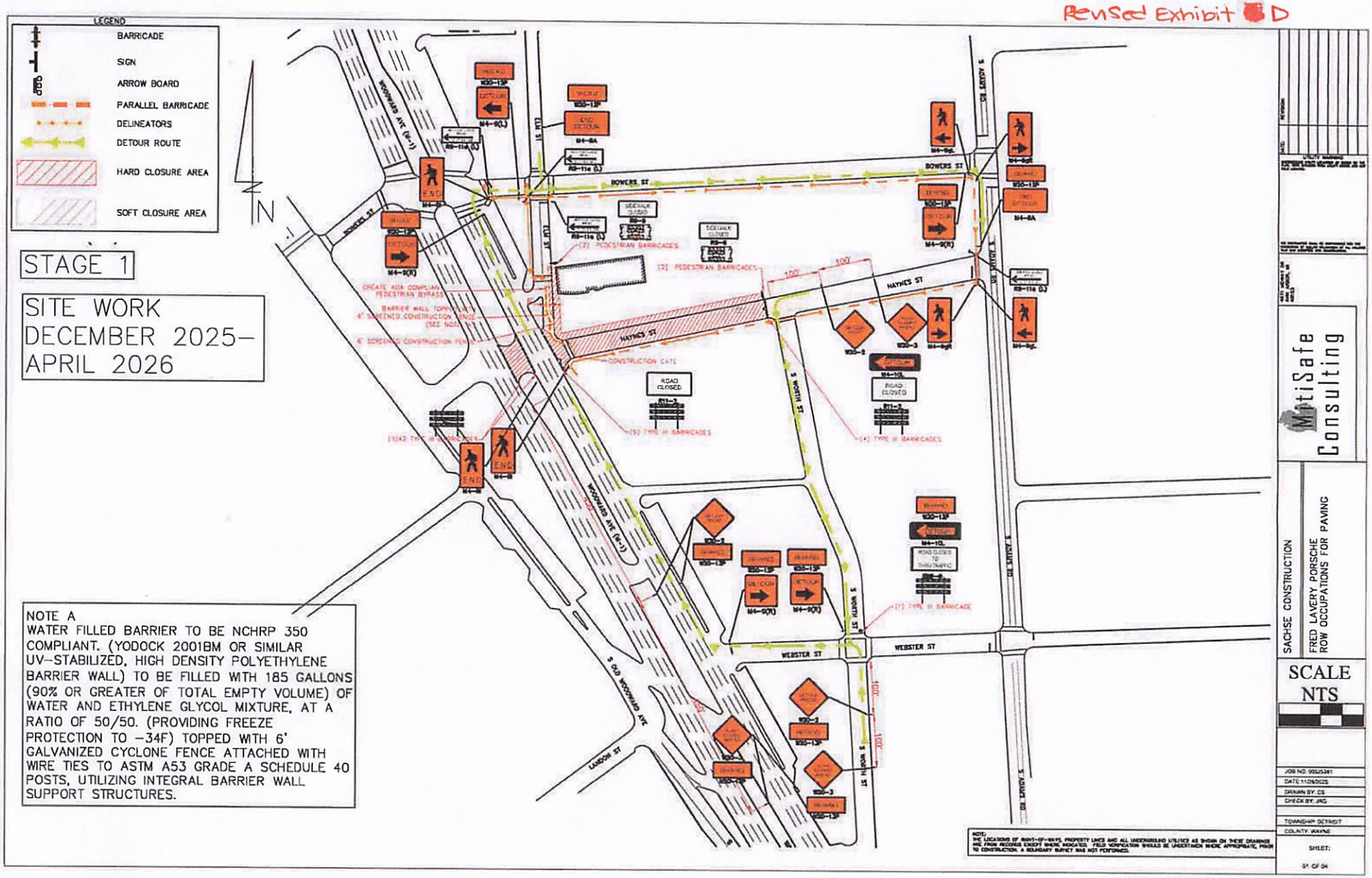
_____
Jeff Zielke, Building Official
(Approved as to substance)

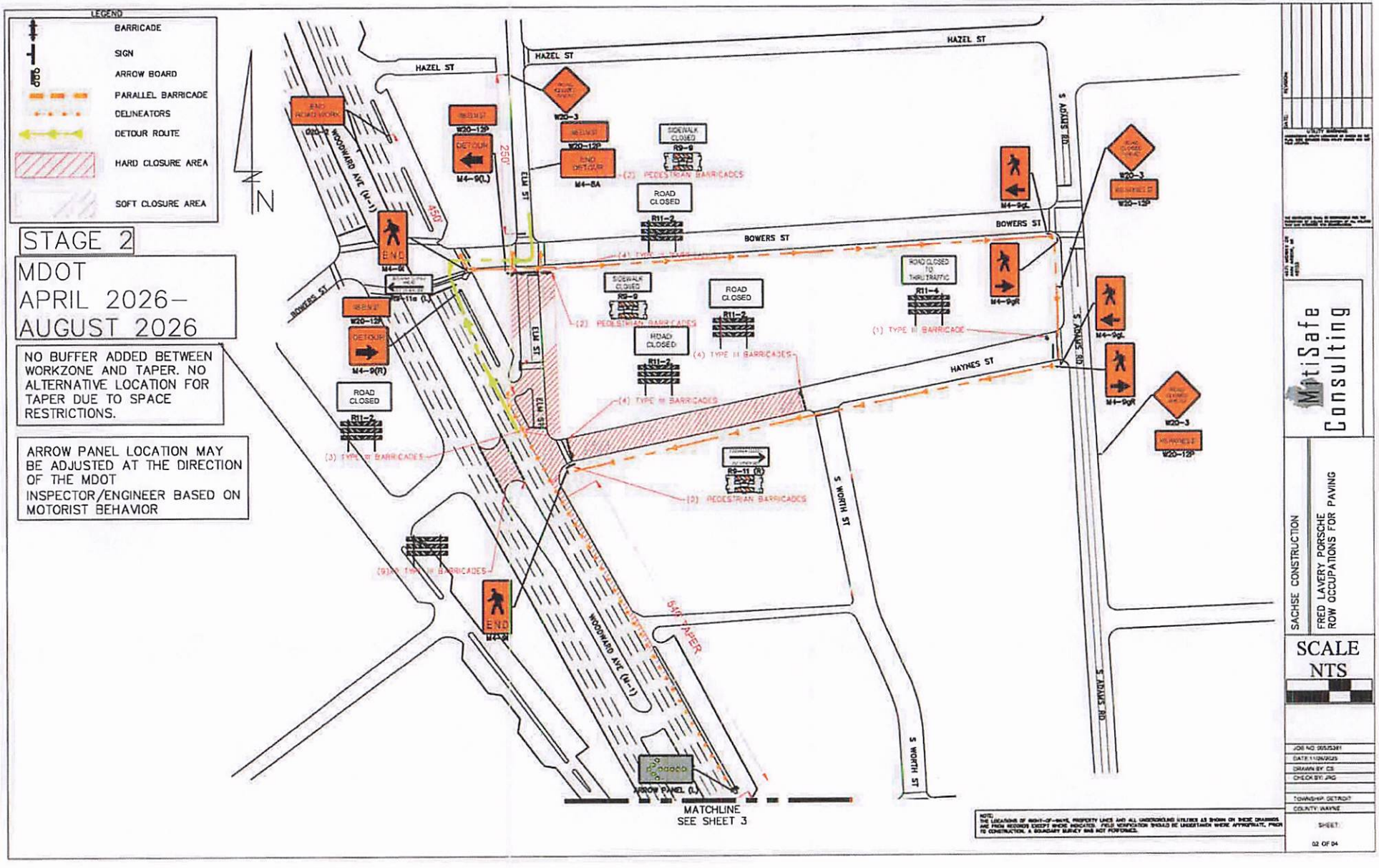
_____
Melissa A. Coatta, City Engineer
(Approved as to substance)
/per MC

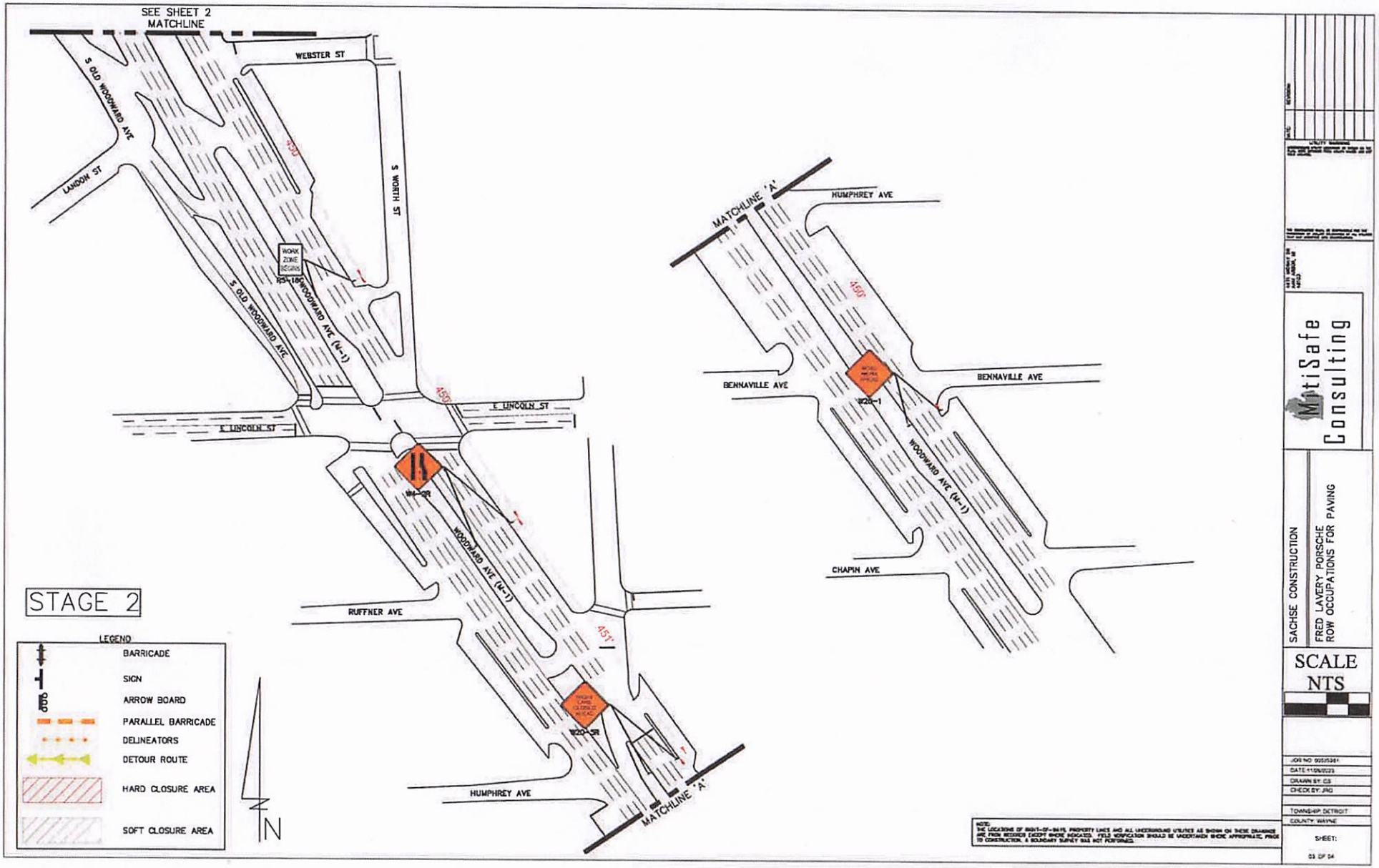
Melissa Fairbairn, Assistant City Manager

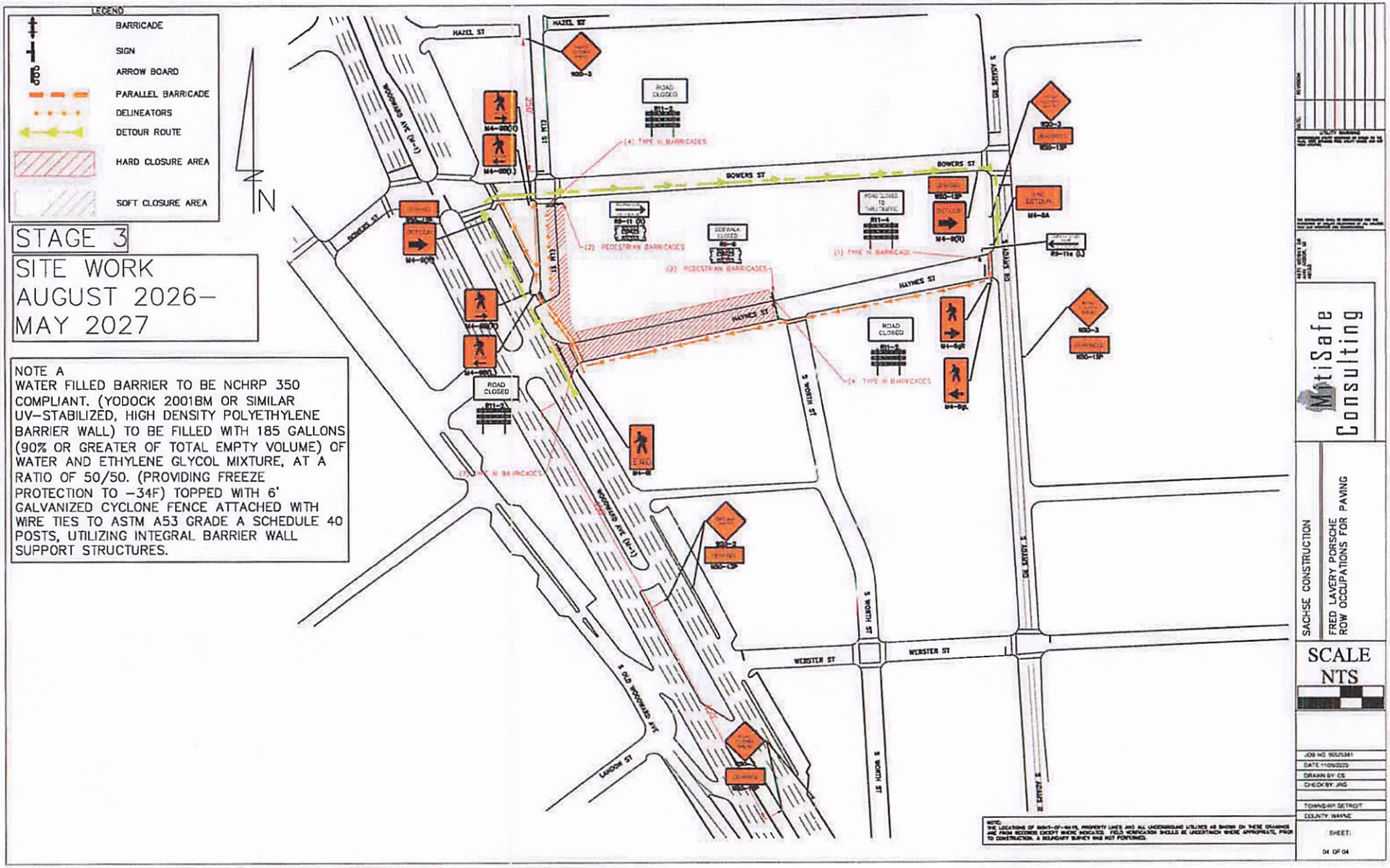
EXHIBIT D
AMENDED AS OF
APRIL 13, 2026

Revised Exhibit D




LEGEND
BARRICADE
SIGN
ARROW BOARD
PARALLEL BARRICADE
DELINEATORS
DETOUR ROUTE
HARD CLOSURE AREA
SOFT CLOSURE AREA
STAGE 2
MDOT
APRIL 2026–
AUGUST 2026
NO BUFFER ADDED BETWEEN WORKZONE AND TAPER. NO ALTERNATIVE LOCATION FOR TAPER DUE TO SPACE RESTRICTIONS.
ARROW PANEL LOCATION MAY BE ADJUSTED AT THE DIRECTION OF THE MDOT INSPECTOR/ENGINEER BASED ON MOTORIST BEHAVIOR
N
HAZEL ST
BOWERS ST
HAYNES ST
WOODWARD AVE (M-1)
S ADAMS RD
S WORTH ST
ELM ST
250'
450'
540' TAPER
ROAD CLOSED
SIDEWALK CLOSED
ROAD CLOSED TO THRU TRAFFIC
(2) PEDESTRIAN BARRICADES
(4) TYPE III BARRICADES
(3) TYPE III BARRICADES
(1) TYPE III BARRICADE
ARROW PANEL (L)
MATCHLINE
SEE SHEET 3
SACHSE CONSTRUCTION
FRED LAVERY PORSCHE
ROW OCCUPATIONS FOR PAVING
SCALE
NTS
MotiSafe Consulting
SHEET
02 OF 04


SEE SHEET 2
MATCHLINE
WEBSTER ST
S OLD WOODWARD AVE
LANDON ST
S WORTH ST
450'
WORK ZONE SIGNS
R3-10
WOODWARD AVE (M-1)
E LINCOLN ST
W4-2R
W20-5R
RUFFNER AVE
451'
HUMPHREY AVE
MATCHLINE 'A'
BENNAVILLE AVE
W20-1
CHAPIN AVE
STAGE 2
LEGEND
BARRICADE
SIGN
ARROW BOARD
PARALLEL BARRICADE
DELINEATORS
DETOUR ROUTE
HARD CLOSURE AREA
SOFT CLOSURE AREA
N
MatiSafe Consulting
SACHSE CONSTRUCTION
FRED LAVERY PORSCHE
ROW OCCUPATIONS FOR PAVING
SCALE
NTS
TOWNSHIP: DETROIT
COUNTY: WAYNE
SHEET:
03 OF 04


LEGEND
BARRICADE
SIGN
ARROW BOARD
PARALLEL BARRICADE
DELINEATORS
DETOUR ROUTE
HARD CLOSURE AREA
SOFT CLOSURE AREA
N
STAGE 3
SITE WORK
AUGUST 2026–
MAY 2027
NOTE A
WATER FILLED BARRIER TO BE NCHRP 350 COMPLIANT. (YODOCK 2001BM OR SIMILAR UV-STABILIZED, HIGH DENSITY POLYETHYLENE BARRIER WALL) TO BE FILLED WITH 185 GALLONS (90% OR GREATER OF TOTAL EMPTY VOLUME) OF WATER AND ETHYLENE GLYCOL MIXTURE, AT A RATIO OF 50/50. (PROVIDING FREEZE PROTECTION TO –34F) TOPPED WITH 6' GALVANIZED CYCLONE FENCE ATTACHED WITH WIRE TIES TO ASTM A53 GRADE A SCHEDULE 40 POSTS, UTILIZING INTEGRAL BARRIER WALL SUPPORT STRUCTURES.
HAZEL ST
WOODWARD AVE (M-1)
ELM ST
BOWERS ST
HAYNES ST
ROAD CLOSED
(4) TYPE III BARRICADES
(2) PEDESTRIAN BARRICADES
SIDEWALK CLOSED
(1) TYPE III BARRICADE
END
S MAIN ST
DR. SATOVY S
WEBSTER ST
S OLD WOODWARD AVE
LANDON ST
MotiSafe Consulting
SACHSE CONSTRUCTION
FRED LAVERY PORSCHE
ROW OCCUPATIONS FOR PAVING
SCALE
NTS
JOB NO 90525341
DATE 11/05/2025
DRAWN BY CS
CHECK BY JAG
TOWNSHIP DETROIT
COUNTY WAYNE
SHEET:
04 OF 04

ADDENDUM TO THE AGREEMENT FOR CONSTRUCTION STAGING AREA AND CONSTRUCTION COORDINATION AGREEMENT

THIS ADDENDUM to the Agreement dated November 10, 2025 by and between the **CITY OF BIRMINGHAM,** having its principal municipal office at 151 Martin Street, Birmingham, MI and **LAVERY MICHIGAN DEALERSHIP PROPERTIES** having its principal office at 440 Lake Park, Birmingham, MI 48009 and **SACHSE CONSTRUCTION & DEVELOPMENT** having its principal office at 260 E. Brown Street, MI 48009 does hereby amend the following paragraphs in its original Agreement dated November 10, 2025, as follows:

2. **Construction Staging Area.** The City shall permit Fred Lavery and/or Sachse to utilize public property along S. Elm Street and Haynes Street as a CSA in accordance with **Exhibit B.** Fred Lavery and/or Sachse shall be responsible, at their own expense, for the removal and reinstallation of DTE street lighting in the CSA on S. Elm Street and Haynes Street at their sole cost. Sachse shall also be responsible and for the installation and maintenance of signs, barricades, fencing, and gates to enclose the CSA and to prohibit access to the staging area by the public. Fred Lavery and/or Sachse shall utilize Yodock 2001 MB barricades with 6' high chain link fencing with privacy stripping mounted on top to enclose the CSA. Appropriate signage shall be erected indicating that the staging area is closed to the public and directing pedestrians to alternate access routes. The barriers and signage shall not be constructed until requisite approvals and permits are given and issued by the City, and thereafter shall be constructed in accordance with applicable laws, ordinances, and regulations and the drawing marked as **Exhibit D** ,amended as of April 13, 2026, at Sachse's sole cost and to the satisfaction of the City in the City's sole opinion.

8. **Pedestrian Circulation.** Fred Lavery and/or Sachse shall ensure pedestrian route signage is installed in accordance with the pedestrian plan which is part of the Logistics Plan attached as **Exhibit E** and amended **Exhibit D**, amended as of April 13, 2026**.**

12. **Term of Agreement.** This Agreement shall commence on the Effective Date, provided, however, that Fred Lavery and/or Sachse shall notify the City not less than seven (7) days in advance of the date when Fred Lavery and/or Sachse intends to commence construction of the Building, or on ~~March~~ May 31, 2027 or when Certificate of Occupancy is issued, whichever occurs first, subject to an automatic extension of up to 60 days upon written notice from Fred Lavery and/or Sachse and agreement by the City not less than thirty (30) days prior to termination date that an extension is necessary in order to complete the Building. Further extensions may be granted in the exercise of reasonable discretion if delays are caused by circumstances outside the reasonable control of Fred Lavery and Sachse in the City's discretion.

All other provisions of the Agreement by and between the City of Birmingham and Lavery Michigan Dealership Properties No. 1 LLC and Sachse Construction and dated November 10, 2025 shall remain in full force and effect.

IN WITNESS WHEREOF, the said parties have caused this Addendum to be executed on this _____ day of _____, 2026.

LAVERY MICHIGAN DEALERSHIP PROPERTIES NO. 1 LLC

By: _____

Its: _____

STATE OF _____)
) ss:
COUNTY OF _____)

On this _____day of _____, 2025, before me personally appeared _____, who acknowledged that with authority on behalf of **LAVERY MICHIGAN DEALERSHIP PROPERTIES NO. 1** to do so he/she signed this Agreement.

_____
Notary Public
_____County, Michigan
Acting in _____ County, Michigan

My commission expires: _____

SACHSE CONTRUCTION
& DEVELOPMENT

By: _____

Its: _____

STATE OF _____)
) ss:
COUNTY OF _____)

On this _____day of _____, 2025, before me personally appeared _____, who acknowledged that with the authority on behalf of **SACHSE CONSTRUCTION & DEVELOPMENT** to do so he/she signed this Agreement.

_____
Notary Public
_____County, Michigan
Acting in _____ County, Michigan

My commission expires: _____

CITY OF BIRMINGHAM

By: _____
Clinton Baller, Mayor

Dated: _____

By: _____
Alexandria D. Bingham, City Clerk

Dated: _____

Approved:

_____
Jana Ecker, City Manager
(Approved as to substance)

_____
Jeff Zielke, Building Official
(Approved as to substance)

_____
Mary M. Kucharek, City Attorney
(Approved as to substance)

_____
Melissa A. Coatta, City Engineer
(Approved as to substance)

CONSTRUCTION STAGING AREA AND CONSTRUCTION COORDINATION AGREEMENT

THIS CONSTRUCTION STAGING AREA AND CONSTRUCTION COORDINATION AGREEMENT ("the Agreement") is made this 10 day of, November 2025 by and between the CITY OF BIRMINGHAM, a Michigan municipal corporation, whose address is 151 Martin Street, Birmingham, MI 48009 ("City"), and LAVERY MICHIGAN DEALERSHIP PROPERTIES NO.1 LLC, a Michigan limited liability company, whose address is 440 Lake Park, Birmingham, MI 48009 ("Fred Lavery") and SACHSE CONSTRUCTION & DEVELOPMENT, a Michigan Corporation, whose address is 260 E. Brown Street, Birmingham, MI 48009 ("Sachse").

RECITALS

A. Fred Lavery is the owner of the property located at 34350 Woodward Avenue, Birmingham, ("the Parcel") upon which Fred Lavery will demolish two existing buildings and construct a new three (3) story building that will include a parking structure ("the Building"), commencing in the fall of 2025 (subject to issuance of a building permit by the City) with a planned completion date of Spring 2027. The Parcel's westerly border runs parallel with and adjacent to S. Elm Street and Woodward Avenue, and the Parcel's southern border runs parallel with and adjacent to Haynes Street. The legal description of the Fred Lavery Parcel is attached as **Exhibit A**.

B. S. Elm Street and Haynes Street are all public rights of way owned by the City of Birmingham. Woodward Ave. right of way is owned by the Michigan Department of Transportation ("MDOT").

C. All construction on the Parcel will be completed by Sachse Construction. Representatives of Fred Lavery and Sachse Construction have met with the City to coordinate the construction activities related to the Building and the City's public rights of way. In order to construct the Building, it will be necessary to secure a Construction Staging Area ("the CSA") for storage and staging during construction, which will include the Parcel and a portion of S. Elm Street, and Haynes Street rights of way as shown in **Exhibit B**.

D. As Fred Lavery and/or Sachse will be occupying the portion of the CSA located on S. Elm Street and Haynes Street, it will be necessary for Fred Lavery and/or Sachse to perform a complete reconstruction of the roadway and streetscape in this portion of the CSA, at their sole cost, after construction of the Building is complete in accordance with the plans detailed in **Exhibit C**, to the full satisfaction of the City, in the City's sole opinion.

THEREFORE, the Parties agree as follows:

1. Recitals. The Recitals above are hereby incorporated into and made a part of this Agreement.

2. Construction Staging Area. The City shall permit Fred Lavery and/or Sachse to utilize public property along S. Elm Street and Haynes Street as a CSA in accordance with **Exhibit B**. Fred Lavery and/or Sachse shall be responsible, at their own expense, for the removal and reinstallation of DTE street lighting in the CSA on S. Elm Street and Hayne Street at their sole

cost. Sachse shall also be responsible and for the installation and maintenance of signs, barricades, fencing, and gates to enclose the CSA and to prohibit access to the staging area by the public. Fred Lavery and/or Sachse shall utilize Yodock 2001MB barricades with 6' high chain link fencing with privacy stripping mounted on top to enclose the CSA. Appropriate signage shall be erected indicating that the staging area is closed to the public and directing pedestrians to alternate access routes. The barriers and signage shall not be constructed until requisite approvals and permits are given and issued by the City, and thereafter shall be constructed in accordance with applicable laws, ordinances, and regulations and the drawing marked as **Exhibit D** at Sachse's sole cost and to the satisfaction of the City in the City's sole opinion.

3. Maintenance of CSA. Fred Lavery and/or Sachse shall maintain the CSA in a secure and safe condition throughout the term of this Agreement. All water valves and storm and sanitary manholes within the CSA shall be accessible to the City or its contractors at all times for operation and maintenance. Placing any materials or parking any vehicles or equipment over the manholes or valve boxes is prohibited. Fire hydrants shall be accessible to the Birmingham Fire Department; a three (3) foot clear zone around the fire hydrant must be maintained at all times, except for any fire hydrant that the City agrees should be removed and the supply capped (both at Fred Lavery 's expense) for reinstallation once the Building is completed. The Birmingham Fire Department may require, and Fred Lavery and/or Sachse shall install signage over the fire hydrants on the fencing to indicate "hydrant" at the Fire Department discretion. "Knox" padlocks shall be keyed for the City of Birmingham and will be required for all CSA fencing gate accesses. These locks will be married with an ordinary padlock and chain for emergency access. Fred Lavery and/or Sachse is further responsible to contact the provider(s) of other utility, energy or telecommunication lines to ensure that access to those providers' lines is not adversely affected during this time.

4. Construction Site Enclosure. Fred Lavery and/or Sachse shall provide building plans that detail the actual distances to scale between the Building and the construction barriers for each stage of demolition and construction. Compliance with Sec. 3306 of the Michigan Building Code must be demonstrated for barrier placements. Barrier placements must be placed in a manner to protect pedestrians from any and all construction activity. Construction fencing and barriers are permitted on City property only in the locations shown on the approved Logistics Plan attached as **Exhibit E.**

5. Construction Crane Placement. Fred Lavery and/or Sachse shall obtain approval from the City for the location of the base of the crane, which shall be determined and agreed upon by the City prior to the commencement of any construction activity. The crane must not be on City property, and any portion of the base located on the private property adjacent to the Parcel, shall require a written agreement from that private property owner. Should any portion of the crane project onto any other private or public air space, Fred Lavery and/or Sachse shall obtain written agreement from all the effected property owners.

6. Building Construction Oversight. Fred Lavery and/or Sachse acknowledge that there shall be periodic safety checks at the construction site by the City to ensure Code compliance. Fred Lavery and/or Sachse agree to provide contact information for a locally residing project manager prior to any work commencing and update the contact information constantly throughout construction until completion of the project.

7. Vehicular Circulation and Ingress/Egress. Fred Lavery and/or Sachse shall require all construction and related vehicles to follow the ingress/egress plan as part of the Logistics Plan attached as **Exhibit E**. In accordance with this plan, S. Elm Street will be converted to one-way only south bound. The City shall allow Fred Lavery and/or Sachse to use S. Elm Street and Haynes Street, with the provision that no construction traffic will be permitted on Bowers Street east of Elm Street to Adams Road.

8. Pedestrian Circulation. Fred Lavery and/or Sachse shall ensure pedestrian route signage is installed in accordance with the pedestrian plan which is part of the Logistics Plan attached as **Exhibit E**.

9. Road Closures. Fred Lavery and/or Sachse shall inform the City of any temporary street or lane closures throughout the entirety of the project and obtain required permits for such closures. Fred Lavery and/or Sachse shall coordinate any temporary street or lane closures with adjacent property owners to minimize the closure of lanes and for public protection. Fred Lavery road closures shall be coordinated with City project road closures.

10. Condition of S. Elm Street and Haynes Street Right of Way at Expiration of Agreement. Unless otherwise agreed by the parties in writing, at the conclusion of the term of this Agreement, Fred Lavery and/or Sachse shall remove all barricades, signs, equipment, construction materials, and debris from the CSA located on S. Elm Street and Haynes Street. Fred Lavery agrees that it will mill the existing asphalt pavement 1.5 inches and paved 1.5 inches of asphalt on Haynes Street from Woodward Ave. to west of S. Worth Street has shown in **Exhibit C** at its own costs to the satisfaction of the City in its sole discretion. Fred Lavery and/or Sachse shall match the road elevation at the gutter pan on S. Elm Street and Haynes Street. The City shall require Fred Lavery and/or Sachse to remove and replace as necessary any damaged curb, gutters, and sidewalks on S. Elm Street and Haynes Street at the sole discretion and direction of the City, at Fred Lavery and/or Sachse's sole cost.

11. Reconstruction of S. Elm Street, Haynes Street, and Woodward Ave Intersection. Fred Lavery agrees that it will reconstruct the intersection of S. Elm Street, Haynes Street, and Woodward Avenue as generally depicted on **Exhibit F**, at its own cost to the satisfaction of the City and MDOT (with respect to Woodward Ave.).

12. Term of Agreement. This Agreement shall commence on the Effective Date, provided, however, that Fred Lavery and/or Sachse shall notify the City not less than seven (7) days in advance of the date when Fred Lavery and/or Sachse intends to commence construction of barricades to enclose the CSA. This Agreement shall terminate upon completion of construction of the Building, or on March 31st, 2027 or when Certificate of Occupancy is issued, whichever occurs first, subject to an automatic extension of up to 60 days upon written notice from Fred Lavery and/or Sachse and agreement by the City, not less than thirty (30) days prior to termination date that an extension is necessary in order to complete the Building. Further extensions may be granted in the exercise of reasonable discretion if delays are caused by circumstances outside the reasonable control of Fred Lavery and Sachse in the City's discretion.

13. Insurance. Fred Lavery and Sachse shall obtain and maintain the following and the City as an insured or additional insured:

a. Workers' Compensation Insurance: Procure and maintain during the life of this contract, Workers' Compensation Insurance, including Employer's Liability Coverage, in accordance with all applicable statutes of the State of Michigan.

b. Commercial General Liability Insurance: Procure and maintain during the life of this contract, Commercial General Liability Insurance on an "Occurrence Basis" with limits of liability not less than $3,000,000 per occurrence combined single limit, Personal Injury, Bodily Injury, and Property Damage. Coverage shall include the following extensions: (A) Contractual Liability; (B) Products and Completed Operations; (C) Independent Contractors Coverage; (D) Broad Form General Liability Extensions or equivalent; I Deletion of all Explosion, Collapse, and Underground (XCU) Exclusions, if applicable.

c. Motor Vehicle Liability: Procure and maintain during the life of this contract Motor Vehicle Liability Insurance, including all applicable no-fault coverages, with limits of liability of not less than $3,000,000 per occurrence combined single limit Bodily Injury and Property Damage. Coverage shall include all owned vehicles, all non-owned vehicles, and all hired vehicles.

d. Pollution Liability Insurance: Procure and maintain during the life of this Agreement Pollution Liability Insurance, with limits of liability of not less than $1,000,000, per occurrence preferred.

e. Additional Insured: Commercial General Liability, Motor Vehicle Liability Insurance, and Pollution Insurance, as described above, shall include an endorsement starting the following shall be Additional Insureds. The City of Birmingham, including all elected and appointed officials, all employees and volunteers, all boards, commissions and/or authorities, and board members, including employees and volunteers thereof. This coverage shall be primary to any coverage that may be available to the additional insured, whether any other available coverage be primary, contributing or excess.

f. Cancellation Notice: Workers' Compensation Insurance, Commercial General Liability Insurance, Motor Vehicle Liability Insurance, and Pollution Liability Insurance as described above, shall include an endorsement stating the following: "Thirty (30) days Advance Written Notice of Cancellation or Non-Renewal shall be sent to the Finance Department, City of Birmingham, 151 Martin Street, Birmingham, Michigan 48009.

Fred Lavery and Sachse shall maintain insurance coverage throughout the term of the Agreement in accordance with insurance binders attached as **Exhibit G**.

14. Hold Harmless and Indemnification. To the fullest extent permitted by law, Fred Lavery and Sachse and any entity and/or person for whom Fred Lavery or Sachse is legally liable, agrees to be responsible for any liability, defend, pay on behalf of, indemnify, and hold harmless the City of Birmingham, its elected and appointed officials, employees and volunteers and others working on their behalf against any and all claims, demands, suits, or loss, including all costs and

reasonable attorney fees connected therewith, and for any damages which may be asserted, claimed or recovered against or from the City, its elected and appointed officials, employees, volunteers or others working on their behalf, by reason of personal injury, including bodily injury and death and/or property damage, including loss of use thereof, which arise out of the acts, errors or omissions of Fred Lavery and/or Sachse, including their employees and agents, in the performance of the Agreement. Such responsibility shall not be construed as liability for damage caused by or resulting from the sole act or omission of its elected or appointed officials, employees, volunteers or others working on behalf of the City.

15. Disputes. Any controversy or claim arising out of or relating to this Agreement, or the breach thereof, shall be settled either by commencement of a suit in Oakland County Circuit Court, the 48th District Court or by arbitration. If all parties elect to have the dispute resolved by arbitration, it shall be settled pursuant to Chapter 50 of the Revised Judicature Act for the State of Michigan and administered by the American Arbitration Association with one arbitrator being used, or three arbitrators in the event any party's claim exceeds $1,000,000. Each party shall bear its own costs and expenses and an equal share of the arbitrator's and administrative fees of arbitration. Such arbitration shall qualify as statutory arbitration pursuant to MCL 600.5001 et. Seq., and the Oakland County Circuit Court or any court having jurisdiction shall render judgement upon the award of the arbitrator made pursuant to this Agreement. This Agreement shall be governed by the laws of the State of Michigan and the arbitrations shall take place in Oakland County, Michigan. In the event that the parties elect not to have the matter in dispute arbitrated, any dispute between the parties may be resolved by the filing of a suit in the Oakland County Circuit Court or the 48th District Court.

16. Permits. Fred Lavery and/or Sachse shall apply for, secure and maintain all permits and approvals as may be required in accordance with all applicable laws and ordinances of the City, State of Michigan, federal agencies and any other governmental entities.

17. Default. Any violation of this Agreement may result in a Stop Work Order until compliance is achieved. Should Fred Lavery and/or Sachse fail to perform any of its obligations hereunder, Fred Lavery and/or Sachse shall be in default of this Agreement and the City may take any and all remedial actions including, but not limited to, completion of the work set forth in this Agreement and/or site restoration and/or termination of the Special Land Use Permit for Fred Lavery. Upon default, should the City elect to perform said work, the City shall provide invoices to Fred Lavery and/or Sachse for the work performed. Fred Lavery and/or Sachse shall immediately reimburse the City for all costs of work performed and necessitated to the default, including attorney fees. In the event Fred Lavery and/or Sachse fails to reimburse the City, or any part thereof, the City may transfer said amount to the tax roll for the Fred Lavery Parcel in accordance with Section 1-14 of the Birmingham City Code.

18. Interpretation. This Agreement is to be construed and interpreted under the laws of the State of Michigan. This Agreement contains the entire agreement between the parties as to its subject matter and may not be modified or amended except in writing signed by both parties. The captions are for reference only and shall play no part in the interpretation of this Agreement. The Recitals and all attached Exhibits are integral parts of this Agreement.

19. Binding Effect/Third Parties. This Agreement is binding on and shall inure to the benefit of the parties to this Agreement and their respective successor(s), but it may not be assigned by any party without the prior written consent of the other parties, which shall not be unreasonably denied. The parties do not intend to confer any benefits on any person, firm, corporation, or other entity, which is not a party to this Agreement.

20. Notices. All notices and communications required or permitted under this Agreement shall be in writing and shall be deemed given when delivered personally, or one (1) day after being sent by overnight courier, or three (3) days after being mailed by registered mail, return receipt requested, to the following address (or any other address that is specified in writing by either party):

To Fred Lavery:	Fred Lavery 440 Lake Park Birmingham, MI 48009
To Sachse:	Bill Verbeek, Superintendent & Sachse Construction Legal De 3663 Woodward Ave., Ste. 500 Detroit, MI 48201
To City:	Jana L. Ecker, City Manager 151 Martin Street Birmingham, MI 48009
With copy to:	Mary Kucharek, City Attorney Beier Howlett, P.C. 151 Martin Street Birmingham, MI 48009

IN WITNESS WHEREOF, the parties, by their respective authorized representatives, enter into this Agreement effective on the date above written.

[Remainder of page intentionally left blank; signatures follow]

LAVERY MICHIGAN DEALERSHIP PROPERTIES NO. 1 LLC

By: Frederick A. Lavery Jr.
FREDERICK A. LAVERY JR.

Its: Member

STATE OF MICHIGAN)
) ss:
COUNTY OF OAKLAND)

On this 5th day of November, 2025, before me personally appeared _____, who acknowledged that with authority on behalf Lavery Michigan Dealership Properties No I LLC to do so he/she signed this Agreement.

Sandra Jean Melki Notary Public
Oakland County, Michigan
Acting in Oakland County, Michigan
My commission expires: _____

SANDRA JEAN MELKI
Notary Public, State of Michigan
County of Oakland
My Commission Expires May 13, 2031
Acting in the County of Oakland

[Remainder of page intentionally left blank; signatures follow]

SACHSE CONSTRUCTION & DEVELOPMENT

By: Kevin A. Blind
KEVIN A. BLIND

Its: VICE PRESIDENT

ROSETTA PALAZZOLO
Notary Public, State of Michigan
County of Oakland
My Commission Expires 03-07-2030
Acting in the County of Oakland

STATE OF MICHIGAN)
) ss:
COUNTY OF OAKLAND)

On this 5th day of November, 2025, before me personally appeared Kevin Blind, who acknowledged that with authority on behalf Sachse Construction & Development to do so he/she signed this Agreement.

Rosetta Palazzolo, Notary Public
Oakland County, Michigan
Acting in Oakland County, Michigan
My commission expires: 03/07/2030

[*Remainder of page intentionally left blank; signatures follow*]

CITY OF BIRMINGHAM:

By: _____
Therese Longe, Mayor
Dated: _____

By: _____
Alexandria D. Bingham, City Clerk
Dated: _____

APPROVED:

_____
Jana L. Ecker, City Manager
(Approved as to substance)

_____
Jeff Zielke, Building Official
(Approved as to substance)

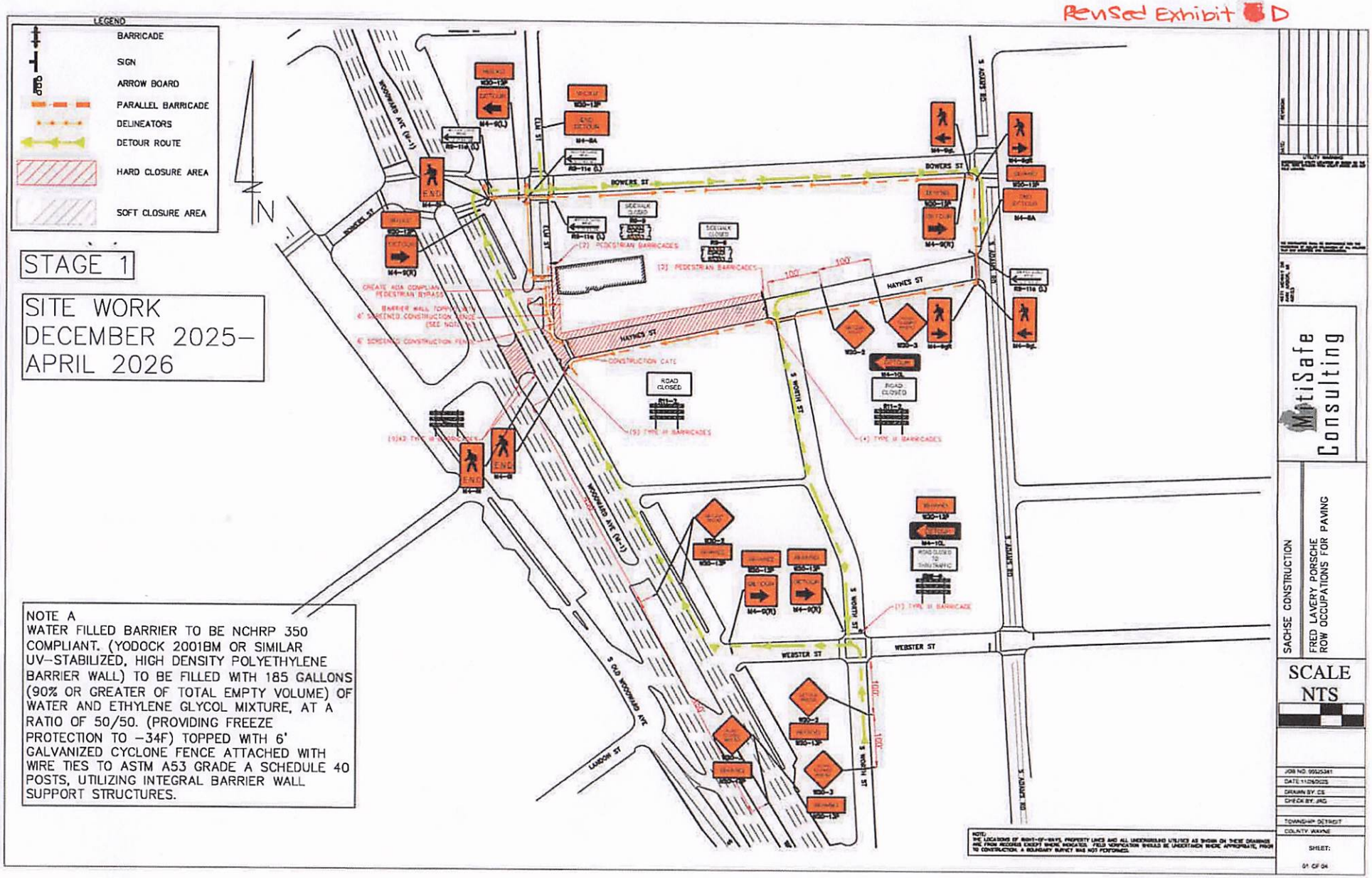
_____
Mary M. Kucharek, City Attorney
(Approved as to substance)

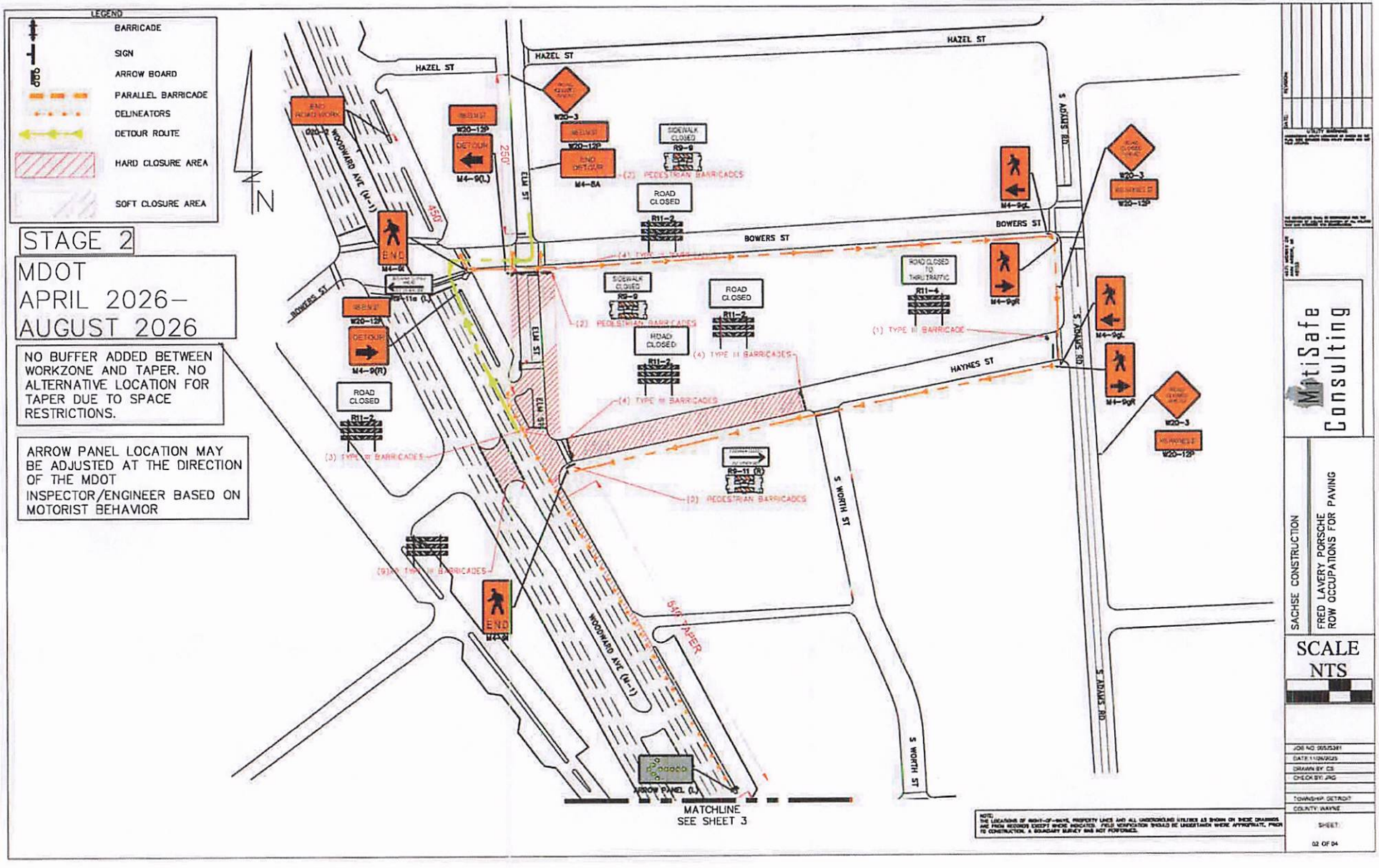
_____
Melissa A. Coatta, City Engineer
(Approved as to substance)

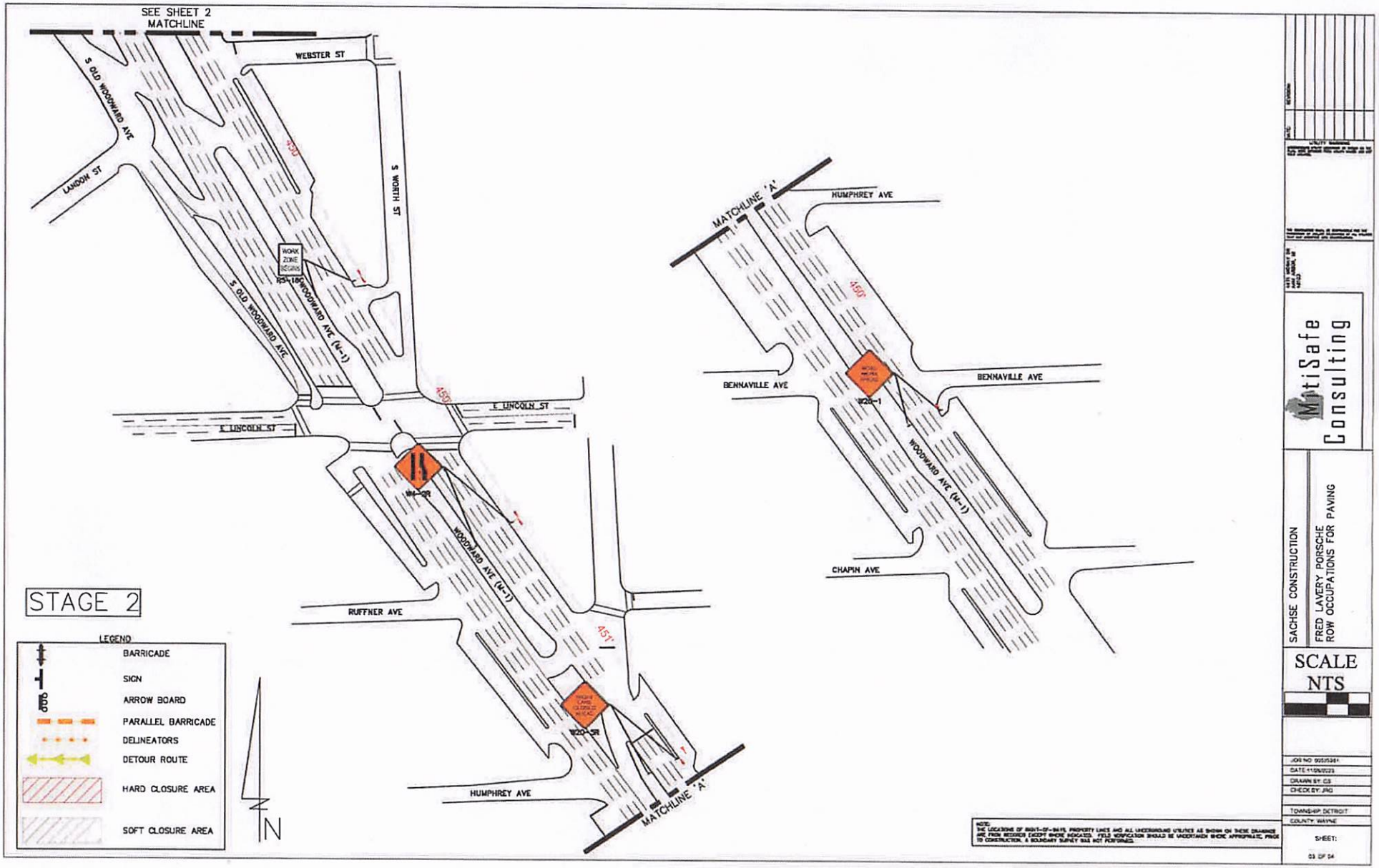
125033.000001 4931-1518-3478.2

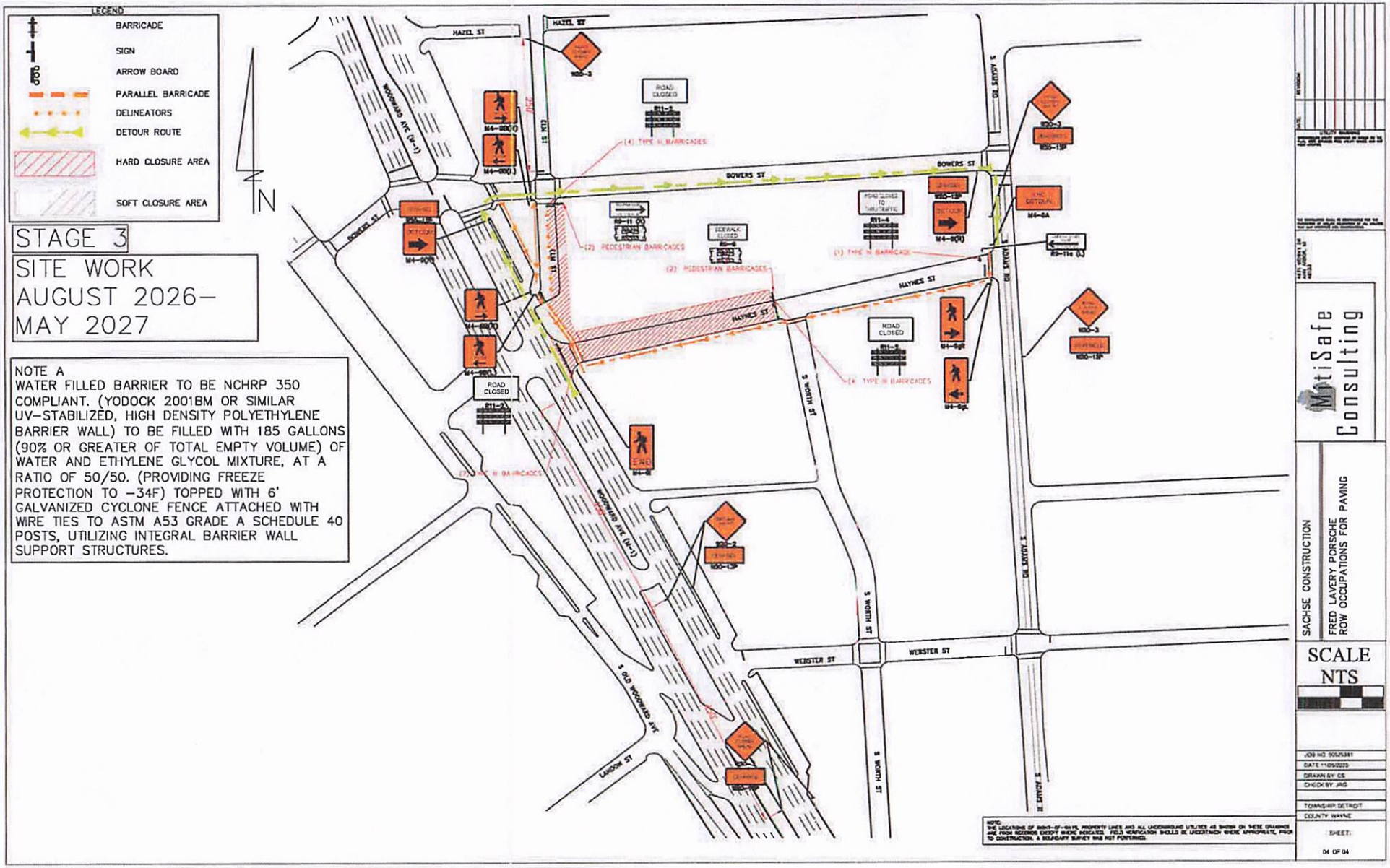
EXHIBIT D
AMENDED AS OF
APRIL 13, 2026

Revised Exhibit D




LEGEND
BARRICADE
SIGN
ARROW BOARD
PARALLEL BARRICADE
DELINEATORS
DETOUR ROUTE
HARD CLOSURE AREA
SOFT CLOSURE AREA
STAGE 2
MDOT
APRIL 2026–
AUGUST 2026
NO BUFFER ADDED BETWEEN WORKZONE AND TAPER. NO ALTERNATIVE LOCATION FOR TAPER DUE TO SPACE RESTRICTIONS.
ARROW PANEL LOCATION MAY BE ADJUSTED AT THE DIRECTION OF THE MDOT INSPECTOR/ENGINEER BASED ON MOTORIST BEHAVIOR
N
HAZEL ST
BOWERS ST
HAYNES ST
WOODWARD AVE (M-1)
S ADAMS RD
S WORTH ST
ELM ST
250'
450'
540' TAPER
ROAD CLOSED
SIDEWALK CLOSED
ROAD CLOSED TO THRU TRAFFIC
DETOUR
END ROAD WORK
(2) PEDESTRIAN BARRICADES
(4) TYPE III BARRICADES
(3) TYPE III BARRICADES
(1) TYPE III BARRICADE
ARROW PANEL (L)
MATCHLINE
SEE SHEET 3
MotiSafe Consulting
SACHSE CONSTRUCTION
FRED LAVERY PORSCHE
ROW OCCUPATIONS FOR PAVING
SCALE
NTS
DRAWN BY: CS
CHECK BY: JRG
TOWNSHIP: DETROIT
COUNTY: WAYNE
SHEET
02 OF 04


SEE SHEET 2
MATCHLINE
WEBSTER ST
S OLD WOODWARD AVE
LANDON ST
S WORTH ST
450'
WORK ZONE BEGINS
W21-1a
WOODWARD AVE (M-1)
E LINCOLN ST
W4-2R
RUFFNER AVE
451'
W20-5R
HUMPHREY AVE
MATCHLINE 'A'
BENNAVILLE AVE
W20-1
CHAPIN AVE
STAGE 2
LEGEND
BARRICADE
SIGN
ARROW BOARD
PARALLEL BARRICADE
DELINEATORS
DETOUR ROUTE
HARD CLOSURE AREA
SOFT CLOSURE AREA
N
MultiSafe Consulting
SACHSE CONSTRUCTION
FRED LAVERY PORSCHE
ROW OCCUPATIONS FOR PAVING
SCALE
NTS
TOWNSHIP: DETROIT
COUNTY: WAYNE
SHEET:
03 OF 04


LEGEND
BARRICADE
SIGN
ARROW BOARD
PARALLEL BARRICADE
DELINEATORS
DETOUR ROUTE
HARD CLOSURE AREA
SOFT CLOSURE AREA
N
STAGE 3
SITE WORK
AUGUST 2026–
MAY 2027
NOTE A
WATER FILLED BARRIER TO BE NCHRP 350 COMPLIANT. (YODOCK 2001BM OR SIMILAR UV-STABILIZED, HIGH DENSITY POLYETHYLENE BARRIER WALL) TO BE FILLED WITH 185 GALLONS (90% OR GREATER OF TOTAL EMPTY VOLUME) OF WATER AND ETHYLENE GLYCOL MIXTURE, AT A RATIO OF 50/50. (PROVIDING FREEZE PROTECTION TO –34F) TOPPED WITH 6' GALVANIZED CYCLONE FENCE ATTACHED WITH WIRE TIES TO ASTM A53 GRADE A SCHEDULE 40 POSTS, UTILIZING INTEGRAL BARRIER WALL SUPPORT STRUCTURES.
HAZEL ST
WOODWARD AVE (M-1)
CASS AVE
BOWERS ST
HAYNES ST
ROAD CLOSED
(4) TYPE III BARRICADES
(2) PEDESTRIAN BARRICADES
SIDEWALK CLOSED
(1) TYPE III BARRICADE
DR. SATOYI S
S WORTH ST
WEBSTER ST
S OLD WOODWARD AVE
LANDON ST
END
MultiSafe Consulting
SACHSE CONSTRUCTION
FRED LAVERY PORSCHE
ROW OCCUPATIONS FOR PAVING
SCALE
NTS
TOWNSHIP: DETROIT
COUNTY: WAYNE
SHEET:
04 OF 04

MEMORANDUM

Planning Department

DATE: April 13, 2026

TO: Jana Ecker, City Manager

FROM: Nick Dupuis, Planning Director

SUBJECT: Set Public Hearing for 126 S. Old Woodward – Snap Taco – Special Land Use Permit and Final Site Plan & Design Review

---

INTRODUCTION:

The applicant has submitted a Special Land Use Permit, Final Site Plan and Design Review application for a new bistro in the first floor tenant space of an existing building on S. Old Woodward. Snap Taco has been operating in Birmingham since December 2025. The subject site is located on the east side of S. Old Woodward, south of E. Maple Rd, north of Merrill St.

BACKGROUND:

On February 9, 2026 (Agenda – Minutes), the City Commission moved Snap Taco forward through the initial bistro screening process to apply for a Special Land Use Permit to become a bistro.

On March 25, 2026 (Agenda) the Planning Board moved to adopt the findings of the Planning Department in the report dated March 25, 2026 related to the approval criteria outlined in Article 7, Sections 7.27 and 7.36 of the Zoning Ordinance and to recommend that the City Commission approve the Special Land Use Permit and Final Site Plan & Design Review application for 126 S. Old Woodward – with the following conditions:

1. The applicant must submit glazing specifications for the glass, along with any other specifications for any other modifications to the exterior, such as a railing;
2. The applicant must receive and submit approval from the property owner in order to extend the patio to the furnishing zone in front of their neighbors' property;
3. The applicant must submit revised plans with the final table selected for the patio, and must submit detailed specifications; and
4. The applicant must comply with the requests of all City Departments.

In addition to the review at the Planning Board, the applicant is required to go before the Historic District Commission (HDC) for approval, as the subject property is a designated historic resource, and exists within the Central Business Historic District. The applicant is scheduled to appear before the HDC on April 15, 2026.

At this time, the City is working on obtaining all of the remaining details for the public hearing.

LEGAL REVIEW:
The City Attorney has reviewed this request and has no objections as to form and content.

FISCAL IMPACT:
There are no fiscal impacts related to the Special Land Use Permit and Final Site Plan & Design Review request submitted.

SUSTAINABILITY:
There are no direct sustainability considerations related to the Special Land Use Permit and Final Site Plan & Design Review request submitted.

DESIGN CONSIDERATIONS:
The design of the building and outdoor dining facility was reviewed in great detail at the Planning Board. The changes to the building are minimal in that an existing storefront window is proposed to be replaced with a roll-up garage door. The outdoor dining facility is constructed of high-quality, attractive materials as required in Birmingham. No other design changes are proposed as a part of the Special Land Use Permit and Final Site Plan & Design Review request submitted.

PUBLIC COMMUNICATIONS:
As required for Special Land Use Permit Reviews, a legal ad was placed in a newspaper of local circulation to advertise the public hearing at the Planning Board on March 25, 2026. In addition, postcards were sent out to property owners and occupants within 300 feet of the subject site. Similar notices will be provided in advance of the public hearing at the City Commission on May 4, 2026.

SUMMARY:
The Planning Department requests that the City Commission set a public hearing date of May 4, 2026 to consider the Special Land Use Permit and Final Site Plan & Design Review application for 126 S. Old Woodward, to permit the sale of alcoholic beverages for on premise consumption as a bistro establishment and a new outdoor dining facility.

ATTACHMENTS:
1. Snap Taco - Special Land Use Permit Resolution
2. Snap Taco - Draft Special Land Use Permit Contract
3. Snap Taco - Site/Design Plans
4. Snap Taco - Planning Board Report (March 25, 2026)

SUGGESTED COMMISSION ACTION:
Make a motion adopting a resolution to set a public hearing date of May 4, 2026 to consider the Special Land Use Permit and Final Site Plan & Design Review application for 126 S. Old Woodward, to permit the sale of alcoholic beverages for on premise consumption as a bistro establishment and a new outdoor dining facility.

Snap Taco
126 S. Old Woodward
Special Land Use Permit 2026

WHEREAS, A Special Land Use Permit Amendment and Final Site Plan & Design Review application was filed in March 2026 for approval to permit the sale of alcoholic beverages for on premise consumption as a bistro establishment and a new outdoor dining facility;

WHEREAS, The land for which the Special Land Use Permit is sought is located on the east side of S. Old Woodward, south of E Maple Rd, north of Merrill St.;

WHEREAS, The land is zoned B4 (Business-Residential) and D4 (Downtown Overlay), which permits alcoholic beverage sales for on premise consumption with a Special Land Use Permit;

WHEREAS, Article 7, section 7.34 of Chapter 126, Zoning requires a Special Land Use Permit to be considered and acted upon by the Birmingham City Commission, after receiving recommendations on the site plan and design from the Planning Board for the proposed Special Land Use;

WHEREAS, The Birmingham Planning Board on March 25, 2026 reviewed the application for Special Land Use Permit and Final Site Plan & Design Review and moved to adopt the findings of the Planning Department in the report dated March 25, 2026 related to the approval criteria outlined in Article 7, Sections 7.27 and 7.36 of the Zoning Ordinance and to recommend that the City Commission approve the Special Land Use Permit and Final Site Plan & Design Review application for 126 S. Old Woodward – Snap Taco – with the following conditions:

1. The applicant must submit glazing specifications for the glass, along with any other specifications for any other modifications to the exterior, such as a railing;
2. The applicant must receive and submit approval from the property owner in order to extend the patio to the furnishing zone in front of their neighbors' property;
3. The applicant must submit revised plans with the final table selected for the patio, and must submit detailed specifications; and
4. The applicant must comply with the requests of all City Departments.

WHEREAS, The Birmingham City Commission has conducted a public hearing on May 4, 2026 and has reviewed the Special Land Use Permit and Final Site Plan & Design Review application and the standards for such review as set forth in Article 7, Sections 7.27 and 7.36 of Chapter 126, Zoning, of the City Code.

NOW, THEREFORE, BE IT RESOLVED, The Birmingham City Commission adopts the findings of the Planning Board and finds the standards imposed in Article 7, Sections 7.27 and 7.36 of the Zoning Ordinance and other applicable standards in the City Code have been met, subject to the conditions below, and that Snap Taco's application for a Special Land Use Permit and Final Site Plan & Design Review at 126 S. Old Woodward is hereby approved.

BE IT FURTHER RESOLVED, That the City Commission determines that to ensure continued compliance with Code standards and to protect public health, safety, and welfare, this Special Land Use Permit is granted subject to the following conditions:

1. Snap Taco shall abide by all provisions of the Birmingham City Code.
2. Snap Taco shall comply with the approved site and design plans and any amendments thereto.
3. The Special Land Use Permit may be canceled by the City Commission upon finding after proper notice and a hearing that the continued use is not in the public interest.

BE IT FURTHER RESOLVED, That failure to comply with any of the above conditions shall result in termination of the Special Land Use Permit.

BE IT FURTHER RESOLVED, Except as herein specifically provided, Snap Taco and its heirs, successors, and assigns shall be bound by all ordinances of the City of Birmingham in effect at the time of the issuance of this permit, and as they may be subsequently amended. Failure of Snap Taco to comply with all the ordinances of the City may result in the Commission revoking this Special Land Use Permit.

BE IT FURTHER RESOLVED that Snap Taco is recommended for approval for the sale of alcoholic beverages for on premise consumption as a bistro establishment and a new outdoor dining facility at 126 S. Old Woodward, above all others, subject to final inspection.

I, Alexandria Bingham, City Clerk of the City of Birmingham, Michigan, do hereby certify that the foregoing is a true and correct copy of the resolution adopted by the Birmingham City Commission at its regular meeting held on May 4, 2026.

_____

Alexandria Bingham
City Clerk

CONTRACT FOR A SPECIAL LAND USE PERMIT AMENDMENT
126 S. OLD WOODWARD – SNAP TACO

This Contract is entered into this____day of_____, 2026 by and between **RED ISLAND TACO, LLC**, whose address is 3746 Auburn Rd., Auburn Hills, MI 48326-3320 (hereinafter referred to as "Snap Taco"), **THE ELIA GROUP, LLC**, whose address is 124 S. Old Woodward Ste. A, Birmingham, MI 48009 ("Property Owner"), and the **CITY OF BIRMINGHAM**, a Michigan Municipal Corporation, whose address is 151 Martin Street, Birmingham, Michigan 48009 ("City").

R E C I T A L S:

WHEREAS, A Special Land Use Permit Amendment and Final Site Plan & Design Review application was filed in March 2026 for approval to permit the sale of alcoholic beverages for on premise consumption as a bistro establishment and a new outdoor dining facility;

WHEREAS, The land for which the Special Land Use Permit is sought is located on the east side of S. Old Woodward, south of E Maple Rd, north of Merrill St.;

WHEREAS, The land is zoned B4 (Business-Residential) and D4 (Downtown Overlay), which permits alcoholic beverage sales for on premise consumption with a Special Land Use Permit;

WHEREAS, Article 7, section 7.34 of Chapter 126, Zoning requires a Special Land Use Permit to be considered and acted upon by the Birmingham City Commission, after receiving recommendations on the site plan and design from the Planning Board for the proposed Special Land Use;

WHEREAS, The Birmingham Planning Board on March 25, 2026 reviewed the application for Special Land Use Permit and Final Site Plan & Design Review and moved to adopt the findings of the Planning Department in the report dated March 25, 2026 related to the approval criteria outlined in Article 7, Sections 7.27 and 7.36 of the Zoning Ordinance and to recommend that the City Commission approve the Special Land Use Permit and Final Site Plan & Design Review application for 126 S. Old Woodward – Snap Taco – with the following conditions:

1. The applicant must submit glazing specifications for the glass, along with any other specifications for any other modifications to the exterior, such as a railing;
2. The applicant must receive and submit approval from the property owner in order to extend the patio to the furnishing zone in front of their neighbors' property;
3. The applicant must submit revised plans with the final table selected for the patio, and must submit detailed specifications; and
4. The applicant must comply with the requests of all City Departments.

WHEREAS, The Birmingham City Commission has conducted a public hearing on May 4, 2026 and has reviewed the Special Land Use Permit and Final Site Plan & Design Review

DRAFT

application and the standards for such review as set forth in Article 7, Sections 7.27 and 7.36 of Chapter 126, Zoning, of the City Code.

NOW, THEREFORE, the parties agree as follows:

1. Snap Taco will continue to utilize a state issued liquor license for use solely at the Property. Any transfer of the aforementioned license from the Property to any other location in the City of Birmingham shall require the approval of the Birmingham City Commission in accordance with Section 10-83 of the City of Birmingham Code of Ordinances. In addition, any expansion of the Property shall also require the approval of the Birmingham City Commission.

2. Snap Taco further acknowledges that it must maintain a Special Land Use Permit for the sale of alcoholic liquors for on premise consumption as required by the Birmingham City Code of Ordinances. It is agreed that Snap Taco shall comply with all provisions of the Special Land Use Permit, or any amendments thereto, as a condition of this contract. Snap Taco further acknowledges and agrees that a violation of any provision of the Special Land Use Permit or the Michigan Liquor Control Code is a violation of the terms of this contract entitling the City to exercise any or all of the remedies provided herein.

3. Snap Taco acknowledges that no modifications to the site plan, floor plan, elevations or operation of the establishment may be made unless approved by the City Commission through a Special Land Use Permit Amendment as required in the Zoning Ordinance. Modifications include, but are not limited to, name changes, ownership changes, remodeling, changes in the number of interior or exterior seats, etc.

4. Snap Taco agrees that it shall not apply or seek from the Michigan Liquor Control Commission any permit endorsements to its liquor license whether available in the current Michigan Liquor Control Code or in future Michigan Liquor Control Codes, or amendments thereto, without the prior approval of the Birmingham City Commission.

5. Snap Taco further agrees that it shall not seek any change in its license status/class whether such changes are available now in the current Michigan Liquor Control Code or in future Michigan Liquor Control Codes, or amendments thereto, without prior approval of the Birmingham City Commission.

6. Snap Taco agrees that it shall adhere to all Federal, State and Local ordinances currently in effect or as subsequently amended or enacted.

7. Snap Taco agrees that its failure to follow any of the provisions herein may be grounds for the Michigan Liquor Control Commission to suspend, revoke or not renew its liquor license and/or for the Birmingham City Commission to revoke the Special Land Use Permit, either of which would prohibit Snap Taco from operating the establishment. Snap Taco agrees that in addition to the City of Birmingham's right to seek suspension, revocation or non-renewal of its liquor license and/or revocation of the Special Land Use Permit, the City retains any and all rights to enforce this Contract that may be available to it in law or in equity. Snap Taco further agrees that it shall reimburse the City all of its costs and actual attorney fees incurred by the City in seeking the suspension, revocation or non-renewal of its liquor license and revocation of the Special Land Use Permit, as well as enforcing such other rights as may be available at law and/or in equity.

DRAFT

8. To the fullest extent permitted by law, Snap Taco and any entity or person for whom Snap Taco is legally liable, agrees to be responsible for any liability, defend, pay on behalf of, indemnify, and hold harmless the City, its elected and appointed officials, employees and volunteers and others working on behalf of the City against any and all claims, demands, suits, or loss, including all costs connected therewith, including all costs and actual attorney fees, and for any damages which may be asserted, claimed or recovered against or from the City, its elected and appointed officials, employees, volunteers or others working on behalf of the City, by reason of personal injury, including bodily injury, death and/or property damage, including loss of use thereof, which arises out of or is in any way connected or associated with Snap Taco's operation of an establishment at the Property. Snap Taco is not liable if the act or omission is the City's.

9. In the event Snap Taco fails to reimburse the City the costs and/or attorney fees as required herein, or any part thereof, then said amount could be transferred to the tax roll in accordance with Section 1-14 of the Birmingham City Code as acknowledged by the Property Owner.

10. Any disputes arising under this Contract, not within the jurisdiction of the Michigan Liquor Control Commission, shall be settled either by commencement of a suit in Oakland County Circuit Court or by compulsory arbitration, at the election of the City. If both parties elect to have the dispute resolved by arbitration, it shall be settled pursuant to Chapter 50 of the Revised Judicature Act for the State of Michigan and administered by the American Arbitration Association with one arbitrator being used, or three arbitrators in the event any party's claim exceeds $1,000,000. Each party shall bear its own costs and expenses and an equal share of the arbitrator's and administrative fees of arbitration. Such arbitration shall qualify as statutory arbitration pursuant to MCL §600.5001 et seq., and the Oakland County Circuit Court or any court having jurisdiction shall render judgment upon the award of the arbitrator made pursuant to this Agreement. The laws of the State of Michigan shall govern this Agreement, and the arbitration shall take place in Oakland County, Michigan. In the event that the parties elect not to have the matter in dispute arbitrated, any dispute between the parties may be resolved by the filing of a suit in a federal or state court with jurisdiction over Oakland County, Michigan.

11. This contract shall be governed by and performed, interpreted and enforced in accordance with the laws of the State of Michigan.

12. If any provision of this contract is declared invalid, illegal or unenforceable, such provision shall be severed from this contract and all other provisions shall remain in full force and effect.

13. The City determines that to ensure continued compliance with Code standards and to protect public health, safety, and welfare, this Special Land Use Permit Amendment is granted subject to the following conditions:

1. Snap Taco shall abide by all provisions of the Birmingham City Code.
2. Snap Taco shall comply with the approved site and design plans and any amendments thereto.
3. The Special Land Use Permit may be canceled by the City Commission upon finding after proper notice and a hearing that the continued use is

DRAFT

not in the public interest.

14. Failure to comply with any of the above conditions may result in termination of the Special Land Use Permit after Snap Taco has been given notice and a hearing.

15. Except as herein specifically provided, Snap Taco and its heirs, successors, and assigns shall be bound by all ordinances of the City of Birmingham in effect at the time of the issuance of this permit, and as they may be subsequently amended. Failure of Snap Taco to comply with all the ordinances of the City may result in the Commission revoking this Special Land Use Permit, after notice and a hearing.

16. Snap Taco is recommended for the sale of alcoholic beverages for on premise consumption as a bistro establishment and a new outdoor dining facility, above all others, subject to final inspection.

17. This Contract shall be binding upon and apply and inure to the benefit of the parties hereto and their respective successors or assigns. The covenants, conditions, and the agreements herein contained are hereby declared binding on the City and Snap Taco. It is further agreed that there shall be no change, modification, or alteration hereof, except in writing, signed by all of the parties hereto. Neither party shall assign any of the rights under this contract without prior approval, in writing, of the other. Any attempt at assignment without prior written consent shall be void and of no effect.

IN WITNESS WHEREOF, the parties hereby have executed this Contract as of the date set forth above.

RED ISLAND TACO, LLC (Snap Taco)

By: _____

Its: _____

Date: _____

STATE OF MICHIGAN)
) ss:
COUNTY OF OAKLAND)

On this _____day of _____, 2026, before me personally appeared _____who acknowledged that with authority on behalf **RED ISLAND TACO, LLC** to do so signed this Agreement.

_____
Notary Public
_____County, Michigan
Acting in _____ County, Michigan
My commission expires: _____

DRAFT

CITY OF BIRMINGHAM

By: _____
Clinton Baller, Mayor

By: _____
Alexandria D. Bingham, City Clerk

APPROVED:

_____
Jana L. Ecker, City Manager
(Approved as to substance)

_____
Nicholas J. Dupuis, Planning Director
(Approved as to substance)

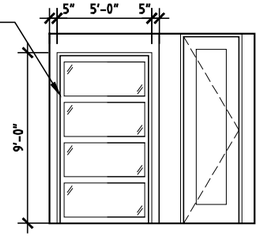
_____
Mary M. Kucharek, City Attorney
(Approved as to form)

DRAFT

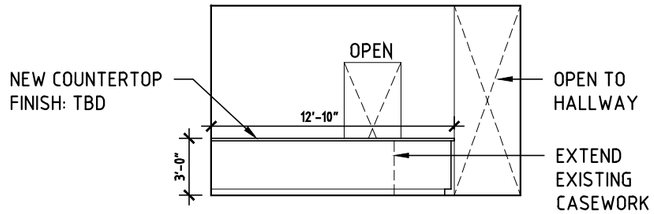
APPLICATION IMAGE OF ACTUAL GARAGE DOOR

HAAS GARAGE DOOR MODEL CA-110

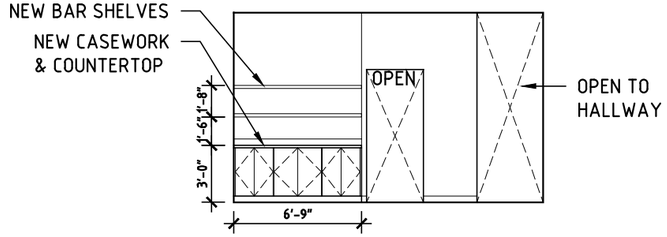
DOOR DIMENSIONS:5'-0" x 9'-0"
DOOR COLOR: ANODIZED BLACK
INSULATION: INSULATED GLASS AND NON-INSULATED RAILS
GLASS-TYPE: CLEAR
RAILING MATIERAL: ALUMINUM



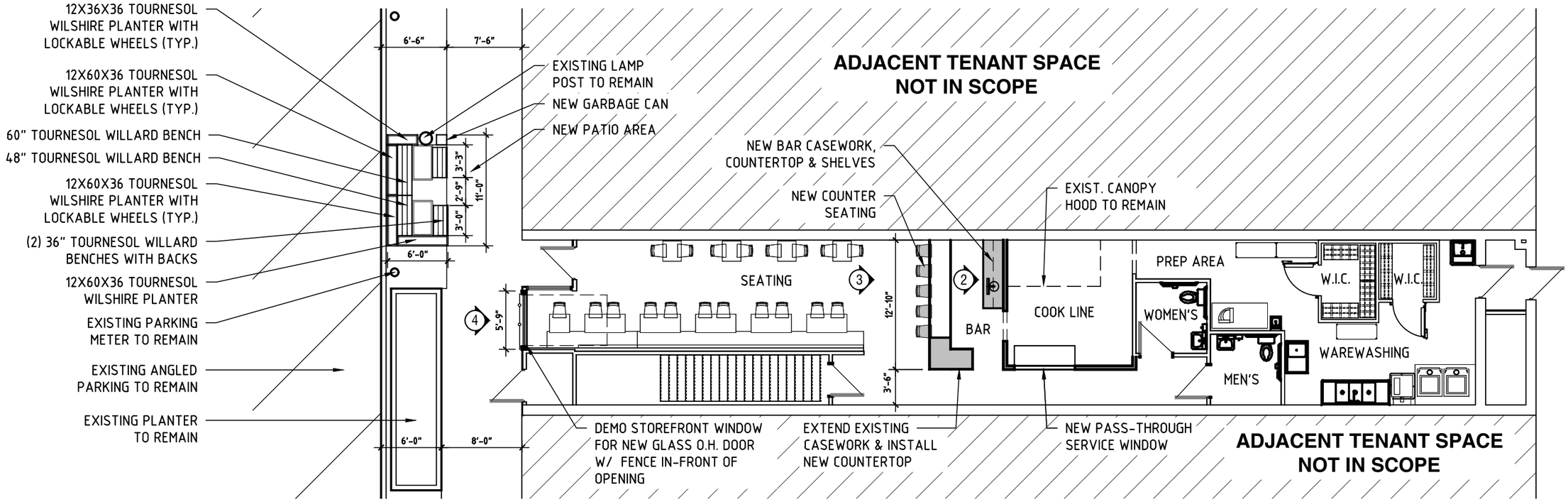
4 Garage Door Interior Elevation
SCALE: 1/8" = 1'



3 Bar Interior Elevation
SCALE: 1/8" = 1'

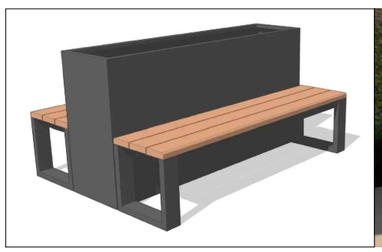


2 Bar Interior Elevation
SCALE: 1/8" = 1'



WILLARD BENCH WITH BACK

WILLARD BENCH WITH NO BACK



INTEGRATED BENCH WITH PLANTERS

WILSHIRE PLANTER W/ RECESSED LOCKABLE CASTER WHEELS

Snap Taco - Birmingham, MI Patio Plan — Option 1

March 18, 2026

SCALE: 3/32" = 1'

DESIGNHAUS ARCHITECTURE EST 1998
3300 Auburn Rd. Auburn Hills, MI 48326
p 248.601.4422 www.designhaus.com

Snap Taco - Birmingham, MI Render

March 18, 2026

DESIGNHAUS ARCHITECTURE EST 1998
3300 Auburn Rd. Auburn Hills, MI 48326
p 248.601.4422 www.designhaus.com

MEMORANDUM

Planning Division

DATE: March 25, 2026

TO: Planning Board Members

FROM: Summer Aldred-Arens, City Planner

SUBJECT: 126 S. Old Woodward – Snap Taco — Bistro —Special Land Use Permit (SLUP), Final Site Plan & Design Review

---

The applicant has submitted a Special Land Use Permit, Final Site Plan and Design Review application for a new bistro in the first floor tenant space of an exisiting building on S. Old Woodward in the former location of Kaku Sushi. The subject site is located on the east side of S. Old Woodward, south of E Maple Rd, north of Merrill St.

Snap Taco described their business in their presentation to City Comission as a, "full-service Mexican restaurant designed to cater to our quick lunch visitors, those who prefer to dine in and enjoy the ambiance, as well as customers seeking delicious and healthy takeout meals for their families." The menu will be composed of variety of items such as tacos, burritos, flautas, fajitas, and hamburgers. The current hours of operation are:

Monday – Sunday: 11AM – 9PM

The Birmingham Code of Ordinances states that a contract for transfer and a Special Land Use Permit are required for all licenses approved under Chapter 10 – Alcoholic Liquors. The licensee must comply with all provisions of the contract and Special Land Use Permit, and any amendments thereto as a condition of granting of a requested transfer. Accordingly, the applicant must obtain a recommendation from the Planning Board on the Special Land Use and Final Site Plan/Design Review application, which is then reviewed for final consideration by the City Commission.

On February 9, 2026 (Agenda – Minutes), the City Commission moved Snap Taco forward to apply for a Special Land Use Permit to become a bistro. As a bistro, the Zoning Ordinance requires outdoor dining to be provided.

1.0 Land Use and Zoning

1.1 Existing Land Use – The existing site is a two-story commerical building with commerical on the ground floor and office use above.

1.2 Existing Zoning – B4 (Business/Residential) & D4 (Downtown Overlay)

1.3 Summary of Adjacent Land Use and Zoning – The following chart summarizes the existing land use and zoning adjacent to and/or in the vicinity of the subject site.

	North	South	East	West
Existing Land Use	Commercial	Commercial	Commercial	Commercial
Existing Zoning District	B4 (Business/ Residential)	B4 (Business/ Residential)	B4 (Business/ Residential)	B4 (Business/ Residential)
Overlay Zoning District	D4	D4	D4	D4

2.0 Bistro Requirements

Article 9, section 9.02, Definitions, of the Zoning Ordinance defines a bistro as a restaurant with a full service kitchen with interior seating for no more than 65 people and additional seating for outdoor dining of no more than 65 people.

Article 3, section 3.04(C)(10) of the Zoning Ordinance permits bistros in the Downtown Overlay District as long as the following conditions are met:

a. No direct connect additional bar permit is allowed and the maximum seating at a bar cannot exceed 10 seats;
b. Alcohol is served only to seated patrons, except those standing in a defined bar area;
c. No dance area is provided;
d. Only low key entertainment is permitted;
e. Bistros must have tables located in the storefront space lining any street, or pedestrian passage;
f. A minimum of 70% glazing must be provided along building facades facing a street or pedestrian passage between 1’ and 8’ in height;
g. All bistro owners must execute a contract with the City outlining the details of the operation of the bistro;

h. Outdoor dining must be provided, weather permitting, along an adjacent street or passage during the months of May through October each year. Outdoor dining is not permitted past 12:00 a.m. If there is not sufficient space to permit such dining on the sidewalk adjacent to the bistro, an elevated, ADA compliant, enclosed platform must be erected on the street adjacent to the bistro to create an outdoor dining area if the Engineering Department determines there is sufficient space available for this purpose given parking and traffic conditions.
i. Enclosures facilitating year round dining outdoors are not permitted.
j. Railings, planters or similar barriers defining outdoor dining platforms may not exceed 42" in height.
k. Outdoor rooftop dining is permitted with the conditions that surrounding properties are not impacted in a negative manner and adequate street level dining is provided as determined by the Planning Board and City Commission. Rooftop dining seats will count towards the total number of permissible outdoor dining seats.

Snap Taco is proposing 30 seats in the restaurant and 5 bar stools for a total of 35 seats. In addition, Snap Taco is proposing an outdoor dining patio with 8 seats. In terms of the standards in Section 3.04(C)(10), Snap Taco appears to meet each standard and does not require any variances or special conditions.

A full review of the design of the outdoor dining facility is provided in the Design Review section below.

3.0 Screening and Landscaping

3.1 Dumpster Screening – There are no dumpster screening changes proposed as part of the application submitted.

3.2 Parking Lot Screening – There are no changes proposed as part of the application submitted.

3.3 Mechanical Equipment Screening – There are no changes proposed as part of the application submitted.

3.4 Landscaping – There are no landscaping features proposed as a part of the application submitted.

3.5 Streetscape – There are no new streetscape items proposed as a part of this Special Land Use Permit Amendment and Final Site Plan/Design Review application.

4.0 Parking, Loading and Circulation

4.1 Parking – The subject site is located within the Parking Assessment District. Therefore, no additional off-street parking facility is required or proposed.

4.2 Loading – There are no changes proposed as part of the application submitted.

4.3 Vehicular Circulation and Access – There are no changes proposed as part of the application submitted.

4.4 Pedestrian Circulation and Access – There are no changes proposed as part of the application submitted.

5.0 Lighting

There are no new light fixtures proposed as a part of the application submitted.

6.0 Design Review

The applicant appears to be proposing minimal modifications to the exterior of their façade. The applicant submitted specifications for a new glass overhead garage door that could be raised and lowed that would be replacing their front window. It also appears in the rendering submitted, that a new railing will be installed in the bottom of the window area. The garage door appears to be of high quality, with clear windows; however, **the applicant must submit glazing specifciations for the glass, along with any other specifications for any other modications to the exterior, such as a railing.**

The applicant does not appear to be proposing any signage at this time.

Outdoor Dining

Outdoor dining patios must comply with the criteria outlined in Article 4, Section 4.44 – Outdoor Dining Standards. Outdoor dining patios are permitted immediately adjacent to the principal use, subject to site plan review and the following conditions:

1. Outdoor dining areas shall provide and service refuse containers within the outdoor dining area and maintain the area in good order.
2. All outdoor activity must cease at the close of business or as noted in subsection 3 below.
3. When an outdoor dining area is immediately adjacent to any single-family or multiple-family residential district, all outdoor activity must cease at the close of business or 10:00 p.m., whichever is earlier.
4. Outdoor dining may be permitted on the sidewalk throughout the year with a valid Outdoor Dining License, provided that all outdoor dining fixtures and

furnishings must be stored indoors each night between November 16 and March 31 to allow for snow removal.

5. All tables and chairs provided in the outdoor dining area shall be constructed primarily of metal, wood, or material of comparable quality.
6. Table umbrellas shall be considered under Site Plan Review and shall not impede sight lines into a retail establishment, pedestrian flow in the outdoor dining area, or pedestrian or vehicular traffic flow outside the outdoor dining area.
7. For outdoor dining located in the public right-of-way:
    a. All such uses shall be subject to a license from the city, upon forms provided by the Community Development Department, contingent on compliance with all city codes, including any conditions required by the Planning Board in conjunction with Site Plan approval.
    b. In order to safeguard the flow of pedestrians on the public sidewalk, such uses shall maintain an unobstructed sidewalk width as required by the Planning Board, but in no case less than 5 feet.
    c. Outdoor dining is permitted to extend in the right-of-way in front of neighboring properties, with the written permission of the property owner(s) and with Planning Board approval, if such property is vacant or the first floor storefront(s) is/are vacant. Outdoor dining areas may extend up to 50% of the width of the neighboring lot(s) storefront(s), or up to 50% of the lot(s) frontage, if such lot is vacant.
    d. City Commission approval is also required for outdoor dining extensions onto neighboring property if the establishment making such a request holds a bistro license.
    e. An elevated, ADA compliant, enclosed platform may be erected on the street in front of an eating establishment to create an outdoor dining area from April 1 through November 15 only if the Engineering Department determines there is sufficient space available for this purpose given parking and traffic conditions.
    f. No such facility shall erect or install permanent fixtures in the public right-of-way.
8. Outdoor dining is permitted in a B1 District at a rate of 4 seats for every 12 linear feet of store frontage, with no more than 12 seats total per building; no elevated enclosed platforms on the street are permitted in a B1 District.

The applicant is proposing an 8-seat, roughly 66 sq ft. outdoor dining patio located in the furnishing zone of the sidewalk located in front of the proposed bistro. The patio is proposed to be enclosed by two large planter boxes along the street-side and bookended by two large planters on the north and south ends. The application has proposed this patio area to extend in front of the neighboring business to the south, Faherty. **The applicant must submit approval from the property owner in order to extend the patio to the furnishing zone in front of their neighbors' property.**

The applicant submitted a rendering of the proposed patio area, including examples of seating and planters to be used. All of the materials appear to be of high quality and fit harmoniously with the façade. The applicant appears to be satisfying the outdoor dining elements by including necessary items like a trash receptical. **The applicant must submit revised plans with the final table selected for the patio, and must submit detailed specifications.**

Finally, the applicant is required to provide a minimum 5 ft. clear walking path along the sidewalk adjacent to their outdoor dining patio. The applicant has provided dimensions on the site plans indicate that a clear path of 7 ft. 6 in. is provided along the sidewalk adjacent to the patio.

7.0 Required Attachments

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

8.0 Approval Criteria

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

(1) The location, size and height of the building, walls and fences shall be such that there is adequate landscaped open space so as to provide light, air and access to the persons occupying the structure.
(2) The location, size and height of the building, walls and fences shall be such that there will be no interference with adequate light, air and access to adjacent lands and buildings.
(3) The location, size and height of the building, walls and fences shall be such that they will not hinder the reasonable development of adjoining property nor diminish the value thereof.

(4) The site plan, and its relation to streets, driveways and sidewalks, shall be such as to not interfere with or be hazardous to vehicular and pedestrian traffic.
(5) The proposed development will be compatible with other uses and buildings in the neighborhood and will not be contrary to the spirit and purpose of this chapter.
(6) The location, shape and size of required landscaped open space is such as to provide adequate open space for the benefit of the inhabitants of the building and the surrounding neighborhood.

In addition, Article 7, Section 7.26 requires applications for a Special Land Use Permit to meet the following criteria:

(1) The use is consistent with and will promote the intent and purpose of this Zoning Ordinance.
(2) The use will be compatible with adjacent uses of land, the natural environment, and the capabilities of public services and facilities affected by the land use.
(3) The use is consistent with the public health, safety and welfare of the city.
(4) The use is in compliance with all other requirements of this Zoning Ordinance.
(5) The use will not be injurious to the surrounding neighborhood.
(6) The use is in compliance with state and federal statutes.

9.0 Recommendation

Based on a review of the site plan submitted, the Planning Division recommends that the Planning Board recommend **APPROVAL** of the Special Land Use and Final Site Plan/Design Review application for 126 S. Old Woodward – Snap Taco – subject to the following conditions:

1. The applicant submit glazing specifciations for the glass, along with any other specifications for any other modications to the exterior, such as a railing;
2. The applicant must receive and submit approval from the property owner in order to extend the patio to the furnishing zone in front of their neighbors' property;
3. The applicant must submit revised plans with the final table selected for the patio, and must submit detailed specifications; and
4. The applicant must comply with the requests of all City Departments.

10.0 Sample Motion Language (*Final Site Plan & Design Review*)

Motion to recommend for **APPROVAL** the Final Site Plan & Design Review for 126 S. Old Woodward – Snap Taco – subject to the following conditions:

1. The applicant submit glazing specifciations for the glass, along with any other specifications for any other modications to the exterior, such as a railing;
2. The applicant must receive and submit approval from the property owner in order to extend the patio to the furnishing zone in front of their neighbors' property;
3. The applicant must submit revised plans with the final table selected for the patio, and must submit detailed specifications; and
4. The applicant must comply with the requests of all City Departments.

OR

Motion to **POSTPONE** the Final Site Plan & Design Review for 126 S. Old Woodward – Snap Tacos – pending receipt of the following:

1. The applicant submit glazing specifciations for the glass, along with any other specifications for any other modications to the exterior, such as a railing;
2. The applicant must receive and submit approval from the property owner in order to extend the patio to the furnishing zone in front of their neighbors' property;
3. The applicant must submit revised plans with the final table selected for the patio, and must submit detailed specifications; and
4. The applicant must comply with the requests of all City Departments.

OR

Motion to recommend for **DENIAL** to the City Commission the Final Site Plan & Design 126 S. Old Woodward – Snap Taco – for the following reasons:

1. _____
2. _____
3. _____

11.0 Sample Motion Language (*Special Land Use Permit*)

Motion to recommend for **APPROVAL** to the City Commission the Special Land Use Permit for 126 S. Old Woodward – Snap Taco – subject to the conditions of Final Site Plan & Design Review approval.

OR

Motion to **POSTPONE** the Special Land Use Permit 126 S. Old Woodward – Snap Taco – pending receipt of the following:

1. The applicant submit glazing specifciations for the glass, along with any other specifications for any other modications to the exterior, such as a railing;
2. The applicant must receive and submit approval from the property owner in order to extend the patio to the furnishing zone in front of their neighbors' property;
3. The applicant must submit revised plans with the final table selected for the patio, and must submit detailed specifications; and
4. The applicant must comply with the requests of all City Departments.

OR

Motion to recommend for **DENIAL** to the City Commission the Special Land Use Permit for 126 S. Old Woodward – Snap Taco – for the following reasons:

1. _____
2. _____
3. _____

MEMORANDUM

Police Department

DATE: April 13, 2026

TO: Jana Ecker, City Manager

FROM: Scott Grewe, Chief of Police

SUBJECT: PROGRAM YEAR 2026 HIGH INTENSITY DRUG TRAFFICKING AREA (HIDTA) SUB-RECIPIENT AGREEMENT BETWEEN THE COUNTY OF OAKLAND AND CITY OF BIRMINGHAM Unique Entity Identifier (UEI) #: J32HKEJRJNJ8

INTRODUCTION:

The Police Department is a member of the Oakland County Sheriff's Office Narcotic Enforcement Team (NET) by an approved inter-local agreement between the City and Oakland County. In addition to Birmingham, thirteen other communities are also members of NET by the inter-local agreement.

BACKGROUND:

In 2026, with the permission and cooperation of all thirteen member agencies, the Oakland County Sheriff's Office applied for a grant through the Executive Board for Michigan High Intensity Drug Trafficking Area (HIDTA) requesting the United States Office of Drug Control Policy (ONDCP) grant NET an award of $132,300.00 for the program year 2026 (January 1, to December 31, 2026). The grant award will provide partial funding for overtime reimbursement for NET investigators conducting drug investigations. Oakland County will reimburse the City up to $6,600.00 for qualifying NET-related overtime.

LEGAL REVIEW:

Legal counsel reviewed the sub-recipient agreement and has no objections to form or content.

FISCAL IMPACT:

The City of Novi is listed on the HIDTA contract because it has been selected as the grant's fiduciary. If approved, the City would receive reimbursement from Oakland County for grant funding of up to $6,600.00 for qualifying NET-related overtime.

SUSTAINABILITY:

N/A

DESIGN CONSIDERATIONS:

N/A

PUBLIC COMMUNICATIONS:
N/A

SUMMARY:
To receive grant funds, the City of Birmingham must enter into a sub-recipient agreement with Oakland County. The purpose of the agreement is to delineate the relationship and responsibilities regarding the County's use of grant funds to reimburse municipalities for overtime incurred in connection with participation in the Oakland County Narcotic Enforcement Team (NET).

ATTACHMENTS:
1. Birmingham 2026 HIDTA Subrecipient Agreement
2. Exhibits A-E (2) 2026

SUGGESTED COMMISSION ACTION:
Make a motion adopting a resolution to approve the Program Year 2026 High Intensity Drug Trafficking Area (HIDTA) sub-recipient agreement between the County of Oakland and the City of Birmingham. Further, to authorize the Mayor to sign the agreement on behalf of the City.

PROGRAM YEAR 2026
HIGH INTENSITY DRUG TRAFFICKING AREA (HIDTA)
SUBRECIPIENT AGREEMENT BETWEEN
THE COUNTY OF OAKLAND AND CITY OF BIRMINGHAM
Unique Entity Identifier (UEI) #: J32HKEJRJNJ8

This Agreement is made between Oakland County, a Constitutional Corporation, 1200 North Telegraph, Pontiac, Michigan 48341 ("County") and City of Birmingham, 151 Martin St., Birmingham, MI 48009, a Michigan Municipal Corporation ("Municipality"). The County and Municipality shall be collectively referred to as the "Parties."

PURPOSE OF AGREEMENT.

The Parties enter into this Agreement for the purpose of delineating their relationship and responsibilities regarding the County's use of Grant funds (defined below) to reimburse the Municipality for overtime expenses that it incurred related to its participation in the Oakland County Narcotic Enforcement Team ("N.E.T."), a multijurisdictional drug enforcement task force under the direction and supervision of the Oakland County Sheriff's Office ("OCSO").

Under the Parties' separate N.E.T. agreement, the Municipality is responsible for providing a full-time employee for participation in N.E.T. and for all costs associated with that employment, including overtime.

The County, as the legal entity that administers N.E.T., submitted an Initiative Description and Budget Proposal (Exhibit A) to the Executive Board for Michigan HIDTA requesting the United States Office of National Drug Control Policy ("ONDCP") to grant N.E.T. an award for program year (PY) 2026 to reimburse N.E.T. participating agencies for eligible law enforcement officer overtime. PY 2026 begins January 1, 2026, and ends December 31, 2026.

If ONDCP grants N.E.T. an award for PY 2026, the ONDCP disburses the HIDTA grant funds to the City of Novi. To receive the Grant funds for overtime costs, N.E.T. must submit requests for reimbursement with the required supporting documentation to Michigan HIDTA. If Michigan HIDTA approves the N.E.T. overtime reimbursement requests, the City of Novi should distribute the Grant funds to County on behalf of N.E.T. The County has the authority to allocate a portion of the Grant funds to reimburse the Municipality for qualifying overtime costs subject to the terms and conditions of this Agreement.

In consideration of the mutual promises, obligations, representations, and assurances in this Agreement, the Parties agree to the following:

1. **DEFINITIONS**. The following terms, whether used in the singular or plural, within or without quotation marks, or possessive or nonpossessive, shall be defined, read, and interpreted as follows:

1.1. **Claim** means any alleged loss, claim, complaint, demand for relief or damages, cause of action, proceeding, judgment, deficiency, liability, penalty, fine, litigation, costs, and/or expenses, including, but not limited to, reimbursement for attorney fees, witness fees, court costs, investigation expenses, litigation expenses, and amounts paid in settlement, which are imposed on, incurred by, or asserted against the County or Municipality, or the County's or Municipality's agents or employees, whether such claim is brought in law or equity, tort, contract, or otherwise.

1.2. **Grant funds** mean the funds that may be awarded to the County and the other participating agencies in N.E.T. pursuant to Michigan HIDTA Initiative Description and Budget Proposal Version 2026 (Exhibit A) submitted to Michigan HIDTA by County on behalf of itself and the other participating agencies in N.E.T.

2. EXHIBITS. The Exhibits listed below are incorporated and are part of this Agreement.

2.1. **Exhibit A** – Michigan HIDTA Initiative Description and Budget Proposal Version 2026.

2.2. **Exhibit B** - Template Request for HIDTA Overtime Reimbursement (Locals to County).

2.3. **Exhibit C** – Sample letter regarding notification of current overtime pay rate.

2.4. **Exhibit D** – Sample overtime slip, signed by the officer's supervisor that supports each Request for HIDTA Overtime Reimbursement.

2.5. **Exhibit E** – Sample paystub or payroll report that supports each Request for HIDTA Overtime Reimbursement.

3. FEDERAL AWARD PROJECT DESCRIPTION.

3.1. Catalog of Federal Domestic Assistance ("CFDA") #: 95.001

3.2. Federal Awarding Agency: United States Office of National Drug Control Policy ("ONDCP")

3.3. Program: High Intensity Drug Trafficking Areas (HIDTA)

3.3.1. HIDTA Objective: To reduce drug trafficking and drug production in the United States by: (A) facilitating cooperation among Federal, State, local, and tribal law enforcement agencies to share information and implement coordinated enforcement activities; (B) enhancing law enforcement intelligence sharing among Federal, State, local, and tribal law enforcement agencies; (C) providing reliable law enforcement intelligence to law enforcement agencies needed to design effective enforcement strategies and operations; and (D) supporting coordinated law enforcement strategies which maximize use of available resources to reduce the supply of illegal drugs in designated areas and in the United States as a whole.

3.4. Period of Performance: January 1, 2026, through December 31, 2026.

3.5. The Federal Award Identification Number (FAIN) is provided in the HIDTA Grant Agreement between ONDCP and the City of Novi, which is incorporated into this Agreement by reference.

4. USE OF HIDTA FUNDS.

4.1. The total amount of the federal award for overtime costs committed to the Municipality and obligated by this action by the County to the Municipality is not to exceed **$6,600.00** for each participating law enforcement officer unless otherwise provided herein. That amount is based on the number of N.E.T participating agencies and eligible law enforcement officers at the time this Agreement was executed by both Parties. If the number of N.E.T participating agencies and/or eligible law enforcement officers changes during the term of this Agreement, the total amount of the federal award for overtime costs committed to the Municipality and obligated by this action by the County to the Municipality amount may change as funds are available on a pro rata basis. Such commitment and obligation for overtime costs is contingent upon the ONDCP awarding the Grant funds to N.E.T and the City of Novi reimbursing the County.

4.2. The County will reimburse the Municipality up to **$6,600.00** for each participating law enforcement officer for qualifying N.E.T.-related overtime unless otherwise provided herein. That amount is based on the number of N.E.T participating agencies and eligible law enforcement officers at the time this Agreement was executed by both Parties. If the number of N.E.T participating agencies and/or eligible law enforcement officers changes during the term of this Agreement, the maximum reimbursement amount may change as funds are available on a pro rata basis. Such reimbursement shall only be made after the supporting documentation is submitted by the Municipality and approved by the County, as described in Paragraph 5.1. Such reimbursement is contingent upon the ONDCP awarding the grant funds to N.E.T and the City of Novi reimbursing the County.

4.2.1. HIDTA funds shall be used to pay overtime only if the overtime was performed in support of a HIDTA-designated Enforcement initiative or Intelligence and information Sharing Initiative. HIDTA funds shall not be used to pay overtime related to training attendance, financial management, drug treatment, drug demand reduction or prevention, or non-investigative related administrative work.

4.2.2. No HIDTA funds shall be used to supplant the Municipality's funds that would otherwise be made available for the same purposes.

4.3. There is no research and development performed pursuant to this Agreement.

4.4. No indirect costs shall be charged or reimbursed under performance of this Agreement.

5. REIMBURSEMENT OF ELIGIBLE N.E.T. OVERTIME.

5.1. To request reimbursement for eligible N.E.T. overtime costs, the Municipality shall submit to the County the documentation described in the following subparagraphs no later than thirty (30) days after PY 2026 has expired. If the County, in its sole discretion, determines that the

documentation submitted by the Municipality does not reconcile, then the Municipality shall provide any additional documentation requested by the County in order to process payment.

5.1.1. A fully completed and signed Request for HIDTA Overtime Reimbursement attached as Exhibit B.

5.1.2. A letter substantively similar to the sample letter regarding notification of current overtime pay rate attached as Exhibit C.

5.1.3. Overtime slips, signed by the officer's supervisor, that support each Request for HIDTA Overtime Reimbursement. The overtime slips shall be substantively similar to the sample overtime slip attached as Exhibit D.

5.1.4. The paystub or payroll report that supports each Request for HIDTA Overtime Reimbursement. The paystub or payroll report shall be substantively similar to the sample paystub attached as Exhibit E.

5.2. County will only reimburse Municipality for approved overtime costs after County has received the Grant funds from the City of Novi for that particular reimbursement request.

6. GENERAL COMPLIANCE.

6.1. The Municipality shall comply with to 28 C.F.R. Part 69 (New Restrictions on Lobbying) and 2 C.F.R. Part 25 (Universal Identifier and System of Award Management).

6.2. The Municipality shall comply with the Government-wide Suspension and Debarment provision set forth at 2 CFR Part 180.

6.3. The Municipality shall perform all activities in accordance with The Uniform Administrative Requirements, Cost Principles, and Audit Requirements in 2 C.F.R. Part 200 (the "Part 200 Uniform Requirements"), as adopted and implemented by the Office of National Drug Control Policy (ONDCP) in 2 C.F.R. Part 3603. For this award, the Part 200 Uniform Requirements supersede, among other things, the provisions of 28 C.F.R. Parts 66 and 70, as well as those of 2 C.F.R. Parts 215, 220, 225, and 230.

6.4. The Municipality shall comply with ONDCP's HIDTA Program Policy and Budget Guidance, all other applicable Federal, state, and local laws and regulations, and the terms and conditions contained in this Agreement.

6.5. The Municipality shall comply with all applicable requirements for subrecipients that are provided in the HIDTA Grant Agreement between ONDCP and the City of Novi. The HIDTA Grant Agreement between ONDCP and the City of Novi will be provided to the Municipality within a reasonable time after the County receives a copy of it.

6.6. As specified in the HIDTA Program Policy and Budget Guidance, the Municipality must:

6.6.1. Establish and maintain effective internal controls over the Federal award that provides reasonable assurance that Federal award funds are managed in compliance with Federal statutes, regulations and award terms and conditions. These internal controls should be in compliance with the guidance in "Standards for Internal Control in the Federal Government," issued by the Comptroller General of the United States and the "Internal Control Integrated Framework," issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

6.6.2. Comply with Federal statutes, regulations, and the terms and conditions of the Federal awards.

6.6.3. Evaluate and monitor compliance with applicable statute and regulations, and the terms and conditions of the Federal award.

6.6.4. Take prompt action when instances of noncompliance are identified, including noncompliance identified in audit findings.

6.6.5. Take reasonable measures to safeguard protected personally identified information (PII) and other information ONDCP or the Municipality designates consistent with applicable Federal, state, and local laws regarding privacy and obligations of confidentiality.

7. FINANCIAL ACCOUNTABILITY AND AUDIT REQUIREMENTS.

7.1. The Municipality shall maintain standards of financial accountability that conform to 2 C.F.R. §200.302 (Financial Management) and 2 C.F.R. §200.303 (Internal Controls).

7.2. The Municipality shall comply with audit requirements contained in 2 C.F.R. Part 200, Subpart F, which requires the Municipality to have an annual audit conducted within nine (9) months of the end of their fiscal year, if the Municipality has an aggregate expenditure of more than $750,000 in federal funds in a fiscal year. Any deficiencies noted in audit reports must be fully cleared by the Municipality within thirty (30) days after receipt of same. The Grant funds spent by the County on behalf of the Municipality for training expenses shall be included on the Schedule of Expenditures of Federal Awards if the Municipality is required to have a single audit performed. Municipalities that are exempt from the Single Audit requirements that receive less than $750,000 of total Federal funding must submit a Financial Statement Audit prepared in accordance with Generally Accepted Auditing Standards ("GAAS") if the audit includes disclosures that may negatively impact the HIDTA program including, but not limited to fraud, financial misstatements, and violations of any contract or grant provisions. The County shall have the right to review and audit all records of the Municipality pertaining to any payment by the County.

8. CONFLICT OF INTEREST.

8.1. The Municipality shall comply with the following ONDCP conflict of interest policies:

8.1.1. As a non-Federal entity, you must maintain written standards of conduct covering conflicts of interest and governing the performance of your employees engaged in the selection, award, and administration of subawards and contracts.

8.1.2. None of your employees may participate in the selection, award, or administration of a subaward or contract supported by a Federal award if he or she has a real or apparent conflict of interest. Such a conflict of interest would arise when the employee, officer, or agent, any member of his or her immediate family, his or her partner, or an organization which employs or is about to employ any of the parties indicated herein, has a financial or other interest in or a tangible personal benefit from an organization considered for a sub-award or contract. The officers, employees, and agents of the non-Federal entity must neither solicit nor accept gratuities, favors, or anything of monetary value from subrecipients or contractors or parties to subawards or contracts.

8.1.3. If you have a parent, affiliate, or subsidiary organization that is not a State, local government, or Indian tribe, you must also maintain written standards of conduct covering organizational conflicts of interest. Organizational conflicts of interest means that because of relationships with a parent company, affiliate, or subsidiary organization, you are unable or appear to be unable to be impartial in conducting a sub-award or procurement action involving a related organization.

9. MANDATORY DISCLOSURE.

9.1. As a non-Federal entity, the Municipality must disclose, in a timely manner, in writing to ONDCP all violations of Federal criminal law involving fraud, bribery or gratuity violations potentially affecting the Federal award. Non-Federal entities that have received a Federal award that includes the term and condition outlined in 200 CFR Part 200, Appendix XII "Award Term and Condition for Recipient Integrity and Performance Matters," are required to report certain civil, criminal, or administrative proceedings to System for Award Management (SAM). Failure to make required disclosures can result in remedies such as: temporary withholding of payments pending correction of the deficiency, disallowance of all or part of the costs associated with noncompliance, suspension, termination of award, debarment, or other legally available remedies outlined in 2 CFR 200.338 "Remedies for Noncompliance".

10. RECORD RETENTION.

10.1. The Municipality shall comply with the record retention provisions of 2 C.F.R. 200.333 (Retention requirements for records).

10.2. The Municipality should, whenever practicable, collect, transmit, and store Federal award-related information in open and machine readable formats rather than in closed formats or on paper in accordance with 2 C.F.R. 200.335 (Methods for collection, transmission and storage of information).

11. ACCESS TO RECORDS.

11.1. The Federal awarding agency, Inspectors General, the Comptroller General of the United States, and the County, or any of their authorized representatives, have the right of access to any documents, papers, or other records of the Municipal entity which are pertinent to the Federal award, in order to make audits, examinations, excerpts, and transcripts. The right also includes timely and reasonable access to the Municipality's personnel for the purpose of interview and discussion related to such documents. The right of access to the Municipality's records is not limited to the required retention period but last as long as the records are retained.

11.2. The Municipality shall permit the County and auditors to have access to the Municipality's records and financial statements as necessary for the County to meet the requirements of 2 C.F.R. Part 200.

12. TERM.

12.1. This Agreement and any amendments hereto shall be effective when executed by both Parties with concurrent resolutions passed by the governing bodies of each Party, and when the Agreement is filed according to MCL 124.510. The approval and terms of this Agreement and any amendments hereto shall be entered in the official minutes of the governing bodies of each Party. This Agreement shall end on December 31, 2026.

13. ASSURANCES.

13.1. Each Party shall be responsible for its own acts and the acts of its employees and agents, the costs associated with those acts, and the defense of those acts.

13.2. The Parties have taken all actions and secured all approvals necessary to authorize and complete this Agreement. The persons signing this Agreement on behalf of each Party have legal authority to sign this Agreement and bind the Parties to the terms and conditions contained herein.

13.3. Each Party shall comply with all federal, state, and local ordinances, regulations, administrative rules, laws, and requirements applicable to its activities performed under this Agreement.

14. TERMINATION OF AGREEMENT.

14.1. This Agreement may be terminated in whole or in part as follows:

14.1.1. by the County, if the Municipality fails to comply with the terms and conditions of this Agreement;

14.1.2. by the County for cause;

14.1.3. by the County with the consent of the Municipality, in which case the two parties must agree upon the termination conditions, including the effective date and, in the case of partial termination, the portion to be terminated;

14.1.4. by the Municipality upon sending to the County written notification setting forth the reasons for such termination, the effective date, and, in the case of partial termination, the portion to be terminated. However, if the County determines in the case of partial termination that the reduced or modified portion of the subaward will not accomplish the purpose for which this Agreement was made, the County may terminate the Agreement in its entirety.

14.2. The County must provide to the Municipality a notice of termination. Written suspension or notice of termination will be sent to the Municipality's business address. If this Agreement is terminated or partially terminated, both the County and the Municipality remain responsible for compliance with the requirements at 2 CFR 200.343 Closeout and 2 CFR 200.344 Post-closeout Adjustments and Continuing Responsibilities.

15. CLOSEOUT.

15.1. The County shall close-out this Agreement when it determines that all applicable administrative actions and all required work under this Agreement have been completed by Municipality.

15.2. The Municipality shall comply with the closeout provisions of 2 C.F.R. 200.343 (Closeout).

16. POST-CLOSEOUT ADJUSTMENTS AND CONTINUING RESPONSIBILITIES.

16.1. The closeout of this Agreement does not affect any of the following:

16.1.1. The right of County to disallow costs and recover funds on the basis of a later audit or other review. The County must make any cost disallowance determination and notify the Municipality within the record retention period;

16.1.2. The obligation of the Municipality to return any funds due as a result of later refunds, corrections, or other transactions including final indirect cost rate adjustments;

16.1.3. Audit requirements in Subpart F—Audit Requirements of 2 C.F.R. Part 200.

16.1.4. Records retention as required in Subpart D—Post Federal Award Requirements of this part, §200.333 Retention requirements for records through §200.337 Restrictions on public access to records.

17. REMEDIES FOR NONCOMPLIANCE.

17.1. If the Municipality fails to comply with federal statutes, regulations, or the terms and conditions of this Agreement, the County may impose additional conditions, as described in 2 CFR §200.207 Specific Conditions. If the County determines that noncompliance cannot be

remedied by imposing additional conditions, the County may take one or more of the following actions, as appropriate in the circumstances:

17.1.1. temporarily withhold cash payments pending correction of the deficiency by the Municipality or more severe enforcement action by the County;

17.1.2. disallow (that is, deny both use of funds and any applicable matching credit for) all or part of the cost of the activity or action not in compliance;

17.1.3. wholly or partly suspend or terminate the Agreement;

17.1.4. recommend that the Federal awarding agency initiate suspension or debarment proceedings as authorized under 2 CFR Part 180 and Federal awarding agency regulations;

17.1.5. withhold further funds for the project or program;

17.1.6. take other remedies that may be legally available.

18. NO THIRD-PARTY BENEFICIARIES. Except as provided for the benefit of the Parties, this Agreement does not and is not intended to create any obligation, duty, promise, contractual right or benefit, right to indemnification, right to subrogation, and/or any other right, in favor of any other person or entity.

19. DISCRIMINATION. The Parties shall not discriminate against their employees, agents, applicants for employment, or another persons or entities with respect to hire, tenure, terms, conditions, and privileges of employment, or any matter directly or indirectly related to employment in violation of any federal, state or local law.

20. PERMITS AND LICENSES. Each Party shall be responsible for obtaining and maintaining, throughout the term of this Agreement, all licenses, permits, certificates, and governmental authorizations necessary to carry out its obligations and duties pursuant to this Agreement.

21. RESERVATION OF RIGHTS. This Agreement does not, and is not intended to waive, impair, divest, delegate, or contravene any constitutional, statutory, and/or other legal right, privilege, power, obligation, duty, or immunity of the Parties.

22. DELEGATION/SUBCONTRACT/ASSIGNMENT. Neither Party shall delegate, subcontract, and/or assign any obligations or rights under this Agreement without the prior written consent of the other Party.

23. NO IMPLIED WAIVER. Absent a written waiver, no act, failure, or delay by a Party to pursue or enforce any rights or remedies under this Agreement shall constitute a waiver of those rights with regard to any existing or subsequent breach of this Agreement. No waiver of any term, condition, or provision of this Agreement, whether by conduct or otherwise, in one or more instances, shall be deemed or construed as a continuing waiver of any term, condition, or provision of this Agreement.

No waiver by either Party shall subsequently affect its right to require strict performance of this Agreement.

24. SEVERABILITY. If a court of competent jurisdiction finds a term, or condition, of this Agreement to be illegal or invalid, then the term, or condition, shall be deemed severed from this Agreement. All other terms, conditions, and provisions of this Agreement shall remain in full force.

25. CAPTIONS. The section and subsection numbers and captions in this Agreement are intended for the convenience of the reader and are not intended to have any substantive meaning. The numbers and captions shall not be interpreted or be considered as part of this Agreement. Any use of the singular or plural number, any reference to the male, female, or neuter genders, and any possessive or nonpossessive use in this Agreement shall be deemed the appropriate plurality, gender or possession as the context requires.

26. NOTICES. Notices given under this Agreement shall be in writing and shall be personally delivered, sent by express delivery service, certified mail, or first-class U.S. mail postage prepaid, and addressed to the person listed below. Notice will be deemed given on the date when one of the following first occur: (1) the date of actual receipt; (2) the next business day when notice is sent express delivery service or personal delivery; or (3) three days after mailing first class or certified U.S. mail.

26.1. If Notice is sent to the County, it shall be addressed and sent to: Oakland County Board of Commissioners Chairperson, 1200 North Telegraph, Pontiac, Michigan 48341, with a copy to Oakland County Sheriff's Office, Sheriff Fiscal Officer, 1200 N. Telegraph, Bldg. 38E, Pontiac, Michigan 48341.

26.2. If Notice is sent to the Political Subdivision, it shall be addressed to: City of Birmingham.

26.3. Either Party may change the address and/or individual to which Notice is sent by notifying the other Party in writing of the change.

27. CONTACT INFORMATION.

County of Oakland	**City of Birmingham**
Lieutenant Bryan Wood Investigative & Forensic Services Division Narcotics Enforcement Team Office: 248-858-1722 Fax: 248-858-1754 Email: woodb@oakgov.com	Captain Mike Simpson Birmingham Police Department 151 Martin Birmingham, MI 48009 248-530-1770 msimpson@bhamgov.org

28. GOVERNING LAW. This Agreement shall be governed, interpreted, and enforced by the laws of the State of Michigan, without regard to Michigan's conflict of laws provisions.

29. **AGREEMENT MODIFICATIONS OR AMENDMENTS**. Any modifications, amendments, rescissions, waivers, or releases to this Agreement must be in writing and executed by both Parties.

30. **ENTIRE AGREEMENT**. This Agreement represents the entire agreement and understanding between the Parties. This Agreement supersedes all other oral or written agreements between the Parties. The language of this Agreement shall be construed as a whole according to its fair meaning, and not construed strictly for or against any Party.

IN WITNESS WHEREOF, David T. Woodward, Chairperson, Oakland County Board of Commissioners, acknowledges that he has been authorized by a resolution of the Oakland County Board of Commissioners, a certified copy of which is attached, to execute this Agreement, and hereby accepts and binds the County to the terms and conditions of this Agreement.

EXECUTED: _____ DATE: _____
David T. Woodward, Chairperson
Oakland County Board of Commissioners

WITNESSED: _____ DATE: _____
Printed Name:
Title:

IN WITNESS WHEREOF, _____, acknowledges that he/she has been authorized by a resolution of the Municipality's governing body, a certified copy of which is attached, to execute this Agreement, and hereby accepts and binds the Municipality to the terms and conditions of this Agreement.

EXECUTED: _____ DATE: _____
Printed Name:
Title:

WITNESSED: _____ DATE: _____
Printed Name:
Title:

Exhibit A

Michigan HIDTA

PERFORMANCE MANAGEMENT PROCESS

Initiative Description and Budget Proposal

Must complete using Adobe Acrobat

All HIDTA Initiatives must complete an **Initiative Description and Budget Proposal (IDBP)** annually. If you have questions, contact Deputy Director David Molloy or PMP Coordinator Paula Coon.

Email completed **IDBP** with **FMS Budget Sheet** to:

Deputy Director David Molloy
dmolloy@mi.hidta.net
248-921-2693

PMP Coordinator Paula Coon
pcoon@mi.hidta.net
586-839-7214

The IDBP is due each year in February. Specific Due Date will be provided to you during the last Task Force Commanders meeting each year.

Initiative/Task Force Name:	**NET – Oakland County Narcotics Enforcement Team**
Program Proposal Year:	**2026**
Task Force Commander's Name:	**D/Lt. Bryan Wood**
Task Force Commander's Phone:	**(248) 858-1722**
Task Force Commander's E-mail:	**woodb@oakgov.com**

Lead Agency: **Oakland County Sheriff's Office**

Location of Initiative (City): **Pontiac**

Total Dollar Amount Requested: **$132,300**

Explain the mission of the initiative and provide a detailed explanation of the specific threat/s identified in the Michigan HIDTA Annual Threat Assessment.

Initiative Purpose

The Oakland County Narcotic Enforcement Team (NET) is a cooperative partnership of federal, county, and local law enforcement agencies in Oakland County, Michigan. NET is led by the Oakland County Sheriff's Office (OCSO) and collocated at the OCSO in Pontiac, MI.

- NET focuses on mid- to upper-level Drug Trafficking Organizations (DTOs) operating in Oakland County.
- NET supports street-level investigative operations targeting illegal drug trafficking of cocaine, crack cocaine, methamphetamine, fentanyl, heroin, and controlled prescription drugs.

Threat Priorities

- Regional and local DTOs are the primary drug trafficking threats in the NET Area of Responsibility (AOR). DTOs transport cocaine, heroin, fentanyl, and methamphetamine into Oakland County.
- Fentanyl and fentanyl mixed with other narcotics continue to be the most lethal category of illicit substances misused in Oakland County.
- Fentanyl/Opioid-related overdose deaths remain at high levels in Oakland County.
- NET has observed a substantial increase in methamphetamine distribution and use in Oakland County.
- Cocaine has become a resurgent threat and is widely available throughout the county.
- Controlled prescription drugs remain an area of concern.
- Most illegal narcotics remain in Oakland County being distributed by local DTOs and eventually consumed by users.

Investigative Approach

- NET will leverage HIDTA funds to support investigative services.
- Drug seizures will be thoroughly investigated by NET investigators to:
  - Trace seizures back to source(s) of supply.
  - Assist investigators in ultimately disrupting and dismantling DTOs.
- NET investigators monitor DTO trafficking patterns and share information with our federal law enforcement partners.
- NET's primary focus is investigations into upper- and mid-level DTOs to identify, disrupt and dismantle their illicit drug trafficking operations.
- When a DTO is identified as a multi-state or international organization, intelligence is provided to DEA for investigation and federal prosecution.

Detailed, Itemized Budget Request

HIDTA FUNDS REQUESTED FOR 2026 - $132,300

OVERTIME - $119,700

Investigative/Law Enforcement - $119,700

19 State/Local Task Force Officers x $6,300 = $119,700

SERVICES - $12,600

Communications/Data Lines - $12,600

24 Cell phone service x $43.75/month x 12 months = $12,600

TOTAL HIDTA FUNDS REQUESTED FOR 2026 - $132,300

Areas of Operation (Designated Counties)

Oakland County

Threat Focus (Check all that Apply)

Organization Focus

- ☐ International DTO Focus
- ☑ Multi-State DTO Focus
- ☑ Local DTO Focus
- ☐ Gang Focus
- ☐ International MLO Focus
- ☐ Multi-State MLO Focus
- ☐ Local MLO Focus
- ☐ Fugitive Focus

Interdiction Modalities

- ☐ Air
- ☐ Rail
- ☑ Highway
- ☐ Maritime
- ☐ N/A
- ☑ Parcel (Commercial)
- ☑ Parcel (Postal)
- ☐ Other (Specify)

Drug Focus

- ☑ Cocaine/Crack
- ☑ Fentanyl
- ☑ Heroin
- ☑ Methamphetamine
- ☐ Marijuana
- ☐ Other (Specify)

Initiative Compliance

Does the initiative provide information to the HIDTA Investigative Support Center and ancillary intelligence initiatives as requested?

☑ Yes ☐ No

Is this initiative a multi-agency effort comprised of Federal, state, local, and tribal law enforcement personnel who are assigned full-time, collocated, and commingled?

☑ Yes ☐ No

Does this initiative use HIDTA funds to fund all or part of the salary (not including overtime) of a state or local law enforcement officer?

☐ Yes ☑ No

Does this initiative use the HIDTA's ISC and/or ancillary intelligence and information sharing initiative for event and target/investigative information deconfliction?

☑ Yes ☐ No

Expected Outputs

Predicting Expected Outputs: When developing your expected outputs, please ensure you take into consideration your past 2-3 year performance averages. ONDCP refers to these averages when evaluating future performance target numbers.

Predict the number of DTOs and MLOs you expect to disrupt or dismantle during the Program Year. Your performance targets **should be aggressive but reasonably attainable**, considering expected staffing and funding. Your initiative's performance is compared to how successfully it attained its predicted goals.

Number of **DTOs** expected to be disrupted or dismantled for this Program Year	**5**
Number of **MLOs** expected to be disrupted or dismantled for this Program Year	**0**
Number of Cases Provided Analytical Support Projected for this Program Year	**5**
Number of Fugitives Apprehended Projected for this Program Year	**10**

Agency/Department Positions

Summarize staffing levels you confidently expect to support your team for the Program Year. Be certain to include your Admin Support, Analysts, Investigators, Property Mgrs., Financial Contractors, etc. The **HIDTA Funded box** should be marked YES **ONLY** when HIDTA funding supports the salary/wages for the listed position.

Position Rank / Title	Agency / Department	Number of Positions	Full Time / Part Time	HIDTA Funded (Y/N)	Collocated (Y/N)	Notes
Auditor	Oakland County Sheriff	1	Full Time	N	Y	
Sergeant	Oakland County Sheriff	3	Full Time	N	Y	
Property Tech	Oakland County Sheriff	1	Full Time	N	Y	
Deputy	Oakland County Sheriff	1	Part Time	N	Y	
Lieutenant	Oakland County Sheriff	1	Full Time	N	Y	
Deputy	Oakland County Sheriff	6	Full Time	N	Y	
Sheriff Administrative Specialist	Oakland County Sheriff	1	Full Time	N	Y	
Officer	West Bloomfield Police Dept	1	Full Time	N	Y	
Officer	Troy Police Dept	1	Full Time	N	Y	
Officer	Royal Oak Police Dept	1	Full Time	N	Y	
Officer	Rochester Police Dept	1	Full Time	N	Y	
Officer	Hazel Park Police Dept	1	Full Time	N	Y	
Officer	Farmington Hills Police Dept	1	Full Time	N	Y	
Officer	Birmingham Police Dept	1	Full Time	N	Y	
Officer	Auburn Hills Police Dept	1	Full Time	N	Y	
Officer	Bloomfield Township Police Dept	1	Full Time	N	Y	
Officer	Ferndale Police Dept	1	Full Time	N	Y	
Special Agent	US Dept of Homeland Security	2	Full Time	N	Y	
Intelligence Analyst	US Army National Guard	1	Full Time	N	Y	
Investigator	Oakland County Prosecutor's Office	1	Full Time	N	Y	

Michigan HIDTA

Request for HIDTA **Overtime** Reimbursement

ONE FORM PER OFFICER

Exhibit B

Michigan HIDTA
Mary Szymanski - Financial Manager
FAX: 248.356.6513
mszymanski@mi.hidta.net

REGULAR OVERTIME

OFFICER'S NAME AND RANK

HOME DEPARTMENT NAME

PHONE NUMBER

MAILING ADDRESS

FEDERAL TAX ID OR MSP INDEX/PCA

REQUESTING OFFICER IS REQUIRED TO TYPE HIS/HER NAME IN THE BLUE BORDERED BOX BELOW. By typing my name in the box below, I certify that this overtime was incurred pursuant to HIDTA-related investigations on the dates and in the amounts listed.

APPROVING TASK FORCE COMMANDER IS REQUIRED TO TYPE HIS/HER NAME IN THE RED BORDERED BOX BELOW: By typing my name in the box below, I certify I received this overtime request from the Requesting Officer, and have reviewed and approved after determining it to be in compliance with ONDCP Program Policy as previously provided to me.

ITEM #	COMPLAINT #	DATE OT WORKED	# OT HOURS WORKED	OT HOURLY RATE	TOTAL ENTRY COST	LOCATION: Address, City/Township/County
	OVERTIME APPROVED FOR STATE/LOCAL OFFICERS ONLY. LIMIT PER OFFICER IS $8,000 ANNUALLY AS PER MICHIGAN HIDTA PROGRAM POLICY.					
	FEDERAL PARTICIPANTS ARE NOT ELIGIBLE TO RECEIVE HIDTA OVERTIME.					
1					$0.0000	
2					$0.0000	
3					$0.0000	
4					$0.0000	
5					$0.0000	
6					$0.0000	
					$0.0000	

ITEM #	**PROVIDE A BRIEF DETAIL OF THE CORRESPONDING ITEM # FROM THE TABLE ABOVE.**
1	
2	
3	
4	
5	
6	

THIS INFORMATION IS CONFIDENTIAL. DISCLOSURE OF CONFIDENTIAL INFORMATION IS PROTECTED BY THE FEDERAL PRIVACY ACT.

Revised August 2019

YOUR AGENCY LETTERHEAD

January 17, 2022

Director
Michigan HIDTA
26211 Central Park Blvd.
Southfield, MI 48076

Dear Director:

Please accept this correspondence as notification of the current pay rate for the listed ADD YOUR AGENCY NAME police officer assigned to the Oakland County Narcotic Enforcement Team (NET). The rate became effective July 1, 2021.

Parent Agency:	ADD YOUR AGENCY NAME
Employee Name/Rank:	ADD OFFICER'S NAME AND RANK
Regular Pay Rate:	OFFICER'S REGULAR HOURLY RATE
Overtime Pay Rate:	OFFICER'S OVERTIME HOURLY RATE

As requested, the overtime rate listed does not include any fringe benefits, such as retirement, FICA, etc. Please contact my office if additional information is required.

Sincerely,

Please Note: This document is used for illustrative purposes only and the required documentation does not have to be the same, but must contain the same elements.
Required: Overtime slip signed by officer's supervisor. This item should include name, date, and overtime hours associated with HIDTA. The overtime rate should also be included unless provided in the paystub or payroll report.

[redacted]

[redacted] TIME SHEET

DATE	HOURS	OVERTIME	NET#
07/11/2016	08:30-16:30		
07/12/2016	08:30-16:30		
07/13/2016	08:30-16:30		
07/14/2016	08:30-16:30		
07/15/2016	08:30-16:30		
08/01/2016	15:00-23:00		
08/02/2016	15:00-23:00		
08/03/2016	14:00-00:00	2hour	16-net-419
08/04/2016	14:00-23:00	1hour	IR-16-263
08/05/2016	03:00-07:00	4hour	IR-16-264
08/05/2016	15:00-23:00		

APPROVED
8/16/16
[redacted]

APPROVING SIGNATURE: [redacted]

[redacted]

OVERTIME IN RED HAS BEEN TAKEN AS NET TIME (COMP)
OVERTIME IN GREEN HAS BEEN SUBMITED FOR MJ OT GRAMP

Please sign and return.

Please Note: This document is used for illustrative purposes only and the required documentation does not have to the same, but must contain the same elements.

Exhibit E

Required: Pay stub or payroll report containing the same information as pay stub. If the paystub does not indicate the overtime rate of pay, then please include with the overtime slip.

[redacted]

Pay Period Ending On: 08/07/2016
Check #: [redacted]
Check Date: 08/12/2016
Primary Rate: 31.2962
Witholding Rate: 00
Federal Allowances: 0

PAYCODE_ID	HOURS	OT HOURS	GROSS	YTD
LONGEVITY_PS	0.00	0.00	0.00	350.00
SALARY	80.00	7.00	2,832.31	41,498.79
TRAINING_PS	0.00	0.00	0.00	876.28
SICK PS 07/01	0.00	0.00	0.00	625.92
F/Y SICK PAYOUT	0.00	0.00	0.00	594.63
PS SCK GAP	0.00	0.00	0.00	2,879.25
IN_LIEU_MED_P_S	0.00	0.00	115.38	1,846.08
LIFE_INS	0.00	0.00	0.00	8.96
HOLIDAY	0.00	0.00	0.00	1,251.85
TOTALS:	80.00	7.00	2,947.69	49,931.76

DEDUCTION_ID	AMOUNT	YTD
FITW	475.02	8,268.40
SITW	112.08	1,906.87
SOCSEC_EE	176.08	2,991.56
MEDICARE_EE	41.18	699.64
DUES_PSO	29.63	444.38
PS HBL VISION	9.13	104.73
RETIRE_PS_OFF	84.97	1,424.49
ICMA_PCNT	117.91	1,959.14
FLEX_PLAN	98.50	1,576.00
SAVINGS PSO	5.60	84.00
PNC	647.59	11,474.94
PNC	1,000.00	16,588.65
ALLY	150.00	2,400.00
TOTALS:	2,947.69	49,922.80

Net Pay This Period: 1,797.59

LEAVE_BANK	PRIOR BALANCE	HOURS ACCRUED	HOURS LOST	HOURS TAKEN	NEW BALANCE
COMP_PS	7.50	0.00	0.00	0.00	7.50
F/Y SICK PAYOUT	0.00	0.00	0.00	0.00	0.00
PS KELLY BANK	0.00	0.00	0.00	0.00	0.00
SICK PS 07/01	96.00	0.00	0.00	0.00	96.00
SICK PS GAP	41.00	0.00	0.00	0.00	41.00
VAC_PS	124.00	0.00	0.00	0.00	124.00

[redacted]

08/12/2016
[redacted]

1,797.59

VOID*******VOID**********VOID********CHECK STUB REPRINT******

[redacted]

MEMORANDUM

Planning Department

DATE: April 13, 2026

TO: Jana Ecker, City Manager

FROM: Nick Dupuis, Planning Director

SUBJECT: Michigan Department of Transportation Maintenance Agreement – Woodward Gateway Signage

---

INTRODUCTION:

As required by the Michigan Department of Transportation (MDOT), any work performed in the MDOT right-of-way requires a permit. The first phase of the City's Wayfinding & Signage Master Plan included two large gateway signs in the Woodward Ave. right-of-way – one located at 14 Mile & Woodward, the other located at Quarton & Woodward. As a final part of the permitting process, MDOT requires municipalities to enter into a maintenance agreement to, in part, formalize the responsibilities of both parties in relation to the gateway signage.

BACKGROUND:

The City of Birmingham applied for a Construction Permit through MDOT in May 2025. After much back and forth, MDOT has furnished the City with the attached maintenance agreement as the final necessary item to release the permit to the City. Once the permit is released, the City's wayfinding signage contractor, ASI Signage Innovations, can begin fabrication of the gateway signs to be installed by June 2026.

LEGAL REVIEW:

The City Attorney has reviewed this request and has no objections as to form and content.

FISCAL IMPACT:

There are no fiscal impacts related to this request. All funding for the project was previously allocated in FY24-25, and the project remains on budget.

SUSTAINABILITY:

There are no direct sustainability considerations related to this request.

DESIGN CONSIDERATIONS:

The design of the gateway signs was previously approved, and has now been accepted by MDOT pending receipt of the executed maintenance agreement.

PUBLIC COMMUNICATIONS:
There are no required public communications for this agenda item.

SUMMARY:
The Planning Department requests that the City Commission consider approving the maintenance agreement with the Michigan Department of Transportation for the City's gateway signs on Woodward Ave. and to authorize the Mayor to sign the agreement on behalf of the City.

ATTACHMENTS:
1. MDOT Maintenence Agreement - Woodward Gateway Signs

SUGGESTED COMMISSION ACTION:
Make a motion adopting a resolution to approve the maintenance agreement with the Michigan Department of Transportation for the City's gateway signs on Woodward Ave. and to authorize the Mayor to sign the agreement on behalf of the City.

PERMIT
SPECIAL TRUNKLINE
MAINTENANCE

DA

Control Section	63051
Permit Reference Number	110319
Contract	26-5122

THIS Contract is made by and between the MICHIGAN DEPARTMENT OF TRANSPORTATION, hereinafter referred to as the "DEPARTMENT"; and the CITY OF BIRMINGHAM, a Michigan municipal corporation, hereinafter referred to as the "AGENCY"; for the purpose of fixing the rights and obligations of the parties in agreeing to the maintenance and operation gateway signs and landscaping installed by the AGENCY.

WITNESSETH:

WHEREAS, the AGENCY is proposing the installation of gateway signs and landscaping within the trunkline roadway right-of-way (ROW); and

WHEREAS, the DEPARTMENT has determined it to be acceptable to have the AGENCY construct the proposed work which is hereinafter referred to as the "PROJECT" and are further described and located as follows:

> Gateway sign installation work in the median of Highway M-1 (Woodward Avenue) south of Quarton Road and north of 14 Mile Road, including landscaping work and removal of existing gateway signs; together with necessary related work, located within the corporate limits of the AGENCY; and

WHEREAS, the AGENCY will be responsible for the entire cost of the PROJECT; and

WHEREAS, the parties hereto have reached an understanding with each other regarding the performance of the PROJECT work and the maintenance and operation of the facility to be constructed as the PROJECT and desire to set forth this understanding in the form of a written Contract.

NOW, THEREFORE, in consideration of the premises and of the mutual undertakings of the parties and in conformity with applicable law, it is agreed:

1. The AGENCY will construct the PROJECT at no cost to the DEPARTMENT.

2. The AGENCY shall cause to be performed all the PROJECT work as defined in the permit obtained from the DEPARTMENT. It is understood that portions or all of the PROJECT work will be placed under contract by the AGENCY. The performance of the PROJECT work will be subject to the conditions established in PERMIT REFERENCE NUMBER 110319.

3. Upon completion of construction, the AGENCY will, at its sole cost and expense, inspect, maintain and operate the facility constructed as the PROJECT in accordance with all applicable Federal and State laws and regulations, including, but not limited to, Title II of the Americans with Disabilities Act (ADA), 42 USC 12131 et seq., and its associated regulations and standards, and DEPARTMENT Road and Bridge Standard Plans and the Standard Specifications for Construction. All future maintenance activities will require a ROW construction permit from the DEPARTMENT. The AGENCY shall conform with all DEPARTMENT permit requirements for any work to be performed within the state trunkline ROW. As built plans will be provided to the Oakland Transportation Service Center.

A. The AGENCY agrees that the PROJECT location will be maintained so as to assure that any Trunkline facilities, structures and the area within the Trunkline ROW boundaries will be kept in good condition, both as to safety and appearance. All unauthorized drawings, graffiti and vandalism shall be removed by the AGENCY at no cost the DEPARTMENT. The maintenance of the facilities by the AGENCY will be accomplished in a manner so as not to cause interference with the reconstruction, maintenance or operation of the Trunkline facility and ROW.

B. The DEPARTMENT reserves the right to enter the PROJECT location for the purpose of inspection, maintenance or reconstruction of the Trunkline facility when necessary. Additionally, the DEPARTMENT reserves the right to access the PROJECT location as deemed necessary for inspection relating to the DEPARTMENT'S interests. Such inspections are made for the DEPARTMENT'S own purposes and shall not relieve AGENCY of its duties and obligations under the terms of this Contract. Any deficiencies discovered will be corrected or repaired by the AGENCY at no cost to the DEPARTMENT.

C. Prior to occupancy and/or use of the PROJECT location, the DEPARTMENT will inspect and approve the construction of the PROJECT.

4. The parties hereto agree to comply with all applicable requirements of the Natural Resources and Environmental Protection Act, 1994 P.A., 451, MCL 324.01 et. Seq. for all PROJECT work performed under this Contract and future maintenance work, and the AGENCY shall require its contractors and subcontractors to comply with the same.

5. The AGENCY will not store, allow the storage of or discharge of any radioactive, toxic, flammable, poisonous, explosive or other dangerous, hazardous materials, or waste on the said premises. In addition, the AGENCY will not permit objectionable smoke, fumes, vapors, or odors to rise above the grade line of the Trunkline. No signs, displays or devices may be erected on the ROW for the PROJECT unless specified herein or approved by the DEPARTMENT.

6. It is expressly understood and agreed that in case of non-performance of any of the covenants herein made by the AGENCY and after said AGENCY has been furnished written notice of same by the DEPARTMENT and has been granted a reasonable period of time as determined by the DEPARTMENT for performance or correction thereof, this Contract shall be terminated and said AGENCY shall lose and be barred from all rights, remedies, and actions both at law and in equity upon or under this Contract.

7. It is expressly understood that use of the trunkline ROW is subject to the paramount right of the DEPARTMENT and that upon a determination by the DEPARTMENT that such ROW is required for the construction, operation, and/or maintenance of any present or proposed trunkline or trunkline use, this Contract may be terminated at the discretion of the DEPARTMENT and the facility constructed as the PROJECT may be removed without reimbursement to the AGENCY.

8. Upon termination of this Contract, the AGENCY will peacefully yield up said PROJECT in as good order and condition as when delivered to the AGENCY at no cost to the DEPARTMENT. In the event this Contract is terminated and if the DEPARTMENT deems it necessary to request the removal of any facility occupying the premises, such removal shall be accomplished by the AGENCY in a manner as prescribed by the DEPARTMENT, at no cost to the DEPARTMENT or the Federal Highway Administration.

9. Any removal or modification of the facilities of the AGENCY, when necessary for Trunkline purposes, shall be performed by the AGENCY at no cost to the DEPARTMENT. Upon failure to so perform, the DEPARTMENT at its discretion may perform such work at the cost of the AGENCY or terminate this Contract.

10. The AGENCY recognizes and acknowledges that private and/or public utility companies may require the modification of the AGENCY'S facilities and it shall cooperate with the utility when requested by the DEPARTMENT at no cost to the DEPARTMENT, or interference with the Trunkline ROW and Trunkline facility.

11. It is understood that if the AGENCY discontinues, abandons or changes the usage of the PROJECT ROW, then this Contract shall be terminated and the DEPARTMENT shall have the right to immediately remove the facility constructed as the PROJECT without reimbursement to the AGENCY.

12. Each party to this Contract will remain responsive for any and all claims arising out of its own acts and/or omissions during the performance of the Contract, as provided by this Contract or by law. In addition, this is not intended to increase or decrease either party’s liability for or immunity from tort claims. This Contract is also not intended to nor will it be interpreted as giving either party a right of indemnification, either by contract or by law, for claims arising out of the performance of this Contract.

13. This Contract shall become binding on the parties hereto and of full force and effect upon the signing thereof by the duly authorized officials for the AGENCY and for the DEPARTMENT and upon the adoption of a resolution approving said Contract and authorizing the signatures thereto of the respective officials of the AGENCY, a certified copy of which resolution shall be attached to this Contract.

IN WITNESS WHEREOF, the parties hereto have caused this contract to be executed as written below.

CITY OF BIRMINGHAM

By_____
Title:

By_____
Title

MICHIGAN DEPARTMENT
OF TRANSPORTATION

By_____
for Department Director MDOT

REVIEWED
By Larry Doyle at 1:53 pm, 3/30/26

MEMORANDUM

Planning Department

DATE: April 13, 2026

TO: Jana Ecker, City Manager

FROM: Nick Dupuis, Planning Director

SUBJECT: Public Hearing - 298 S. Old Woodward - Daxton - Special Land Use Permit Amendment, Final Site Plan & Design Review

---

INTRODUCTION:

The applicant has submitted a Special Land Use Permit Amendment and Final Site Plan & Design Review request to modify the existing required off-street loading facility to make room for new in-house laundry facilities and a new trash compactor. The change would effectively eliminate the off-street loading space in terms of truck/vehicle access, and would divert loading functions to the lower levels.

The subject site, 298 S. Old Woodward, is located in Downtown Birmingham in the B4 (Business-Residential) and D4 (Downtown Overlay) zoning districts. The site has been operating as a hotel since it was completed in 2021. The Daxton Hotel is currently operating under a Special Land Use Permit due to the sale of alcoholic beverages for on premise consumption. The site is directly adjacent to "The Plaza", a commercial building to the north, and is across Brown Street from the recently opened Restoration Hardware development.

BACKGROUND:

On May 28, 2025 (Agenda – Minutes), the Planning Board moved to adopt the findings of the Planning Department in the report dated May 28, 2025, and the applicant's statements as to the way in which deliveries function at the present time that were made on the record, related to the approval criteria outlined in Article 7, Sections 7.27 and 7.36 of the Zoning Ordinance and to recommend that the City Commission approval the Special Land Use Permit Amendment and Final Site Plan & Design Review application for 298 S. Old Woodward – Daxton Hotel – with the following conditions:

1. The applicant may only receive deliveries at the hotel through van or other-sized vehicles that deliver within the lower floor parking facility on-site;
2. The applicant must submit revised site plans demonstrating an off-street loading facility that meets the minimum requirements of the Zoning Ordinance or obtain a variance from the Board of Zoning Appeals; and,
3. The applicant must comply with the requests of all City Departments.

On June 10, 2025 (Agenda – Minutes), the Board of Zoning Appeals moved to grant a

dimensional variance of 1 usable off-street loading space with a condition that should the compactor no longer be required that the loading space be returned to the required dimensions.

On August 25, 2025 (Agenda – Minutes), the City Commission moved to adjourn the original public hearing after having postponed it once before to await an executed Special Land Use Permit Contract. In addition, the City Commission moved to require the applicant to cover the cost of the additional noticing that will be required to reset the public hearing.

On February 9, 2026 (Agenda - Minutes), the City Commission moved to postpone a public hearing to a date certain of February 23, 2026 to work through some contract and enforcement concerns. Unfortunately, the Planning Department did not get the item on the agenda for the 23rd, and thus the item needed to be re-noticed.

At this time, City Staff and the City Attorney have worked through the concerns of the City Commission as they were outlined in the February 9, 2026 meeting and have concluded that the Special Land Use Permit Contract that has been executed by the applicant contains provisions that enable the City to enforce the loading/delivery issue appropriately.

LEGAL REVIEW:
The City Attorney has reviewed this request and has no objections as to form and content.

FISCAL IMPACT:
There are no fiscal impacts related to the Special Land Use Permit Amendment and Final Site Plan & Design Review request submitted.

SUSTAINABILITY:
There are no direct sustainability considerations related to the Special Land Use Permit Amendment and Final Site Plan & Design Review request submitted.

DESIGN CONSIDERATIONS:
The design of the building and general site is not proposed to change as a part of the Special Land Use Permit Amendment and Final Site Plan & Design Review request submitted.

PUBLIC COMMUNICATIONS:
As required for Special Land Use Permit Reviews, a legal ad was placed in a newspaper of local circulation to advertise the public hearing at the Planning Board on May 28, 2025. In addition, postcards were sent out to property owners and occupants within 300 feet of the subject site. Similar notices were provided in advance of the public hearings at the City Commission on July 28, 2025, August 25, 2025 and February 9, 2026. A new round of similar public notices will be provided in advance of the public hearing at the City Commission on April 13, 2026.

SUMMARY:
The Planning Department requests that the City Commission consider the Special Land Use Permit Amendment and Final Site Plan & Design Review application for 298 S. Old Woodward, to permit the modification of the existing required off-street loading facility to make room for new in-house laundry facilities and a new trash compactor.

ATTACHMENTS:

1. Daxton Hotel - Special Land Use Permit Resolution
2. Daxton Hotel - Special Land Use Permit Contract 2026
3. Daxton Hotel - Site/Design Plans
4. Daxton Hotel - Public Comment
5. Planning Board Report - May 28, 2025
6. Board of Zoning Appeals Case Description - June 10, 2025

SUGGESTED COMMISSION ACTION:

Make a motion adopting a resolution to approve the Special Land Use Permit Amendment and Final Site Plan & Design Review application for 298 S. Old Woodward, to permit the modification of the existing required off-street loading facility to make room for new in-house laundry facilities and a new trash compactor.

Daxton Hotel
298 S. Old Woodward
Special Land Use Permit Amendment 2026

WHEREAS, The City Commission granted Special Land Use Permit and Final Site Plan and Design Review approval for the Daxton Hotel at 298 S. Old Woodward on October 28, 2019 and amended the Special Land Use Permit on January 10, 2022;

WHEREAS, A Special Land Use Permit Amendment and Final Site Plan & Design Review application was filed in May 2025 for approval to modify the existing required off-street loading facility to make room for new in-house laundry facilities and a new trash compactor;

WHEREAS, The land for which the Special Land Use Permit is sought is located on the west side of S. Old Woodward, north of Brown St.;

WHEREAS, The land is zoned B4 (Business-Residential) and D4 (Downtown Overlay), which permits alcoholic beverage sales for on premise consumption with a Special Land Use Permit;

WHEREAS, The Daxton Hotel will continue to engage in alcoholic beverage sales for on premise consumption with no changes in operation or use of the existing liquor license;

WHEREAS, Article 7, section 7.34 of Chapter 126, Zoning requires a Special Land Use Permit to be considered and acted upon by the Birmingham City Commission, after receiving recommendations on the site plan and design from the Planning Board for the proposed Special Land Use;

WHEREAS, The Birmingham Planning Board on May 28, 2025 reviewed the application for Special Land Use Permit Amendment and Final Site Plan & Design Review and moved to adopt the findings of the Planning Department in the report dated May 28, 2025, and the applicant's statements as to the way in which deliveries function at the present time that were made on the record, related to the approval criteria outlined in Article 7, Sections 7.27 and 7.36 of the Zoning Ordinance and to recommend that the City Commission approve the Special Land Use Permit Amendment and Final Site Plan & Design Review application for 298 S. Old Woodward – Daxton Hotel – with the following conditions:

1. The applicant may only receive deliveries at the hotel through van or similar-sized vehicles that deliver within the lower floor parking facility on-site;
2. The applicant must submit revised site plans demonstrating an off-street loading facility that meets the minimum requirements of the Zoning Ordinance or obtain a variance from the Board of Zoning Appeals; and,
3. The applicant must comply with the requests of all City Departments.

WHEREAS, The Birmingham Board of Zoning Appeals on June 10, 2025 granted the dimensional variance of 1 usable off-street loading space with a condition that should the compactor no longer be required that the loading space be returned to the required dimensions;

WHEREAS, The Birmingham City Commission has conducted a public hearing on April 13, 2026 and has reviewed the Special Land Use Permit Amendment and Final Site Plan & Design Review application and the standards for such review as set forth in Article 7, Sections 7.27 and 7.36 of Chapter 126, Zoning, of the City Code.

NOW, THEREFORE, BE IT RESOLVED, The Birmingham City Commission adopts the findings of the Planning Board and finds the standards imposed in Article 7, Sections 7.27 and 7.36 of the Zoning Ordinance and other applicable standards in the City Code have been met, subject to the conditions below, and that the Daxton Hotel's application for a Special Land Use Permit Amendment and Final Site Plan & Design Review at 298 S. Old Woodward is hereby approved.

BE IT FURTHER RESOLVED, That the City Commission determines that to ensure continued compliance with Code standards and to protect public health, safety, and welfare, this Special Land Use Permit Amendment is granted subject to the following conditions:

1. Daxton Hotel shall abide by all provisions of the Birmingham City Code.
2. Daxton Hotel shall comply with the approved site and design plans and any amendments thereto.
3. The variance granted by the Board of Zoning Appeals is tied to the approved site plans. Any change made to the approved site plans may nullify the variance that was granted and require the Daxton Hotel to pursue a new variance request.
4. The Special Land Use Permit may be canceled by the City Commission upon finding after proper notice and a hearing that the continued use is not in the public interest.

BE IT FURTHER RESOLVED, That failure to comply with any of the above conditions shall result in termination of the Special Land Use Permit.

BE IT FURTHER RESOLVED, Except as herein specifically provided, the Daxton Hotel and its heirs, successors, and assigns shall be bound by all ordinances of the City of Birmingham in effect at the time of the issuance of this permit, and as they may be subsequently amended. Failure of the Daxton Hotel to comply with all the ordinances of the City may result in the Commission revoking this Special Land Use Permit.

BE IT FURTHER RESOLVED that the Daxton Hotel is recommended for approval of a modification of the existing required off-street loading facility to make room for new in-house laundry facilities and a new trash compactor at 298 S. Old Woodward, above all others, subject to final inspection.

I, Alexandria Bingham, City Clerk of the City of Birmingham, Michigan, do hereby certify that the foregoing is a true and correct copy of the resolution adopted by the Birmingham City Commission at its regular meeting held on April 13, 2026.

_____

Alexandria Bingham
City Clerk

CONTRACT FOR A SPECIAL LAND USE PERMIT AMENDMENT
298 S. OLD WOODWARD – DAXTON HOTEL

This Contract is entered into this ___ day of _____, ~~2025~~ 2026 by and between **WOODWARD BROWN VENTURES, LLC**, whose address is 6400 Telegraph Rd. Ste. 2000, Bloomfield Hills MI 48301 (hereinafter referred to as "Daxton Hotel"), and the **CITY OF BIRMINGHAM**, a Michigan Municipal Corporation, whose address is 151 Martin Street, Birmingham, Michigan 48009 ("City").

RECITALS:

WHEREAS, The City Commission granted Special Land Use Permit and Final Site Plan and Design Review approval for the Daxton Hotel at 298 S. Old Woodward on October 28, 2019 and amended the Special Land Use Permit on January 10, 2022;

WHEREAS, A Special Land Use Permit Amendment and Final Site Plan & Design Review application was filed in May 2025 for approval to modify the existing required off-street loading facility to make room for new in-house laundry facilities and a new trash compactor;

WHEREAS, The land for which the Special Land Use Permit is sought is located on the west side of S. Old Woodward, north of Brown St.;

WHEREAS, The land is zoned B4 (Business-Residential) and D4 (Downtown Overlay), which permits alcoholic beverage sales for on premise consumption with a Special Land Use Permit;

WHEREAS, The Daxton Hotel will continue to engage in alcoholic beverage sales for on premise consumption with no changes in operation or use of the existing liquor license;

WHEREAS, Article 7, section 7.34 of Chapter 126, Zoning requires a Special Land Use Permit to be considered and acted upon by the Birmingham City Commission, after receiving recommendations on the site plan and design from the Planning Board for the proposed Special Land Use;

WHEREAS, The Birmingham Planning Board on May 28, 2025 reviewed the application for Special Land Use Permit Amendment and Final Site Plan & Design Review and moved to adopt the findings of the Planning Department in the report dated May 28, 2025, and the applicant's statements as to the way in which deliveries function at the present time made on the record, related to the approval criteria outlined in Article 7, Sections 7.27 and 7.36 of the Zoning Ordinance and recommend that the City Commission approve the Special Land Use Permit Amendment and Final Site Plan & Design Review application for 298 S. Old Woodward – Daxton Hotel – with the following conditions:

1. The applicant may only receive deliveries at the hotel through van or similar-sized vehicles that deliver within the lower floor parking facility on-site;

2. The applicant must submit revised site plans demonstrating an off-street loading facility that meets the minimum requirements of the Zoning Ordinance or obtain a variance from the Board of Zoning Appeals; and,
3. The applicant must comply with the requests of all City Departments,

WHEREAS, The Birmingham Zoning Board of Appeals on June 10, 2025 granted the dimensional variance of 1 usable off-street loading space with a condition that should the compactor no longer be required that the loading space be returned to the required dimensions;

WHEREAS, The Birmingham City Commission has conducted a public hearing on ~~July 28, 2025~~ April 13, 2026 and has reviewed the Special Land Use Permit Amendment and Final Site Plan & Design Review application and the standards for such review as set forth in Article 7, Sections 7.27 and 7.36 of Chapter 126, Zoning, of the City Code.

NOW, THEREFORE, the parties agree as follows:

1. Daxton Hotel will continue to utilize a state issued liquor license for use solely at the Property. Any transfer of the aforementioned license from the Property to any other location in the City of Birmingham shall require the approval of the Birmingham City Commission in accordance with Section 10-83 of the City of Birmingham Code of Ordinances. In addition, any expansion of the Property shall also require the approval of the Birmingham City Commission.

2. Daxton Hotel further acknowledges that it must maintain a Special Land Use Permit for the sale of alcoholic liquors for on premise consumption as required by the Birmingham City Code of Ordinances. It is agreed that Daxton Hotel shall comply with all provisions of the Special Land Use Permit, or any amendments thereto, as a condition of this contract. Daxton Hotel further acknowledges and agrees that a violation of any provision of the Special Land Use Permit or the Michigan Liquor Control Code is a violation of the terms of this contract entitling the City to exercise any or all of the remedies provided herein.

3. Daxton Hotel acknowledges that no modifications to the site plan, floor plan, elevations or operation of the establishment may be made unless approved by the City Commission through a Special Land Use Permit Amendment as required in the Zoning Ordinance. Modifications include, but are not limited to, name changes, ownership changes, remodeling, changes in the number of interior or exterior seats, etc.

4. Daxton Hotel agrees that it shall not apply or seek from the Michigan Liquor Control Commission any permit endorsements to its liquor license whether available in the current Michigan Liquor Control Code or in future Michigan Liquor Control Codes, or amendments thereto, without the prior approval of the Birmingham City Commission.

5. Daxton Hotel further agrees that it shall not seek any change in its license status/class whether such changes are available now in the current Michigan Liquor Control Code or in future Michigan Liquor Control Codes, or amendments thereto, without prior approval of the Birmingham City Commission.

6. Daxton Hotel agrees that it shall adhere to all Federal, State and Local ordinances currently in effect or as subsequently amended or enacted.

7. Daxton Hotel agrees that its failure to follow any of the provisions herein may be grounds for the Michigan Liquor Control Commission to suspend, revoke or not renew its liquor license and/or for the Birmingham City Commission to revoke the Special Land Use Permit, either of which would prohibit Daxton Hotel from operating the establishment. Daxton Hotel agrees that in addition to the City of Birmingham's right to seek suspension, revocation or non-renewal of its liquor license and/or revocation of the Special Land Use Permit, the City retains any and all rights to enforce this Contract that may be available to it in law or in equity. Daxton Hotel further agrees that it shall reimburse the City all of its costs and actual attorney fees incurred by the City in seeking the suspension, revocation or non-renewal of its liquor license and revocation of the Special Land Use Permit, as well as enforcing such other rights as may be available at law and/or in equity.

8. To the fullest extent permitted by law, Daxton Hotel and any entity or person for whom Daxton Hotel is legally liable, agrees to be responsible for any liability, defend, pay on behalf of, indemnify, and hold harmless the City, its elected and appointed officials, employees and volunteers and others working on behalf of the City against any and all claims, demands, suits, or loss, including all costs connected therewith, including all costs and actual attorney fees, and for any damages which may be asserted, claimed or recovered against or from the City, its elected and appointed officials, employees, volunteers or others working on behalf of the City, by reason of personal injury, including bodily injury, death and/or property damage, including loss of use thereof, which arises out of or is in any way connected or associated with Daxton Hotel's operation of an establishment at the Property. Daxton Hotel is not liable if the act or omission is the City's.

9. In the event Daxton Hotel fails to reimburse the City the costs and/or attorney fees as required herein, or any part thereof, then said amount could be transferred to the tax roll in accordance with Section 1-14 of the Birmingham City Code as acknowledged by the Property Owner.

10. Any disputes arising under this Contract, not within the jurisdiction of the Michigan Liquor Control Commission, shall be settled either by commencement of a suit in Oakland County Circuit Court or by compulsory arbitration, at the election of the City. If both parties elect to have the dispute resolved by arbitration, it shall be settled pursuant to Chapter 50 of the Revised Judicature Act for the State of Michigan and administered by the American Arbitration Association with one arbitrator being used, or three arbitrators in the event any party's claim exceeds $1,000,000. Each party shall bear its own costs and expenses and an equal share of the arbitrator's and administrative fees of arbitration. Such arbitration shall qualify as statutory arbitration pursuant to MCL §600.5001 et seq., and the Oakland County Circuit Court or any court having jurisdiction shall render judgment upon the award of the arbitrator made pursuant to this Agreement. The laws of the State of Michigan shall govern this Agreement, and the arbitration shall take place in Oakland County, Michigan. In the event that the parties elect not to have the matter in dispute arbitrated, any dispute between the parties may be resolved by the filing of a suit in a federal or state court with jurisdiction over Oakland County, Michigan.

11. This contract shall be governed by and performed, interpreted and enforced in accordance with the laws of the State of Michigan.

12. If any provision of this contract is declared invalid, illegal or unenforceable, such provision shall be severed from this contract and all other provisions shall remain in full force and effect.

13. The City determines that to ensure continued compliance with Code standards and to protect public health, safety, and welfare, this Special Land Use Permit Amendment is granted subject to the following conditions:

1. Daxton Hotel shall abide by all provisions of the Birmingham City Code.
2. Daxton Hotel shall comply with the approved site and design plans and any amendments thereto.
3. The variance granted by the Board of Zoning Appeals is tied to the approved site plans. Any change made to the approved site plans may nullify the variance that was granted and require the Daxton Hotel to pursue a new variance request.
4. The Special Land Use Permit may be canceled by the City Commission upon finding after proper notice and a hearing that the continued use is not in the public interest.

14. Failure to comply with any of the above conditions may result in termination of the Special Land Use Permit after Daxton Hotel has been given notice and a hearing.

15. Except as herein specifically provided, Daxton Hotel and its heirs, successors, and assigns shall be bound by all ordinances of the City of Birmingham in effect at the time of the issuance of this permit, and as they may be subsequently amended. Failure of Daxton Hotel to comply with all the ordinances of the City may result in the Commission revoking this Special Land Use Permit, after notice and a hearing.

16. Daxton Hotel is recommended for the continued operation of an establishment serving alcoholic beverages for on premise consumption and the modification of the existing required off-street loading facility to make room for new in-house laundry facilities and a new trash compactor, above all others, subject to final inspection.

17. This Contract shall be binding upon and apply and inure to the benefit of the parties hereto and their respective successors or assigns. The covenants, conditions, and the agreements herein contained are hereby declared binding on the City and Daxton Hotel. It is further agreed that there shall be no change, modification, or alteration hereof, except in writing, signed by all of the parties hereto. Neither party shall assign any of the rights under this contract without prior approval, in writing, of the other. Any attempt at assignment without prior written consent shall be void and of no effect.

IN WITNESS WHEREOF, the parties hereby have executed this Contract as of the date set forth above.

WOODWARD BROWN VENTURES, LLC (Daxton Hotel)

By: _____

Its: _____

Date: _____

STATE OF MICHIGAN)
) ss:
COUNTY OF OAKLAND)

On this 15th day of December, 2025, before me personally appeared Mark Mitchell who acknowledged that with authority on behalf **WOODWARD BROWN VENTURES, LLC** to do so signed this Agreement.

Sherri Dagastino
Notary Public
Macomb County, Michigan
Acting in Oakland County, Michigan
My commission expires: Feb 23, 2030

SHERRI DAGASTINO
Notary Public - State of Michigan
County of Macomb
My Commission Expires Feb 23, 2030
Acting in the County of Oakland

CITY OF BIRMINGHAM

By: _____
Clinton Baller, Mayor

By: _____
Alexandria D. Bingham, City Clerk

APPROVED:

Jana L. Ecker, City Manager
(Approved as to substance)

Nicholas J. Dupuis, Planning Director
(Approved as to substance)

Mary M Kucharek
Mary M. Kucharek, City Attorney w/pe & M TNG
(Approved as to form)

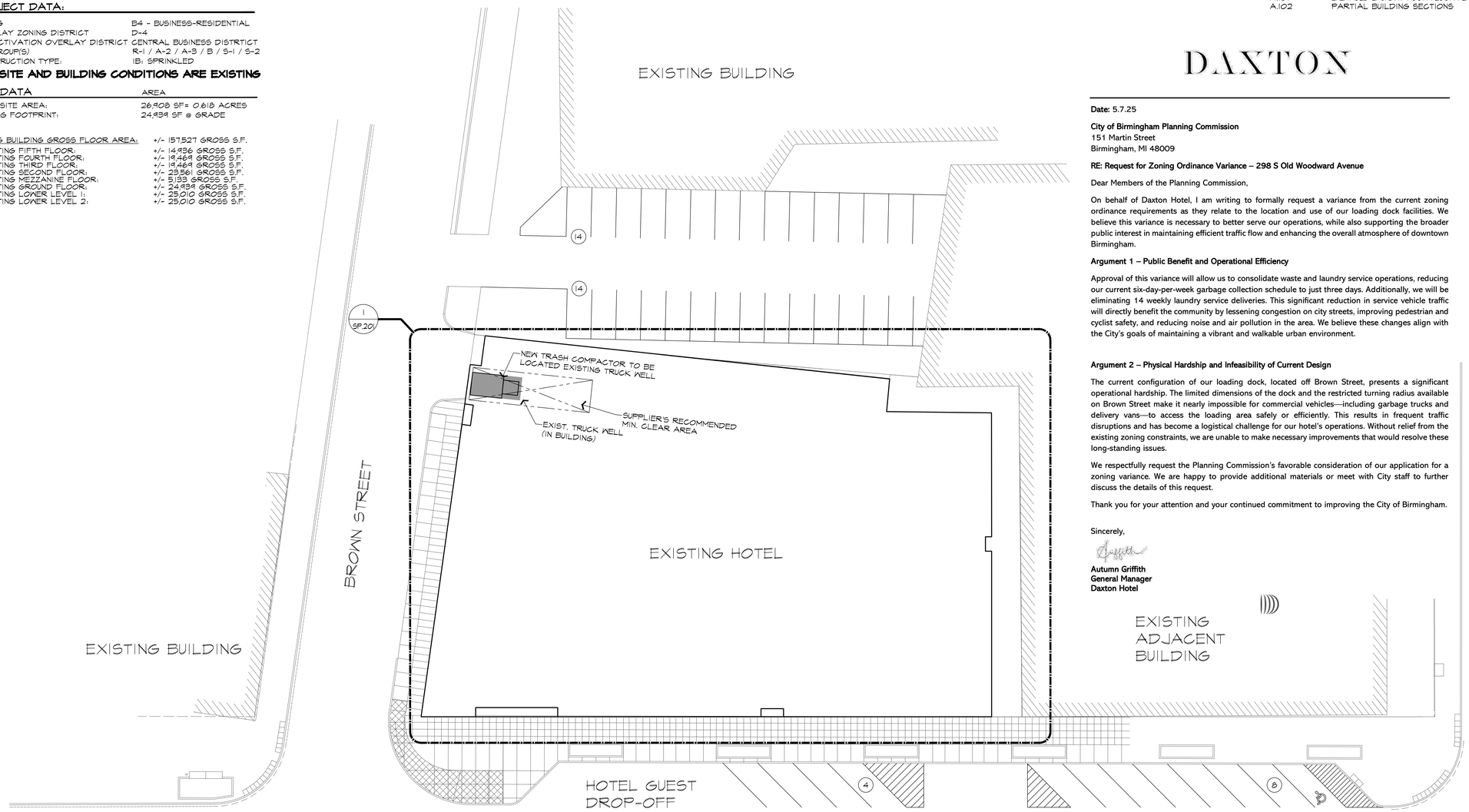
PROJECT DATA:

ZONING	B4 - BUSINESS-RESIDENTIAL
OVERLAY ZONING DISTRICT	D-4
VIA ACTIVATION OVERLAY DISTRICT	CENTRAL BUSINESS DISTRTICT
USE GROUP(S)	R-1 / A-2 / A-3 / B / S-1 / S-2
CONSTRUCTION TYPE:	1B: SPRINKLED

ALL SITE AND BUILDING CONDITIONS ARE EXISTING

SITE DATA	AREA
TOTAL SITE AREA:	26,908 SF= 0.618 ACRES
BUILDING FOOTPRINT:	24,934 SF @ GRADE

EXISTING BUILDING GROSS FLOOR AREA:	+/- 157,527 GROSS S.F.
EXISTING FIFTH FLOOR:	+/- 14,936 GROSS S.F.
EXISTING FOURTH FLOOR:	+/- 19,469 GROSS S.F.
EXISTING THIRD FLOOR:	+/- 19,461 GROSS S.F.
EXISTING SECOND FLOOR:	+/- 23,561 GROSS S.F.
EXISTING MEZZANINE FLOOR:	+/- 5,133 GROSS S.F.
EXISTING GROUND FLOOR:	+/- 24,934 GROSS S.F.
EXISTING LOWER LEVEL 1:	+/- 25,010 GROSS S.F.
EXISTING LOWER LEVEL 2:	+/- 25,010 GROSS S.F.



NORTH

EXISTING ARCHITECTURAL SITE PLAN

SCALE: 1" = 20'-0"

SHEET INDEX

SP.101	EXISTING SITE PLAN
SP.201	TRASH COMPACTOR LOCATION AND INFORMATION
A.100	AFFECTED AREA LIFE SAFETY FLOOR PLAN
A.101	ENLARGED LAUNDRY ROOM FLOOR PLAN, LOCATION MAP & KEY PLAN
A.102	PARTIAL BUILDING SECTIONS

DAXTON

Date: 5.7.25

City of Birmingham Planning Commission
151 Martin Street
Birmingham, MI 48009

RE: Request for Zoning Ordinance Variance – 298 S Old Woodward Avenue

Dear Members of the Planning Commission,

On behalf of Daxton Hotel, I am writing to formally request a variance from the current zoning ordinance requirements as they relate to the location and use of our loading dock facilities. We believe this variance is necessary to better serve our operations, while also supporting the broader public interest in maintaining efficient traffic flow and enhancing the overall atmosphere of downtown Birmingham.

Argument 1 – Public Benefit and Operational Efficiency

Approval of this variance will allow us to consolidate waste and laundry service operations, reducing our current six-day-per-week garbage collection schedule to just three days. Additionally, we will be eliminating 14 weekly laundry service deliveries. This significant reduction in service vehicle traffic will directly benefit the community by lessening congestion on city streets, improving pedestrian and cyclist safety, and reducing noise and air pollution in the area. We believe these changes align with the City's goals of maintaining a vibrant and walkable urban environment.

Argument 2 – Physical Hardship and Infeasibility of Current Design

The current configuration of our loading dock, located off Brown Street, presents a significant operational hardship. The limited dimensions of the dock and the restricted turning radius available on Brown Street make it nearly impossible for commercial vehicles—including garbage trucks and delivery vans—to access the loading area safely or efficiently. This results in frequent traffic disruptions and has become a logistical challenge for our hotel's operations. Without relief from the existing zoning constraints, we are unable to make necessary improvements that would resolve these long-standing issues.

We respectfully request the Planning Commission's favorable consideration of our application for a zoning variance. We are happy to provide additional materials or meet with City staff to further discuss the details of this request.

Thank you for your attention and your continued commitment to improving the City of Birmingham.

Sincerely,

Autumn Griffith
General Manager
Daxton Hotel

ISSUED FOR	DATE
OWNER REVIEW	1-24-2025
PERMITS	2-4-2025
SPA/SLU/ZBA	5-12-2025
COMPACTOR REVISION	5-20-2025
SPA/SLU/ZBA REVISIONS	5-23-2025
.	.
.	.
.	.
.	.
.	.

ARCHITECTURAL DESIGN
RESIDENTIAL
COMMERCIAL
INDUSTRIAL

G.A.V. ASSOCIATES, INC
24001 ORCHARD LAKE RD., STE. 180A
FARMINGTON, MICHIGAN 48336
PH: (248) 985-9101
WEB: WWW.GAVASSOCIATES.COM

PROPOSED INTERIOR RENOVATION FOR:
DAXTON HOTEL
298 S. OLD WOODWARD AVE
BIRMINGHAM, MICHIGAN 48009

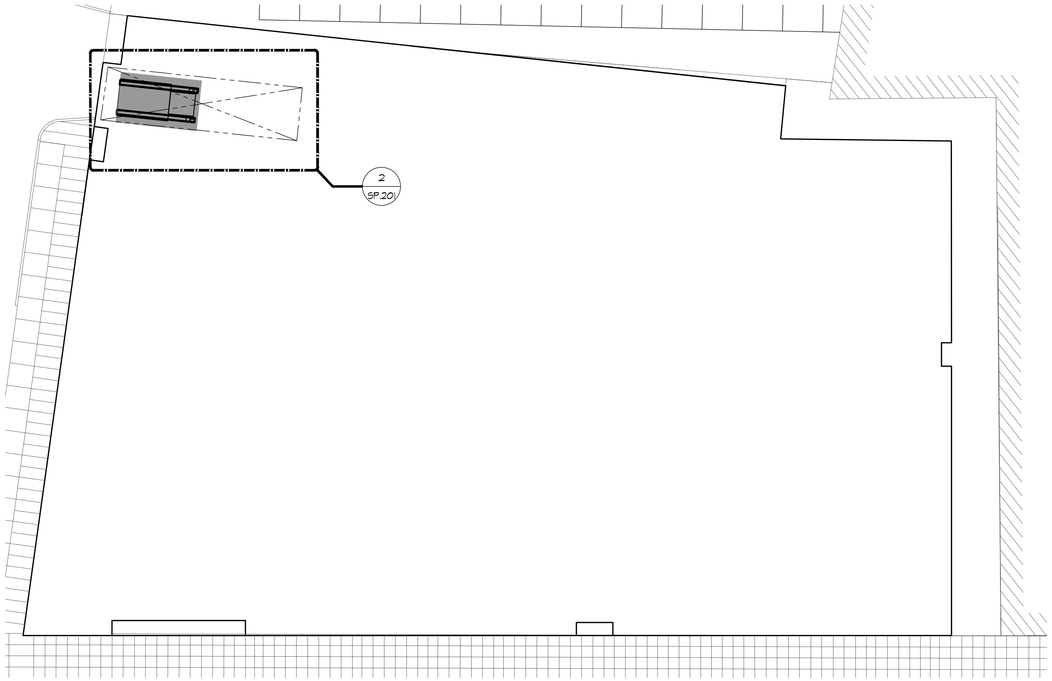
DRAWN:	DESIGNED:	CHECKED:
DG	DG	DG

SCALE : 1" = 20'-0"

FILE NAME : 24085_SP101

JOB #: 24085

SHEET TITLE
EXISTING ARCHITECTURAL SITE PLAN
SHEET #
SP.101



NORTH

1 SP.101 BUILDING KEY PLAN
NOT TO SCALE

GENERAL TRASH COMPACTOR NOTES:

1) STEEL TRACKS BY OTHERS. STEEL CONTRACTOR TO VERIFY LENGTH, SIZE, DIMENSIONS OF STEEL AND TO VERIFY LOCATION WITH OWNER, CONTRACTOR AND TRASH COMPACTOR SUPPLIER.
2) SPECIFICATIONS FOR TRASH COMPACTOR - SEE THIS SHEET
3) SUPPLIER AND CONTRACTOR TO VERIFY ALL MINIMUM MANUFACTURER'S CLEAR AREAS.
4) TRASH REMOVAL AS SCHEDULED PER OWNER AND SANITATION COMPANY.

SC-20 Self-Contained Compactor

Specifications	
Manufacture's Rated Size	1.50 Cubic Yards
Rated Size	1.30 Cubic Yards
Cycle Time	35 Seconds
Capacity Per Hour	133.71 Yards
Clear Top Opening (L x W)	30 5/8" x 57 1/2"
Ram Face Dimensions (W x H)	59 3/4" x 29 3/4"
Ram Penetration	12"
Cylinder Bore, Rod & Stroke	(Twin) 4" x 2" x 36"
Operating Pressure	
Normal	1500 PSI
Maximum	2000 PSI
Ram Force Rating	
Normal	18.34 PSI / 32,744 Lbs
Maximum	24.46 PSI / 43,658 Lbs
Motor (HP)	10 HP
Pump (GPM)	12 GPM
Tank Capacity	20 Gallons
Shipping Weight	10,100 Lbs (approx)
Construction	
Frame	
Floor - AR Plate	1/2"
Floor Plate Supports	3"- 4.1 Lb Channel
Side Plates	1/4"
Side Reinforcements	2"x4"x1/4" Tube
Breaker Bar	4" x 4" x 3/8" Tube
Ram Hold Down Bars	1 1/4" x 1 1/4" Bar
Ram	
Face Plate	3/4"
Floor - AR Plate	1/2"
Side Plates	3/8"
Top Plate	1/4"
Sliding Plate	3/8"

All Specifications are subject to change without notice.

Installation Requirements

Minimum Recommended Requirements:

- Concrete Pad: 10' x 20' (May be made larger to suit) 4,000 PSI Reinforced, 6" Thick

Minimum Clearance Requirements:

- 12" From Back of Compactor to Wall
- 36" From Right & Left of Compactor to Wall

Electrical Disconnect Requirements		
10 HP Motor		
Voltage	Amperage	Fuse
208	60	50
240	60	40
480	30	20

Standard Features

- 80% & 100% Full Indicator Lights
- Quick Disconnect Hydraulic Hoses
- Pressure Gage
- NEMA 4 Control Enclosure
- Guide Rails & Stops
- 4-Inch Clean Out

Available Options

- Hoppers & Enclosures - Any Configuration
- Interlock and Security Doors
- Oil Heater
- Power Unit Cover
- Remote Operation
- Custom Sizes

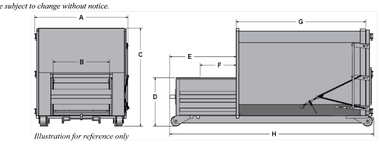


Illustration for reference only

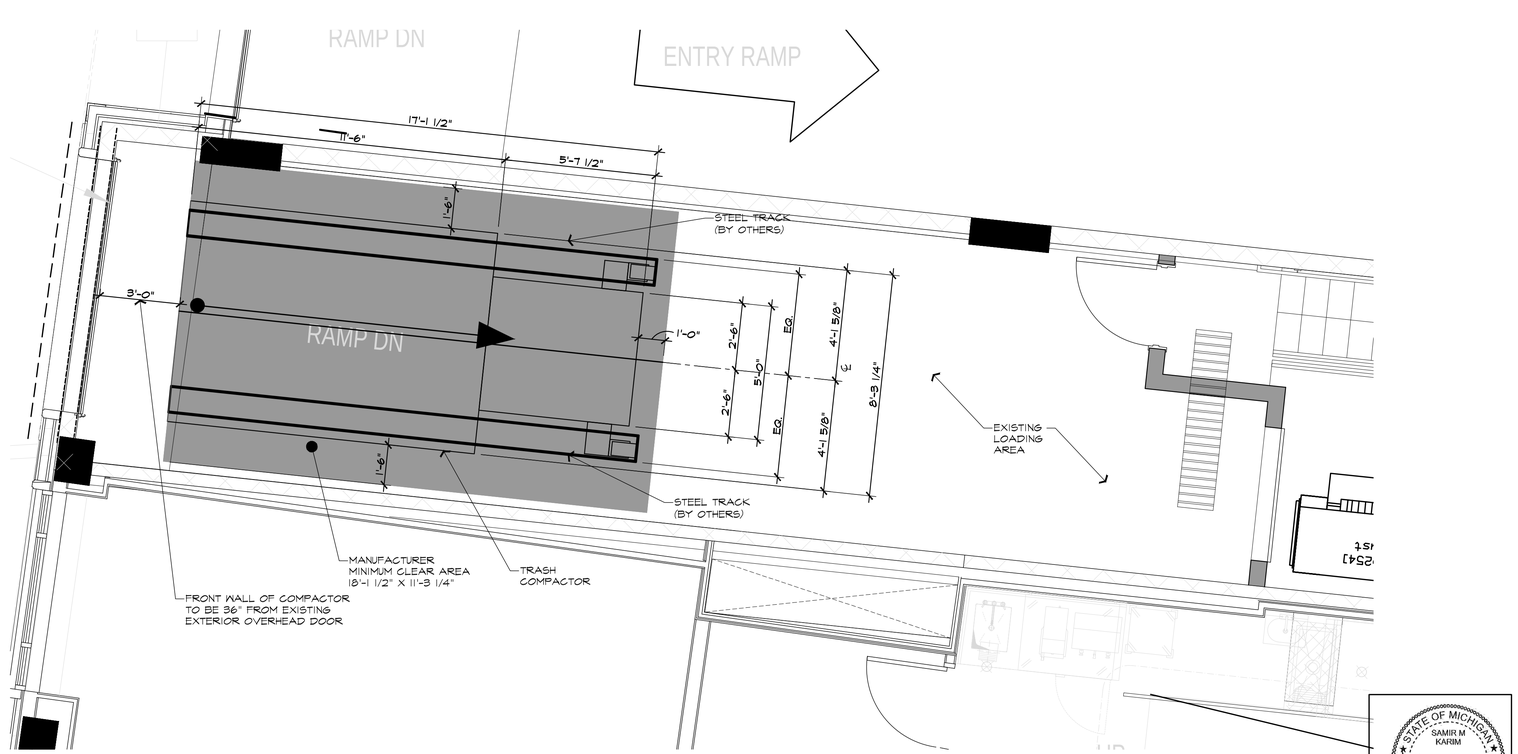
A	B	C	D	E	F	G	H	Capacity
99 1/4"	60"	104 1/2"	52"	71"	30 5/8"	138"	217 1/2"	20-Yard

CONTRACT WELDING & FABRICATING, INC.

Distributor

385 Sumpter Road • Belleville • MI 48111-2932 • Phone (734) 699-5561 • Fax (734) 699-0360
P.O. Box 68 • Belleville • MI 48112-0068
On the Web at: http://www.contractwelding.com

02/07 REV1



NORTH

2 SP.201 TRASH COMPACTOR LOCATION PLAN
SCALE: 3/8" = 1'-0"

ISSUED FOR	DATE
OWNER REVIEW	1-24-2025
PERMITS	2-4-2025
SPA/SLU/ZBA	5-12-2025
COMPACTOR REVISION	5-20-2025
SPA/SLU/ZBA REVISIONS	5-23-2025
.	.
.	.
.	.
.	.
.	.

ARCHITECTURAL DESIGN
RESIDENTIAL
COMMERCIAL
INDUSTRIAL

G.A.V. ASSOCIATES, INC
24001 ORCHARD LAKE RD., STE. 180A
FARMINGTON, MICHIGAN 48336
PH: (248) 985-9101
WEB: WWW.GAVASSOCIATES.COM

GAV ASSOCIATES

PROPOSED INTERIOR RENOVATION FOR:
DAXTON HOTEL
298 S. OLD WOODWARD AVE
BIRMINGHAM, MICHIGAN 48009

DRAWN:	DESIGNED:	CHECKED:
DG	DG	DG

SCALE : VARIES

FILE NAME : 24085_SP201

JOB #: 24085

SHEET TITLE
TRASH COMPACTOR LOCATION AND INFORMATION

SHEET #
SP.201

STATE OF MICHIGAN
SAMIR M KARIM
ARCHITECT
No. 1301038452
LICENSED ARCHITECT

CODE REVIEW & BLDG ANALYSIS:

THE BUILDING PLANS ARE BEING SUBMITTED STORAGE ROOM RENOVATION TO BE TURNED INTO A LAUNDRY SERVICE ROOM. ALL LAUNDRY SHALL BE WHEELED IN FOR CLEANING. THERE SHALL BE NO LAUNDRY CHUTE IN THIS ROOM OR AREA.

1. GENERAL CONTR. TO COMPLY W/ ALL FEDERAL, STATE, CITY AND LOCAL CODES WHERE APPLICABLE
   - MICHIGAN BUILDING CODE 2015
   - ICC/ANSI A117.1 2009 AND MICHIGAN BARRIER FREE DESIGN LAW P.A. 1 OF 1966 AS AMENDED
   - MICHIGAN MECHANICAL CODE 2021 (M.M.C.)
   - MICHIGAN PLUMBING CODE 2021 (M.P.C.)
   - FIRE SUPPRESSION NFPA 13-2013
   - FIRE ALARM NFPA 72-2012
   - INTERNATIONAL FUEL GAS CODE 2015 (I.F.G.C)
   - MICHIGAN ENERGY CODE 2015, PART 10a (M.E.C.) ANSI/ASHRAE/IESNA STANDARD 90.1 1999 EDITION
   - MICHIGAN ELECTRICAL CODE BASED ON 2023 N.E.C. W/ PART 8 AMENDMENTS
   - INTERNATIONAL FIRE CODE 2015 (I.F.C.)
   - PROJECT SHALL COMPLY W/ MBC 2015 CHP. 35 REFERENCE STANDARDS

FLOOR AREA (MBC):

GROUND LEVEL
PROPOSED AREA OF WORK 5541 SF

AFFECTED OCCUPANT LOAD:
LAUNDRY ROOM #101 - 264 / 300 S.F. = 1 OCC.
IRONING ROOM #102 - 276 / 300 S.F. = 1 OCC.

AFFECTED OCCUPANCY LOAD = 2 OCC.
TOTAL OCCUPANCY LOAD = 226 OCCUPANTS (DOES NOT CHANGE FROM EXISTING)

EXITS
AFFECTED EXIT - 36" WIDE EXIT DOOR @ 1.5" PER OCC. FACTOR = 240 OCC. ALLOWED 226 OCC. < 240 OCC. - COMPLIES

EXIT ACCESS TRAVEL DISTANCE
'S-1' USE GROUP = 250' ALLOWED (SPRINKLED BLDG.)
'S-1' USE GROUP = 159'-6 3/8" PROVIDED (SPRINKLED BLDG.) - COMPLIES

PLUMBING
PLUMBING CALCULATIONS NOT AFFECTED - TOTAL SAME OCCUPANCY COUNT BEFORE AND AFTER RENOVATION

DEMOLITION NOTES:

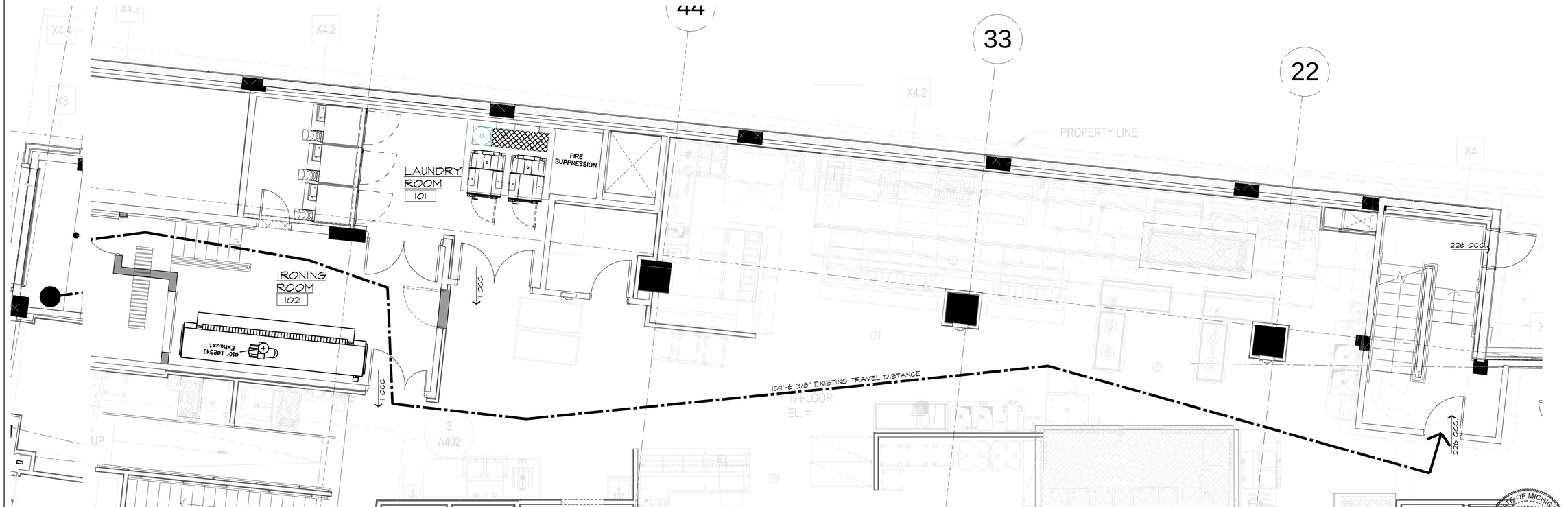
1. CONTRACTOR TO VERIFY THAT ALL EXISTING UTILITIES ARE SHUT OFF PRIOR TO THAT PHASE OF DEMOLITION. COORDINATE WITH LOCAL UTILITY COMPANIES AS NECESSARY.
2. ALL TRADES ARE TO USE GFCI FOR ELECTRICAL USE DURING DEMO WORK.
3. CONTRACTORS SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO START OF DEMOLITION AND CONSTRUCTION.
4. EXISTING FIELD CONDITIONS MAY VARY FROM ARCHITECTURAL DRAWINGS. IF THERE ARE DISCREPANCIES BETWEEN THE DRAWINGS AND THE EXISTING CONDITIONS, CONTRACTOR SHALL CONTACT ARCHITECT IMMEDIATELY.
5. REMOVE EXISTING CONSTRUCTION AS INDICATED. TYPICAL WALL REMOVAL INCLUDES MECHANICAL, PLUMBING, COMMUNICATIONS, INFORMATION SYSTEMS, AND ELECTRICAL SYSTEMS CONTAINED THERE IN. REMOVE DOORS, FRAMES, FINISHED AND OTHER FIXTURES AS REQUIRED. AFTER REMOVAL OF PIPE CHASES, PATCH HOLES IN EXISTING FLOORS OR WALLS THAT REMAIN TO MEET ORIGINAL STRUCTURAL REQUIREMENTS. PATCH ADJOINING WALLS, FLOOR AND DECK. PREPARE SURFACES TO RECEIVE NEW FINISH.
6. THE EXISTING BUILDING ENVELOPE SHALL BE MAINTAINED IN WATER TIGHT CONDITION AT ALL TIMES THROUGHOUT ALL PHASES OF CONSTRUCTION.
7. REMOVE ALL EXISTING PARTITIONS, INTERIOR & EXTERIOR AS SHOWN AS DASHED LINES.
8. DEMOLITION WORK SHALL BE EXECUTED IN CONFORMANCE WITH ALL CODES AND ORDINANCES AS SET FORTH BY ALL GOVERNING AUTHORITIES.
9. REMOVE ALL ITEMS, ELEMENTS OF CONSTRUCTION AND EQUIPMENT INDICATED, NOTED OR SHOWN AND AS REQUIRED TO FACILITATE INSTALLATION OF THE NEW WORK. REMOVE FROM BUILDING SITE DEBRIS, RUBBISH, AND OTHER MATERIALS RESULTING FROM DEMOLITION OPERATION. TRANSPORT AND LEGALLY DISPOSE OF OFF SITE. VERIFY ACCEPTABLE LOCATION OF DUMPSTER WITH CITY.
10. REMOVE ALL ABANDONED DUCTWORK, PIPING, CONDUITS, HANGERS, SUPPORTS, FASTENERS, ETC.
11. ALL EXISTING CONSTRUCTION INDICATED TO REMAIN THAT IS DISTURBED BY CONTRACT WORK (ALL TRADES) SHALL BE RESTORED AND PATCHED. PATCHING WORK SHALL MATCH EXISTING WORK, INCLUDING MATERIAL, COURSING (WHERE APPLICABLE), FINISH, AND CHARACTER.
12. ANY DAMAGE TO EXISTING STRUCTURE SHALL BE REPAIRED TO MATCH EXISTING.
13. ALL EXISTING WALLS, WHERE APPLICABLE, TO BE SCRAPED, SANDED, TUCK-POINTED & PREPARED FOR PAINTING, PARGING, OR NOTED FINISH, FIELD VERIFY EXACT LOCATIONS.
14. CAP ALL EXISTING PLUMBING LINES NOT REQUIRED FOR NEW INSTALLATIONS.
15. TERMINATE ALL EXISTING ELECTRICAL LINES NOT REQUIRED FOR NEW INSTALLATIONS.
16. REMOVE ALL EXISTING FLOOR AND ADHESIVES. REPAIR ANY DAMAGED FLOOR TO A SMOOTH LEVEL SURFACE FOR FUTURE NEW FINISHES.
17. REMOVE AND SALVAGE ALL STAINLESS STEEL FINISHES AND OTHER PRECIOUS METALS FOR RECYCLING.
18. PATCH AND REPAIR EXISTING ROOF IF NECESSARY DUE TO THE REMOVAL OF ANY ITEMS (INCLUDING EXHAUST FANS & ETC) WHICH CAUSE A ROOF PENETRATION.

GENERAL CONSTRUCTION NOTES:

1. DO NOT SCALE DRAWINGS. USE GIVEN DIMENSIONS ONLY (TO FACE OF GYP. BD. ON MTL. STUDS & TO FACE OF UNFINISHED BLOCK WALLS), IF DIMENSIONS ARE IN QUESTION THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING CLARIFICATION FROM THE ARCHITECT BEFORE CONTINUING WITH THE WORK.
2. GENERAL CONTRACTOR SHALL COORDINATE WITH THE MECHANICAL AND ELECTRICAL CONTRACTORS THE LOCATIONS OF DUCTS, PIPING BOXES, CHASES, CONDUITS, ETC.
3. VERIFY LOCATION OF ALL EQUIPMENT AND VERIFY SIZES, WALL OPENINGS, AND SUPPORT REQUIREMENTS WITH MANUFACTURER. PROVIDE OPENINGS, BRACING AND REINFORCEMENT AS REQUIRED BY MANUFACTURER
4. POINT LOADS SHALL NOT BE ALTERED W/ OUT NOTIFYING ARCHITECT.
5. ALL DOORS TO COMPLY WITH THE, 2015 EDITION OF THE MICHIGAN BUILDING CODE SECTION 1010 AND ICC/ANSI A117.1-2009 SECTION 404.2.
6. THIS BUILDING HAS AN AUTOMATIC SPRINKLER SYSTEM. ALL INTERIOR EXIT STAIRWAYS AND RAMPS AND EXIT PASSAGEWAYS SHALL HAVE CLASS 'B' INTERIOR WALL AND FINISHES. ALL CORRIDORS AND ENCLOSURE FOR EXIT ACCESS STAIRWAYS AND RAMPS SHALL HAVE CLASS 'C' INTERIOR WALL AND FINISHES. ROOMS AND ENCLOSED SPACES SHALL HAVE CLASS 'C' INTERIOR WALL AND FINISHES.
7. ALL GYPSUM BOARD MATERIALS AND ACCESSORIES SHALL CONFORM TO THE APPROPRIATE STANDARDS IN ACCORDANCE WITH TABLE 2506.2 MBC 2015
8. DOOR HANDLES, PLUS LATCH, LOCKS AND OTHER OPERATING MAXIMUM HEIGHT OF 34"-48" ABOVE FINISH FLOOR. OPERATING DEVICES SHALL BE CAPABLE OF OPERATION WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING OR TWISTING OF THE WRIST TO OPERATE. ALL MEANS OF EGRESS WHERE SERVING AN OCCUPANT LOAD OF 50 OR MORE PERSONS. THE OPENING FORCE FOR INTERIOR SIDE-SWING DOORS WITH- OUT CLOSERS SHALL NOT EXCEED 5-POUND FORCE. FOR ALL OTHER SIDE-SWING, SLIDING AND FOLDING DOORS, THE DOOR LATCH SHALL RELEASE WHEN SUBJECT TO A 15-POUND FORCE. THE DOOR SHALL SWING TO A FULL-OPEN POSITION WHEN SUBJECTED TO A 15 POUND FORCE. FORCES SHALL BE APPLIED TO THE LATCHSIDE..
9. ALL MEANS OF EGRESS DOORS SHALL BE READILY OPERABLE FROM THE SIDE FROM WHICH EGRESS IS TO BE MADE WITHOUT THE USE OF A KEY, SPECIAL KNOWLEDGE, OR EFFORT.
10. ALL EXIT DOORS & MEANS OF EGRESS DOORS SHALL BE SIDE HINGED, NON-LOCKING & SWING IN DIRECTION OF EGRESS.
11. ALL GLASS SHALL BE SAFETY GLASS AS REQ'D PER SECTION 2406.4 AND SHALL PASS THE TEST REQ'MTS. OF CPSC 16 CFR, PART 1201.
12. EGRESS SIGNAGE SHALL BE INTERNALLY OR EXTERNALLY ILLUMINATED AT ALL TIMES. SIGNS SHALL STAY LIT MINIMUM 90 MINUTES DUE TO POWER OUTTAGE.
13. SUSPENDED CEILING GRID SYSTEM SHALL COMPLY WITH MBC SECTION 803.11.
14. ALL PENETRATIONS IN WALLS FOR PIPING, CONDUIT, ETC. SHALL BE SEALED.
15. A PORTABLE FIRE EXTINGUISHER MUST BE PRESENT DURING CONSTRUCTION. PERMANENT PORTABLE FIRE EXTINGUISHER LOCATIONS TO BE DETERMINED PER I.F.C. AND FIELD BUILDING INSPECTOR.
16. APPROVED FIRE STOP MATERIAL SHALL BE PROVIDED IN ALL DROPS FOR ELECTRICAL, PLUMBING, & HEATING.
17. ALL EXIT DISCHARGE DOORS TO CONTAIN A TACTILE SIGN (TS) STATING "EXIT" COMPLYING WITH ICC A117.1 SECTION 703.3 AS REQ'D BY MBC 2015 SECTIONS 1111.3 (ITEM #2) AND 1013.3. LOCATION OF SIGNS SHALL BE ALONGSIDE THE DOOR AT THE LATCH SIDE, ON THE INACTIVE LEAF OF DOUBLE DOOR, ON THE RIGHT HAND DOOR OF DOUBLE ACTIVE DOORS OR ON NEAREST ADJACENT WALL WHERE NO WALL IS ADJACENT TO LATCH SIDE OF DOOR. HT OF CHARACTERS SHALL BE 48" AFF TO BASELINE OF LOWEST TACTILE CHARACTER AND 60" AFF TO BASELINE OF HIGHEST.
18. "EXIT" SIGNS SHALL HAVE RED LETTERS AT LEAST 6" HIGH AND THE MINIMUM WIDTH OF EACH STROKE SHALL BE 3/4" ON A WHITE BACKGROUND OR IN OTHER APPROVED DISTINGUISHABLE COLOR. THE WORD "EXIT" EXCEPT THE LETTER "I" SHALL HAVE LETTERS HAVING A WIDTH NOT LESS THEN 2 INCHES AND THE MINIMUM SPACING BETWEEN LETTERS SHALL NOT BE LESS THAN 3/8" OF AN INCH. SIGNS LARGER THAN THE MINIMUM SIZE REQUIRED SHALL HAVE LETTERS WIDTH AND SPACING IN THE SAME PROPORTION TO THE HEIGHT AS INDICATED IN THIS CODE. IF AN ARROW IS PROVIDED AS PART OF AN "EXIT" SIGN, THE CONSTRUCTION SHALL BE SUCH THAT THE ARROW CANNOT BE READILY CHANGED. THE WORD "EXIT" SHALL BE CLEARLY DISCERNIBLE WHEN THE SIGN IS ILLUMINATION MEANS IS NOT ENERGIZED.
19. REPAIR AND PATCH WALLS / FLOORS AS NEEDED.
20. PER AHJ HOTELS TO HAVE PORTABLE FIRE EXTINGUISHERS PER ALL APPLICABLE CODES.
21. ALL FINISHES BY OWNER AND CONTRACTOR.
22. SOUND BATTS IN INTERIOR WALLS.
23. NOT USED.
24. NOT USED.
25. ALL METAL STUD WALLS THAT RUN TO UNDERSIDE OF FLOOR/ROOF DECK TO HAVE A DEFLECTION TRACK AT TOP OF WALL.

SHEET INDEX

SP.101	EXISTING SITE PLAN
A.100	AFFECTED AREA LIFE SAFETY FLOOR PLAN
A.101	ENLARGED LAUNDRY ROOM FLOOR PLAN, LOCATION MAP & KEY PLAN
A.102	PARTIAL BUILDING SECTIONS



NORTH

AFFECTED AREA LIFE SAFETY FLOOR PLAN
SCALE: 1/4" = 1'-0"

ISSUED FOR	DATE
OWNER REVIEW	1-24-2025
PERMITS	2-4-2025
SPA/SLU/ZBA	5-12-2025
SPA/SLU/ZBA REVISIONS	5-23-2025
.	.
.	.
.	.
.	.
.	.
.	.

ARCHITECTURAL DESIGN
RESIDENTIAL
COMMERCIAL
INDUSTRIAL

G.A.V. ASSOCIATES, INC
24001 ORCHARD LAKE RD., STE. 180A
FARMINGTON, MICHIGAN 48336
PH: (248) 985-9101
WEB: WWW.GAVASSOCIATES.COM

PROPOSED INTERIOR RENOVATION FOR:
DAXTON HOTEL
298 S. OLD WOODWARD AVE
BIRMINGHAM, MICHIGAN 48009

DRAWN:	DESIGNED:	CHECKED:
DG	DG	DG

SCALE : 1/8" = 1'-0"

FILE NAME : 18123_A100

JOB #: 24085

SHEET TITLE
AFFECTED AREA LIFE SAFETY FLOOR PLAN
SHEET #
A.100

STATE OF MICHIGAN
SAMIR M KARIM
ARCHITECT
No. 1301038452
LICENSED ARCHITECT

DOOR SCHEDULE

DOOR HARDWARE TO PROVIDED TO OWNER COMPLYING WITH APPLICABLE CODES AND PER GENERAL DOOR SPECIFICATION.

NO.	ROOM NAME	DOOR SIZE	DOOR TYPE	DOOR MATERIAL	FRAME TYPE	FRAME MATERIAL	HARDWARE SET	NOTE LEGEND	REMARKS
FIRST FLOOR									
101A	LAUNDRY ROOM	(2) 3'-0" x 7'-0" x 1 3/4"	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING		
101B	LAUNDRY ROOM	(2) 3'-0" x 7'-0" x 1 3/4"	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING		
101C	DRYER AREA DOOR	2'-6" x 7'-0" x 1 3/4"	2	HM	B	HM	F, G, J		DRYER MAINTENANCE AREA DOOR
102A	IRONING ROOM	3'-0" x 7'-0" x 1 3/4" 1'-8" x 7'-0" x 1 3/4"	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING		
102B	IRONING ROOM	3'-0" x 7'-0" x 1 3/4"	1	HM	A	HM	E, F, G, H, M	1	
102C	IRONING ROOM	3'-0" x 7'-0" x 1 3/4"	B	HM	C	HM	D, E, F, G		ROLL-UP OVERHEAD DOOR

WALL LEGEND

A	6 W/1 3/8" FLANGE 20 GA METAL STUDS AT 16" O.C. WITH 5/8" CEMENT BD ON EACH SIDE - EXTEND TO BOTTOM OF DECK. PROVIDE R-21 KRAFT-FACED BATT INSULATION. PROVIDE DEFLECTION TRACK. PAINT TO MATCH EXIST. WALL CONSTRUCTION
B	8 W/1 3/8" FLANGE 20 GA METAL STUDS AT 16" O.C. WITH 5/8" HIGH IMPACT GYP. BD. ON EACH SIDE - EXTEND TO BOTTOM OF DECK. PROVIDE DEFLECTION TRACK. - PAINT TO MATCH EXIST. ADJ. WALL CONSTRUCTION

ABBREVIATION (DOORS):

HM - HOLLOW METAL

HARDWARE:

A - PRIVACY LOCK SET
B - PASSAGE SET
C - OFFICE SET LOCK
D - CLASSROOM LOCK SET
E - CLOSER
F - KICKPLATE
G - WALL/FLOOR DOOR STOP
H - PANIC PUSH PAD, PULL BAR NON-LOCKING AGAINST EGRESS.
J - LOCKSET
K - CARD READER
L - INTERCOM SYSTEM
M - DOOR TO HAVE EGRESS SIGNAGE PER NFPA 101 2015 14.2.10

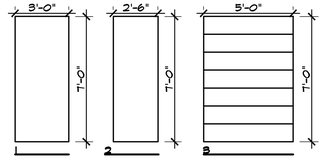
NOTE. VERIFY FINAL HARDWARE SETS WITH OWNER AND CONSTRUCTION MANAGER

DOOR NOTE LEGEND:

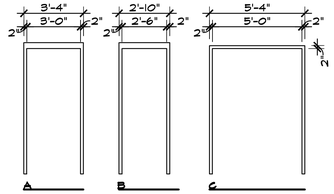
1. 45 MINUTE FIRE-RATED DOORS, FRAMES, AND GLASS. SEE DOOR TYPE FOR DOORS WITH GLASS (100 SQ. IN. MAXIMUM, REINFORCED WITH WIRE).
2. SMOKE TIGHT DOOR SEAL

GENERAL DOOR SPECIFICATION

1. HOLLOW METAL DOORS AND FRAMES SHALL BE: AS FURNISHED BY PIONEER / STEELCRAFT / SPECIALITE (OR EQUAL). FRAMES TO 16-GAGE, COMMERCIAL GRADE, "F" SERIES, WELDED UNITS, WITH ANCHORING AS REQUIRED BY WALL CONDITIONS. REFER TO DETAILS ON THIS SHEET. DOORS SHALL BE 18-GAGE, COMMERCIAL GRADE, "VM" SERIES, PREPARED TO RECEIVE MORTISED HARDWARE AS SPECIFIED. ALL HARDWARE MUST BE RECESSED FLUSH WITH NO SHARP EDGES EXPOSED. H.M. DOORS AND FRAMES SHALL PRIMED AND PAINTED TO MATCH ROOM COLOR.
2. COORDINATE ALL DOORS AND FRAMES SIZES WITH MASONRY AND CARPENTRY CONTRACTORS PRIOR TO CONSTRUCTION.
3. COORDINATE ALL DOORS AND DOOR HARDWARE SETS, ESPECIALLY EXTERIOR DOORS, WITH OWNER'S SECURITY / TECHNOLOGY CONSULTANTS.

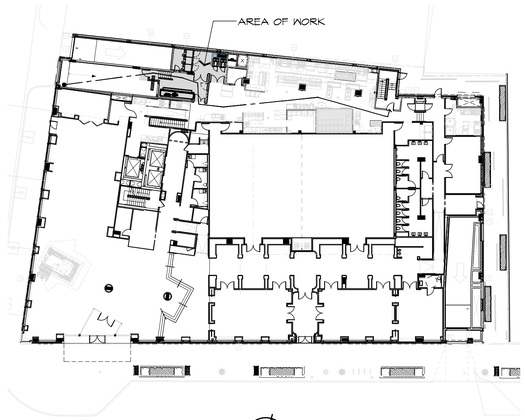


DOOR PANEL TYPES



DOOR FRAME TYPES

LOCATION MAP
SCALE: NTS
NORTH



KEY PLAN
SCALE: NTS
NORTH

CODE REVIEW & BLDG ANALYSIS:

THE BUILDING PLANS ARE BEING SUBMITTED FOR THE PROPOSED ALL NEW CONSTRUCTION, SHALL COMPLY TO THE FOLLOWING.

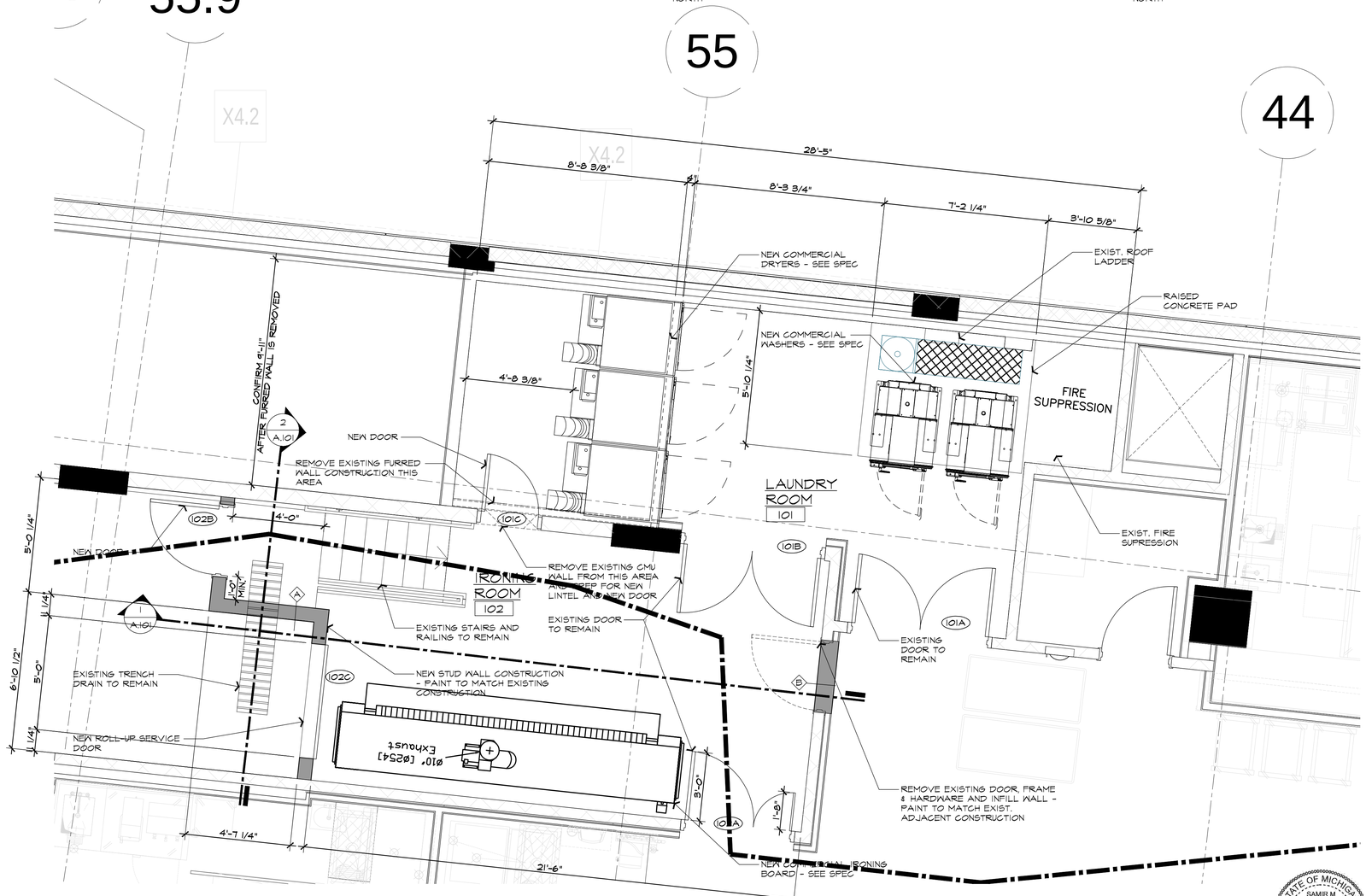
1. GENERAL CONTR. TO COMPLY W/ ALL FEDERAL, STATE, CITY AND LOCAL CODES WHERE APPLICABLE
   - MICHIGAN BUILDING CODE 2015
   - ICC/ANSI A117.1 2009 AND MICHIGAN BARRIER FREE DESIGN LAW P.A. 1 OF 1966 AS AMENDED
   - MICHIGAN MECHANICAL CODE 2021 (M.M.C.)
   - MICHIGAN PLUMBING CODE 2021 (M.P.C.)
   - FIRE SUPPRESSION NFPA 13-2013
   - FIRE ALARM NFPA 72-2012
   - INTERNATIONAL FUEL GAS CODE 2015 (I.F.G.C)
   - MICHIGAN ENERGY CODE 2015, PART 10a (M.E.C.) ANSI/ASHRAE/IESNA STANDARD 90.1 1999 EDITION
   - MICHIGAN ELECTRICAL CODE BASED ON 2023 N.E.C. W/ PART 8 AMENDMENTS
   - INTERNATIONAL FIRE CODE 2015 (I.F.C.)
   - PROJECT SHALL COMPLY W/ MBC 2015 CHP. 35 REFERENCE STANDARDS

FIRE AND SAFETY:

1. CONTRACTOR SHALL PROVIDE SEPERATE SHOP DRAWINGS FOR THE (SPRINKLER) FIRE SUPPRESSION SYSTEM AND ALARM SYSTEM TO THE BUILDING DEPARTMENT FOR REVIEW & APPROVAL FOR SEPERATE PERMITS.
2. AUTOMATIC FIRE SPRINKLER SYSTEM, SUBMISSION OF SHOP DRAWINGS:

A. FIRE SPRINKLER SUPPRESSION SYSTEM IS REQUIRED BY MBC SECTION 903.2.3
B. SUBMIT AUTOMATIC FIRE SPRINKLER SYSTEM SHOP DRAWINGS AND HYDRAULIC CALCULATIONS WITH SUPPORTING DOCUMENTATION AS REQUIRED BY NFPA 13, SECTION CHAPTER 22 UNDER SEPARATE PERMIT REQUIREMENT TO THE BUILDING DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO COMMENCEMENT OF THIS WORK (107.2.2).

3. CONTRACTOR TO PROVIDE PORTABLE FIRE EXTINGUISHER AND CABINETS PER 2012 INTERNATIONAL FIRE CODE AND NFPA 10.



NORTH

ENLARGED LAUNDRY ROOM FLOOR PLAN
SCALE: 3/8" = 1'-0"

ISSUED FOR	DATE
OWNER REVIEW	1-24-2025
PERMITS	2-4-2025
SPA/SLU/ZBA	5-12-2025
SPA/SLU/ZBA REVISIONS	5-23-2025
.	.
.	.
.	.
.	.
.	.
.	.

ARCHITECTURAL DESIGN

RESIDENTIAL
COMMERCIAL
INDUSTRIAL

G.A.V. ASSOCIATES, INC
24001 ORCHARD LAKE RD., STE. 180A
FARMINGTON, MICHIGAN 48336
PH: (248) 985-9101
WEB: WWW.GAVASSOCIATES.COM

GAV ASSOCIATES

PROPOSED INTERIOR RENOVATION FOR:
DAXTON HOTEL
298 S. OLD WOODWARD AVE
BIRMINGHAM, MICHIGAN 48009

DRAWN:	DESIGNED:	CHECKED:
DG	DG	DG

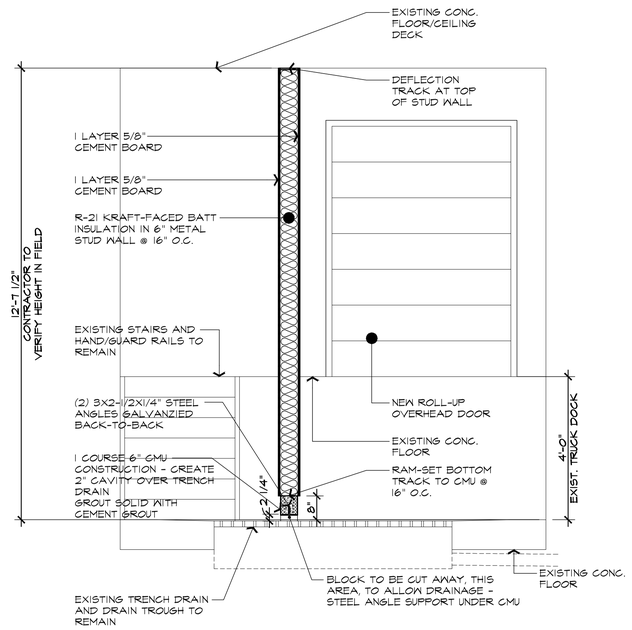
SCALE : 1/8" = 1'-0"

FILE NAME : 18123_A101

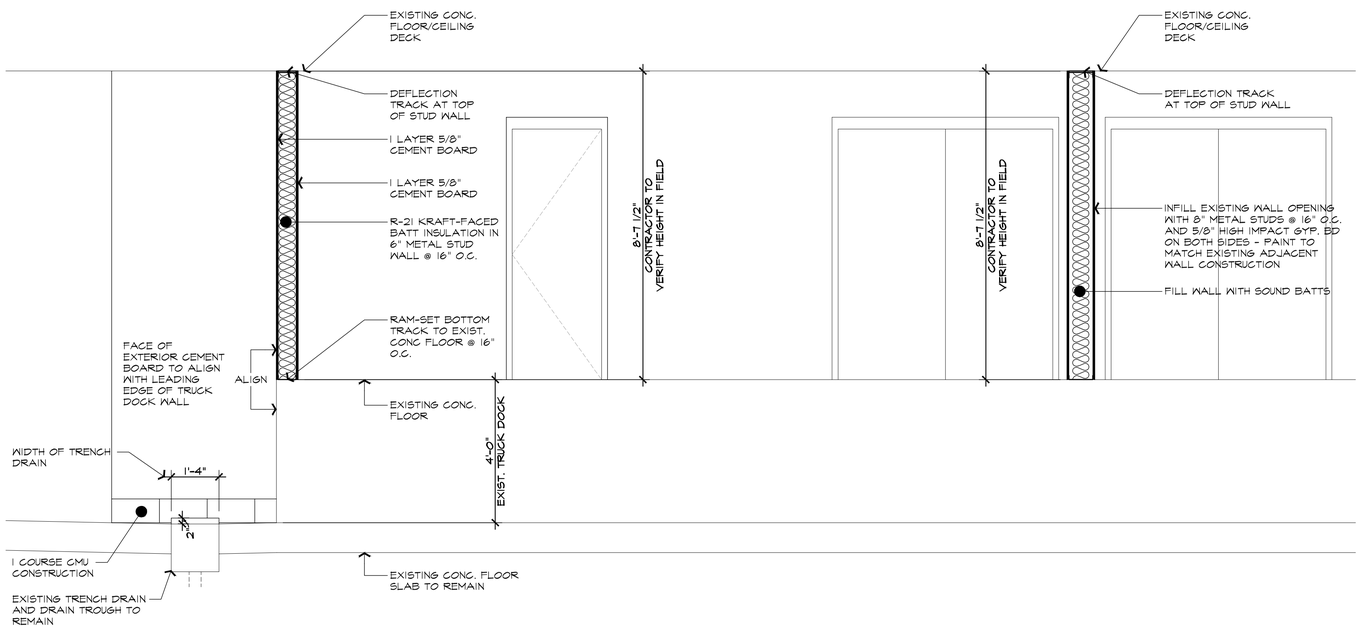
JOB #: 24085

SHEET TITLE
ENLARGED LAUNDRY ROOM FLOOR PLAN
SHEET #
A.101

STATE OF MICHIGAN
SAMIR M KARIM
ARCHITECT
No. 1301038452
LICENSED ARCHITECT



2 A.101 **PARTIAL BUILDING SECTION**
SCALE: 1/4" = 1'-0"



1 A.101 **PARTIAL BUILDING SECTION**
SCALE: 1/4" = 1'-0"

ISSUED FOR	DATE
OWNER REVIEW	1-24-2025
PERMITS	2-4-2025
SPA/SLU/ZBA	5-12-2025
SPA/SLU/ZBA REVISIONS	5-23-2025
.	.
.	.
.	.
.	.
.	.
.	.

ARCHITECTURAL DESIGN
RESIDENTIAL
COMMERCIAL
INDUSTRIAL

G.A.V. ASSOCIATES, INC
24001 ORCHARD LAKE RD., STE. 180A
FARMINGTON, MICHIGAN 48336
PH: (248) 985-9101
WEB: WWW.GAVASSOCIATES.COM

GAV ASSOCIATES

PROPOSED INTERIOR RENOVATION FOR:
DAXTON HOTEL
298 S. OLD WOODWARD AVE
BIRMINGHAM, MICHIGAN 48009

DRAWN:	DESIGNED:	CHECKED:
DG	DG	DG

SCALE : 1/8" = 1'-0"

FILE NAME : 24085_A102

JOB #: 24085

SHEET TITLE
PARTIAL BUILDING SECTIONS
SHEET #
A.102

STATE OF MICHIGAN
SAMIR M KARIM
ARCHITECT
No. 1301038452
LICENSED ARCHITECT

BIRMINGHAM
A WALKABLE CITY

Mya Brown <mbrown@bhamgov.org>

Agenda Items

1 message

Rackeline Hoff <rackyhoff@hotmail.com> Wed, Feb 18, 2026 at 11:33 PM
To: "city-commission@bhamgov.org" <city-commission@bhamgov.org>
Cc: Jana Ecker <jecker@bhamgov.org>

Commissioners:

There were two items on the February 9 agenda, which will be coming back before the Commission, on which I'd like to comment.

1. **220 Merrill Liquor License Renewal**- Last year, I addressed the Commission about a problem with vehicles being parked illegally on weekend nights in front of 211 E. Merrill St. making it difficult for residents to get to the building. This situation may have been caused by the restaurant's valet service parking vehicles there or a lack of police enforcement in this No Parking zone. I certainly support the Commission's investigation and serious consideration of liquor license renewals, but I want you to be aware that through the cooperation of both the business owner, Zaid Elia, and the Birmingham Police Department, this issue has been totally resolved.

2. **Daxton Hotel Special Land Use Request-** Although I have no objection to the hotel's request for in-house laundry facilities behind the building, I'm concerned about the parking of delivery vehicles in front of the hotel in the center of Old Woodward (left turn lane) resulting in the through-lane being so narrow that SMART buses cannot proceed. I have observed this situation several times; the bus must stop and wait until the delivery driver returns to move the vehicle while all the traffic behind the bus is at a standstill. I urge you to take this into consideration when making a decision about the hotel's loading docks for deliveries and it's laundry facilities.

Thank you for your consideration.

Respectfully submitted,
Rackeline Hoff

--
You received this message because you are subscribed to the Google Groups "City Commission" group.
To unsubscribe from this group and stop receiving emails from it, send an email to city-commission+unsubscribe@bhamgov.org.
To view this discussion visit https://groups.google.com/a/bhamgov.org/d/msgid/city-commission/CH0PR11MB53939F2948BFB97D46F0FC69AA6BA%40CH0PR11MB5393.namprd11.prod.outlook.com.

MEMORANDUM

Planning Department

DATE: May 28, 2025

TO: Planning Board Members

FROM: Nick Dupuis, Planning Director

SUBJECT: 298 S. Old Woodward – Daxton Hotel – Special Land Use Permit Amendment, Final Site Plan & Design Review

---

The subject site, 298 S. Old Woodward, is located in Downtown Birmingham in the B4 (Business-Residential) and D4 (Downtown Overlay) zoning districts. The site has been operating as a hotel since it was completed in 2021. The Daxton Hotel is currently operating under a Special Land Use Permit due to the sale of alcoholic beverages for on premise consumption. The site is directly adjacent to "The Plaza", a commercial building to the north, and is across Brown Street from the new Restoration Hardware development that is nearing completion (targeting October 2025).

At this time, the applicant has submitted a Special Land Use Permit Amendment, Final Site Plan and Design Review application request to modify the existing required off-street loading facility to make room for new in-house laundry facilities and a new trash compactor. The change would effectively eliminate the off-street loading space in terms of truck/vehicle access, and would divert loading functions to the lower levels.

Article 7, Section 7.43 states that Site Plan and Design Review for special land uses shall be considered and acted upon by the City Commission. Prior to its consideration of a special land use application for an initial permit or an amendment to a permit, the City Commission shall refer the Site Plan and the design to the Planning Board for its review and recommendation.

In addition, as required by Article 7, Section 7.37 of the Zoning Ordinance, once a permit for a special land use has been granted as to any parcel of land, no change in that use may be made nor may any addition to or change in the building or improvements on the parcel of land take place until a new request for approval has been filed with the City Commission and the City Commission has approved the request for change.

1.0 Land Use and Zoning

1.1 Existing Land Use – The existing land use is commercial.

1.2 Zoning – The subject site exists within the B4 (Business-Residential) and D4 (Downtown Overlay) Zoning Districts.

1.3 Summary of Adjacent Land Use and 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	Commercial	Commercial	Commercial
Existing Zoning District	B4 (Business-Residential)	B2 (General Business)	B4 (Business-Residential)	B4 (Business-Residential)
Overlay Zoning District	D4	D4	D4	D4

2.0 Setback, Bulk and Height Requirements

There are **no changes** proposed to the setback, bulk, or height of the building.

3.0 Screening and Landscaping

3.1 Dumpster Screening – When the project was originally approved, the building contained waste receptacles in a "trash room" located adjacent to the off-street loading facility. At this time, the applicant is proposing to modify the existing trash room and a portion of the loading facility to provide an on-site laundry facility. This change would formalize the relocation of waste receptacles from the approved trash room to the loading area. This appears to have been a condition that has existed for some time now, especially since Brown Street has been affected by the construction of two new buildings to the south. Although the trash is proposed to be relocated, it would still be screened by the building.

3.2 Parking Lot Screening – There are **no changes** proposed to the on-site parking facilities.

3.3 Mechanical Equipment Screening – There are **no changes** proposed to the mechanical equipment on site.

3.4 Landscaping – There are **no changes** proposed to the landscaping on site.

3.5 Streetscape – There are **no changes** proposed to any proposed streetscape elements on site.

4.0 Parking, Loading and Circulation

4.1 Parking – There are **no changes** proposed to the parking requirements on site.

4.2 Loading – As noted above, the proposed changes to the previously approved dumpster area within the building has necessitated that the waste receptacles to be transitioned to a compactor and moved into the existing loading facility. This off-street loading facility is required based on the requirements of Article 4, Section 4.24 (C) of the Zoning Ordinance. With the addition of the trash compactor (18 ft. x 8 ft.), the length of the loading facility will be reduced well short of the required 40 ft. length and would eliminate truck access to the space. Thus, **the applicant must submit revised site plans demonstrating an off-street loading facility that meets the minimum requirements of the Zoning Ordinance or obtain a variance from the Board of Zoning Appeals.**

4.3 Vehicular Circulation and Access – There are **no changes** proposed to vehicular access to the site. Vehicles will enter the facility via a single curb cut on Brown, which will provide them access to the ground level and/or lower level parking facilities. Vehicles exit the site through a garage door and curb cut on the north side of the property along S. Old Woodward.

4.4 Pedestrian Circulation and Access – There are **no changes** proposed to pedestrian circulation or access to the site.

5.0 Lighting

There are **no changes** proposed to the lighting conditions on site.

6.0 Design Review

There are **no changes** proposed to the building façade or other design elements on site.

7.0 Required Attachments

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

8.0 Approval Criteria

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

(1) *The location, size and height of the building, walls and fences shall be such that there is adequate landscaped open space so as to provide light, air and access to the persons occupying the structure.*

- **There are no proposed changes to the location, size or height of the building.** The building is being built in accordance with the Zoning Ordinance, which permits zero lot line development. Thus, there is no required open space or landscaping for this development. The building fronts two streets and is currently open on the rear (west). The buildings placement permits for light, air and access to persons occupying the structure.

(2) *The location, size and height of the building, walls and fences shall be such that there will be no interference with adequate light, air and access to adjacent lands and buildings.*

- **There are no proposed changes to the location, size or height of the building.** The location, size and height of the building conforms with the standards of the Zoning Ordinance and provides neighboring buildings with access to adequate light.

(3) *The location, size and height of the building, walls and fences shall be such that they will not hinder the reasonable development of adjoining property nor diminish the value thereof.*

- **There are no proposed changes to the location, size or height of the building.** The proposed development will not hinder the reasonable development of adjoining property and should increase the value thereof.

(4) *The site plan, and its relation to streets, driveways and sidewalks, shall be such as to not interfere with or be hazardous to vehicular and pedestrian traffic.*

- **There are no proposed changes to the location, size or height of the building.** The site plan contains a single curb cut for vehicular access along Hazel, which is preferred over Old Woodward and Woodward which would create more hazardous conditions. Pedestrians have access to clear and obvious entry points to the building and adequate space to circulate around the building.

(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.*

- This development will remain compatible with other uses and buildings in the neighborhood and will not be contrary to the spirit and purpose of this

chapter. However, the shifting of loading activities from the building to the lower lever, or in some cases neighboring streets of Brown and/or S. Old Woodward, could be considered incompatible and may be detrimental to the surrounding neighborhood.

(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.*

- This property is not required to provide landscaped open space. However, the Daxton Hotel contains a green roof in the upper alcove of the building that provides open space for inhabitants of the east side of the building.

In addition, Article 7, Section 7.36 requires applications for a Special Land Use Permit to meet the following criteria:

(1) *The use is consistent with and will promote the intent and purpose of this Zoning Ordinance.*

- **There are no proposed changes to the use of the building.** The proposed mixture of commercial/retail and residential uses remains consistent with and will promote the intent and purpose of this Zoning Ordinance.

(2) *The use will be compatible with adjacent uses of land, the natural environment, and the capabilities of public services and facilities affected by the land use.*

- **There are no proposed changes to the use of the building.** Generally, in Birmingham's Downtown, this mixture of uses is compatible with adjacent uses of land and the natural environment of the area. There is a consideration to be had, though, regarding the effective removal off the loading facility and its relationship to the capabilities of public services and facilities affected by the land use. Because the Daxton will still require some level of delivery and service based activates, these functions are expected to continue to happen on Brown and S. Old Woodward in some fashion, which will affect those thoroughfares during such activity. However, loading and delivery services are commonplace in a Downtown setting and the S. Old Woodward thoroughfare was designed to accommodate trucks in the center lane when necessary.

(3) The use is consistent with the public health, safety and welfare of the city.

- **There are no proposed changes to the use of the building.** This use is consistent with the public health, safety and welfare of the city. Similar to the previous standard, mixed-use developments have been long established in Birmingham's Downtown and other commercial areas in the City and is expected to continue.

(4) *The use is in compliance with all other requirements of this Zoning Ordinance.*

- **There are no proposed changes to the use of the building.** Although the building uses proposed are compatible with the related zoning districts, the requirements for the associated loading requirements of the existing uses have not been met at this time.

(5) *The use will not be injurious to the surrounding neighborhood.*

- **There are no proposed changes to the use of the building.** The existing uses themselves are not expected to be injurious to the surrounding Downtown neighborhood, but the removal of the associated off-street loading facility may cause issues during deliveries.

(6) *The use is in compliance with state and federal statutes.*

- **There are no proposed changes to the use of the building.** To the best of our knowledge, the existing uses are in compliance with state and federal statutes at this time.

9.0 Recommendation

Based on a review of the site plan submitted and the approval criteria of Article 7, Sections 7.27 and 7.36, the Planning Department recommends that the Planning Board recommend that the City Commission **APPROVE** the Special Land Use Permit, Final Site Plan & Design Review application for 298 S. Old Woodward – Daxton Hotel – with the following conditions:

1. The applicant must submit revised site plans demonstrating an off-street loading facility that meets the minimum requirements of the Zoning Ordinance or obtain a variance from the Board of Zoning Appeals; and
2. The applicant must comply with the requests of all City Departments.

10.0 Sample Motion Language for Special Land Use Permit

Motion to adopt the findings of the Planning Department in the report dated May 28, 2025 related to the approval criteria outlined in Article 7, Section 7.36 of the Zoning Ordinance and recommend that the City Commission **APPROVE** the Special Land Use Permit application for 298 S. Old Woodward – Daxton Hotel – with the following conditions:

1. The applicant must submit revised site plans demonstrating an off-street loading facility that meets the minimum requirements of the Zoning Ordinance or obtain a variance from the Board of Zoning Appeals; and
2. The applicant must comply with the requests of all City Departments.

OR

Motion to **POSTPONE** the Special Land Use Permit application for 479 S. Old Woodward – Birmingham Tower – pending receipt of the following:

1. _____
2. _____
3. _____

OR

Motion to adopt the findings of the Planning Department in the report dated May 28, 2025 related to the approval criteria outlined in Article 7, Section 7.36 of the Zoning Ordinance and recommend that the City Commission **DENY** the Special Land Use Permit application for 298 S. Old Woodward – Daxton Hotel – for the following reasons:

1. _____
2. _____
3. _____

11.0 Sample Motion Language for Final Site Plan & Design Review

Motion to adopt the findings of the Planning Department in the report dated May 28, 2025 related to the approval criteria outlined in Article 7, Section 7.27 of the Zoning Ordinance and **APPROVE** the Final Site Plan & Design Review application for 298 S. Old Woodward – Daxton Hotel – with the following conditions:

1. The applicant must submit revised site plans demonstrating an off-street loading facility that meets the minimum requirements of the Zoning Ordinance or obtain a variance from the Board of Zoning Appeals; and
2. The applicant must comply with the requests of all City Departments.

OR

Motion to **POSTPONE** the Final Site Plan & Design Review application for 298 S. Old Woodward – Daxton Hotel – pending receipt of the following:

1. _____
2. _____
3. _____

OR

Motion to adopt the findings of the Planning Department in the report dated May 28, 2025 related to the approval criteria outlined in Article 7, Section 7.27 of the Zoning Ordinance and recommend that the City Commission **DENY** the Final Site Plan & Design Review application for 298 S. Old Woodward – Daxton Hotel – for the following reasons:

1. _____

2. _____
3. _____

CASE DESCRIPTION

298 S. Old Woodward (25-17)

Hearing date: June 10, 2025

Appeal No. 25-17: The owner of the property known **298 S. Old Woodward,** requests the following variance for modifications to an existing required off-street loading facility:

A. Chapter 127, Article 4, Section 4.24 (C) of the Zoning Ordinance requires that commercial uses between 5,001 and 20,000 square feet are required to provide one usable off-street loading space. In addition, the Zoning Ordinance requires an off-street loading space to have the following minimum dimensions: 40 feet long, 12 feet wide and 14 feet high. The Daxton Hotel is proposing to eliminate the existing required off-street loading space in favor of a new waste receptacle and other back-of-house needs. Therefore, a dimensional variance of 1 usable off-street loading space is requested.

Staff Notes: The applicant is looking to modify the existing required off-street loading facility to make room for new in-house laundry facilities and a new trash compactor. The change would effectively eliminate the off-street loading space in terms of truck/vehicle access, and would divert loading functions to the lower levels. When the project was originally approved, the building contained waste receptacles in a “trash room” located adjacent to the off-street loading facility. This change would formalize the relocation of waste receptacles from the approved trash room to the loading area, which would reduce the space and provide no access top trucks/vehicles.

On May 28, 2025 (Agenda), the Planning Board moved to approve the proposal with the condition that the applicant obtain a variance from the Board of Zoning Appeals. The discussion and eventual decision was centered around other areas within the lower level of the building that currently accept loading/unloading functions that are expected to continue. In addition, the Planning Board was advised that the bulk of loading/unloading functions were related to the off-site laundry, which would be eliminated with this proposal.

This property is zoned B4 – Business-Residential & D4 – Downtown Overlay

Nicholas Dupuis
Planning Director

MEMORANDUM

Engineering Department

DATE: April 13, 2026

TO: Jana Ecker, City Manager

FROM: Melissa Coatta, City Engineer

SUBJECT: Capital Improvements Project – North Old Woodward from Oak Street to Woodward Ave – Design Revisions

---

INTRODUCTION:

Road construction is planned for North Old Woodward Avenue from Oak Street to Woodward Avenue in fiscal year 2026-2027. Funding for design engineering was included in the current fiscal year's budget to facilitate bidding for construction services in May and June, award of contract in July, and commencement of construction following the Woodward Dream Cruise in August 2026.

BACKGROUND:

The North Old Woodward project includes replacement of the 8-inch water main installed in 1928, minor sewer improvements, and roadway repaving within the project limits. City staff identified improvements to lane widths that could be made in the project area. At the February 23, 2026 regular meeting, the Commission reviewed two design concepts presented by the City Engineer. These two concepts had not been reviewed by the Multi-Modal Transportation Board (MMTB) as the Board was not meeting. The Commission adopted a resolution to approve Concept 2 for the North Old Woodward Project but asked the Engineering Department to investigate including additional parking in the final design.

Updates to the plan include:

- Removal of the pull-off lane for the SMART bus stop within the project limits on the west side of North Old Woodward. In the updated plan, the pull-off lane will now be 5 additional parallel parking spaces. Coordination with SMART has deemed that the existing bus stop location, and the location just to the north (outside the proposed project limits) are unnecessary, and these two existing bus stop signs will be removed. The bus stop located south of Oak Street, which is being updated with a shelter structure under a separate project, will remain as the consolidated bus stop location for this general area.

- The addition of 9 parallel parking spaces with an adjacent sidewalk on the easterly curb line of the proposed project (roughly across from Bloomfield Court.) The updated layout represents the most parking that can feasibly be added between the north side of the gas station property and the convergence of the City of Birmingham's right of way on North Old Woodward Avenue and MDOT's right of way on Woodward Ave, while also keeping the easterly line of evergreen trees intact to maintain some screening. As shown, the westerly line of 6 evergreen trees will need to be removed to accommodate the parking and sidewalk.

The Engineering Department recommends that the Commission approve the updated design which will add parking capacity to the project area.

LEGAL REVIEW:
The City Attorney has reviewed the proposed Commission action and has no objection.

FISCAL IMPACT:
The proposed enhancement of the North Old Woodward Project has been anticipated in the Capital Improvements Fund and budgeted for construction in FY 2026-2027.

SUSTAINABILITY:
The design of the project removes some of the existing road pavement and converts it to a green space that will decrease storm runoff entering the City's system.

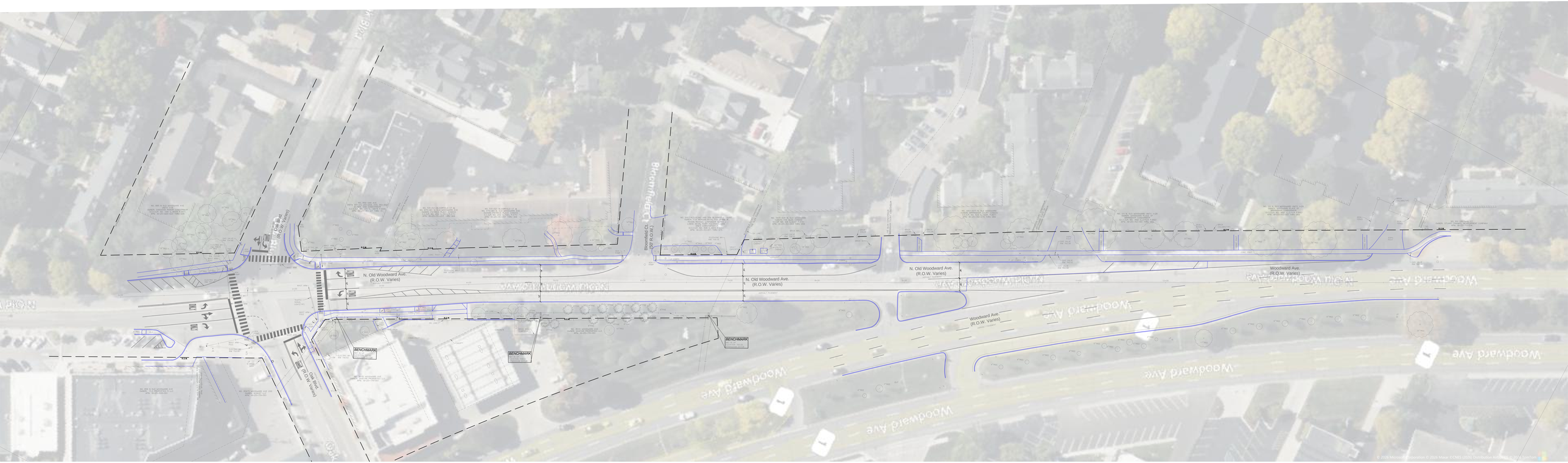
DESIGN CONSIDERATIONS:
ADA design standards will be followed on this project, including on-street parking spaces.

PUBLIC COMMUNICATIONS:
The Engineering Department will hold a property owner/resident meeting at the beginning of June to discuss the project with nearby properties.

SUMMARY:
The Engineering Department requests that the City Commission consider revisions to the concept design previously proposed for the North Old Woodward Project based on direction given at the February 23, 2026 meeting of the City Commission.

ATTACHMENTS:
1. Existing conditions
2. Concept 2 - Approved with comments February 23, 2026
3. Updated Concept 2

SUGGESTED COMMISSION ACTION:
Make a motion adopting a resolution to approve the proposed updated design for the North Old Woodward Project.

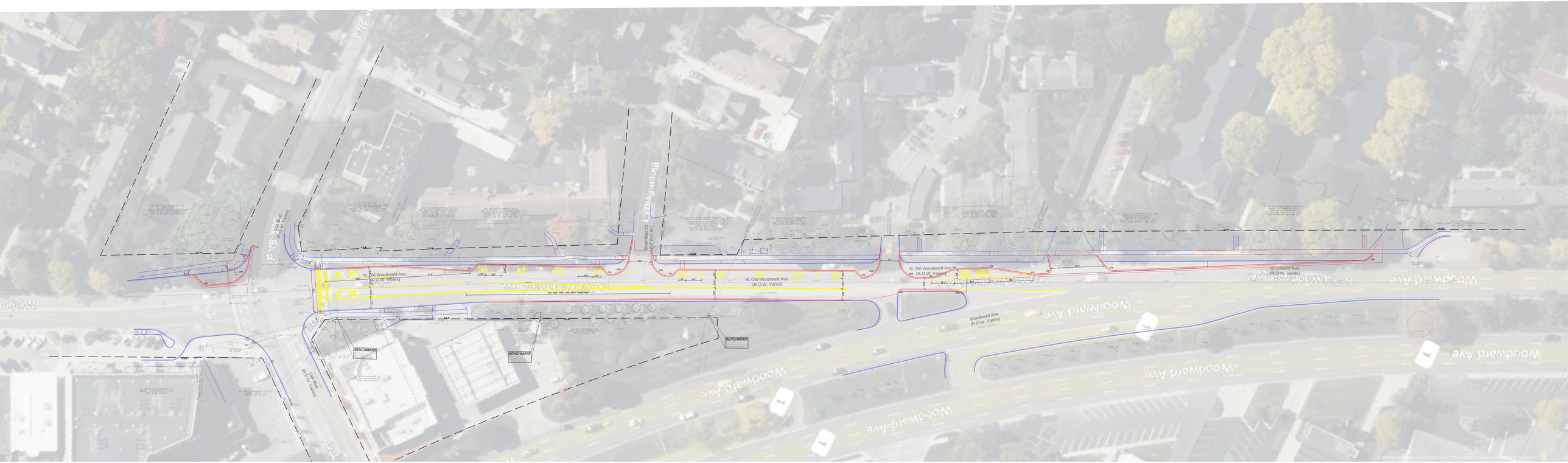


N. WOODWARD AVE. EXISTING CONDITIONS

1" = 20'

NF ENGINEERS
CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257
WWW.NFE-ENGR.COM

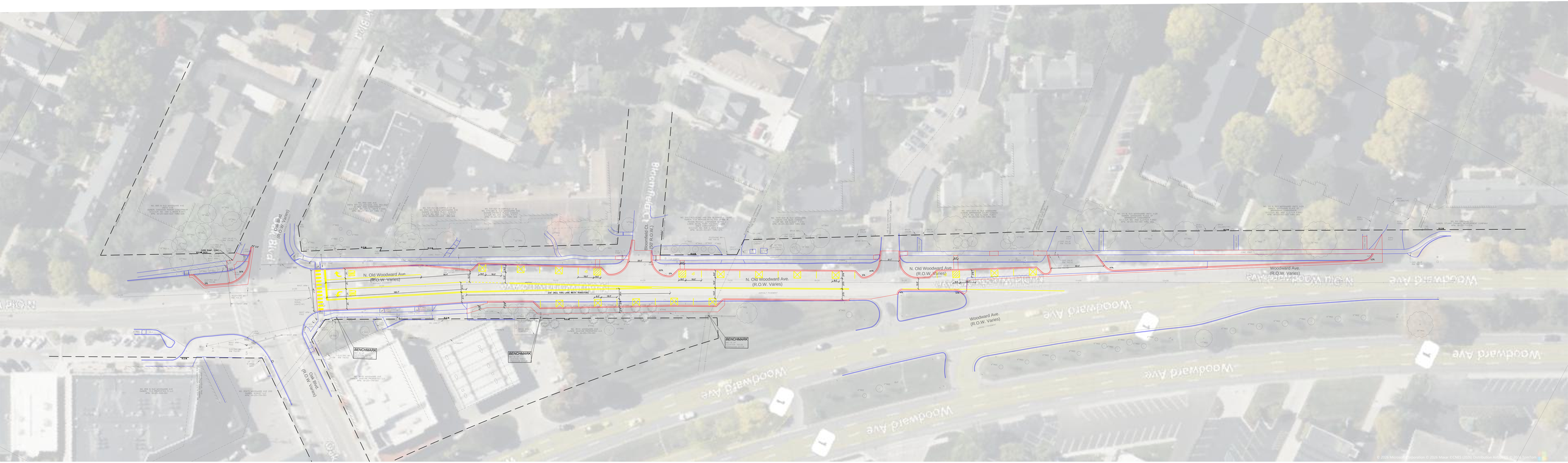


N. WOODWARD AVE. CONCEPT 2

1" = 20'

NF ENGINEERS
CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257
WWW.NFE-ENGR.COM



N. WOODWARD AVE. CONCEPT 2

1" = 20'

NF ENGINEERS
CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257
WWW.NFE-ENGR.COM

MEMORANDUM

Engineering Department

DATE: April 13, 2026

TO: Jana Ecker, City Manager

FROM: Melissa Coatta, City Engineer

SUBJECT: 2025 and 2026 Asphalt Resurfacing Program
Hearing of Necessity for Staircase Special Assessment District (SAD)

INTRODUCTION:

As part of the 2025 and 2026 Asphalt Resurfacing Program, the City will replace the existing retaining walls along Brookside Avenue, Ravine Road, and Park Street. Property owners with staircases in their current retaining walls were previously sent a letter asking whether they would like a staircase included in the new wall. For those who elect to have a staircase installed as part of the reconstruction, the property owner will be responsible for 100% of the associated costs.

At the February 23, 2026 regular meeting (Agenda – Video), the City Commission requested additional information about the existing wall before proceeding with the SAD. Additional information was provided at the March 9, 2026 City Commission Meeting (Agenda – Video).

BACKGROUND:

The City will be resurfacing asphalt roads west of N. Old Woodward, south of Oak Street, and north of Oakland Avenue as part of the 2025-2026 Asphalt Resurfacing Program. Along Brookside Avenue, Ravine Road, and Park Street, existing retaining walls are located along the edge of the roadway. The City completed an inspection of these walls in 2023. Although no emergency repairs were required at that time, it was recommended to replace the walls as part of a future capital improvement project.

Several properties within the project area have an existing staircase in the retaining wall that allows access from the roadway to the sidewalk and to their property. The City contacted the property owners to determine whether they wished to have the staircase reinstalled with the owners being assessed 100% of the associated cost.

The City received bids for the project on Tuesday, January 20, 2026. The Engineering Department held a property owner meeting on Wednesday, January 21, 2026, to discuss the project and the estimated staircase costs with the property owners.

Five property owners originally requested a staircase. However, several property owners who

were initially interested in a replacement staircase have since elected not to proceed. Currently, only the property at 552 Brookside would like to be included in the SAD.

LEGAL REVIEW:
Chapter 94 – Special Assessments of the Birmingham City Code outlines the process by which a special assessment is conducted in the City of Birmingham. This project will follow the prescribed City Code procedures. Legal has reviewed and has no objection as to form or content.

FISCAL IMPACT:
Revenue generated from the Staircase Special Assessment District for the 2025 and 2026 Asphalt Resurfacing Program will reimburse the costs incurred by the City for the construction of the staircase improvement.

SUSTAINABILITY:
N/A

DESIGN CONSIDERATIONS:
Sidewalk ramps that do not meet ADA standards will be removed and installed per the current ADA standards.

PUBLIC COMMUNICATIONS:
Notice for the Confirmation of Roll is to be distributed by the Clerk's Office. An informational resident meeting was held at City Hall on Wednesday, January 21, 2026. Property owners affected by the work will also be notified in advance through the use of door-hangers and the City's Constant Contact targeted e-blasts.

SUMMARY:
The Engineering Department recommends that the City Commission declare necessity for the replacement of a staircase and approve a Special Assessment District for the 2025 and 2026 Asphalt Resurfacing Program, which includes the staircase at 552 Brookside Ave. Should the Commission approve the Special Assessment District, a public hearing for confirmation of the roll will be held at the City Commission meeting on April 27, 2026.

ATTACHMENTS:
1. Map of proposed staircase special assessment area
2. Spreadsheet of estimated cost which includes labor and materials
3. Clerk's Confirmation of Public Hearing Notice

SUGGESTED COMMISSION ACTION:
WHEREAS, Notice was given pursuant to Section 94-7 of the City Code, to each owner or party-in-interest of property and lots to be assessed, by first class mail, and by publication in a newspaper generally circulated in the City with at least 10 days notice; and

WHEREAS, The City Commission has conducted a public hearing and has determined it is necessary to proceed with the project of resurfacing existing asphalt roads, replacement of

existing retaining wall in the City's right of way, replacement of a staircase in the City's right of way, and replacement of City sidewalk ramps; and

WHEREAS, The City has previously established a policy to defray the costs of replacing a staircase in the City's right of way by creating a Special Assessment District (SAD) consisting of the property that is benefiting from this treatment; and

WHEREAS, The City Commission, after the public hearing, has determined that the replacement of the staircase in the project area which is included with the 2025 and 2026 Asphalt Resurfacing Program is a necessity and is in the best interest of the City and will specially benefit the property included in the Staircase Special Assessment District; and

WHEREAS, The Commission has approved the detailed plans and estimates of cost prepared by the City Engineer; and

WHEREAS, The City Engineer has determined the boundaries of the staircase is located within the limits of the following street shall be installed as part of the 2025 and 2026 Asphalt Resurfacing Program (Contract #2-25(P) and #2-26(P)):

Brookside Avenue – Ravine Road to North Dead End

WHEREAS, The formula used in making the assessment is 100% of the improvement for staircase in the City's right of way (calculated at the rate of $2,500.00 per staircase riser for the property on the street that will have a new staircase installed in the City's right of way).

THEREFORE LET IT BE RESOLVED, The City Commission has determined that the scope of the public improvement as described is in the best interest of the City and will benefit the property listed in the assessment roll is a necessity, and the City Commission directs the Manager to prepare a Special Assessment Roll and present the same to the City Commission for confirmation and further set a Public Hearing for Confirmation of the Roll on April 27, 2026 and give notice for same.

Staircase

Sidwell Number	Street Address	Decorative Staircase Risers (EA)	Unit Cost for Assessment	Total Assessment	
1925329016	552 BROOKSIDE AVE	8.00	$2,500.00	$20,000.00	

Wall Replacement Project Area

1. Park Street, Brookside Avenue and Ravine Road

Staircase Special Assessment District for 2025-2026 Asphalt Resurfacing Program

Sidwell Number	Street Address	Decorative Staircase Risers (LFT)	Unit Cost for Assessment	Total Assessment
1925329016	552 BROOKSIDE AVE	8.00	$ 2,500.00	$ 20,000.00

MEMORANDUM

City Clerk's Office

DATE: March 30, 2026

TO: Melissa Coatta, City Engineer

FROM: Mya Brown, Deputy City Clerk

SUBJECT: Clerk's Confirmation of Public Hearing Notice: Retaining Wall along Ravine Rd, Brookside Ave, and Park St

---

INTRODUCTION:
The public hearing notice process has been completed for Installation of new staircases as part of replacing the existing retaining wall along Ravine Rd, Brookside Ave, and Park St. (SAD). Please see attachments for further confirmation.

PUBLIC COMMUNICATIONS:
Mailing Date: 03/16/2026
Test Mail Return Date: 03/20/2026
Publishing Dates in the Oakland Press: 03/29/2026
Posted in www.bhamgov/publicnotices

ATTACHMENTS:

1. Public Hearing Notice
2. Addresses
3. Map
4. Mailing Letter
5. Mail Machine Counter Repot
6. Proof of Publishing

NOTICE OF PUBLIC HEARING

BIRMINGHAM CITY COMMISSION

PUBLIC HEARING OF NECESSITY &
PUBLIC HEARING FOR CONFIRMATION OF THE ROLL

Meeting Date, Time, Location:	HEARING OF NECESSITY FOR SPECIAL ASSESSMENT DISTRICT Monday, April 13, 2026, 7:00 PM Municipal Building, 151 Martin, Birmingham, MI 48009
Meeting Date, Time, Location:	HEARING FOR CONFIRMATION OF THE ROLL Monday, April 27, 2026, 7:00 PM Municipal Building, 151 Martin, Birmingham, MI 48009
Project Location:	Park Street, Brookside Avenue and Ravine Road; below are the assessed parcels: • 547 Park St • 564 Brookside Ave • 552 Brookside Ave • 544 Brookside Ave • 243 Ravine Rd
Nature of Improvement:	This work will include the installation of new staircases as part of replacing the existing retaining wall along Ravine Road, Brookside Avenue, and Park Street.
City Staff Contact:	Melissa Coatta, City Engineer mcoatta@bhamgov.org, (248)530-1839
Notice Requirements:	Newspaper Notice and First Class Mail to affected property owners 10 days prior. Publish 03/29/2026 & 04/12/2026
Approved minutes may be reviewed at:	City Clerk's Office or www.bhamgov.org/commissionagendas

Should you have any statement regarding the above, you are invited to attend the meeting in person or virtually through ZOOM: **https://zoom.us/j/655079760 Meeting ID: 655 079 760**

You or your agent may appear at the hearings to express your views; however, if you fail to protest either in person or by letter received on or before the date of the hearing, you cannot appeal the amount of the special assessment to the Michigan Tax Tribunal. Mail any correspondence to: City Clerk, P.O. Box 3001, Birmingham, MI 48012.

The property owner may file a written appeal of the special assessment with the State Tax Tribunal within 30 days after the confirmation of the special assessment roll if that special assessment was protested at the hearing held for the purpose of confirming the roll.

All special assessments, including installment payments, shall, from the date of the confirmation thereof, constitute a lien on the respective lots or parcels assessed, and until paid shall be charged against the respective owners of the lots or parcels assessed.

Persons with disabilities needing accommodations for effective participation in this meeting should contact the City Clerk's Office at 248.530.1880 (voice) or 248.644.3405 (TDD) at least one day in advance to request mobility, visual, hearing or other assistance.

BIRMINGHAM
A WALKABLE CITY

March 16, 2026

Name
Address
City, State Zip Code

Dear Property Owners,

This letter is to inform you of an upcoming 2025 and 2026 Asphalt Resurfacing Program in your neighborhood. This work will include milling the existing asphalt and placing a new asphalt overlay, reconstructing several ramps in the project area to meet ADA requirements, and replacing existing retaining walls along the edge of the roadway on Ravine Road, Brookside Avenue, and Park Street. This project is scheduled to start construction this spring. The project will cover the following streets:

1. Baldwin Road from Maple to Harmon
2. Ravine Road from N. Old Woodward to Park Street
3. Euclid Avenue from N. Old Woodward to Park Street
4. Brookside Avenue from Ravine Road to North Dead End
5. Park Street from Oakland Avenue to Brookside
6. Ferndale Avenue from Oakland to Brookside
7. Pierce Street from Frank to Brown
8. Cole Street from S. Eton to Dead End

Additionally, in accordance with current City policy, a Special Assessment District (SAD) will be established to assess the cost of installing new staircases between the retaining wall and sidewalk, which will be borne by the homeowners. Enclosed is a map of properties included in the new staircase SAD.

With this letter, you are receiving notifications for two public hearings for the staircase Special Assessment District (SAD):

- The Public Hearing of the Necessity to form a Special Assessment District for staircase replacement meeting the requirements as part of the 2025 and 2026 Asphalt Resurfacing Program is now on **Monday, April 13, 2026**, at the regularly scheduled City Commission meeting at 7:00 p.m. in City Hall at 151 Martin St.

- If necessity is determined at the April 13 hearing, a Public Hearing of Confirmation to confirm the Special Assessment District will follow on **Monday, April 27, 2026**, at the regularly scheduled City Commission meeting at 7:00 p.m. in City Hall at 151 Martin St.

Consistent with previous projects of this nature, it has been the City's policy to assess 100% of the costs of replacing the staircase within the right-of-way to the property owner.

After the work is completed, an invoice for the public improvements will be generated and sent to the property owner of record. Payment in full is due within 30 days of receipt. If the charge cannot be paid in full, the balance may be paid over a period of up to five annual installments. An annual interest charge on the remaining balance, currently approximately 8.50%, will apply. Official estimates for water and sewer lateral replacements will be provided at the Hearing of Necessity.

If you have any questions or concerns, please contact the Engineering Office at (248) 530-1850. You will also have the opportunity to ask questions and speak directly to the City Commission at the Public Hearing of Necessity and at the Confirmation of the Roll.

Sincerely,

Melissa A. Coatta, P.E.
City Engineer

Sidwell Number	First Owner Name	Postal Address	POSTAL CITY
1925329017	MARIANNE F MILLER	544 BROOKSIDE AVE	BIRMINGHAM
1925329011	SUSAN DOBEL HALL	243 RAVINE RD	BIRMINGHAM
1925329018	ANDREW V DEANGELIS JNT REV LVNG TRUST	213 PARK DR	TROY
1925329016	JEFFREY SLOAN	552 BROOKSIDE AVE	BIRMINGHAM
1925329015	BROOKSIDE REAL PROP VENTURES	34300 WOODWARD AVE STE 200	BIRMINGHAM
	City of Birmingham - Mya Brown	151 Martin St	BIRMINGHAM

Wall Replacement PROJECT AREA

1. Park Street, Brookside Avenue and Ravine Road

Clerk's Office
BIRMINGHAM
A WALKABLE CITY
151 Martin Street • P.O. Box 3001
Birmingham, Michigan 48012-3001

METROPLEX MI 480
17 MAR 2026PM 14 L
FIRST-CLASS

US POSTAGE™
ZIP 48009 $ 0
02 7W
0008029208 MAR

CLERK'S OFFICE
RECEIVED
MAR 20 20
12:12 PM

City of Birmingham -
Mya Brown
151 Martin St
BIRMINGHAM, MI
48009

Retaining wall 3.9.26 48009-336851

Funds Report

Available:	$6,164.29	PBP Account Number:	35884980
Used:	$123,621.71	Indicia Number:	0008029208
Total Pieces:	161852	Meter Number:	8029208
Control Sum:	$129,786.00	Meter Name:	
Resettable Piece Count:	6	Printed:	MAR 16 2026 4:37 PM
Piece Count Value:	$4.44		

HOBBIES

From Page 1

ciated with them. But many other offline, tactile hobbies, like pottery, origami and even blacksmithing, have gained traction online with Gen-Z and millennials recently.

A younger crowd embraced such hobbies in 2020 when the pandemic left many with more free time. But "grandma hobbies" have persisted beyond a pandemic fad and some seem to be picking up steam in their popularity online.

While she said she may not consider herself a crafty person, MacTaggart, now 26, founded the needlepoint business What's the Stitch and runs popular social media profiles of the same name. After seeing growing interest in her content, she began to build up her business and now sells needlepoint canvases, accessories and digital designs. The flair MacTaggart puts into her creations is a touch of cheeky humor and, occasionally, profanity.

"It is such a historically buttoned-up craft, so it's fun to put a young spin on it," she said.

'LIKE A VIDEO GAME, BUT IN REAL LIFE'

Jaime Kurtz, a professor of psychology at James Madison University whose research focuses on happiness, said many of these activities can also help to reduce anxiety and stress, and provide a sense of accomplishment since they require focus and can be challenging.

"Hobbies are really important, and a lot of us have lost them, or we just don't prioritize them enough, or we think we're too busy," Kurtz said. "But just finding little bits of time to carve out to do these kinds of things is a really wise use of time."

Clara Sherman, who co-founded the company So Bam Fun to "reinvigorate" the game of mahjong with a younger generation, said when she plays the game with friends, she's able to reach a "zen state."

"You kind of feel like you're existing in this little bubble of just myself, my friends and this game we're all enjoying together," she said. "It just really does allow you to shut off the rest of the world."

Some young hobbyists are not looking to escape their phones through their activity of choice, but are interested in how modern technology can enhance their experience.

Isaiah Scott, a birdwatcher, artist and content creator, said the app eBird is a key part of his experience. It allows birders to log and track their observations while also contributing to scientific research and conservation.

Emma MacTaggart, founder of What's the Stitch needlepoint business, is photographed in her studio, in New York, Monday, Feb. 9. **RICHARD DREW — THE ASSOCIATED PRESS**

It's easy to say his generation is "glued to their phones," Scott said, but that access to technology also "opens so many doors to get involved in hobbies that may have been forgotten about or (are) just difficult to get into otherwise."

Scott, who is based in Savannah, Georgia, said bird watching is akin to the Pokémon games he loved growing up: "It feels like a video game, but in real life." Traveling to different regions is like unlocking a new map, he said, and racking up a high number of species seen is like achieving a high score. Scott has seen about 800 different species himself.

Beyond providing him with an enriching hobby, birdwatching set Scott, 22, on a mission to "protect and to conserve our natural world." He founded the nonprofit Rookery and Roots Conservancy and recently purchased a 16-acre parcel of land in Rincon, Georgia, to safeguard wildlife habitats. The purchase was made possible in part because of the platform he's built online.

OLD-SCHOOL ART FINDS NEW LIFE, YOUNG PEOPLE FIND COMMUNITY

Exposure to global audiences online has helped other analog hobbyists build and operate thriving businesses thanks to their social media popularity. Anna Weare, for one, is a full-time blacksmith and farrier, but she's also known online as AnvilAnna.

She had already been working successfully with a slew of clients when she started posting videos on TikTok and other social platforms, where she's got international reach and enthusiasm. Weare thinks some of the shine on blacksmithing and other centuries-old practices could be due to fatigue over a hyper-digitalized world and poorly made products. The waitlist to snag Weare's coveted one-piece spurs, which are recognized for their durability and rarity, is about a year long.

"People, now more than ever, are realizing that things made in factories or mass produced, they wear out so quickly," Weare, 27, said. Whether they're buying products she made or inspired by her content to pick up the hammer themselves, Weare said "people want longevity, and this craft has been around for so long for a reason."

Many crafters and hobbyists also feel a strong sense of community among their peers.

Kristie Landing created Verse & Sip, a platform and collective for poets and poetry lovers, and she posts videos online of letter writing, letter locking, wax seals and origami, among other paper crafts. Landing, 34, said she constantly gets questions from an "active community" of viewers about the type of paper she uses or where she bought her tools, but they're also interested in connecting with each other.

She recently started a pen pal matching service after receiving an abundance of comments from followers who expressed that they would like to have someone to swap letters with — particularly someone who would appreciate the care they put into their physical communications, or just admire their penmanship.

Landing also created the Verse & Sip Mail Club, where she sends out an original poem and an accompanying tea monthly to a couple of hundred people across the globe. She hopes her online content will provide viewers with a similar sense of joy and calm as reading a hard copy of a poem over a cup of tea would.

"I am trying to create slower moments on platforms that are based on really quick, short attention span kind of videos," she said. "These kind of stop you in the scroll."

Many hobbyists told the AP they don't see their activity of choice as a fad or a temporary trend, but rather as part of a more intentional embrace of the analog world.

As far as the moniker of "grandma hobbies" goes, MacTaggart, for one, welcomes the label.

"I joke with my friends that I have been a grandma my whole life," she said, "so it's only fitting that this is now my career."

TRENDS

From Page 1

as Meta and ChatGPT have announced they are working on more protections. It's not just AI; in Australia, social media has already been banned for young teens.

It could also be a pivotal moment for parents and educators to learn from teens' AI use. The Center for Digital Thriving at Harvard Graduate School of Education has found that teens who confide in technology want someone in their lives who will listen to them without judgment. Adults might be able to learn from the appeal of chatbots and open up similar lines of communication that embrace real empathy.

HEALTH TECH TAKES A CLOSER LOOK AT US

New and unexpected health tools are ready to get a better look at you.

At the sprawling CES trade show this year, there was a $449 wearable called Peri that will stick to a user's torso and detect hot flashes, night sweats and other signals of perimenopause. Nearby was a handheld gadget for detecting reproductive hormones that could help people conceive.

Meanwhile, users of Samsung phones, watches and smart rings may soon be notified that — based on shifts in their gait and speech — they're experiencing symptoms of cognitive decline.

You may even find yourself turning to ChatGPT to help make sense of all the data products like these collect. The company recently pulled back the curtain on its specialized ChatGPT Health experience, designed to pull insights from apps and medical records you feed it.

Make no mistake: There's a huge financial incentive for these companies to get these things right. But will they deliver while respecting people's privacy? That's a question consumers will be asking.

HOW WILL AI AFFECT OUR JOBS?

More workers are using AI in the workplace, and that's expected to accelerate in 2026 as companies start to codify and execute their strategies.

There are a few things that might result from increased adoption.

Some companies may go all in on the tech only to realize it isn't able to produce the expected results. Companies could use AI as a scapegoat for layoffs to reframe tough financial decisions. AI could introduce new problems for workers, like introducing errors or bias, and depending on the situation, that could have a detrimental aftermath, such as in the health care or legal industries. And experts and academics who study AI's impact on work say that it will probably replace some jobs, especially those that have routine, predictable and repetitive tasks.

There's some evidence to suggest it's already affecting computer programmers, entry-level jobs and translators.

On the flip side, experts also believe new jobs will be created over time (prompt engineers became popular a couple of years ago, but since then, a slew of new jobs like knowledge architect have started to pop up). Workers might leverage AI to get new jobs by learning new skills and pivoting, earn more money by increasing efficiency or reaching new goals or take on dream projects like building a video game without knowing how to code. And employers could implement AI in ways that benefit their people (hello, four-day workweek?).

HOST

From Page 1

yourself.

DECORATE IN ADVANCE

From a seasonal wreath on the front door to a well-dressed table complete with place settings and a festive centerpiece, getting your decorating done early can not only reduce stress on the day of your event, but also get you into the proper mindset for the celebration. A pastel or light-colored hue can add to the springtime vibes, and flowers, seasonal fruits in bowls and decorated eggs can all add to the tablescape.

Few things capture the spirit of spring like a welcoming table. Creating an Easter-ready setting can be simple: pastel eggs nestled in woven baskets, floral runners, ribbons, paper napkins, egg-shaped votives and whimsical bunny accents instantly brighten the scene. Layering soft colors and natural textures helps create a table that feels festive yet effortless.

No spring table is complete without flowers. Seasonal favorites like tulips, daffodils, hyacinths and white lilies can brighten any gathering. Arrange them in rabbit-shaped planters or simple bud vases for a playful touch. For a creative twist, fill clear vases with colorful stones, craft gems or even jellybeans before adding blooms for a centerpiece that feels both festive and fresh.

KEEP THE KIDS IN MIND

While the meal is likely a highlight of the event for many, the younger guests often look forward to the activities, such as decorating eggs or an Easter egg hunt. You can hard-boil eggs in advance and set up a decorating station, complete with dyes, markers, stickers and more. Or while you're finishing up inside, designate another adult or older children to hide pre-filled plastic eggs around the yard (weather permitting) and manage the hunt.

Find more ideas for hosting Easter festivities at eLivingtoday.com.

Embracing Passover celebrations

Each year, faithful Jews across the globe participate in one of the most significant festivals on the Jewish calendar. Passover, also known as "Pesach" in Hebrew, is a time for families to gather and recount the Jews' journey from slavery to freedom.

Passover is a week-long commemoration of the story of the Israelites' escape from slavery in Egypt. The Book of Exodus details the story that the Egyptian Pharaoh refused to let the Israelites go. In response, God set 10 plagues upon Egypt. The final plague was "death of the firstborn." Israelites hoping to escape the same fate were instructed to mark their doorposts with lamb's blood so the Angel of Death would "pass over" their homes. This is where the name Passover originated.

While the Egyptians were mourning the loss of their children, Pharaoh finally relented and let the Israelites leave slavery. Because they departed in such haste, the bread the Israelites took with them didn't have time to rise, resulting in flat, unleavened crackers. This "matzah" (sometimes spelled matzo or mazzah) became a key component of Passover rituals. Prior to each Passover, the faithful thoroughly remove all chametz (leavened grain) from the home and do a thorough cleaning.

In addition to eating matzah for the duration of Passover, celebrants also consume maror, which are bitter herbs, according to Chabad.org. The maror symbolizes the bitterness of slavery. The Seder, which is a dinner that takes place on the first and possibly second night of Passover, includes charoset, a sweet paste of nuts, apples and wine that symbolizes the mortar used by Israelite slaves to build Egyptian structures. Karpas, a green vegetable (usually parsley), is dipped in salt water to represent the tears of the slaves and the hope of spring. Zeroah is a roasted bone to symbolize the ancient paschal sacrifice, and beitzah (a roasted egg) is eaten to represent mourning and the cycle of life.

Although it is a religious holiday, Passover also may resonate in other ways and appeal to non-Jews because of its core themes of freedom from physical and spiritual bondage; memories of the commandment and personal stories; and transitioning from winter into the spring season of rebirth. Those ready to celebrate will do so from April 1-9.

City of ROCHESTER HILLS
1000 Rochester Hills Drive, Rochester Hills, Michigan 48309-3033

ORDINANCE NO. 682

AN ORDINANCE TO AMEND SECTIONS 54-466, 54-467, AND 54-472 OF CHAPTER 54, FEES OF THE CODE OF ORDINANCES OF THE CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN, TO CHANGE THE VEHICLE FEE FOR BLOOMER PARK, CLARIFY LANGUAGE REGARDING SENIOR, MILITARY, AND HANDICAP ACCESSIBLE ANNUAL PASSES, REPEAL CONFLICTING ORDINANCES, AND PRESCRIBE A PENALTY FOR VIOLATIONS.

EFFECTIVE DATE AND ADOPTION:

This ordinance shall become effective on Monday, **March 30, 2026** following its publication in the *Oakland Press* newspaper on Sunday, March 29, 2026.

This ordinance was adopted by the Rochester Hills City Council at a meeting thereof held on Monday, March 23, 2026.

A true and complete copy of this ordinance may be inspected at the Office of the City Clerk, Rochester Hills Municipal Building, 1000 Rochester Hills Drive, Rochester Hills, Michigan 48309, during regular business hours (8:00 AM to 5:00 PM), Monday through Friday, except holidays or may be viewed on the City's website at www.rochesterhills.org.

CITY OF ROCHESTER HILLS
BRYAN BARNETT, MAYOR
LEANNE SCOTT, CITY CLERK

NOTICE OF PUBLIC HEARING
BIRMINGHAM CITY COMMISSION
PUBLIC HEARING OF NECESSITY & PUBLIC HEARING FOR CONFIRMATION OF THE ROLL

Meeting Date, Time, Location:	HEARING OF NECESSITY FOR SPECIAL ASSESSMENT DISTRICT Monday, April 13, 2026, 7:00 PM Municipal Building, 151 Martin, Birmingham, MI 48009
Meeting Date, Time, Location:	HEARING FOR CONFIRMATION OF THE ROLL Monday, April 27, 2026, 7:00 PM Municipal Building, 151 Martin, Birmingham, MI 48009
Project Location:	Park Street, Brookside Avenue and Ravine Road; below are the assessed parcels: • 547 Park St • 564 Brookside Ave • 552 Brookside Ave • 544 Brookside Ave • 243 Ravine Rd
Nature of Improvement:	This work will include the installation of new staircases as part of replacing the existing retaining wall along Ravine Road, Brookside Avenue, and Park Street.
City Staff Contact:	Melissa Coatta, City Engineer mcoatta@bhamgov.org, (248) 530-1839
Notice Requirements:	Newspaper Notice and First Class Mail to affected property owners 10 days prior. Publish 03/29/2026 & 4/12/2026
Approved minutes may be reviewed at:	City Clerk's Office or www.bhamgov.org/commissionagendas

Should you have any statement regarding the above, you are invited to attend the meeting in person or virtually through ZOOM: **https://zoom.us/j/655079760 Meeting ID: 655 079 760**

You or your agent may appear at the hearings to express your views; however, if you fail to protest either in person or by letter received on or before the date of the hearing, you cannot appeal the amount of the special assessment to the Michigan Tax Tribunal. Mail any correspondence to: City Clerk, P.O. Box 3001, Birmingham, MI 48012.
The property owner may file a written appeal of the special assessment with the State Tax Tribunal within 30 days after the confirmation of the special assessment roll if that special assessment was protested at the hearing held for the purpose of confirming the roll.
All special assessments, including installment payments, shall, from the date of the confirmation thereof, constitute a lien on the respective lots or parcels assessed, and until paid shall be charged against the respective owners of the lots or parcels assessed.

Persons with disabilities needing accommodations for effective participation in this meeting should contact the City Clerk's Office at 248.530.1880 (voice) or 248.644.3405 (TDD) at least one day in advance to request mobility, visual, hearing or other assistance.

WATERFORD TOWNSHIP

CHARTER TOWNSHIP OF WATERFORD
POSTING PUBLICATION NOTICE
INTRODUCTION OF ZONING ORDINANCE 2026-Z-004 SPECIAL USE APPROVAL USES IN THE C-3, C-4, AND C-UL ZONING DISTRICTS

Charter Township of Waterford Zoning Ordinance Amendment No. 2026-Z-004; Special Use Approval Uses in the C-3, C-4, and C-UL Zoning Districts, which the Board of Trustees introduced on March 23, 2026, is scheduled for adoption on April 13, 2026, has been published by posting on March 25, 2026, in the Township Clerk's office in the Township Hall at 5200 Civic Center Drive, Waterford, Michigan 48329, and on the Township's website, www.waterfordmi.gov, under Legal Notices/Postings.

Kimberly Markee, Township Clerk

NOTICE OF PUBLIC HEARING
BIRMINGHAM CITY COMMISSION
SPECIAL LAND USE PERMIT AMENDMENT – FINAL SITE PLAN & DESIGN REVIEW

Meeting Date, Time, Location:	Monday, April 13 , 2026 at 7:00 PM Municipal Building, 151 Martin Birmingham, MI 48009
Location of Request:	**298 S. Old Woodward**
Nature of Hearing:	To consider the Special Land Use Permit Amendment and Final Site Plan & Design Review application for 298 S. Old Woodward, to permit the modification of the existing required off-street loading facility to make room for new in-house laundry facilities and a new trash compactor.
City Staff Contact:	Nick Dupuis, Planning Director, 248 530 1856 ndupuis@bhamgov.org
Notice Requirements:	Mailed to all property owners and occupants within 300 feet. Published 3/29/2026
Approved minutes may be viewed at:	City Clerk's Office or online at bhamgov.org/commission

Should you have any statement regarding the above, you are invited to attend the meeting in person or virtually through ZOOM: **https://zoom.us/j/655079760** Meeting ID: **655 079 760**

You may also present your written statement to the City Commission, City of Birmingham, 151 Martin Street, P.O. Box 3001, Birmingham, Michigan 48012-3001 prior to the hearing.

Persons with disabilities needing accommodations for effective participation in this meeting should contact the City Clerk's Office at (248) 530-1880 (voice) or (248) 644-3405 (TDD) at least one day in advance to request to request mobility, visual, hearing or other assistance.

City of ROCHESTER HILLS
1000 Rochester Hills Drive, Rochester Hills, Michigan 48309-3033

ORDINANCE NO. 681

AN ORDINANCE TO ADD ARTICLE V, TURKEY MANAGEMENT, TO CHAPTER 14, ANIMALS, OF THE CODE OF ORDINANCES OF THE CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN, TO PROHIBIT THE FEEDING OF TURKEYS, LIST EXCEPTIONS, REPEAL CONFLICTING ORDINANCES, AND PRESCRIBE A PENALTY FOR VIOLATIONS.

EFFECTIVE DATE AND ADOPTION:

This ordinance shall become effective on Monday, **March 30, 2026** following its publication in the *Oakland Press* newspaper on Sunday, March 29, 2026.

This ordinance was adopted by the Rochester Hills City Council at a meeting thereof held on Monday, March 23, 2026.

A true and complete copy of this ordinance may be inspected at the Office of the City Clerk, Rochester Hills Municipal Building, 1000 Rochester Hills Drive, Rochester Hills, Michigan 48309, during regular business hours (8:00 AM to 5:00 PM), Monday through Friday, except holidays or may be viewed on the City's website at www.rochesterhills.org.

CITY OF ROCHESTER HILLS
BRYAN BARNETT, MAYOR
LEANNE SCOTT, CITY CLERK

MEMORANDUM

Planning Department

DATE: April 13, 2026

TO: Jana Ecker, City Manager

FROM: Leah Blizinski, City Planner

SUBJECT: Public Hearing for 211 Hamilton Row - No 28 - Special Land Use Permit, Final Site Plan & Design Review

---

INTRODUCTION:

The applicant has submitted a Special Land Use Permit application, Final Site Plan & Design Review application for a food or drink establishment in the B4 (Business Residential) and D4 (Downtown Overlay) zoning districts at the north end of Downtown Birmingham. It is currently a vacant 1st floor tenant space within an existing 5-story commercial building. The applicant has submitted a Special Land Use and Final Site Plan and Design Review application proposing a new restaurant serving alcoholic beverages for on-premise consumption, which includes extensive interior renovation, and the addition of a new outdoor dining patio. The liquor license proposed to be utilized is an existing Birmingham Class C Regular license, which is a full liquor license and is not subject to bistro requirements.

The new proposed restaurant, "No 28", is described as a small, intimate indoor setting with food prepared and provided through the adjacent kitchen of Terra Kitchen & Cocktails. The proposed hours of operation are indicated as Wednesday – Sunday until 2:00AM and Monday and Tuesday are reserved for private events.

Chapter 10, Section 10-42 of the Birmingham Code of Ordinances states that any and all transfers of a license for consumption of intoxicating liquor on premises require the approval of the city commission of any kind including, but not limited to: ownership of the license; stock in a corporation that owns a license; interest in a license through any entity; or location of the licensed premises. The licensee must comply with all provisions of the contract and Special Land Use Permit, and any amendments thereto as a condition of granting of a requested transfer. Accordingly, the applicant must obtain a recommendation from the Planning Board on the Special Land Use and Final Site Plan/Design Review application, which is then reviewed for final consideration by the City Commission.

In addition to the Special Land Use Permit and Final Site Plan & Design Review, the applicant is also required to submit an application to the City Clerk to perform an

investigation of the applicant, including a complete history of past business experience and liquor law violations, if any. This process can be completed at the time of the public hearing for the Special Land Use Permit. However, the City has decided to bifurcate the two items for the benefit of the scheduled Public Hearing. The applicant has indicated that they have begun working with the Birmingham Police Department to complete the process.

BACKGROUND:
On August 27, 2026 (Agenda - Video), the Planning Board moved to recommend approval to the City Commission of the Special Land Use Permit, Final Site Plan & Design Review application for 211 Hamilton Row – No 28 — subject to the following conditions:

1. The applicant must comply with the requests of all City Departments.
2. The applicant provide table service to the outdoor dining during all hours of operation.
3. The applicant operate an establishment that is primarily a restaurant and not primarily a bar or tavern.
4. That no curtain be installed at the front window as shown on the plans.
5. That the City's investigation of the applicant's liquor license status confirms all representations and compliance with all statutory and regulatory requirements.

As of March 31, 2026, the applicant has provided updated site plans and satisfied all conditions.

LEGAL REVIEW:
The City Attorney has reviewed this request and has no objections as to form and content.

FISCAL IMPACT:
There are no expected direct impacts to city finances.

SUSTAINABILITY:
There are no direct sustainability considerations as a part of this Special Land Use Permit Amendment.

DESIGN CONSIDERATIONS:
The applicant is proposing an 8-seat, 143 sq. ft. outdoor dining patio directly in front of the tenant space. The patio is proposed to be contiguous, and will exist on private property. The applicant will be expected to apply for an Outdoor Dining Permit annually.

PUBLIC COMMUNICATIONS:
As required for Special Land Use Permit Reviews, a legal ad was placed in a newspaper of local circulation to advertise the public hearing at the Planning Board on August 27, 2025. In addition, postcards were sent out to property owners and occupants within 300 feet of the subject site. Similar notices were sent out in advance of the public hearing at the City Commission on April 13, 2026.

SUMMARY:

The Planning Department requests that the City Commission adopt a resolution to approve the Special Land Use Permit and Final Site Plan & Design Review application for 211 Hamilton Row - No 28. In addition, to ensure that the approval of the Special Land Use Permit and Final Site Plan & Design Review is conditioned upon the applicant completing the required investigation pursuant to Chapter 10, Section 10-43 of the Birmingham Code of Ordinances.

ATTACHMENTS:

1. No28 - Special Land Use Permit Resolution
2. No28 - Special Land Use Permit Contract
3. No28 - Site/Design Plans
4. No 28 - August 27, 2025 Planning Board Report

SUGGESTED COMMISSION ACTION:

Make a motion adopting a resolution to approve the Special Land Use Permit, Final Site Plan & Design Review application for 211 Hamilton Row -- No 28 -- to permit a new food and drink establishment serving alcoholic liquors for on-premise consumption with the condition that the applicant complete the required investigation pursuant to Chapter 10, Section 10-43 of the Birmingham Code of Ordinances.

No 28
211 Hamilton Row
Special Land Use Permit 2026

WHEREAS, A Special Land Use Permit application was filed in August 2025 for "No 28" a new food and drink establishment serving alcoholic liquors for on premise consumption at 211 Hamilton Row;

WHEREAS, The land for which the Special Land Use Permit is sought is located on the north side of Hamilton Row between N. Old Woodward and Ferndale;

WHEREAS, The land is zoned B4 (Business-Residential) and D4 (Downtown Overlay), which permits alcoholic beverage sales for on premise consumption with a Special Land Use Permit;

WHEREAS, Article 7, section 7.34 of Chapter 126, Zoning requires a Special Land Use Permit to be considered and acted upon by the Birmingham City Commission, after receiving recommendations on the site plan and design from the Planning Board for the proposed Special Land Use;

WHEREAS, The Birmingham Planning Board on August 27, 2025 reviewed the application for Special Land Use Permit, Final Site Plan & Design Review and moved to adopt the findings of the Planning Department in the report dated August 27, 2025 related to the approval criteria outlined in Article 7, Sections 7.27 and 7.36 of the Zoning Ordinance and to recommend approval to the City Commission for the new food and drink establishment in the B4/D4 zoning district—subject to the following conditions:

1. The applicant must comply with the requests of all City Departments;
2. The applicant provide table service to the outdoor dining during all hours of operation;
3. The applicant operate an establishment that is primarily a restaurant and not primarily a bar or tavern;
4. That no curtain be installed at the front window as shown on the plans; and
5. That the City's investigation of the applicant's liquor license status confirms all representations and compliance with all statutory and regulatory requirements;

WHEREAS, As of March 31, 2026 the applicant has provided updated site plans and satisfied all conditions;

WHEREAS, The Birmingham City Commission has conducted a public hearing on April 13, 2026 and has reviewed No 28's Special Land Use Permit application and the standards for such review as set forth in Article 7, section 7.36 of Chapter 126, Zoning, of the City Code.

THEREFORE, BE IT RESOLVED, The Birmingham City Commission adopts the findings of Planning Board and finds the standards imposed in Article 7, Sections 7.27 and 7.36 of the Zoning Ordinance and other applicable standards in the City Code have been met, and that No 28's Bistro application for a Special Land Use Permit, Final Site Plan & Design Review at 211 Hamilton Row is hereby approved;

BE IT FURTHER RESOLVED, That the City Commission determines that to ensure continued compliance with Code standards and to protect public health, safety, and welfare, this Special Land Use Permit is granted subject to the following conditions:

1. No28 shall complete the required investigation pursuant to Chapter 10, Section 10-43 of the Birmingham Code of Ordinances.
2. No 28 shall abide by all provisions of the Birmingham City Code;
3. No 28 shall comply with the approved site and design plans and any amendments thereto; and
4. The Special Land Use Permit may be canceled by the City Commission upon finding after proper notice and a hearing that the continued use is not in the public interest.

BE IT FURTHER RESOLVED, That failure to comply with any of the above conditions shall result in termination of the Special Land Use Permit.

BE IT FURTHER RESOLVED, Except as herein specifically provided, No 28 and its heirs, successors, and assigns shall be bound by all ordinances of the City of Birmingham in effect at the time of the issuance of this permit, and as they may be subsequently amended. Failure of No 28 to comply with all the ordinances of the City may result in the Commission revoking this Special Land Use Permit.

BE IT FURTHER RESOLVED that No 28 is recommended for approval of a new food and drink establishment in the B4 and D4 zoning districts at 211 Hamilton Row, subject to final inspection.

I, Alexandria Bingham, City Clerk of the City of Birmingham, Michigan, do hereby certify that the foregoing is a true and correct copy of the resolution adopted by the Birmingham City Commission at its regular meeting held on April 13, 2026.

_____

Alexandria Bingham
City Clerk

CONTRACT FOR A SPECIAL LAND USE PERMIT
211 HAMILTON ROW – NO 28

This Contract is entered into this 7 day of April, 2026 by and between **BIRMINGHAM 28, LLC**, whose address is 4036 Telegraph Road, Suite 201, Bloomfield Hills, MI 48302 (hereinafter referred to as "No 28"), **THE PALLADIUM OF BIRMINGHAM, LLC**, whose address is 4036 Telegraph Rd, Suite 201, Bloomfield Hills, MI 48302 ("Property Owner"), and the **CITY OF BIRMINGHAM**, a Michigan Municipal Corporation, whose address is 151 Martin Street, Birmingham, Michigan 48009 ("City").

RECITALS:

WHEREAS, A Special Land Use Permit application was filed in August 2025 for "No 28" new food and drink establishment serving alcoholic liquors for on premise consumption at 211 Hamilton Row;

WHEREAS, The land for which the Special Land Use Permit is sought is located on the north side of Hamilton Row between N. Old Woodward and Ferndale;

WHEREAS, The land is zoned B4 (Business-Residential) and D4 (Downtown Overlay), which permits alcoholic beverage sales for on premise consumption with a Special Land Use Permit;

WHEREAS, Article 7, section 7.34 of Chapter 126, Zoning requires a Special Land Use Permit to be considered and acted upon by the Birmingham City Commission, after receiving recommendations on the site plan and design from the Planning Board for the proposed Special Land Use;

WHEREAS, The Birmingham Planning Board on August 27, 2025 reviewed the application for Special Land Use Permit, Final Site Plan & Design Review and moved to adopt the findings of the Planning Department in the report dated August 27, 2025 related to the approval criteria outlined in Article 7, Sections 7.27 and 7.36 of the Zoning Ordinance and recommend approval to the City Commission for the new food and drink establishment in the B4/D4 zoning district—subject to the following conditions:

1. The applicant must comply with the requests of all City Departments;
2. The applicant provide table service to the outdoor dining during all hours of operation;
3. The applicant operate an establishment that is primarily a restaurant and not primarily a bar or tavern;
4. That no curtain be installed at the front window as shown on the plans; and
5. That the City's investigation of the applicant's liquor license status confirms all representations and compliance with all statutory and regulatory requirements;

WHEREAS, As of March 31, 2026 the applicant has provided updated site plans and satisfied all conditions;

WHEREAS, The Birmingham City Commission has conducted a public hearing on April 13, 2026 and has reviewed No 28's Special Land Use Permit application and the standards for such review as set forth in Article 7, section 7.36 of Chapter 126, Zoning, of the City Code.

NOW, THEREFORE, the parties agree as follows:

1. No 28 will utilize a state issued liquor license for use solely at the Property. Any transfer of the aforementioned license from the Property to any other location in the City of Birmingham shall require the approval of the Birmingham City Commission in accordance with Section 10-83 of the City of Birmingham Code of Ordinances. In addition, any expansion of the Property shall also require the approval of the Birmingham City Commission.

2. No 28 further acknowledges that it must maintain a Special Land Use Permit for the sale of alcoholic liquors for on premise consumption as required by the Birmingham City Code of Ordinances. It is agreed that No 28 shall comply with all provisions of the Special Land Use Permit, or any amendments thereto, as a condition of this contract. No 28 further acknowledges and agrees that a violation of any provision of the Special Land Use Permit or the Michigan Liquor Control Code is a violation of the terms of this contract entitling the City to exercise any or all of the remedies provided herein.

3. No 28 acknowledges that no modifications to the site plan, floor plan, elevations or operation of the establishment may be made unless approved by the City Commission through a Special Land Use Permit Amendment as required in the Zoning Ordinance. Modifications include, but are not limited to, name changes, ownership changes, remodeling, changes in the number of interior or exterior seats, etc.

4. No 28 agrees that it shall not apply or seek from the Michigan Liquor Control Commission any permit endorsements to its liquor license whether available in the current Michigan Liquor Control Code or in future Michigan Liquor Control Codes, or amendments thereto, without the prior approval of the Birmingham City Commission.

5. No 28 further agrees that it shall not seek any change in its license status/class whether such changes are available now in the current Michigan Liquor Control Code or in future Michigan Liquor Control Codes, or amendments thereto, without prior approval of the Birmingham City Commission.

6. No 28 agrees that it shall adhere to all Federal, State and Local ordinances currently in effect or as subsequently amended or enacted.

7. No 28 agrees that its failure to follow any of the provisions herein may be grounds for the Michigan Liquor Control Commission to suspend, revoke or not renew its liquor license and/or for the Birmingham City Commission to revoke the Special Land Use Permit, either of which would prohibit No 28 from operating the establishment. No 28 agrees that in addition to the City of Birmingham's right to seek suspension, revocation or non-renewal of its liquor license and/or revocation of the Special Land Use Permit, the City retains any and all rights to enforce this Contract that may be available to it in law or in equity. No 28 further agrees that it shall reimburse the City all of its costs and actual attorney fees incurred by the City in seeking the suspension, revocation or non-renewal of its liquor license and revocation of the Special Land Use Permit, as well as enforcing such other rights as may be available at law and/or in equity.

8. To the fullest extent permitted by law, No 28 and any entity or person for whom No 28 is legally liable, agrees to be responsible for any liability, defend, pay on behalf of, indemnify, and hold harmless the City, its elected and appointed officials, employees and volunteers and others working on behalf of the City against any and all claims, demands, suits, or loss, including all costs connected therewith, including all costs and actual attorney fees, and for any damages which may be asserted, claimed or recovered against or from the City, its elected and appointed officials, employees, volunteers or others working on behalf of the City, by reason of personal injury, including bodily injury, death and/or property damage, including loss of use thereof, which arises out of or is in any way connected or associated with No 28's operation of an establishment at the Property. No 28 is not liable if the act or omission is the City's.

9. In the event No 28 fails to reimburse the City the costs and/or attorney fees as required herein, or any part thereof, then said amount could be transferred to the tax roll in accordance with Section 1-14 of the Birmingham City Code as acknowledged by the Property Owner.

10. Any disputes arising under this Contract, not within the jurisdiction of the Michigan Liquor Control Commission, shall be settled either by commencement of a suit in Oakland County Circuit Court or by compulsory arbitration, at the election of the City. If both parties elect to have the dispute resolved by arbitration, it shall be settled pursuant to Chapter 50 of the Revised Judicature Act for the State of Michigan and administered by the American Arbitration Association with one arbitrator being used, or three arbitrators in the event any party's claim exceeds $1,000,000. Each party shall bear its own costs and expenses and an equal share of the arbitrator's and administrative fees of arbitration. Such arbitration shall qualify as statutory arbitration pursuant to MCL §600.5001 et seq., and the Oakland County Circuit Court or any court having jurisdiction shall render judgment upon the award of the arbitrator made pursuant to this Agreement. The laws of the State of Michigan shall govern this Agreement, and the arbitration shall take place in Oakland County, Michigan. In the event that the parties elect not to have the matter in dispute arbitrated, any dispute between the parties may be resolved by the filing of a suit in a federal or state court with jurisdiction over Oakland County, Michigan.

11. This contract shall be governed by and performed, interpreted and enforced in accordance with the laws of the State of Michigan.

12. If any provision of this contract is declared invalid, illegal or unenforceable, such provision shall be severed from this contract and all other provisions shall remain in full force and effect.

13. The City determines that to ensure continued compliance with Code standards and to protect public health, safety, and welfare, this Special Land Use Permit Amendment is granted subject to the following conditions:

1. No 28 shall abide by all provisions of the Birmingham City Code;
2. No 28 shall comply with the approved site and design plans and any amendments thereto; and
3. The Special Land Use Permit may be canceled by the City Commission upon finding after proper notice and a hearing that the continued use is not in the public interest.

14. Failure to comply with any of the above conditions may result in termination of the Special Land Use Permit after No 28 has been given notice and a hearing.

15. Except as herein specifically provided, No 28 and its heirs, successors, and assigns shall be bound by all ordinances of the City of Birmingham in effect at the time of the issuance of this permit, and as they may be subsequently amended. Failure of No 28 to comply with all the ordinances of the City may result in the Commission revoking this Special Land Use Permit, after notice and a hearing.

16. No 28 is recommended for the operation of an establishment serving alcoholic beverages for on premise consumption, above all others, subject to final inspection.

17. This Contract shall be binding upon and apply and inure to the benefit of the parties hereto and their respective successors or assigns. The covenants, conditions, and the agreements herein contained are hereby declared binding on the City and No 28. It is further agreed that there shall be no change, modification, or alteration hereof, except in writing, signed by all of the parties hereto. Neither party shall assign any of the rights under this contract without prior approval, in writing, of the other. Any attempt at assignment without prior written consent shall be void and of no effect.

(This Space Intentionally Left Blank)

IN WITNESS WHEREOF, the parties hereby have executed this Contract as of the date set forth above.

BIRMINGHAM 28, LLC (No 28)

By: _____

Its: Member

Date: 4.7.2026

STATE OF MICHIGAN)
) ss:
COUNTY OF OAKLAND)

On this 7 day of April, 2026, before me personally appeared Randy Fouming who acknowledged that with authority on behalf **BIRMINGHAM 28, LLC** to do so signed this Agreement.

_____
Notary Public
Oakland County, Michigan
Acting in Oakland County, Michigan
My commission expires: 8/23/2028

INGRID Z. HADDOCK
NOTARY PUBLIC, STATE OF MI
COUNTY OF OAKLAND
MY COMMISSION EXPIRES Aug 23, 2028
ACTING IN COUNTY OF Oakland

THE PALLADIUM OF BIRMINGHAM, LLC (Property Owner)
(as to paragraph 10 only)

By: _____

Its: Manager

STATE OF MICHIGAN)
) ss:
COUNTY OF OAKLAND)

On this 7 day of April, 2026, before me personally appeared Jordan Dane who acknowledged that with authority on behalf of **THE PALLADIUM OF BIRMINGHAM, LLC** to do so signed this Agreement.

_____
Notary Public
_____ County, Michigan
Acting in _____ County, Michigan
My commission expires: _____

FLORA PETROUS
Notary Public, State of Michigan
County of Oakland
My Commission Expires 07-08-2027
Acting in the County of Oakland

CITY OF BIRMINGHAM

By: _____
Clinton Baller, Mayor

By: _____
Alexandria D. Bingham, City Clerk

APPROVED:

_____
Jana L. Ecker, City Manager
(Approved as to substance)

_____
Nicholas J. Dupuis, Planning Director
(Approved as to substance)

_____
Mary M. Kucharek, City Attorney
(Approved as to form)

PROPOSED BUILDING RENOVATION FOR:

Nº 28

PROJECT LOCATION:

211 HAMILTON ROW,
BIRMINGHAM, MI 48009

ZONED: D-4 OVERLAY

APPLICANT INFORMATION

RANDY FOUMIA
260 N. OLD WOODWARD AVA
BIRMINGHAM MI 48072

T. 248-444-5820
E. RANDYFOUMIA@GMAIL.COM

GENERAL CONTRACTOR:

TOWER CONSTRUCTION
3883 TELEGRAPH RD., SUITE 200 .
BLOOMFIELD TWP., MI 48302

P. 248.287.8200
F. 248.287.8203

SHEET INDEX:

T.101	TITLE SHEET
SP.001	EXISTING CONDITIONS
A.101	FLOOR PLAN
A.201	EXTERIOR ELEVATION
A.301	INTERIOR PERSPECTIVES
A.302	INTERIOR PERSPECTIVES

FIRE SUPPRESSION NOTE:

THE BUILDING IS PROVIDED WITH A FULLY AUTOMATIC FIRE PROTECTION SPRINKLER SYSTEM INSTALLED (FIRE SUPPRESSION SYSTEM) - WORK WILL BE DESIGNED TO MEET M.B.C. REQUIREMENTS AND CITY OF BIRMINGHAM INSPECTION & PERMIT APPROVAL. FACTORY MUTUAL STANDARDS AND SPECIFICATIONS SHALL ALSO BE USED WHERE NOT OTHERWISE IN CONFLICT WITH LOCAL STANDARDS. SPRINKLER CONTRACTOR SHALL BE FULLY LICENSED AND BE RESPONSIBLE FOR PREPARATION OF ENGINEERED DRAWINGS, SUBMISSION OF DRAWINGS TO ALL LOCAL AND STATE AGENCIES FOR APPROVAL AND FOR COORDINATION OF REQUIREMENTS WITH OWNERS AND TENANTS INSURANCE CARRIER.

FIRE EXTINGUISHER NOTE:

TYPE 2A FIRE EXTINGUISHERS SHALL BE PROVIDED AND SPACED A MAX. OF 75' APART PER SECTION 906.1 OF THE 2013 INTERNATIONAL FIRE CODE AND / OR BY THE DIRECTION OF THE FIRE MARSHAL.

PROJECT LOCATION:
211 HAMILTON ROW
ZONED - D4 OVERLAY

NORTH
ZONING MAP
SCALE: NOT TO SCALE

PROJECT LOCATION:
211 HAMILTON ROW

NORTH
LOCATION MAP
SCALE: NOT TO SCALE

BIDDISON
ARCHITECTURE

320 MARTIN ST. LL 10 BIRMINGHAM MI 48009
248.554.9500
CONTACT KEVIN BIDDISON
KB@BIDDISON-AD.COM

Consultants

Project data

GOVERNING CODES: 2015 MICHIGAN BUILDING CODE
2015 MICHIGAN PLUMBING CODE
2015 MICHIGAN MECHANICAL CODE
2015 MICHIGAN REHABILITATION CODE
2015 INTERNATIONAL FUEL GAS CODE
MICHIGAN ELECTRICAL CODE, 2017 N.E.C. W/ PART 8 STATE AMENDMENTS
ICC/ANSI A117.1-2015 AND MICHIGAN BARRIER FREE DESIGN LAW OF PUBLIC ACT 1 OF 1966 AS AMENDED.
MICHIGAN UNIFORM ENERGY CODE RULES PART 10 WITH ANSI/ASHRAE/IESNA STANDARD 90.1-2015
2015 INTERNATIONAL FIRE CODE
NFPA 13 - 2010
NFPA 72 - 2010

TENANT AREA: 1,194.5 SQFT + 192 SQFT (PATIO)

BUILDING USE: A-2 RESTAURANT

TYPE OF CONSTRUCTION:

2012 MBC: TYPE IIA (PROTECTED)
NFPA 220: TYPE II-000

Issued for

SPECIAL LAND USE PERMIT	03.04.26

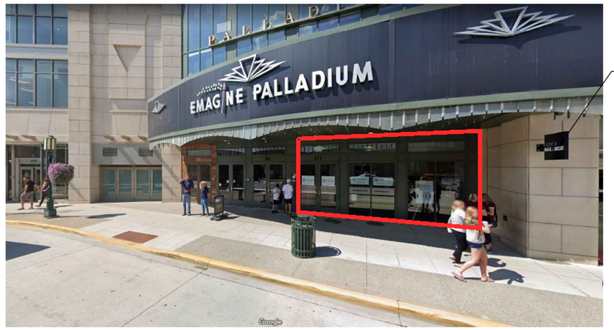
STATE OF MICHIGAN
KEVIN L. BIDDISON
No. 1301
LICENSED ARCHITECT

Project no.

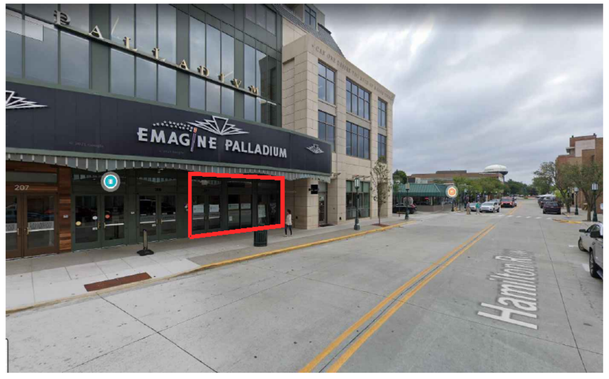
NO 28 2057.20

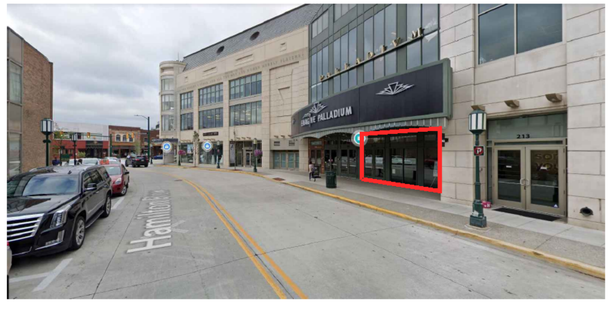
Sheet no.

T.101



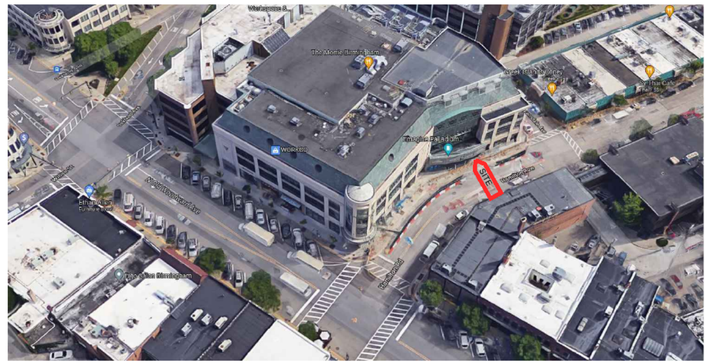
EXISTING BLADE SIGH TO BE REMOVED

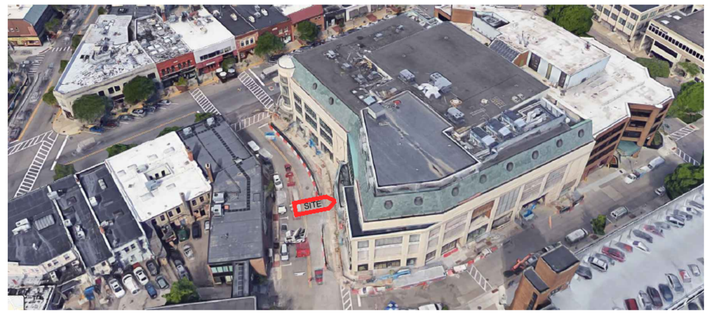


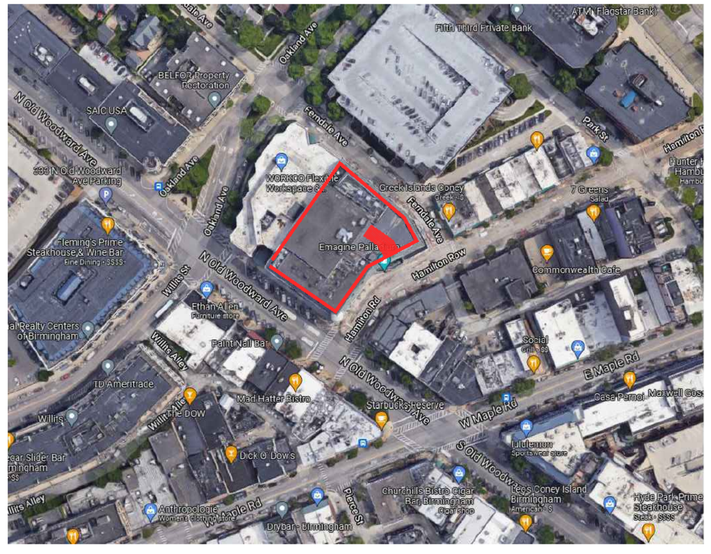


EXIST. SITE CONDITIONS - STREETSIDE VIEWS

NO SCALE







EXIST. SITE CONDITIONS - AERIAL VIEWS

NO SCALE

BIDDISON
ARCHITECTURE
320 MARTIN ST. LL 10 BIRMINGHAM MI 48009
248.554.9500

Consultants

Project title

PROPOSED BUILDING RENOVATION FOR:

No 28

211 Hamilton Row
Birmingham, MI 48009

Issued dr/ch

SLUP	03.04.26

Sheet title

EXISITING CONDITIONS

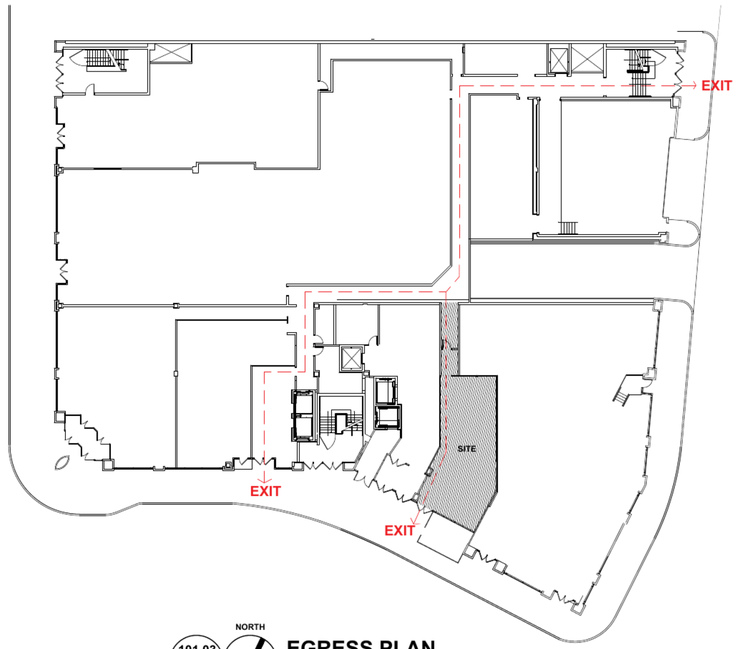
STATE OF MICHIGAN
KEVIN L BIDDISON
ARCHITECT
LICENSED ARCHITECT

Project no.

2057-20

Sheet no.

SP.001



NORTH

101.03 / A.101

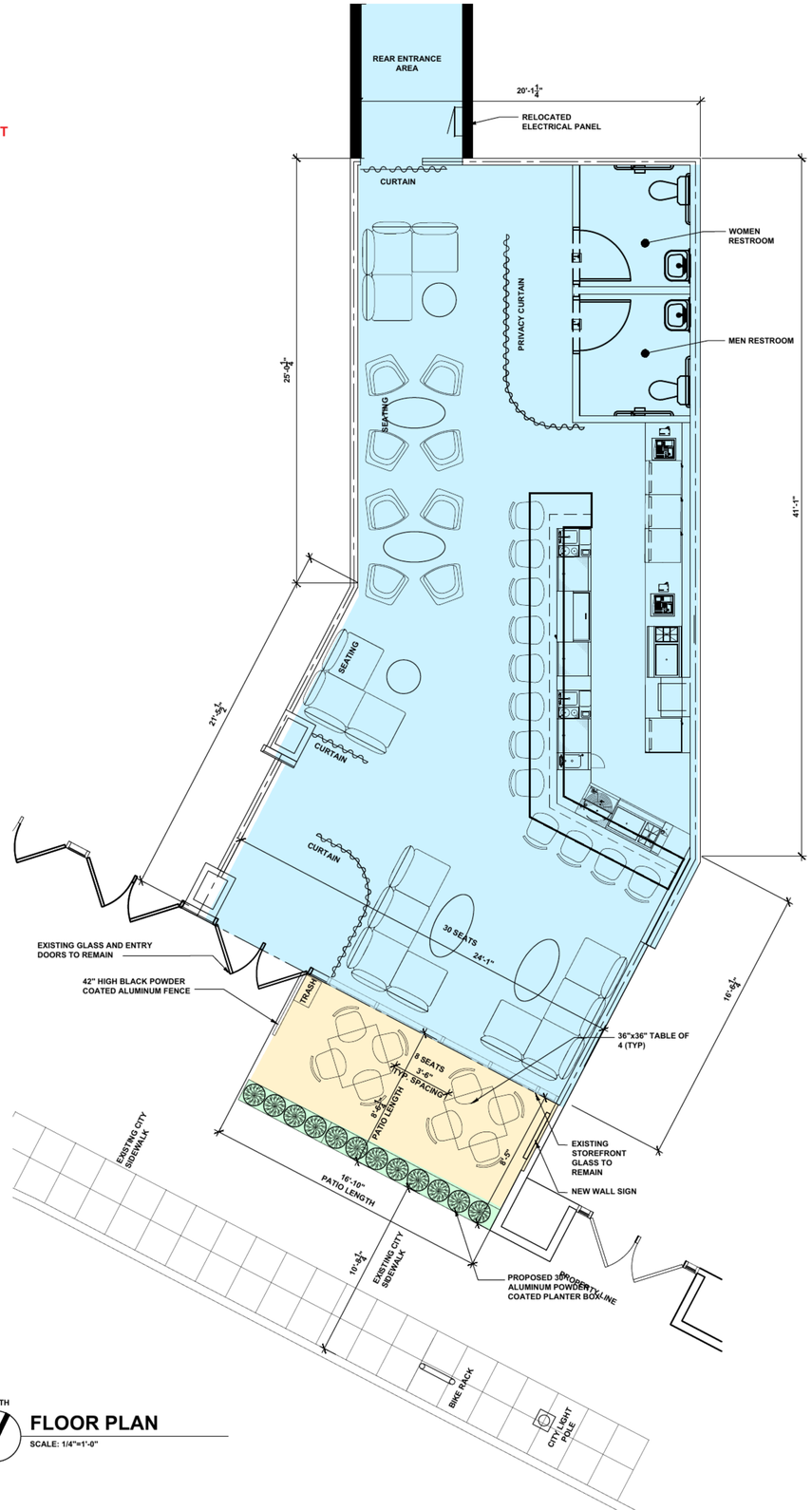
EGRESS PLAN

SCALE: NOT TO SCALE

101.02 / A.101

PROPOSED METAL PATIO CHAIRS AND TABLE-TYP.

SCALE: NOT TO SCALE



NORTH

101.01 / A.101

FLOOR PLAN

SCALE: 1/4"=1'-0"

BIDDISON
ARCHITECTURE

320 MARTIN ST. LL 10 BIRMINGHAM MI 48009
248.554.9500

Consultants

Project title

PROPOSED BUILDING RENOVATION FOR:

No 28

211 Hamilton Row
Birmingham, MI 48009

Issued dr/ch

SLUP	03.04.26

Sheet title

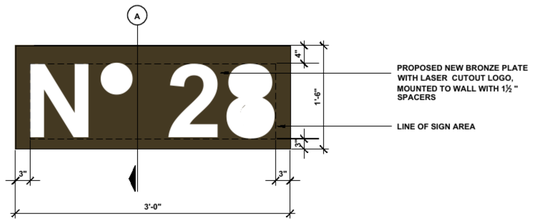
FLOOR PLAN

Project no.

2057-20

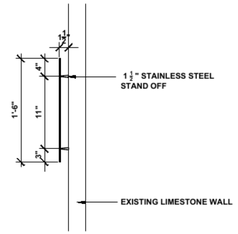
Sheet no.

A.101

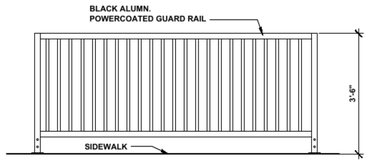


SIGN DETAIL "A"

SCALE: NTS



SECTION DETAIL "A"



GUARD RAIL PATIO ELEVATION

SCALE: NTS

PROPOSED PLANTERS

SCALE: NOT TO SCALE

PROPOSED FENCE

SCALE: NOT TO SCALE

PROPOSED EXTERIOR ELEVATION

NOT TO SCALE

BIDDISON
ARCHITECTURE
320 MARTIN ST. LL 10 BIRMINGHAM MI 48009
248.554.9500

Consultants

Project title

PROPOSED BUILDING RENOVATION FOR:

No 28

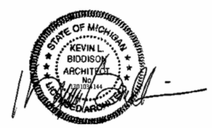
211 Hamilton Row
Birmingham, MI 48009

Issued dr/ch

SLUP	03.04.26

Sheet title

EXTERIOR ELEVATION



Project no.

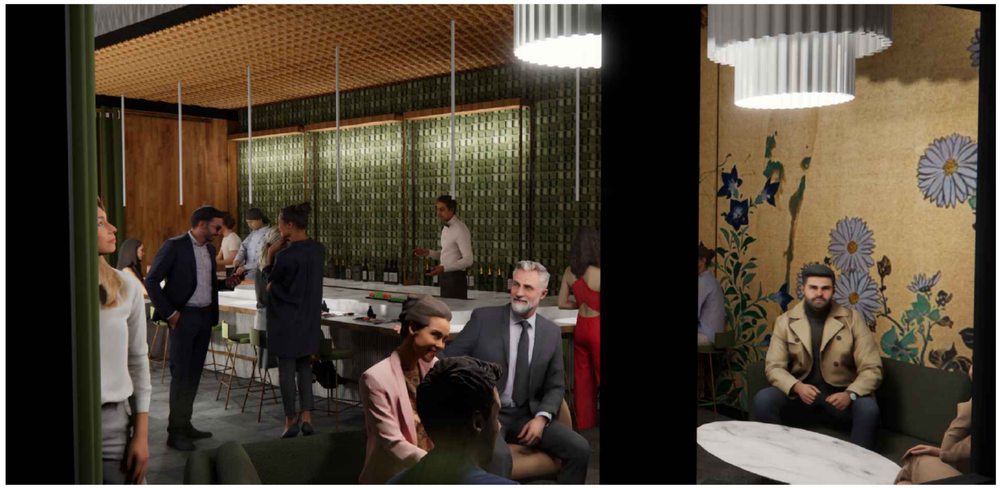
2057-20

Sheet no.

A.201

EXTERIOR PERSPECTIVE

FOR REFERENCE NOT TO SCALE



EXTERIOR PERSPECTIVE

FOR REFERENCE NOT TO SCALE

INTERIOR PERSPECTIVE

FOR REFERENCE NOT TO SCALE

INTERIOR PERSPECTIVE

FOR REFERENCE NOT TO SCALE

BIDDISON
ARCHITECTURE

320 MARTIN ST. LL 10 BIRMINGHAM MI 48009
248.554.9500

Consultants

Project title

PROPOSED BUILDING RENOVATION FOR:

No 28

211 Hamilton Row
Birmingham, MI 48009

Issued dr/ch

SLUP	03.04.26

Sheet title

INTERIOR
PERSPECTIVE
IMAGE

STATE OF MICHIGAN
KEVIN L
BIDDISON
ARCHITECT
No.
LICENSED ARCHITECT

Project no.

2057-20

Sheet no.

A.301

BIDDISON
ARCHITECTURE
320 MARTIN ST. LL 10 BIRMINGHAM MI 48009
248.554.9500

Consultants

INTERIOR PERSPECTIVE

FOR REFERENCE NOT TO SCALE

INTERIOR PERSPECTIVE

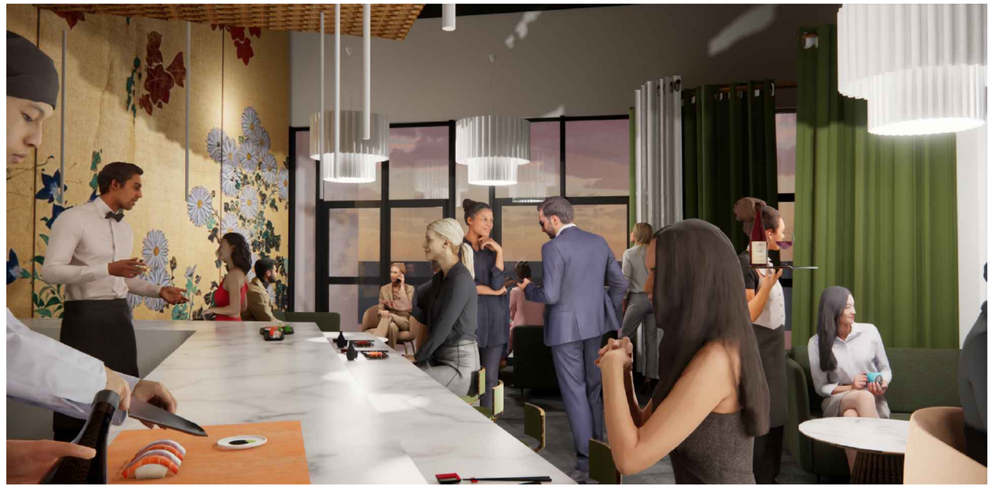
FOR REFERENCE NOT TO SCALE

Project title

PROPOSED BUILDING RENOVATION FOR:

No 28

211 Hamilton Row
Birmingham, MI 48009



INTERIOR PERSPECTIVE

FOR REFERENCE NOT TO SCALE

INTERIOR PERSPECTIVE

FOR REFERENCE NOT TO SCALE

Issued dr/ch

SLUP	03.04.26

Sheet title

PERSPECTIVE IMAGE

STATE OF MICHIGAN
KEVIN L BIDDISON
ARCHITECT
No. 1301041
REGISTERED ARCHITECT

Project no.

2057-20

Sheet no.

A.302

MEMORANDUM

Planning Department

DATE: August 22, 2025

TO: Planning Board Members

FROM: Leah Blizinski, City Planner

SUBJECT: 211 Hamilton Row – No 28 – Special Land Use Permit, Final Site Plan & Design Review

---

The subject site is located on the north side of Hamilton Row between N. Old Woodward and Ferndale. It is currently a vacant 1st floor tenant space within an existing 5-story commercial building. The applicant has submitted a Special Land Use and Final Site Plan and Design Review application proposing a new restaurant serving alcoholic beverages for on premise consumption, which includes extensive interior renovation, and the addition of a new outdoor dining patio.

The new proposed restaurant, "No 28" is described as a small, intimate indoor setting with food prepared and provided through the adjacent kitchen of Terra Kitchen & Cocktails. The proposed hours of operation are indicated as Wednesday – Sunday until 2:00AM and Monday and Tuesday reserved for private events.

Chapter 10, Section 10-42 of the Birmingham Code of Ordinances states that any and all transfers of a license for consumption of intoxicating liquor on premises require the approval of the city commission of any kind including, but not limited to: ownership of the license; stock in a corporation that owns a license; interest in a license through any entity; or location of the licensed premises. The licensee must comply with all provisions of the contract and Special Land Use Permit, and any amendments thereto as a condition of granting of a requested transfer. Accordingly, the applicant must obtain a recommendation from the Planning Board on the Special Land Use and Final Site Plan/Design Review application, which is then reviewed for final consideration by the City Commission.

(This space intentionally left blank)

1.0 Land Use and Zoning

1.1 Existing Land Use – 5-story commercial building

1.2 Zoning – B4 (Business-Residential) & D4 (Downtown Overlay)

1.3 Summary of Adjacent Land Use and Zoning –

	North	South	East	West
Existing Land Use	Commercial	Commercial	Commercial/Parking	Commercial
Existing Zoning District	B4 (Business Residential)	B4 (Business Residential)	B4 (Business Residential) & PP (Public Property)	B4 (Business Residential)
Overlay Zoning District	D4	D4	D4 & P	D4

2.0 Setback and Height Requirements

As the applicant is moving into an existing tenant space with no changes to the building, there are currently no issues with bulk, height or placement with the Special Land Use Permit, Final Site Plan/Design Review application submitted.

3.0 Screening and Landscaping

3.1 Dumpster Screening – There are no changes proposed to the dumpster or screening on site. Although the applicant has not indicated as such, the Palladium contains an interior trash facility that may be used by the applicant.

3.2 Parking Lot Screening – There are no changes proposed to the parking conditions on site.

3.3 Mechanical Equipment Screening – There are no changes proposed to the mechanical equipment or screening on site.

3.4 Landscaping – There are no changes proposed to landscaping on site.

3.5 Streetscape – There are no changes proposed to the existing streetscape on site.

4.0 Parking, Loading and Circulation

4.1 Parking – There are no changes to the parking requirements on site.

4.2 Loading – There are no changes proposed to the loading requirements.

4.3 Vehicular Circulation and Access – There are no changes proposed to vehicular circulation and access to the site.

4.4 Pedestrian Circulation and Access – There are no changes proposed to pedestrian circulation and access to the site.

5.0 Lighting

The applicant is not proposing any new light fixtures as a part of this Special Land Use Permit, Final Side Plan and Design Review application.

6.0 Departmental Reports

6.1 Engineering Division – There are no comments from engineering at this time.

6.2 Department of Public Services – The Department of Public Services indicated that the installation of the proposed outdoor dining patio may require the relocation of a city trash can and bike rack.

6.3 Fire Department – There are no comments from the Fire Department at this time.

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

6.5 Building Division – There are no comments from the Building Division at this time.

6.6 Parking Division – The Parking Division has no concerns at this time.

7.0 Design Review

As the applicant is not proposing any changes to the exterior of the building, the Design Review will be limited to the outdoor dining patio and signage.

Outdoor Dining

The applicant is proposing a 12-seat, 200 sq. ft. outdoor dining patio directly in front of the tenant space. The patio is proposed to be contiguous, but will exist on both public and private property. The applicant will be expected to apply for an Outdoor Dining Permit annually, and enter into a lease agreement with the City for the use of public property as a part of that permit.

To define the space, the applicant is proposing a 42 in. black powder coated aluminum fence around all sides with a small opening on the west side, and an aluminum powder coated planter box along Hamilton Row. They are proposing white metal tables and chairs, a photo of which is included with the plans.

The applicant has also provided a dimension indicating that a 6 ft. 8 in. clear path will be maintained from the curb along Hamilton Row to the front of the planter boxes. **However, the plans do not include a city trash can and bicycle rack that**

appear to impede the 5' clear pedestrian path. This area is also comprised of predominantly exposed aggregate, and will force pedestrians to take an awkward route around the outdoor dining patio. The Planning Division recommends that the Planning Board discuss the potential to reduce the size of the patio and redesign/relocate the planters to a different area to reduce the impact of the dining patio on pedestrian traffic.

Signage

The applicant indicated in the application that a new 5.5 sq. ft. bronze plate with laser cutout logo will be mounted to the wall. The sign doesn't appear to meet the sign ordinance as it is located below the sign band. However, they also note that the sign will replace an existing sign, of which there is none. The building has an existing bracket for a projecting sign, which should be addressed as a part of this review. The applicant should provide sign designs that clarify the type of sign and its attachments as well as meets the standards of the sign ordinance. Article 2, Section 2.02(A)(2) of the Sign Ordinance states that the City Commission shall hear and deny, approve, or approve with conditions, those signs for special land uses, after receiving the recommendation of the Planning Board.

8.0 Required Attachments

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

9.0 Approval Criteria

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

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.*

    - The proposed outdoor dining patio will not affect the open space requirements of the site, as there are no open space requirements of this site.

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.*

    - There are no buildings proposed as a part of the Final Site Plan & Design Review application submitted.

3. *The location, size and height of the building, walls and fences shall be such that they will not hinder the reasonable development of adjoining property nor diminish the value thereof.*

    - There are no buildings proposed as a part of the Final Site Plan & Design Review application submitted. The proposed fence around the outdoor dining patio will not hinder the reasonable development of any adjoining property nor diminish the value thereof.

4. *The site plan, and its relation to streets, driveways and sidewalks, shall be such as to not interfere with or be hazardous to vehicular and pedestrian traffic.*

    - The proposed site plan does not indicate any changes to streets or driveways. The outdoor dining patio could potentially interfere with pedestrian traffic. The applicant will need to demonstrate more clearly how the outdoor patio will not impede the 5' clear pedestrian path.

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.*

    - There are no buildings proposed as a part of the Final Site Plan & Design Review application submitted. Generally speaking, though, outdoor dining facilities are compatible with Downtown Birmingham and promote the spirit and purpose of the Zoning Ordinance.

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.*

    - There is no required landscaped open space as a part of this project.

In addition, Article 7, Section 7.36 requires applications for a Special Land Use Permit to meet the following criteria:

(1) The use is consistent with and will promote the intent and purpose of this Zoning Ordinance.

a. The proposed restaurant is consistent with and will promote the intent and purpose of this Zoning Ordinance by encouraging a vibrant downtown and active streetscape.

(2) The use will be compatible with adjacent uses of land, the natural environment, and the capabilities of public services and facilities affected by the land use.

a. Generally, in Birmingham's Downtown, this use is compatible with adjacent uses of land and the natural environment of the area. This use will not affect the capabilities of public services and facilities.

(3) The use is consistent with the public health, safety and welfare of the city.

a. This use is consistent with the public health, safety and welfare of the city. Similar to the previous standard, restaurants and sidewalk adjacent outdoor dining have been long established in Birmingham's Downtown and other commercial areas in the City and are expected to continue.

(4) The use is in compliance with all other requirements of this Zoning Ordinance.

a. The building uses proposed are compatible with the related zoning districts, there are no changes to the footprint of the building or to the parking requirements.

(5) The use will not be injurious to the surrounding neighborhood.

a. The proposed use is not expected to be injurious to the surrounding Downtown neighborhood.

(6) The use is in compliance with state and federal statutes.

a. Top the best of our knowledge, the uses proposed are in compliance with state and federal statutes at this time.

10.0 Recommendation

Based on a review of the site plan submitted and the approval criteria of Article 7, Sections 7.27 and 7.36, the Planning Department recommends that the Planning Board recommend that the City Commission **APPROVE** the Special Land Use Permit, Final Site Plan & Design Review application for 211 Hamilton Row -- subject to the following conditions:

1. The applicant must submit revised plans detailing a clear and unobstructed 5' pedestrian path and;
2. The applicant must provide clear sign designs for signage that meet the Zoning Ordinance
3. The applicant must comply with the requests of all City Departments.

11.0 Sample Motion Language for Special Land Use Permit

Motion to adopt the findings of the Planning Department in the report dated July 23, 2025 related to the approval criteria outlined in Article 7, Section 7.36 of the Zoning Motion to adopt the findings of the Planning Department in the report dated August 22, 2025 related to the approval criteria outlined in Article 7, Section 7.36 of the Zoning Ordinance and **APPROVE** the Special Land Use Permit application for 211 Hamilton Row – No 28 – subject to the following conditions:

1. The applicant must submit revised plans detailing a clear and unobstructed 5' pedestrian path and;
2. The applicant must provide clear sign designs for signage that meet the Zoning Ordinance
3. The applicant must comply with the requests of all City Departments.
4. _____
5. _____

OR

Ordinance and recommend that the City Commission **DENY** the Special Land Use Permit application for 211 Hamilton Row – No 28 – for the following reasons:

1. _____
2. _____
3. _____

OR

Motion to **POSTPONE** the Special Land Use Permit application for 211 Hamilton Row – No 28 – pending receipt of the following:

1. _____
2. _____
3. _____

12.0 Sample Motion Language for Final Site Plan & Design Review

Motion to adopt the findings of the Planning Department in the report dated August 22, 2025 related to the approval criteria outlined in Article 7, Section 7.27 of the Zoning Ordinance and **APPROVE** the Final Site Plan & Design Review application for 211 Hamilton Row – No 28– subject to the following conditions:

1. The applicant must submit revised plans detailing a clear and unobstructed 5' pedestrian path and;
2. The applicant must provide clear sign designs for signage that meet the Zoning Ordinance
3. The applicant must comply with the requests of all City Departments.

OR

Motion to adopt the findings of the Planning Department in the report dated August 22, 2025 related to the approval criteria outlined in Article 7, Section 7.27 of the Zoning Ordinance and recommend that the City Commission **DENY** the Final Site Plan & Design Review application for 211 Hamilton Row – No 28 – for the following reasons:

1. _____
2. _____
3. _____

OR

Motion to **POSTPONE** the Final Site Plan & Design Review application for 211 Hamilton Row – No 28 – pending receipt of the following:

1. _____
2. _____
3. _____

MEMORANDUM

Planning Department

DATE: April 13, 2026

TO: Jana Ecker, City Manager

FROM: Nick Dupuis, Planning Director

SUBJECT: Initial Bistro Screening – 2025-2026

INTRODUCTION:

In October of each year, the City Commission begins the bistro application review process to consider new bistro applications pursuant to Chapter 10 (Alcoholic Liquors), Division 4 of the Birmingham Code of Ordinances. The bistro application review process also provides that in the event that two bistro approvals are not granted as a result of the fall review period, the City will accept additional bistro applications for the current calendar year on or before April 1, of the next year. For this most recent cycle, the City received one application for initial bistro screening in April 2026 for consideration, which would be considered a new establishment.

BACKGROUND:

The City Commission accepts new bistro applications, which are due on October 1 for the next calendar year. In the event that two bistro approvals are not granted as a result of the fall review period, the City accepts additional bistro applications for the current calendar year on or before April 1.

When submitted, all submittals for new or existing bistro establishments pursuant to Chapter 10 of the City Code must include (but are not limited to) the following information in 5 pages or less:

- A brief description of the bistro concept proposed, including type of food to be served, price point, ambiance of bistro, unique characteristics of the operation, if any, and an explanation of how this concept will enhance the current mix of commercial uses in Birmingham;
- Proposed location, hours of operation and date of opening;
- Name of owner/operator and outline of previous restaurant experience; and
- Evidence of financial ability to construct and operate the proposed bistro.

After reviewing the material submitted, the City Commission considers all applications for bistros, and selects which applications, if any, shall move forward to the Planning Board for a full Special Land Use Permit (SLUP) review. All applications forwarded to the Planning Board are required to provide additional information for review of the bistro as a SLUP including site plans,

floor plans, sample menus, interior design details, evidence of financial capability, as well as any other information requested by the Planning Board.

Should the City Commission determine that any initial bistro application satisfies the criteria outlined in Sec. 10-82, the Planning Board will then conduct a Special Land Use Permit, Final Site Plan and Design Review. During this review, bistro applications will be evaluated by the Planning Board based on the criteria set forth in the Zoning Ordinance and Chapter 10 (Alcoholic Liquors) of the City Code, and forwarded back to the City Commission with a recommendation from the Planning Board.

Finally, after a recommendation is obtained from the Planning Board, the City Commission will conduct public hearings to review the selected bistro applications and determine which, if any, bistros to approve for the 2025-2026 period, up to a maximum of two approvals for new establishments, and up to a maximum of two approvals for existing establishments that have been in operation for more than 5 years in the City.

At present, the City contains 22 bistro establishments, 19 of which are in Downtown Birmingham. As was intended when the bistro concept was introduced in the early 2000's, many of the existing bistros offer an intimate and unique dining experience, which is at times heavily driven by their menu. Specific regulations for bistros may be found in Article 3, Section 3.04 (C)(10) and Article 5 of the Zoning Ordinance. At present, the Zoning Ordinance defines bistro as:

"A restaurant with a full-service kitchen with interior seating for no more than 65 people and additional seating for outdoor dining of no more than 65 people."

In addition, the City Commission moved two prospective bistro establishments forward as a part of the first initial bistro screening cycle, Teuta and Snap Taco. At this time, only one establishment (Snap Taco) has submitted a Special Land Use Permit application to the City.

In accordance with the process outlined above, the following applicants submitted a summary for the initial review process prior to the April 1, 2026 deadline established by the City Commission:

- Daycap/Nightcap – 930 E. Maple

The new proposed bistro is located in the Triangle District of Birmingham, which permits bistros with a Special Land Use Permit. The establishment is considered new, thus is competing with Teuta and Snap Taco for the maximum of two new bistro establishments permitted annually. A brief analysis of the Daycap/Nightcap proposal may be found below:

Daycap/Nightcap – Daycap Coffee Bar/Eatery has been operating in the City of Birmingham since 2024. At present, the restaurant contains 24 seats and a modest, 18-seat outdoor dining facility located on private property. The concept proposed by the applicant is such that Daycap and its existing operations, cuisine, and atmosphere would remain during the daytime, and the establishment would switch over to a wine bar concept at 5 PM, offering a select wine menu with a limited array of charcuterie-style "bites". Currently, Daycap is open to 5 PM most days of the week, and closes at 2 PM on Sunday. With the introduction of the Nightcap concept, the

establishment is proposing to stay open until 10 PM Sunday-Wednesday and 12 AM Thursday-Saturday. Nearby bistro establishments are limited, and include Forest Grill and Bistro Joes. At this point, the cuisine offerings may not be considered overrepresented in this area. In terms of the bistro ordinances, Daycap/Nightcap appears to have no issue with outdoor dining or maximum seats. In addition to the seating and concept, it is worth noting that the bistro definition in the Zoning Ordinance requires a "full service kitchen" in the space, which is not explicitly defined. The current plans show a service counter and two prep counters.

Should the City Commission wish to consider the new application received as of April 1, 2026, the applicant will be given a time to verbally present their concepts to the City Commission, without the use of PowerPoint presentations, display boards or other visual aids. A suggested time frame would be a five-minute presentation of the concept by the applicant, with a five-minute period for questions from the City Commission. The City Commission will then discuss the application, and consider directing the application to the Planning Board for full Special Land Use Permit, Final Site Plan and Design Review.

LEGAL REVIEW:
The City Attorney has reviewed the submissions and has no objections as to form and content.

FISCAL IMPACT:
There are no fiscal impacts for this agenda item.

SUSTAINABILITY:
There are no direct sustainability considerations for this agenda item.

DESIGN CONSIDERATIONS:
There are no design considerations to be reviewed at this point in the process. However, many design considerations will be reviewed during the Special Land Use Permit process, should the prospective bistro be moved forward.

PUBLIC COMMUNICATIONS:
There are no required public communications for this agenda item. If Daycap/Nightcap were to be moved forward, the Special Land Use Permit and Final Site Plan & Design Review application will be noticed in compliance with Article 7, Sections 7.01 and 7.35 of the Zoning Ordinance.

SUMMARY:
The Planning Department requests that the City Commission, in accordance with the City's review process for bistros, review the submission packet for Daycap/Nightcap and consider directing Daycap/Nightcap to submit a Special Land Use Permit and Final Site Plan & Design Review applications to the Planning Board for review and recommendation.

ATTACHMENTS:
1. Daycap/Nightcap - 930 E. Maple

SUGGESTED COMMISSION ACTION:
Make a motion adopting a resolution to move forward with the bistro application for

Daycap/Nightcap and permit the bistro to submit an application for Special Land Use Permit, Final Site Plan and Design Review to the Planning Board for review and recommendation.

OR

To take no action on the Daycap/Nightcap bistro application at this time.

From Daycap to Nightcap

Valant Jaddou and Shantel Jaddou
Husband & Wife Owners of Daycap & Eton Market

Meet Our Team

Valant Jaddou
Owner

Shantel Jaddou
Owner

Ivan Jaddou
Hospitality &
Product Design

Luna Shaaya
Graphic Design &
Marketing

Daycap to Nightcap Concept

The proposed concept is a natural extension of Daycap Coffee, transitioning into an evening wine bar under the name “Nightcap.” Daycap will continue to operate as a daytime café, with wine service beginning at approximately 5:00 PM and concluding around 10:00 PM from Sunday - Wednesday. Thursday - Saturday 5:00 PM - 12:00 AM.

This model is inspired by common European café culture, where coffee and wine coexist within a single space, allowing for a calm, flexible, and community-oriented environment throughout the day. The concept is intentionally limited to wine (and potentially beer), with no spirits and no cocktails, significantly reducing risk and liability.

Food offerings will remain minimal and require no additional kitchen infrastructure, consisting of curated charcuterie boards, cheeses, nuts, dried fruits, and elevated packaged items. Wines will be served by the glass and bottle. Indoor guest capacity will remain approximately 21 people, reinforcing an intimate, quiet atmosphere.

Owner/Operator Experience & Business Development

Valant Jaddou and Shantel Butras, owners of Eton Market located one mile from Daycap in Birmingham, curate over 1,000 wine SKUs and maintain strong, long-standing distributor relationships. Eton Market features an established selection of cheeses, cured meats, and charcuterie, all of which can be seamlessly integrated into Daycap. The team currently prepares charcuterie boards in-house, demonstrating operational expertise and food safety standards consistent with the proposed offering.

Valant brings over 15 years of experience in retail, wine sales, and distribution, having advanced from sales representative to divisional and regional management roles. He holds a WSET Level 2 certification, is TIPS certified, and has extensive experience presenting wine at both professional and consumer events. Shantel serves as Director of Operations for United Hospitality under the Boji Group in Birmingham, bringing strong operational leadership and hospitality management experience.

Both Daycap and Eton Market are locally owned and operated businesses by a Birmingham-based husband-and-wife team deeply rooted in the community. Eton Market has received overwhelmingly positive community response since reopening, reflected in a 4.9 Google rating within six months, and has actively supported local initiatives including the Eton Academy Gala, Birmingham Schools events, and OAA athletics.

Daycap Coffee has been successfully operated for nearly two years, transforming a previously struggling business into a thriving neighborhood café known for strong customer service and community engagement.

Community Benefit, Operations & Safety

This proposal reflects a thoughtful expansion of our current offerings at Daycap and Eton Market. It is designed to integrate seamlessly with our existing concept.

The concept supports walkability and fills a current gap in the neighborhood by providing a small-scale, early-evening gathering space without requiring residents to travel downtown.

Daycap is financially stable with an existing buildout, staff, and vendor network, while Eton Market further demonstrates the ownership's ability to responsibly manage alcohol operations. Minimal modifications are required, allowing for immediate and efficient implementation upon approval.

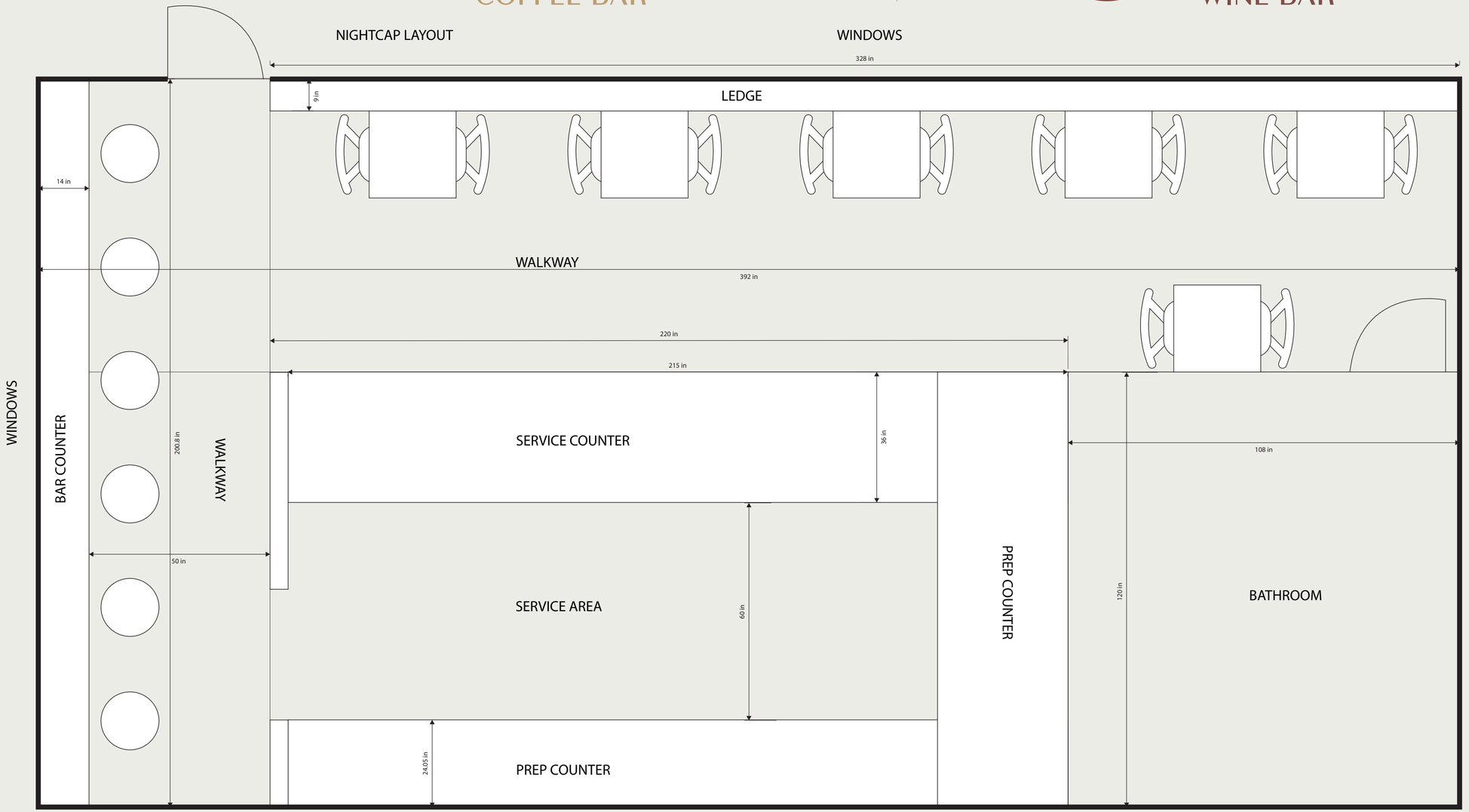
Ownership is fully committed to responsible alcohol service and public safety. All staff will be TIPS certified, strict ID verification will be enforced, and service will be limited to seated guests at tables or fixed counters. The concept intentionally discourages overconsumption through its format: no spirits, no standing bar service, no amplified music, and early closing hours.

The scale, seating capacity, and operating model ensure minimal impact on traffic, parking, and surrounding neighbors. The business will comply fully with all Michigan Liquor Control Commission requirements and City of Birmingham regulations.

Design Proposal

DAYCAP COFFEE BAR

NIGHTCAP WINE BAR



Design Additions

Our proposal is to run DAYCAP as a coffee shop from 9am to 4pm then transition to an evening wine bar called NIGHTCAP from the hours of 5pm to 10pm. 5pm to 12am from Thursday - Saturday. We intend to expand brand identity, extend the main counter, dim the lighting, change some fixtures, add wall shelving for storage/display and add a bar counter along the traffic facing window.

CURRENT WINDOWSIDE SEATING & LIGHTING

PROPOSED WINDOWSIDE BAR & LIGHTING

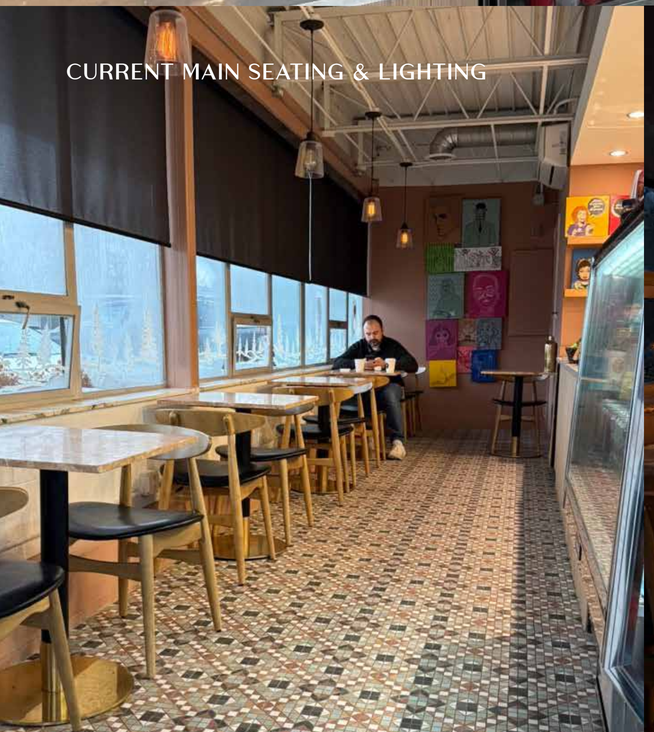
CURRENT BACK WALL PREP AREA

PROPOSED BACK WALL PREP AREA

CURRENT SERVICE COUNTER

PROPOSED SERVICE COUNTER

CURRENT MAIN SEATING & LIGHTING



PROPOSED MAIN SEATING & LIGHTING

MOCKUP NIGHTCAP MENU

MEMORANDUM

Police Department

DATE: April 13, 2026

TO: Jana Ecker, City Manager

FROM: Scott Grewe, Chief of Police

SUBJECT: Construction Manager for Police Department Renovations / Expansions

INTRODUCTION:

At the October 6, 2025, regularly scheduled meeting of the City Commission, the Commission approved a contract with MCD Architects to design the proposed renovations and expansions for the Police Department. While MCD is finalizing its designs, the Police Department posted a Request for Proposal (RFP) for a construction manager on March 5, 2026, to MITN. Bids were due on April 1, 2026, and a total of five bids were received.

BACKGROUND:

The Police Department is housed on two of the three levels of City Hall. The last renovation of City Hall occurred in 1993. Since then, there have been no major renovations to City Hall or the Police Department. The City recently contracted for interior security doors, which have been completed. Otherwise, only minor changes have taken place, including painting, carpet replacement, some furniture replacement, and COVID-19 social distancing glass partitions. Administrative offices are off the main hallway. The door leading to the officer's report-writing room and the communications center is also located on the main level. The main Police Department is located on the ground floor. This area includes the clerical division, services division, lieutenant's office, juvenile detention area, booking room, and adult detention cells. Contained on the lower level of City Hall are the investigative offices, the interview room, the officers' lunchroom, the roll call room, evidence storage, and both the male and female locker rooms. No Police Department staff are located on the second floor of City Hall.

There are Police Department safety and security issues and Public Safety Answering Point (PSAP) efficiency issues that must be addressed:

1. Interview Room/Prisoner Release: The adult holding cells are on the ground floor next to the clerical area. When a defendant is removed from the cell to be interviewed, the defendant has to be handcuffed and escorted through the clerical area (civilian employees present), through the police lobby area (public present), through the main city hall lobby (public present), down a flight of stairs into the basement level, where the police interview room is located. When a prisoner is released from custody, they are released through the police department's clerical area (with civilian employees present).

2. Police Evidence Storage and Garage Space: The Police Department has limited access to interior storage for equipment, including our radar trailers, camera trailer, Polaris Ranger, and Motorcycles, except for a shared City Hall garage. The shared garage does not provide sufficient space for all the Police Department's needs, resulting in equipment being left outside when not in use. This causes increased deterioration due to the weather. Additionally, the Police Department uses a City-wide shared storage location for police files. Due to security requirements for police files, other City staff members must be escorted by the Police Department to access their stored items. Adding the interview room mentioned in (1) above eliminates a space within the Police Department currently used to store files and prisoners' property. Building a Police Garage within the Department of Public Services (DPS) yard will provide the space the department needs for secure storage of our items while freeing up space for an interview room for safety purposes. This addition will also free up space in the shared storage garage for the rest of City Hall.

3. Public Safety Answering Point (PSAP): During the last reconstruction at City Hall and the Police Department in 1993, which included the PSAP center, there was no room for growth or the addition of a third PSAP console. In 2012, during our PSAP consolidation with Beverly Hills Public Safety, the Birmingham Police Department began providing dispatch services to Beverly Hills, which required the addition of a third console in our PSAP center. The current layout does not allow for efficient operation or access to specific equipment from the third console. This equipment includes intercoms to the front desk and City Hall entrance doors, as well as the expanding City camera network. Our PSAP center is the second-smallest in Oakland County.

4. Sally Port: Currently, the Police Department does not have such a facility. Officers park patrol cars in the open courtyard, remove their weapons, and place them in a secure area. The officer then removes the defendant from the vehicle in full public view, escorts the defendant across the parking lot while the defendant is handcuffed, and walks up a ramp to the booking room door, where a dispatcher is contacted. The officer is then granted access to the building through an electronic door. This entire area is open to the public. It contains public parking spaces for City Hall and is often used by pedestrians walking between Henrietta and Pierce Streets.

To correct these issues, a Request for Proposal (RFP) was created and submitted to the Michigan Inter-Governmental Trade Network (MITN) on July 30, 2025. The RFP was created to solicit proposals from architectural firms for the design and construction services. MCD Architects was selected and approved by the Commission at the October 6, 2025, meeting.

An RFP for a construction manager was posted on MITN on March 5, 2026. A mandatory pre-bid meeting was held on March 17, 2026, which was attended by eight (8) people representing seven (7) firms. The deadline for submissions was April 1, 2026, and five bids were received (See Fiscal Impact).

A meeting was held with MCD on April 6, 2026, to review the bids. MCD stated that two of the

projects, the Sally Port and the Garage Expansion, required some technical work and that they felt most comfortable with the Construction Managers they had previously worked with. MCD recommended that the City move forward with either Braun Construction Group or Sachse Construction.

Of the five bids received, Braun and Sachse were the two most professional. Braun recently completed work at the Chesterfield Police Department, and contact was made with their Chief of Police. He advised that the department staff who worked directly with Braun had a few issues; however, the work was ultimately completed satisfactorily.

The Building Department was contacted to assist in the review of the proposals. Both the previous (Bruce Johnson) and the current (Jeff Zielke) Building Officials were available to review the proposals. They advised that they have previous experience with multiple companies that submitted bids. They both agreed that multiple companies would likely do a good job, but both strongly recommended Sachse. They referenced Sachse's recent work in the City on the RH project and said they do a great job.

LEGAL REVIEW:
The City Attorney reviewed and approved the attached RFP and Agreement before being submitted to MITN for bids.

FISCAL IMPACT:
The bid deadline was April 1, 2026. Five bids were received, and all but Colasanti attended the public bid opening. The exact total projected cost is unknown at this time. Page 11 of the RFP directed contractors that the total project cost is targeted to be approximately one million dollars for bid consideration.

1. Sachse
    a. CM Fee % 4.95%
    b. Staffing Costs $201,875.00
    c. General Conditions Costs $17,972.00

Total Bid Amount - $269,347.00

2. Braun

Braun did not complete the correct bid form. However, they did submit a cost proposal.

Total Bid Amount - $240,390.00

3. Tri-Phase

    a. CM Fee % 8.75%
    b. Staffing Costs $110,250.00
    c. General Conditions Costs $16,850.00

Total Bid Amount - $214,600.00

4. Colasanti

Colasanti did not complete the correct bid form. However, they did submit a cost proposal.

Total Bid Amount - $289,739.00

5. DMC

a. CM Fee %	6.00%
b. Staffing Costs	$100,000.00
c. General Conditions Costs	$80,000.00

Total Bid Amount - $240,000.00

In the Police Department's 2025/2026 Capital Improvement budget, funds were budgeted for the complete design and construction of the Storage/Evidence Garage and the Interview Room. These were estimated amounts budgeted to cover the entire project. Since no funds were specifically budgeted for a Construction Manager, a budget amendment from the General Fund is suggested for this portion of the project.

Additionally, in the current fiscal year, funds were budgeted to start the design phase of the Sally Port.

2025/2026 FY Budgeted Amounts

Garage:	$250,000.00	403.0-901.301-977.0000
Interview Room:	$50,000.00	101.0-301.000-971.0100
Sally Port:	$100,000.00	403.0-901.301-977.0000

In the 2026/2027 forecasted budget, additional estimated project costs were projected for the Sally Port construction ($700,000) and the Dispatch expansion ($200,000). In total, between both fiscal years, $1.3 million has been budgeted for this project. Bids above were based upon a $1 million project and $100,000 was budgeted for the architect. This leaves $200,000 as a contingency, if the proposed fiscal year 26-27 is passed as requested, primarily due to unknown exact construction costs at this time.

SUSTAINABILITY:
During the design phase with the selected firm, sustainability features will be discussed.

DESIGN CONSIDERATIONS:
It is intended that the Storage/Evidence Garage will be designed to match the current buildings within the Department of Public Services yard. The Sally Port design will be brought to the appropriate City boards for approval.

PUBLIC COMMUNICATIONS:

At the City's Long Range Planning Meeting held on January 25, 2025, the Police Department reviewed the security concerns identified during the accreditation process and discussed future projects to address these deficiencies. Also, at the April 6, 2025, Budget Hearing public meeting, these items were included in the budget documents presented, and there was discussion regarding these construction projects.

SUMMARY:

At the regularly scheduled October 6, 2025, meeting of the City Commission, the Commission approved a contract with MCD Architects to design the proposed renovations and expansions for the Police Department. While MCD is finalizing its designs, the Police Department posted a Request for Proposal (RFP) for a construction manager on March 5, 2026, to MITN. Bids were due on April 1, 2026, and a total of five bids were received.

After reviewing the bid proposals received, checking references, and consulting with our Architect, MCD, the Police Department recommends proceeding with Sachse Construction.

ATTACHMENTS:

1. Request for Proposal for a Construction Manager
2. CM Pre-Bid Meeting Sign In Sheet
3. Sachse Construction Manager Proposal
4. Signed Construction Manager contract with Sachse
5. Birmingham PD Architect Documents Garage
6. Birmingham PD Architect Documents Sally Port/Interview Room/Dispatch

SUGGESTED COMMISSION ACTION:

Make a motion adopting a resolution to approve an agreement with Sachse Construction for Police Department Renovations and Expansion Construction Management Services in the amount not to exceed $269,347.00, and to authorize the Mayor and City Clerk to sign the agreement on behalf of the City; and further to appropriate and amend the 2025-2026 City Commission budget as follows:

General Fund

<u>Revenue</u>		
Draw from Fund Balance	101.0-000.000-400.0000	$269,347.00
<u>Expenditures</u>		
Other Contractual Services	101.0-301.000-811.0000	$269,347.00

REQUEST FOR PROPOSAL
FOR CONSTRUCTION MANAGEMENT SERVICES FOR PD RENOVATIONS

Sealed proposals endorsed **"CONSTRUCTION MANAGEMENT SERVICES FOR PD RENOVATIONS"**, will be received at the Office of the City Clerk, 151 Martin Street, Birmingham, Michigan, 48009; until Wednesday April 1, 2026 at 2:00 p.m. at which time bids will be publicly opened and read.

Contractors will be required to attend a mandatory pre-bid meeting on Wednesday March 18, 2026 at 1:00 pm. at the City of Birmingham Municipal Building, 151 Martin Street, Birmingham, MI, – City Commission Room 2nd floor. Contractors must register for the pre-bid meeting by Tuesday March 17, 2026 at 2:00 pm by contacting Chief Scott Grewe at (248) 530-1867 or by email at sgrewe@bhamgov.org.

The City of Birmingham, Michigan is accepting sealed bid proposals from qualified professional firms to furnish all labor, equipment, material and supervision necessary for the **CONSTRUCTION MANAGEMENT SERVICES FOR PD RENOVATIONS** for construction services of four parts of the Police Department project. This work must be performed as specified in accordance with the specifications contained in the Request for Proposal (RFP).

The RFP, including the Specifications, may be exclusively obtained online from the Michigan Inter-governmental Trade Network at http://www.mitn.info.

The acceptance of any proposal made pursuant to this invitation shall not be binding upon the City until an agreement has been executed.

Submitted to MITN:	Thursday March 5, 2026
Pre-bid meeting RSVP deadline:	Tuesday March 17, 2026 at 2:00 p.m.
Mandatory Pre-Bid Meeting:	Wednesday, March 18, 2026 at 1:00 p.m., 151 Martin Street, Birmingham, MI 48009 – City Commission Room 2nd floor.
Deadline for Submissions of RFP:	Wednesday, April 1, 2026 at 2:00 p.m.
Contact Person:	Chief Scott Grewe 151 Martin Street Birmingham, MI 48009 Phone: (248) 530-1867 Email: sgrewe@bhamgov.org

REQUEST FOR PROPOSAL
(POLICE DEPARTMENT RENOVATIONS/EXPANSIONS)

Contents

INTRODUCTION 3
REQUEST FOR PROPOSAL (RFP) 3
MANDATORY PRE-BID MEETING 3
INVITATION TO SUBMIT A PROPOSAL 3
INSTRUCTIONS TO CONTRACTORS 4
EVALUATION PROCEDURE AND CRITERIA 4
TERMS AND CONDITIONS 5
CONTRACTOR'S RESPONSIBILITIES 5
CITY RESPONSIBILITY 6
SETTLEMENT OF DISPUTES 6
INSURANCE 7
CONTINUATION OF COVERAGE 7
EXECUTION OF CONTRACT 7
INDEMNIFICATION 7
CONFLICT OF INTEREST 7
EXAMINATION OF PROPOSAL MATERIALS 7
PROJECT TIMELINE 7
BACKGROUND 8
SCOPE OF WORK 9
ATTACHMENT A - AGREEMENT 13
ATTACHMENT B - BIDDERS AGREEMENT 20
ATTACHMENT C - COST PROPOSAL 21
ATTACHMENT D - IRAN SANCTIONS ACT VENDOR CERTIFICATION FORM 22

INTRODUCTION

For purposes of this RFP the City of Birmingham will hereby be referred to as “City” and the private firm will hereby be referred to as “Contractor.”

The City is accepting sealed bid proposals from qualified professional firms to submit a proposal for **CONSTRUCTION MANAGEMENT SERVICES FOR PD RENOVATIONS,** for renovations/expansions and construction services of this project. This work must be performed in accordance with the specifications outlined by the Scope of Work contained in this RFP.

During the evaluation process, the City reserves the right, where it may serve the City’s best interest, to request additional information or clarification from proposers, or to allow corrections of errors or omissions. At the discretion of the City, firms submitting proposals may be requested to make oral presentations as part of the evaluation.

It is anticipated the selection of a contractor will be completed by April 27, 2026. An Agreement for services will be required with the selected Contractor. A copy of the Agreement is contained herein for reference. Contract services will commence upon execution of the agreement by the City.

REQUEST FOR PROPOSAL (RFP)

The purpose of this RFP is to request sealed bid proposals from qualified parties presenting their qualifications, capabilities and costs to provide **CONSTRUCTION MANAGEMENT SERVICES FOR PD RENOVATIONS.**

MANDATORY PRE-BID MEETING

Prior to submitting a bid, interested firms are required to attend a pre-bid meeting to conduct an on-site visit of the Birmingham City Hall and Police Department to make inquiries about the RFP. This meeting will be held on Wednesday, March 18, 2026 at 1:00 pm. 151 Martin Street, Birmingham, MI in the City Commission Room on the 2nd floor (Room 205)**.**

INVITATION TO SUBMIT A PROPOSAL

Proposals shall be submitted no later than Wednesday April, 1, 2026 at 2:00 p.m. to:

City of Birmingham
Attn: City Clerk
151 Martin Street
Birmingham, Michigan 48009

One (1) original and one (1) copy of the bid proposal shall be submitted. The bid proposal should be firmly sealed in an envelope, which shall be clearly marked on the outside, **“CONSTRUCTION MANAGEMENT SERVICES FOR PD RENOVATIONS”**. Any bid proposal received after the due date cannot be accepted and will be rejected and returned, unopened, to the proposer. Proposer may submit more than one proposal provided each proposal meets the functional requirements of this Request For Proposal.

INSTRUCTIONS TO CONTRACTORS

1. Any and all attached forms contained herein requesting information from the Contractor must be completed (see Contractor's Responsibilities). If more than one bid is submitted, a separate bid proposal form must be used for each.

2. Any request for clarification of this RFP shall be made in writing and delivered to: Chief Scott Grewe, (248) 530-1867, sgrewe@bhamgov.org, 151 Martin Street, Birmingham, MI 48009. Such request for clarification shall be delivered, in writing, no later than 5 days prior to the deadline for submissions.

3. All bid proposals must be submitted following the RFP format as stated in this document and shall be subject to all requirements of this document including the instruction to Contractors and general information sections. All bid proposals must be regular in every respect and no interlineations, excisions, or special conditions shall be made or included in the RFP format by the Contractor.

4. The contract will be awarded by the City of Birmingham, at our sole discretion, to the most responsive and responsible Contractor with the lowest price and the contract will require the completion of the work pursuant to these documents.

5. **Each Contractor shall include in his or her proposal, in the format requested, the cost of performing the work per project and total budget**. Municipalities are exempt from Michigan State Sales and Federal Excise taxes. Do not include such taxes in the proposal figure. The City will furnish the successful company with tax exemption information when requested.

6. Each Contractor shall include in their proposal the following information: Contractor name, address, city, state, zip code, telephone number, and fax number. The company shall also provide the name, address, telephone number and e-mail address of an individual in their organization to whom notices and inquiries by the City should be directed as part of their proposal.

EVALUATION PROCEDURE AND CRITERIA

An evaluation panel will be established and will consist of City staff and any other person(s) designated by the City. The panel will evaluate the proposals based on, but not limited to, the following criteria:

1. Ability to provide services as outlined.
2. Contractor background and personnel qualifications.
3. Related experience with similar projects.
4. Overall costs.
5. References.

TERMS AND CONDITIONS

1. The City reserves the right to reject any or all proposals received, waive informalities, or accept any proposal, in whole or in part, it deems to be in the best interest of the City.

2. The City reserves the right to request clarification of information submitted and to request additional information of one or more Contractors.

3. The City reserves the right to terminate the contract at its discretion should it be determined that the services provided do not meet the specifications contained herein, or in the case the City elects not to proceed to the next phase of the RFP. The City may terminate this Agreement at any point in the process upon notice to Contractor sufficient to indicate the City's desire to do so. In the case of such a stoppage, the City agrees to pay Contractor for services rendered to the time of notice, subject to the contract maximum amount.

4. Any proposal may be withdrawn up until the date and time set above for the opening of the proposals. Any proposals not so withdrawn shall constitute an irrevocable offer, for a period of ninety (90) days, to provide the services set forth in the proposal.

5. The cost of preparing and submitting a proposal is the responsibility of the Contractor and shall not be chargeable in any manner to the City.

6. Payment will be made within thirty (30) days after invoice. Acceptance by the City is defined as authorization by the designated City representative to this project that all the criteria requested under the Scope of Work contained herein have been provided. Invoices are to be rendered each month following the date of execution of an Agreement with the City.

7. The Contractor will not exceed the timelines established for the completion of this project.

CONTRACTOR'S RESPONSIBILITIES

Each Contractor shall provide the following as part of their proposal:

1. Completed and signed forms requested for completion within this RFP, including:
    a. Agreement (Attachment A)
    b. Bidder's Agreement (Attachment B)
    c. Cost Proposal (Attachment C)
    d. Iran Sanctions Act Vendor Certification Form (Attachment D)

2. A description of completed projects that demonstrate the contractor's ability to complete projects of similar scope, size, and purpose, in a timely manner, and within budget.

3. A project timeline addressing each section within the Scope of Work and a description of the overall project approach. Include a statement that the Contractor will be available according to the proposed timeline.

4. A description of the company, including resumes and professional qualifications of the principals involved in administering the project.

5. A list of sub-contractors and their qualifications, if applicable. **For proposed buildout options or exterior alterations, the Contractor must use a qualified Contractor in strict accordance with the Secretary of Interior Standards (36 CFR, Part 61) for the Treatment of Historic Properties.**

6. Three (3) client references from past projects, including current phone numbers. At least two (2) of the client references should be for similar projects.

7. The Contractor shall be responsible for the disposal of all material and any damages which occur as a result of any actions by employees or sub-contractors of the Contractor during this project.

8. The Contractor shall be responsible for any changes necessary for the plans to be approved by the City of Birmingham.

9. The Contractor with the successful bid shall provide a Performance Bond in an amount not less than 100% of the contract price in favor of the City of Birmingham, conditioned upon the faithful performance of the contract, and completion on or before the date specified.

CITY RESPONSIBILITY

1. The City will provide a designated representative to work with the Contractor to coordinate both the City's and Contractor's efforts and to inspect and verify any work performed by the Contractor.

2. The City will provide access to the City of Birmingham during regular business hours or during nights and weekends as approved by the City's designated representative.

SETTLEMENT OF DISPUTES

The successful Contractor agrees to certain dispute resolution processes/limitations in accordance with paragraph 18 of the Agreement attached as Attachment A.

INSURANCE

The successful Contractor is required to procure and maintain certain types of insurances in accordance with paragraph 11 of the Agreement attached as Attachment A.

CONTINUATION OF COVERAGE

The Contractor shall provide all insurance coverages as specified. Upon failure of the Contractor to obtain or maintain such insurance coverage for the term of the agreement, the City may, at its option, purchase such coverage and subtract the cost of obtaining such coverage from the contract amount. In obtaining such coverage, Birmingham shall have no obligation to procure the most cost effective coverage but may contract with any insurer for such coverage.

EXECUTION OF CONTRACT

All proposals submitted must include a signed Agreement as provided in Attachment A. The Contractor whose proposal is accepted shall be required to furnish all insurance coverages as specified within ten (10) days after receiving notice of such acceptance. Any contract awarded pursuant to any bid shall not be binding upon the City until a written contract has been executed by both parties.

INDEMNIFICATION

The successful Contractor shall indemnify the City and various associated persons in accordance with paragraph 10 of the Agreement attached as Attachment A.

CONFLICT OF INTEREST

The successful Contractor is subject to conflict of interest requirements/restrictions in accordance to paragraph 16 of the Agreement attached as Attachment A.

EXAMINATION OF PROPOSAL MATERIALS

The submission of a proposal shall be deemed a representation and warranty by the Contractor that it has investigated all aspects of the RFP, that it is aware of the applicable facts pertaining to the RFP process and its procedures and requirements, and that it has read and understands the RFP. Statistical information which may be contained in the RFP or any addendum thereto is for informational purposes only.

PROJECT TIMELINE

Submitted to MITN: Thursday March 5, 2026

Pre-bid meeting RSVP deadline: Tuesday, March 17, 2026 at 2:00 p.m.

Mandatory Pre-Bid Meeting:	Wednesday, March 18, 2026 at 1:00 p.m. 151 Martin Street, Birmingham, MI 48009 – City Commission Room 2nd floor**.**
Deadline for Submissions:	Wednesday, April 1, 2026 at 2:00 p.m. – Bids publicly opened 151 Martin Street, Birmingham, MI 48009 – City Commission Room 2nd floor**.**
Award of Bid:	Estimated award by April 27, 2026.
Project Kickoff:	Work expected to begin May 4, 2026.

The Contractor will not exceed the timelines established for the completion of this project.

BACKGROUND

The historic municipal building, located at 151 Martin St, was built in 1928 and houses the Police Department and City Hall. Throughout the years, there have been some renovations and additions to the building, the last completed in 1993. In June of 2021, the Police Department successfully completed the Michigan Association of Chiefs of Police (MACP) Law Enforcement Accreditation Program. As part of the program, the Police Department had to pass a final on-site assessment. The MACP Law Enforcement Accreditation Program wrote a comprehensive evaluation report that covered all aspects of the department. The Police Department met or exceeded standards in every category but one, the safety and security of the Police Department building itself.

The Police Department is housed on three of the four levels of City Hall. The last renovation of the Police Department occurred in 1993. Since then, there have been no major renovations to the Police Department. The Police Department lacks sufficient storage for equipment and records. Some current storage locations have been identified as available space to expand work areas and install of an interview room to address safety and security needs. These developments increases the need for off-site secure storage.

Additionally, the Police Department has no secure area for the transportation of prisoners between police cars and our booking facilities. These safety concerns are further exacerbated by the unsecured nature of the police parking area. This area is used by City Hall staff, members of the public visiting City Hall, and routinely by pedestrians traversing our downtown area. These regular uses further the safety concerns of not only our officers and prisoners during transports but also civilians that can come into contact with these transports due to the current facility design.

Police Department issues that must be addressed:

1. Sally Port: Currently, the Police Department has no such facility. Officers park patrol cars in the open courtyard, remove their weapons and place them in a secure area of the vehicle. The officer then removes the defendant from the vehicle in full public view, escorts the defendant across the parking lot with the defendant in handcuffs, and walks up a ramp to the booking room door, where a dispatcher is contacted via buzzer to unlock the door. This is all open to the public.

2. Interview Room/Prisoner Release: The adult holding cells are on the ground floor next to the clerical area. When a defendant is removed from the cell to be interviewed, the defendant has to be handcuffed and escorted through the clerical area (civilian employees present), through the police lobby area (public present), through the main City Hall lobby (public present), down a flight of stairs into the basement level where the police interview room is located. When a prisoner is released from custody, the prisoner is released through the Police Department clerical area (civilian employees present).

3. Public Safety Answering Point (PSAP): Our current PSAP center is undersized for our current operations making work conditions difficult for the operation. When originally designed, the PSAP center housed two dispatchers. Now the PSAP center regularly houses three dispatchers and more computer equipment and monitors than the area was designed to accommodate. Additionally, a City wide camera program requires multiple monitors for our dispatch staff to monitor, which the center was never designed to handle.

4. Garage Storage: The Police Department has no access to interior storage for equipment such as our radar trailers, camera trailer, Polaris Ranger, and Motorcycles, except for a shared City Hall garage. This shared garage does not provide the space for all the Police Department's needs, resulting in equipment left outside when not in use. This causes increased deterioration due to the elements. Additionally, the Police Department uses a City wide shared storage location for police files. As a result of security requirements for the police files, other City staff members must be escorted by the Police Department to access their storage items. Building a Police Garage will create the space the department needs to address the secure storage of our items while freeing up space in the shared storage areas for the rest of City Hall.

The City is committed to addressing the safety and security of the existing building through this process to ensure the safe continued use of the historic municipal building.

SCOPE OF WORK

The City is currently soliciting bids for Construction Management Services to perform the following services in accordance with the requirements as defined and noted herein:

The City is seeing proposals from qualified construction managers (CM) to complete renovations and additions for both the police department and at the department of public services yard. This project includes four separate construction projects (Police Garage, Interview Room, Sally Port, PSAP Expansion). These four projects will be spread across multiple fiscal years for the City of Birmingham.

Construction Managers shall prepare separate bids for all four projects, including a final total. Bids shall include all phases of the project.

Phase 1 – Police Garage / Interview Room, (Spring 2026)
Phase 1 of the project includes the additions of a police garage at the department of public services yard and the additions of an interview room in the police department clerical space.

a. Police Garage to be built on our DPS grounds
    i. Demolish existing fence, sidewalk, exterior overhand, and existing walls. Build new two story garage with two overhead doors and one man door. Provide new ADA restroom within the existing storage building.
        1. Secure evidence storage within the garage (2nd story)
        2. Building security with alarms and cameras
        3. Mechanical systems – HVAC, plumbing, and electrical systems
        4. Fire protection

b. Interview Room
    i. Construct an interview room in the police clerical area
    ii. Open direct access to the booking room
    iii. Additional access door to the Clerical area
    iv. Audio and Video surveillance
    v. Mechanical systems – HVAC, and electrical systems
    vi. Fire protection

Phase 2 – Sally Port / PSAP Expansion (Fall 2026)
Phase 2 of this project includes the construction of a Sally Port and a Dispatch Expansion.

a. Sally Port
    i. New 650 sq. ft. sally port next to the existing Booking Room
    ii. Including a man door and overhead 10’ x 12’ overhead door
    iii. Designed to complement an existing historic building
    iv. Secure access from Sally Port to the current Booking door
    v. Building security with alarms and cameras
    vi. Mechanical systems – HVAC, plumbing and, electrical systems

vii. Fire protection

b. PSAP Expansion
   i. Eliminate the wall between PSAP and IT closet
   ii. Demolish existing stair and interior wall separating the IT room
   iii. Expand PSAP into the newly opened space
   iv. New built in desk and finishes
   v. Mechanical systems – HVAC, and electrical systems
   vi. Fire protection

The total construction cost for the projects is targeted to be approximately $1,000,000.00.

Please see the attached drawing sets and render images for further information on the scopes of work at each location.

Proposals are being requested from selected CM's to provide information regarding their qualifications to manage projects of this size and scope, their proposed range of services, and related fees for these services. Where the basis of payment is the cost of the work plus a fee with a guaranteed maximum prices (AIA Document A133-2019), and by reference, general conditions of the contract for construction (AIA Document A201-2017).

Pre-Bidding
The selected CM will be expected to:

a. Review the SD drawings
b. Provide an estimate of the project costs
c. Phase out the projects at all locations
d. Provide a preliminary estimate for each project
e. Participate in a formal page-turn review of the construction documents with the Architect prior to bidding

Bidding
The selected CM will be expected to:

a. Solicit and obtain bids from a minimum of three subcontractors for each sub trade. The city may require bids to be solicited using BidNet.
b. Open and review bids with the Owner's representatives and Architect.
c. Incorporate into the construction sequencing and sub-contracts certain materials and services that may be provided by the owner's sources.
d. Evaluate and recommend subcontractors selections based on bids received and qualifications of contractors.
e. In conjunction with the owner's representatives and Architect,

select the most appropriate sub-contractor for each sub trade. The owner's representatives will reserve the right to have the final decision on the selection of each subcontractor.

f. Shortlisted contractors will be required to participate in post-bid interviews with the owner and architect. Interviews will be used to evaluate project understanding, team qualifications, approach, and overall fit for the project.

Construction Services

Once the subcontractors are selected, the project budgets will be updated and the selected CM will manage and execute the construction of the projects as shown in the construction documents and specifications, and as outlined in the AIA document A133-2019 and AIA document A201-2017.

Construction services shall be compensated on the basis of a percentage of construction costs. Provide a percentage fee (based on the cost of construction) for the construction services, including all overhead and profit. Provide also a preliminary estimate of general conditions costs (see attached for format) and the billable rates and anticipated total costs for various staff.

Attachment A
AGREEMENT FOR POLICE DEPARTMENT RENOVATIONS/EXPANSIONS

THIS AGREEMENT is entered into on the date signed by the Mayor, by and between the **CITY OF BIRMINGHAM,** whose address is 151 Martin Street, Birmingham, MI 48009 (hereinafter referred to as the City) and_____, whose address is _____, hereafter referred to as Contactor and the foregoing shall collectively be referred to as the parties.

WHEREAS, the City desires a contractor to furnish all labor, equipment, material and supervision necessary for the **CONSTRUCTION MANAGEMENT SERVICES FOR PD RENOVATIONS** designs construction services of this project.; and

WHEREAS, the City in connection therein has requested formal proposals and issued an Request for Proposal; and

WHEREAS, Contractor has successfully provided a response and cost proposal to perform the **CONSTRUCTION MANAGEMENT SERVICES FOR PD RENOVATIONS** and qualifications that meet the project requirements.

NOW, THEREFORE, in consideration of the foregoing preambles, the adequacy of which is acknowledged by and between the parties to this Agreement, the parties agree as follows:

1. MUTUALLY AGREE: It is mutually agreed by and between the parties that the City's Request for Proposal for **CONSTRUCTION MANAGEMENT SERVICES FOR PD RENOVATIONS** posted March 5. 2026, and the Contractor's response shall be fully incorporated herein by reference and shall become a part of this Agreement, and shall be binding upon both parties hereto (attached hereto as Attachment "A" . In the event of a conflict in any of the terms of this Agreement and the Contractor's response, the terms of this Agreement shall prevail.

2. TERM: This Agreement shall have a term of three years from the date stated above or until competed to the satisfaction of the City. The City shall have the right to unilaterally terminate this Agreement on thirty (30) days written notice. In the event of termination, the Contractor shall receive compensation for services to the date the termination takes effect and the City shall be entitled to retain and use the results of all designs and renovations prepared by the Contractor through such date.

3. TERMS OF PAYMENT: The Contractor will invoice monthly for all labor supplied and work completed. In no event shall invoices be submitted more than 30 days after completion of services. Submitted invoices shall include the following detailed information: the type of work performed, the time spent on the work, the individual who performed the work and the per hour billing rate charged. The City may, at its sole discretion demand review and the right to request at any time further detailed accounting information for any or all bills. The right to inspection of any bill and invoice shall never be at any cost or billings to the City, nor shall preparation of said invoices be billed

to the City or against the general retainer. Payment terms will be net 30 days unless otherwise specified by the City.

4. Contractor shall employ personnel of good moral character and fitness in performing all services under this Agreement.

5. INSURANCE SUBMISSION REQUIREMENTS: The Contractor has submitted proof to the City that it meets all City insurance requirements. Insurance, with coverage amounts at no less than the City's minimum requirements, must be held by the Contractor throughout the term of this Agreement. Certificates of insurance as stated below will be required no later than five (5) business days from the date of Contractors acceptance of the terms of this Agreement.

6. CONFIDENTIAL AND OR PROPRIETARY INFORMATION: The Contractor acknowledges that in performing services pursuant to this Agreement, certain confidential and/or proprietary information (including, but not limited to, internal organization, methodology, personnel and financial information, etc.) may become involved. The Contractor recognizes that unauthorized exposure of such confidential or proprietary information could irreparably damage the City. Therefore, the Contractor agrees to use reasonable care to safeguard the confidential and proprietary information and to prevent the unauthorized use or disclosure thereof. The Contractor shall inform its employees of the confidential or proprietary nature of such information and shall limit access thereto to employees rendering services pursuant to this Agreement. The Contractor further agrees to use such confidential or proprietary information only for the purpose of performing services pursuant to this Agreement.

7. INDEPENDENT CONTRACTOR: The Contractor and the City agree that the Contractor is acting as an independent contractor with respect to the Contractors role in providing services to the City pursuant to this Agreement, and as such, shall be liable for its own actions and neither the Contractor nor its employees shall be construed as employees of the City. Nothing contained in this Agreement shall be construed to imply a joint venture or partnership and neither party, by virtue of this Agreement, shall have any right, power or authority to act or create any obligation, express or implied, on behalf of the other party, except as specifically outlined herein. Neither the City nor the Contractor shall be considered or construed to be the agent of the other, nor shall either have the right to bind the other in any manner whatsoever, except as specifically provided in this Agreement, and this Agreement shall not be construed as a contract of agency. The Contractor shall not be considered entitled or eligible to participate in any benefits or privileges given or extended by the City, or be deemed an employee of the City for purposes of federal or state withholding taxes, FICA taxes, unemployment, workers' compensation or any other employer contributions on behalf of the City.

8. COMPLIANCE WITH LAWS: Contractor agrees to fully and faithfully carry out the duties of set forth herein using its best efforts in accomplishing all assignments from the City, and further, in addition to upholding all federal, and state laws and applicable codes of professional conduct to which Contractor is subject, Contractor hereby agrees to be bound by all Federal, State, or City of Birmingham ordinances, rules, regulations and policies as are amended from time to time, and including without limitation the Fair Labor Standards Act, the Equal Employment Opportunity rules and regulations, the Transportation Safety Act and the Occupational Safety and

Health Acts.

9. NON-COMPLIANCE WITH INSURANCE REQUIREMENTS: Failure to deliver and maintain insurance in accordance with the terms of this Agreement will be cause for the City, by and through its City Manager, to terminate this Agreement, or at the City's option, the City may purchase on the open market such required insurance and shall be entitled to charge any additional cost to the Contractor, either by offset to any amounts due and owing Contractor for services provided to the City, or, by separate bill and demand for payment. Nothing in this paragraph shall be deemed to create or be interpreted as establishing a "for cause" termination; Contractor agrees and understands that its engagement is at will and may be terminated by the City Manager for any cause or no cause.

10. INDEMNIFICATION: To the fullest extent permitted by law, the Architect shall indemnify and hold the City of Birmingham, its elected and appointed officials, employees and volunteers and others working on behalf of the City harmless from and against damages, losses and judgments, which may be asserted, claimed, or recovered against or from the City, its elected and appointed officials, employees, volunteers or others working on behalf of the City, including reasonable attorney fees and expenses recoverable under applicable law, but only to the extent of the degree of fault of the Michigan licensed architect for negligent acts or omissions of the Architect, its employees and its consultants in the performance of their professional services, in the performance of this Agreement.

11. STANDARD INSURANCE REQUIREMENTS: The Contractor shall maintain during the life of this Agreement the applicable types of insurance coverage and minimum limits as set forth below:

A. Workers' Compensation Insurance:

For Non-Sole Proprietorships: Contractor shall procure and maintain during the life of this Agreement, Workers' Compensation Insurance, including Employers Liability Coverage, in accordance with all applicable statutes of the State of Michigan.

For Sole Proprietorships: Contractor shall complete and furnish to the City prior to the commencement of work under this Agreement a signed and notarized Sole Proprietor Form, for sole proprietors with no employees or with employees, as the case may be.

B. Commercial General Liability Insurance: Contractor shall procure and maintain during the life of this Agreement, Commercial General Liability Insurance on an "Occurrence Basis" with limits of liability not less than **$2,000,000** per occurrence combined single limit, Personal Injury, Bodily Injury and Property Damage. Coverage shall include the following extensions: (A)

Contractual Liability; (B) Products and Completed Operations; (C) Independent Contractor Coverage; (D) Broad Form General Liability Extensions or equivalent; (E) Deletion of all Explosion, Collapse and Underground (XCU) Exclusions, if applicable.

C. Additional Insured: Commercial General Liability and Motor Vehicle Liability Insurance, as described above, shall include an endorsement stating the following **Additional Insureds: The City of Birmingham, including all elected and appointed officials, all employee and volunteers, all boards, commissions and/or authorities and board members, including employees and volunteers thereof.** This coverage shall be primary to any other coverage that may be available to the additional insured, whether any other available coverage by primary, contributing or excess.

D. Professional Liability: If applicable, professional liability insurance with limits of not less than $2,000,000 per claim if Contractor will provide services that are customarily subject to this type of coverage.

E. Coverage Expiration: If any of the above coverages expire during the term of this Agreement, Contractor shall deliver renewal certificates and/or policies to the City at least (10) days prior to the expiration date.

F. Proof of Insurance Coverage: Contractor shall provide the City of Birmingham at the time the Agreement is returned for execution, Certificates of Insurance and/or policies, acceptable to the City of Birmingham, as listed below.

1) Two (2) copies of Certificate of Insurance for Workers' Compensation Insurance, or a signed and notarized copy of the Sole Proprietor Form;
2) Two (2) copies of Certificate of Insurance for Commercial General Liability Insurance;
3) Two (2) copies of Certificate of Insurance for Vehicle Liability Insurance;
4) Two (2) copies of Certificate of Insurance for Professional Liability Insurance, if applicable;
5) If so requested, Certified Copies of all policies mentioned above will be furnished.

G. Maintaining Insurance: Upon failure of the Contactor to obtain or maintain such insurance coverage for the term of the Agreement, the City of Birmingham may, at its option, purchase such coverage and subtract the cost of obtaining such coverage from the Agreement amount. In obtaining such coverage, the City of Birmingham shall have no obligation to procure the most cost-effective coverage but may contract with any insurer for such coverage.

12. WRITTEN NOTICES: Written notices regarding this Agreement shall be

addressed to the following:

City: City of Birmingham
P.O. Box 3001
Birmingham, Michigan 48012
Attn: Chief Scott Grewe

Contractor: _____
_____
_____
Attn: _____

13. AMENDMENTS: No amendment, modification or supplement to this Agreement shall be binding unless it is in writing and signed by authorized representatives of the parties.

14. WAIVER OF BREACH: No waiver by either party of any breach of any of the terms, covenants or conditions herein contained by the other party shall be construed as a waiver of any succeeding breach of this same or of any other term, covenant or condition.

15. COMPLETE AGREEMENT: The parties agree that the conditions set forth in this Agreement sets forth all terms and conditions of Contractor agreement with the City of Birmingham. This Agreement supersedes all prior agreements or understandings between the parties. There are no promises, conditions or understandings other than those stated herein, and, that any prior negotiations, terms or conditions discussed between the City and the Contractor shall not constitute a part of this Agreement. The term "agreement" as used in this clause shall include any future written amendments, modifications, or supplements made in accordance herewith.

16. DIRECT OR INDIRECT INTEREST: If, after the effective date of this Agreement, any official of the City, or spouse, child, parent or in-law of such official or employee shall become directly or indirectly interested in this Agreement or the affairs of the Contractor, the City shall have the right to terminate this Agreement without further liability to the Contractor if the disqualification has not been removed within thirty (30) days after the City has given the Contractor notice of the disqualifying interest. Ownership of less than one percent (1%) of the stock or other equity interest in a corporation or partnership shall not be a disqualifying interest. Employment shall be a disqualifying interest.

17. FAILURE TO PERFORM. If Contractor fails to perform its obligations hereunder, the City may take any and all remedial actions provided by the general specifications or otherwise permitted by law.

18. LEGAL PROCEEDINGS: Any controversy or claim arising out of or relating to this Agreement, or the breach thereof, shall be settled either by commencement of a suit in Oakland County Circuit Court, the 48th District Court or by arbitration. If both parties elect to have the dispute resolved by arbitration, it shall be settled pursuant to Chapter 50 of the Revised Judicature Act for the State of Michigan and administered by the American Arbitration Association with one arbitrator being used, or three arbitrators

in the event any party's claim exceeds $1,000,000. Each party shall bear its own costs and expenses and an equal share of the arbitrator's and administrative fees of arbitration. Such arbitration shall qualify as statutory arbitration pursuant to MCL §600.5001 et seq., and the Oakland County Circuit Court or any court having jurisdiction shall render judgment upon the award of the arbitrator made pursuant to this Agreement. The laws of the State of Michigan shall govern this Agreement, and the arbitration shall take place in Oakland County, Michigan. In the event that the parties elect not to have the matter in dispute arbitrated, any dispute between the parties may be resolved by the filing of a suit in a federal or state court with jurisdiction over Oakland County, Michigan.

19. RESPONSE TO REQUESTS FOR PROPOSALS: The Contractor shall be held to and bound by all terms, conditions, warranties and representations which it made in its written response dated _____, to the City's Request for Proposals dated March 5, 2026 (attached hereto as Attachment "A"). In the event of a conflict in any of the terms of this Agreement and the Contractors response, the terms of this Agreement shall prevail.

20. FAIR PROCUREMENT OPPORTUNITY: Procurement for the City of Birmingham will be handled in a manner providing fair opportunity for all businesses. This will be accomplished without abrogation or sacrifice of quality and as determined to be in the best interest of the City of Birmingham.

IN WITNESS WHEREOF, the parties hereto agree to be bound by the above terms and conditions, and Contractor, by its authorized signature below, expressly accepts this Agreement upon the above provided terms and conditions contained in this Agreement as of the date first above written.

Contractor

By:_____
Its:_____

STATE OF MICHIGAN)
) ss:
COUNTY OF OAKLAND)

On this _____day of _____, 20__, before me personally appeared _____, who acknowledged that with authority on behalf of _____ to do so he/she signed this Agreement.

_____
Notary Public
_____County, Michigan
Acting in _____ County, Michigan
My commission expires: _____

CITY OF BIRMINGHAM:

By: _____
Clinton Baller, Mayor

By:_____
Alexandria D. Bingham, City Clerk

APPROVED:

_____
Jana Ecker, City Manager
(Approved as to substance)

_____
Scott A. Grewe, Police Chief
(Approved as to substance)

_____
Mary M. Kucharek, City Attorney
(Approved as to form)

_____
Mary Chavez, Finance Director
(Approved as to Financial Obligation)

ATTACHMENT B - BIDDER'S AGREEMENT
For CONSTRUCTION MANAGEMENT SERVICES FOR PD RENOVATIONS

In submitting this proposal, as herein described, the Contractor agrees that:

1. They have carefully examined the specifications, terms and Agreement of the Request for Proposal and all other provisions of this document and understand the meaning, intent, and requirement of it.

2. They will enter into a written contract and furnish the item or items in the time specified in conformance with the specifications and conditions contained therein for the price quoted by the proponent on this proposal.

PREPARED BY (Print Name)	**DATE**
TITLE	**DATE**
AUTHORIZED SIGNATURE	**E-MAIL ADDRESS**
COMPANY	
ADDRESS	**PHONE**
NAME OF PARENT COMPANY	**PHONE**
ADDRESS	

ATTACHMENT C - COST PROPOSAL
For CONSTRUCTION MANAGEMENT SERVICES FOR PD RENOVATIONS

In order for the bid to be considered valid, Section 00 41 44 - Bid Form must be completed in its entirety.

COST PROPOSAL	
ITEM	**BID AMOUNT**
Phase 1	$
Phase 2	$
TOTAL BID AMOUNT	$
ADDITIONAL BID ITEMS	
	$
	$
GRAND TOTAL AMOUNT	$

Firm Name_____

Authorized signature_____

Printed Name_____

Date_____

ATTACHMENT D - IRAN SANCTIONS ACT VENDOR CERTIFICATION FORM
For CONSTRUCTION MANAGEMENT SERVICES FOR PD RENOVATIONS

Pursuant to Michigan Law and the Iran Economic Sanction Act, 2012 PA 517 ("Act"), prior to the City accepting any bid or proposal, or entering into any contract for goods or services with any prospective Vendor, the Vendor must certify that it is not an "Iran Linked Business", as defined by the Act.

By completing this form, the Vendor certifies that it is not an "Iran Linked Business", as defined by the Act and is in full compliance with all provisions of the Act and is legally eligible to submit a bid for consideration by the City.

PREPARED BY (Print Name)	**DATE**
TITLE	**DATE**
AUTHORIZED SIGNATURE	**E-MAIL ADDRESS**
COMPANY	
ADDRESS	**PHONE**
NAME OF PARENT COMPANY	**PHONE**
ADDRESS	
TAXPAYER I.D.#	

Pre Bid Meeting-Construction Mgr PD Renovations

Name	Organization	Email	Phone #
Jeff Flesar	City Contracting Services	Jeff@citycontractingservices.com	248-990-8765
Kenneth Franklin	DMC Construction Group	KennethF@dmcgroupusa.com	248-388-1477
Tom Anderson	Colasanti Construction	tanderson@colasantigroup.com	313-779-0824
Alysa MacGregor	Sachse Construction	amacgregor@sachse.net	517 896 6882
Jimmy Mihalic	Sorensen Gross	JMihalic@sgcompany.com	980-616-2781
Nick Branchini	Tri Phase Commercial Const.	Nick@Triphasecc.com	248-840-6662
Chad Nedbal	Braun Construction Group	CNedbal@braungc.com	586-718-6532
RICK STANZA	SACHSE CONSTRUCTION	RSTANZA @SACHSE.NET	313-798-7322

CITY OF BIRMINGHAM

CONSTRUCTION MANAGEMENT SERVICES FOR PD RENOVATIONS

April 1, 2026

SACHSE CONSTRUCTION

CONTRACTOR NAME & CONTACT INFORMATION

SACHSE CONSTRUCTION

3663 Woodward Ave | Suite 500
Detroit, Michigan 48201

PROPOSAL FOLLOW-UP CONTACT

Jay McKee
Senior Vice President
313-498-6989
jmckee@sachse.net

SACHSE CONSTRUCTION

3663 Woodward Avenue
Suite 500
Detroit, MI 48201

Chief Scott Grewe

151 Martin Street
Birmingham, MI 48009

April 1, 2026

RE: City of Birmingham | Construction Management Services For PD Renovations

Dear Chief Scott Grewe, and the Entire Selection Committee --

We sincerely appreciate the opportunity to provide The City of Birmingham with qualifications and a proposal for the Construction Management Services for Police Department Renovations.

At Sachse Construction, we strive to be the most trusted and respected construction partner in North America. Our clients would tell you that we achieve this because of WHO we are, a differentiating factor we pride ourselves in. Every single team member embodies the same core values:

- Do the right thing
- Have passion and enthusiasm
- Continuously pursue excellence by constantly raising the bar
- Do whatever it takes

We apply these values as a standard of excellence to every project we undertake, consistently ensuring high quality results. As a result, we effectively:

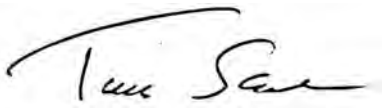
- Deliver superior quality workmanship
- Provide unsurpassed customer service
- Build invaluable relationships with our clients

Utilizing our construction expertise and proven project approach, we will efficiently manage and complete your project with the utmost care and precision. Sachse has built a strong reputation of hard work, commitment to excellence, and attention to details.

Our minimum standard is to provide a unique & exceptional service experience.

Sachse Construction is committed to providing The City of Birmingham with complete satisfaction. If you are not 100% satisfied with your project at the end, we will refund 10% of our Management Fee.

Thank you for your time and consideration,



Todd Sachse

CEO
Sachse Construction
313.481.8240
tsachse@sachse.net

TABLE OF CONTENTS

01 REQUIRED FORMS

a. Agreement
b. Bidder's Agreement
c. Cost Proposal
d. Iran Sanctions Act Vendor Certification Form

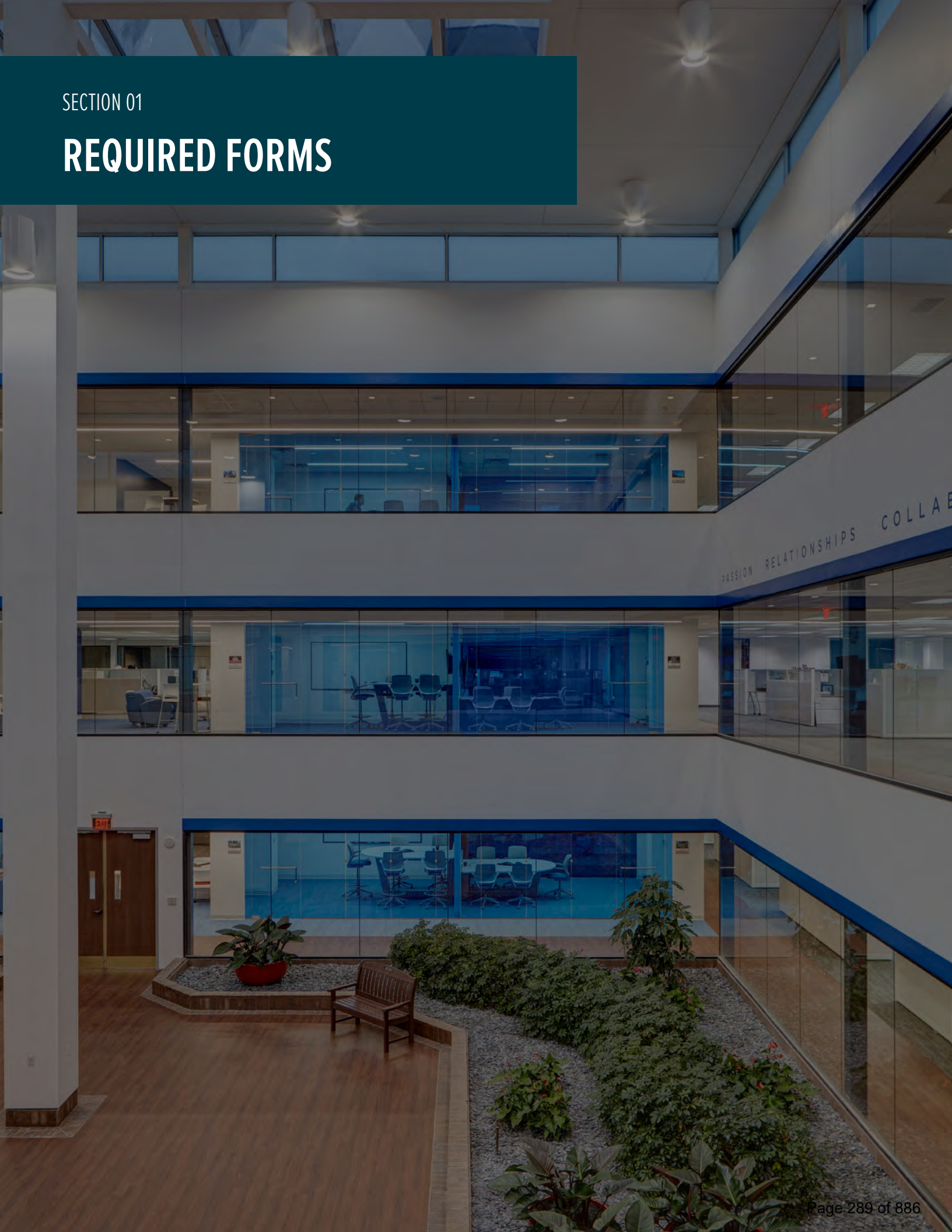
02 SIMILAR PROJECTS

03 PROJECT TIMELINE

04 FIRM INTRODUCTION / TEAM RESUMES

05 LIST OF SUBCONTRACTORS

06 CLIENT REFERENCES



SECTION 01

REQUIRED FORMS

Attachment A
AGREEMENT FOR POLICE DEPARTMENT RENOVATIONS/EXPANSIONS

THIS AGREEMENT is entered into on the date signed by the Mayor, by and between the **CITY OF BIRMINGHAM,** whose address is 151 Martin Street, Birmingham, MI 48009 (hereinafter referred to as the City) and Sachse Construction and Development Company, LLC whose address is 3663 Woodward, Suite 500, Detroit, MI 48201, hereafter referred to as Contactor and the foregoing shall collectively be referred to as the parties.

WHEREAS, the City desires a contractor to furnish all labor, equipment, material and supervision necessary for the **CONSTRUCTION MANAGEMENT SERVICES FOR PD RENOVATIONS** designs construction services of this project.; and

WHEREAS, the City in connection therein has requested formal proposals and issued an Request for Proposal; and

WHEREAS, Contractor has successfully provided a response and cost proposal to perform the **CONSTRUCTION MANAGEMENT SERVICES FOR PD RENOVATIONS** and qualifications that meet the project requirements.

NOW, THEREFORE, in consideration of the foregoing preambles, the adequacy of which is acknowledged by and between the parties to this Agreement, the parties agree as follows:

1. **MUTUALLY AGREE**: It is mutually agreed by and between the parties that the City's Request for Proposal for **CONSTRUCTION MANAGEMENT SERVICES FOR PD RENOVATIONS** posted March 5. 2026, and the Contractor's response shall be fully incorporated herein by reference and shall become a part of this Agreement, and shall be binding upon both parties hereto (attached hereto as Attachment "A" . In the event of a conflict in any of the terms of this Agreement and the Contractor's response, the terms of this Agreement shall prevail.

2. **TERM:** This Agreement shall have a term of three years from the date stated above or until competed to the satisfaction of the City. The City shall have the right to unilaterally terminate this Agreement on thirty (30) days written notice. In the event of termination, the Contractor shall receive compensation for services to the date the termination takes effect and the City shall be entitled to retain and use the results of all designs and renovations prepared by the Contractor through such date.

3. **TERMS OF PAYMENT:** The Contractor will invoice monthly for all labor supplied and work completed. In no event shall invoices be submitted more than 30 days after completion of services. Submitted invoices shall include the following detailed information: the type of work performed, the time spent on the work, the individual who performed the work and the per hour billing rate charged. The City may, at its sole discretion demand review and the right to request at any time further detailed accounting information for any or all bills. The right to inspection of any bill and invoice shall never be at any cost or billings to the City, nor shall preparation of said invoices be billed

IN WITNESS WHEREOF, the parties hereto agree to be bound by the above terms and conditions, and Contractor, by its authorized signature below, expressly accepts this Agreement upon the above provided terms and conditions contained in this Agreement as of the date first above written.

Contractor: Sachse Construction and Development Company, LLC

By: _____

Its: Jay McKee, Senior Vice President

STATE OF MICHIGAN)
) ss:
COUNTY OF OAKLAND)

On this 1st day of April, 2026, before me personally appeared Jay McKee, who acknowledged that with authority on behalf of Sachse Construction to do so he/she signed this Agreement.

_____
Notary Public
St. Clair County, Michigan
Acting in Wayne County, Michigan
My commission expires: 11/24/2028

CITY OF BIRMINGHAM:

By: _____
Clinton Baller, Mayor

By: _____
Alexandria D. Bingham, City Clerk

APPROVED:

_____
Jana Ecker, City Manager
(Approved as to substance)

_____
Scott A. Grewe, Police Chief
(Approved as to substance)

_____
Mary M. Kucharek, City Attorney
(Approved as to form)

_____
Mary Chavez, Finance Director
(Approved as to Financial Obligation)

ATTACHMENT B - BIDDER'S AGREEMENT
For CONSTRUCTION MANAGEMENT SERVICES FOR PD RENOVATIONS

In submitting this proposal, as herein described, the Contractor agrees that:

1. They have carefully examined the specifications, terms and Agreement of the Request for Proposal and all other provisions of this document and understand the meaning, intent, and requirement of it.

2. They will enter into a written contract and furnish the item or items in the time specified in conformance with the specifications and conditions contained therein for the price quoted by the proponent on this proposal.

Jay McKee	April 1, 2026
PREPARED BY (Print Name)	**DATE**
Senior Vice President	April 1, 2026
TITLE	**DATE**
	jmckee@sachse.net
AUTHORIZED SIGNATURE	**E-MAIL ADDRESS**

Sachse Construction and Development Company, LLC

COMPANY	
3663 Woodward, Suite 500 Detroit, MI 48201	313-481-8200
ADDRESS	**PHONE**

Sachse Construction and Development Company, LLC

NAME OF PARENT COMPANY	**PHONE**
3663 Woodward, Suite 500 Detroit, MI 48201	313-481-8200
ADDRESS	

CONSTRUCTION MANAGEMENT COST PROPOSAL
(ATTACHMENT C SUPPLEMENT)

Project: Construction Management Services for PD Renovations
Firm Name: Sachse Construction and Development Company, LLC
Date: April 1, 2026

Note: The CM is responsible to provide services for both phases of the projects as outlined in the CM RFP.

1. CM FEE (%)

Per RFP: Fee shall be a percentage of construction cost, inclusive of overhead and profit

2. STAFFING COSTS

Estimated project duration is 7 months. Please provide, on a supplemental sheet, a breakdown of staff required with the monthly staffing costs and total estimated staffing costs.

3. GENERAL CONDITIONS

Estimated project duration is 7 months. Please provide, on a supplemental sheet, a breakdown of general condition anticipated and total costs.

Item:	Proposed:
1. CM Fee %	4.95%
2. Staffing Costs Total	$201,875
3. General Conditions Total	$17,972

Authorized Signature:
Printed Name: Jay McKee, Senior Vice President
Date: April 1, 2026

ATTACHMENT D - IRAN SANCTIONS ACT VENDOR CERTIFICATION FORM
For CONSTRUCTION MANAGEMENT SERVICES FOR PD RENOVATIONS

Pursuant to Michigan Law and the Iran Economic Sanction Act, 2012 PA 517 ("Act"), prior to the City accepting any bid or proposal, or entering into any contract for goods or services with any prospective Vendor, the Vendor must certify that it is not an "Iran Linked Business", as defined by the Act.

By completing this form, the Vendor certifies that it is not an "Iran Linked Business", as defined by the Act and is in full compliance with all provisions of the Act and is legally eligible to submit a bid for consideration by the City.

Jay McKee	April 1, 2026
PREPARED BY (Print Name)	**DATE**
Senior Vice President	April 1, 2026
TITLE	**DATE**
	jmckee@sachse.net
AUTHORIZED SIGNATURE	**E-MAIL ADDRESS**
Sachse Construction and Development Company, LLC	
COMPANY	
3663 Woodward, Suite 500 Detroit, MI 48201	313-481-8200
ADDRESS	**PHONE**
Sachse Construction and Development Company, LLC	
NAME OF PARENT COMPANY	**PHONE**
3663 Woodward, Suite 500 Detroit, MI 48201	313-481-8200
ADDRESS	
38-3011404	
TAXPAYER I.D.#	

SACHSE CONSTRUCTION

City of Birmingham PD Renovations - 35-3965 - Staff Schedule

Phase / Description	Total Hours	Monthly Staffing Costs	Total Cost	Fixed Rate
PRECONSTRUCTION				
Project Manager	14	$ 763.00	$1,526	$109
Cost Engineer	26	$ 1,092.00	$2,184	$84
Pre-Construction Manager	70	$ 4,025.00	$8,050	$115
	110	**$5,880**	**$11,760**	
CONSTRUCTION				
Project Manager	193	$ 2,632.38	$21,059	$109
Superintendent	1,221	$ 17,402.75	$139,222	$114
Project Engineer	96	$ 1,149.71	$8,048	$84
Project Accountant	123	$ 1,091.63	$8,733	$71
Procurement - Cost Engineer	18	$ 756.00	$1,512	$84
Pre-Construction Manager	8	$ 460.00	$920	$115
Procurement - Pre-Construction Manager	34	$ 1,978.00	$3,956	$115
	1,694	**$25,470**	**$183,450**	
CLOSEOUT				
Project Manager	9	$ 981.00	$981	$109
Superintendent	40	$ 4,560.00	$4,560	$114
Project Engineer	10	$ 840.00	$840	$84
Project Accountant	4	$ 284.00	$284	$71
	63	**$6,665**	**$6,665**	
	1,867	**38,015**	**$201,875**	
	1,757	**32,135**	**$190,115**	

General Requirements

Description	Notes	Total
General Conditions		$17,972
Field Office - Delivery, Set-Up, Removal	Set up inside ex building	$1,500
Technology Costs		$13,067
Furniture	Jobsite office, meeting table	$500
Office Supplies		$600
Small Tools		$500
Document Reproduction	Per document set (approx. 140 pages)	$625
OSHA	Sachse personnel/visitor PPE (4 sets)	$440
Safety Meetings		$740

SACHSE CONSTRUCTION

3663 Woodward Avenue
Suite 500
Detroit, MI 48201

CONSTRUCTION MANAGEMENT PROPOSAL

April 1, 2026

Chief Scott Grewe
City of Birmingham
151 Martin Street
Birmingham, MI 48009

We are pleased to provide a Construction Management proposal for the City of Birmingham PD Renovations project in the City of Birmingham, MI. The scope of work consists of renovations and additions for both the police department and at the department of public services yard (four separate projects). The proposal is based on a mutually acceptable Construction Agreement where the basis of payment is Cost of Work Plus a Fee with a Guaranteed Maximum Price (GMP). Our proposal is based upon the following terms:

PRECONSTRUCTION SERVICES

Preconstruction Services	Preconstruction services will be provided on an hourly basis at the fixed rates below invoiced monthly and paid within 30 days. The services will include two deliverables: the first will be submitted at the completion of Schematic Design and the second will be a Guaranteed Maximum Price (GMP) after the completion of 100% Construction Documents. Each of these deliverables will include a cost allocation / breakout representing the work of each of the four projects (police garage, interview room, Sally Port, PSAP expansion). Preconstruction services are estimated at $11,760.
Cost Reimbursement	If for any reason the project does not proceed to construction under the terms of this proposal, the owner shall pay all costs to date according to the rate schedule below.

CONSTRUCTION SERVICES

Schedule	Proposal is based on a preliminary duration of seven months. A preliminary schedule will be provided when the budget is submitted and finalized and fixed at the time of the GMP.
General Conditions	General conditions are estimated at $17,972 and will be finalized and fixed at the time of the GMP.
Staff	Staff costs for construction and closeout are estimated at $190,115 and will be finalized and fixed at the time of the GMP.
Fee	4.95% of the Cost of Work
Shared Savings	We propose a 50/50 shared savings on Cost of Work between the Owner and Sachse Construction.

STAFF RATES

Preconstruction Team	Fixed Hourly Rate*
Preconstruction Manager	$115
Cost Engineer	$84

Construction Team	Fixed Hourly Rate*
Project Manager	$109
Superintendent	$114
Project Engineer	$84
Project Accountant	$71

** Hourly rates are subject to change to an annual increase of 5% every July 1st.*

Agreed and Accepted by: Sachse Construction

Todd Sachse | CEO

Agreed and Accepted by: The City of Birmingham

Chief Scott Grewe | Chief of Police

SECTION 02

SIMILAR PROJECTS

Project Relevancies

- Gov't Site
- Program Management
- Secure Access

FEDERAL RESERVE BANK OF CHICAGO
DETROIT BRANCH GENERAL CONTRACTOR PROGRAM

SCOPE OF WORK	DURATION	CONSTRUCTION COST
Master GC Contract	2017 - 2025	$10,500,000

Sachse Construction has partnered with the Federal Reserve Bank of Chicago for the past eight years, delivering multiple renovations as part of the ongoing capital improvement program at the Detroit Branch. Within the 120,000-square-foot facility, originally completed in 2004, our team has consistently prioritized maintaining a safe, secure, and highly controlled jobsite carefully operating within an active financial institution.

To support ongoing operations and meet strict security requirements, our team focused on strong safety oversight and seamless coordination throughout construction—ensuring that critical daily functions, including cash operations and armored truck flow between 6 a.m. and 6 p.m., remained uninterrupted.

- **Strict safety protocols to maintain a secure work environment**
- **Controlled access and coordination in sensitive areas**
- **Active oversight from our superintendent to monitor daily operations**
- **Trade partner accountability to ensure safety and security standards were followed**
- **Careful coordination within an occupied facility, accommodating internal and external events without disruption**
- **Strategic planning of shutdowns to maintain continuous operations**
- **Ongoing cleaning and maintenance of construction-impacted areas to support a safe and professional environment**

FEDERAL RESERVE BANK OF CHICAGO - DETROIT BRANCH GENERAL CONTRACTOR PROGRAM

SECURE GOV'T SITE

Working within an active Federal Reserve facility required strict adherence to security protocols, limited access to sensitive areas, and zero disruption to daily operations. Our team operated in a fully occupied environment with ongoing internal and external events, requiring careful, real-time coordination to ensure construction activities did not interfere with critical functions.

PROGRAM MANAGEMENT

Acting as an extension of the client's team, Sachse managed the planning, budgeting, scheduling, and execution across multiple projects, ensuring seamless coordination between the Federal Reserve Bank, trade partners, and ongoing facility operations. Through a structured, proactive approach focused on clear communication, detailed phasing, and early issue resolution, we enable efficient project delivery throughout the life of the program.

SECURE, PHASED RENOVATIONS IN ACTIVE FACILITIES

Sachse Construction specializes in delivering renovations within fully operational environments where safety, security, and continuity are critical. Our phased approach allows construction to progress in carefully planned segments, minimizing disruption to daily operations while maintaining strict control over access and logistics. Through detailed scheduling, clear communication, and close coordination with stakeholders, we ensured each phase is executed efficiently and safely—allowing facilities to remain fully functional while improvements are seamlessly implemented.

CITY OF BIRMINGHAM EXPERIENCE

Our team brings extensive experience and a strong familiarity with the Birmingham area. Sachse has a long history of successful projects in Birmingham, with over 50 completed projects over our 35-year history. Our established relationships with the City of Birmingham, along with our understanding of local standards and project complexities, help us navigate challenges efficiently.

RH GALLERY BIRMINGHAM

370 BROWN MIXED USE DEVELOPMENT

FRED LAVERY PORSCHE DEALERSHIP

SWEETGREEN

260 E BROWN SUITE

DESIGN WITHIN REACH

ADDITIONAL OCCUPIED RENOVATION PROJECTS

UNIVERSITY OF MICHIGAN
HARLAN HATCHER LIBRARY RENOVATION

SIZE	LOCATION
79,375 sf	Ann Arbor, Michigan

Sachse Construction's approach to the Harlan H. Hatcher Graduate Library window and door replacement project centers on precision planning, occupant safety, and minimizing disruption to the University of Michigan's active academic environment.

GENERAL DYNAMICS
CAMPUS UPGRADES

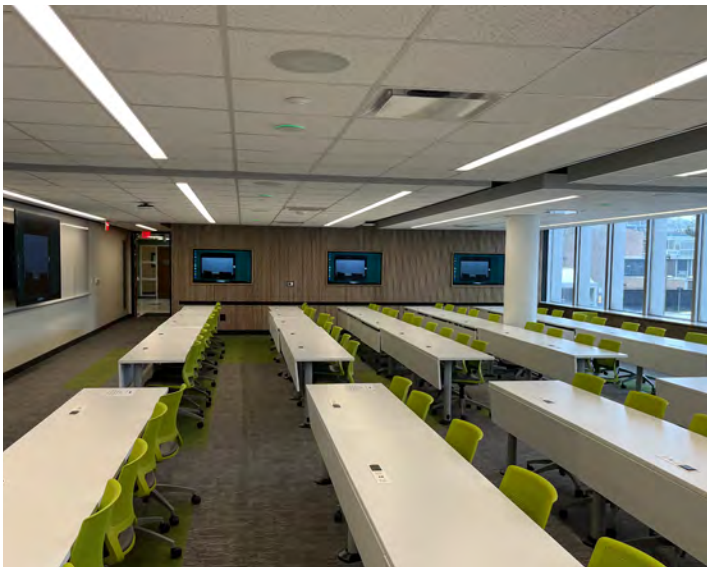
SIZE	LOCATION
14,600 sf	Sterling Heights, Michigan

Completed a multi-floor renovation for General Dynamics within an occupied office environment, including kitchenette upgrades, a 10,300 SF high-bay area, and a 4,300 SF cafeteria. Work consisted of tenant improvements and was carefully phased to maintain uninterrupted daily operations.

PONTIAC SCHOOLS
BOND PROGRAM

SIZE	LOCATION
250,000 sf	Pontiac, Michigan

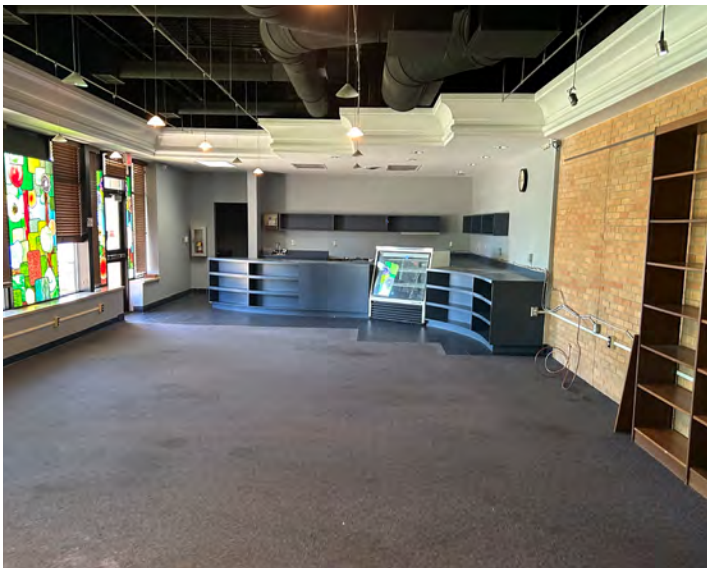
This program is a comprehensive initiative aimed at modernizing and improving the learning environment across several schools within the Pontiac School District.



WAYNE STATE UNIVERSITY
NURSING SCHOOL CLASSROOM RENOVATION

SIZE	LOCATION
4,000 sf	Detroit, Michigan

Sachse Construction completed the first re-branded classrooms as part of the university's larger modernization initiative. The project introduced several enhancements, including a state-of-the-art AV and Building Automation System and the installation of slat wall acoustic paneling to improve sound quality and classroom functionality.



ST. CLAIR SHORES PUBLIC LIBRARY
RENOVATION

SIZE	LOCATION
29,000 sf	St. Clair Shores, Michigan

Sachse Construction is proud to lead the renovation of the St. Clair Shores Public Library, transforming key areas to better serve youth, teens, and the broader community.

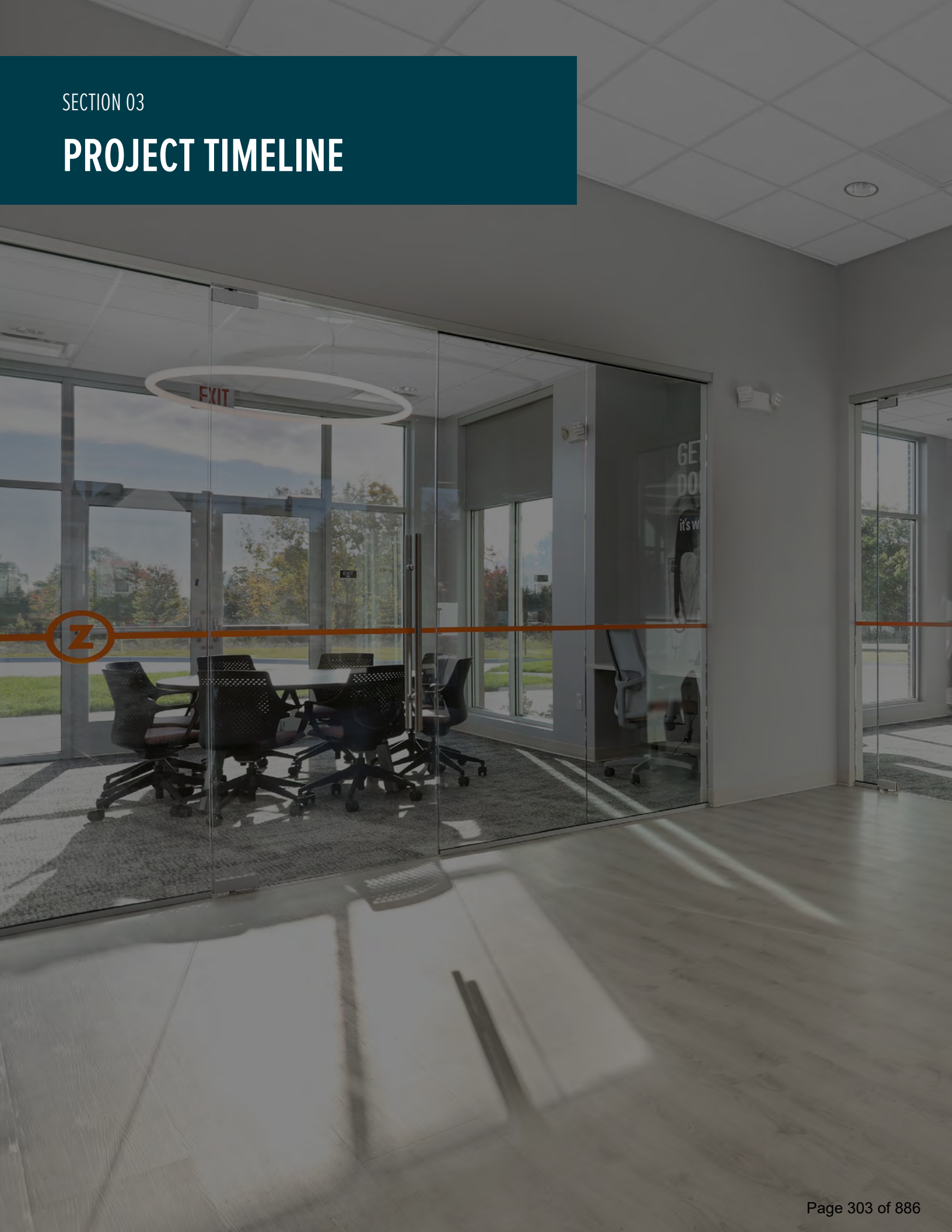
OAKLAND VETERINARY REFERRAL SERVICES
PROGRAM MANAGER

SIZE	LOCATION
50,000 sf	Bloomfield Hills, Michigan

Sachse Construction has partnered with Oakland Veterinary Referral Services on multiple renovation projects, including upgrades to the basement, emergency and critical care areas, as well as a 12,000-square-foot addition.

SECTION 03

PROJECT TIMELINE



PROJECT APPROACH

Sachse's extensive experience in delivering projects of similar size, complexity, and programming will be leveraged throughout the entire project, from its inception to completion. We are thrilled about the opportunity to collaborate with your team in successfully bringing much needed renovations for the Birmingham Police Department.

Equipped with industry-leading technology, our team members will seamlessly coordinate all construction activities, trade partners, materials, and equipment to ensure a smooth workflow. Sachse Construction will provide the City of Birmingham with a dedicated and robust project team that will lead the project from start to finish.

Your single point of contact for the project will be **Kathy Sulik.** She will oversee all aspects of the project, providing executive oversight for project controls, including cost and schedule. Kathy will offer guidance on constructibility, processes, workflow, project risks, and overall production, ensuring that best practices are followed throughout the project.

Our preconstruction team, led by **Jay McKee** and **Rick Stanza** will collaborate with the City of Birmingham to develop preliminary pricing for the project. Leveraging our trade partner insights, relationships, and expertise, we will ensure strong bidding coverage and provide you with the most qualified, efficient, and competitively priced solutions.

With over 20 years of experience as a superintendent, **Ian Perry** will effectively manage this project. As the superintendent, Ian will orchestrate all on-site activities while prioritizing and monitoring safety policies. He will oversee the day-to-day operations and scope of the project, maintaining accurate project schedules using lookahead and breakout schedules to monitor progress. Ian will also contribute to the creation of area schedules and provide relevant content.

Collaboration is a key focus for Sachse Construction. We will work closely with your team, engaging in early and frequent collaboration to understand your goals and make informed project decisions. By sharing our industry expertise and experience, we aim to drive favorable outcomes for your team.

Sachse is dedicated to ensuring the success of your renovation. With our proven track record, knowledgeable team members, and commitment to collaboration, we are confident that we will deliver a high-quality facility that meets your community's needs and aspirations.

SACHSE CONSTRUCTION

Birmingham: Police Department & DPS Yard

Executive Timeline

Birmingham, MI

ID	Ta Mc	Task Name	Duration	Start	Finish
1		**Project Duration**	**191 days**	**Wed 4/1/26**	**Wed 1/6/27**
2		**Pre-Construction Phase**	**77 days**	**Wed 4/1/26**	**Mon 7/20/26**
3		Sachse Proposal Due to Client	0 days	Wed 4/1/26	Wed 4/1/26
4		Client Proposal Review	19 days	Wed 4/1/26	Mon 4/27/26
5		Approval to Proceed	0 days	Mon 4/27/26	Mon 4/27/26
6		City Coordination for Site Logistics	10 days	Tue 4/28/26	Mon 5/11/26
7		Receive Building Permit	0 days	Fri 5/1/26	Fri 5/1/26
8		Sachse Award Trade Partners	20 days	Fri 5/1/26	Fri 5/29/26
9		Engineering and Submittals	45 days	Fri 5/15/26	Mon 7/20/26
10		**Construction Phase**	**147 days**	**Mon 5/4/26**	**Fri 12/4/26**
11		Mobilization (DPS Garage & City Hall)	0 days	Mon 5/4/26	Mon 5/4/26
12		**Phase 1: DPS Garage Work**	**66 days**	**Mon 5/4/26**	**Wed 8/5/26**
13		Establish Site Limits & Set Up Construction Fencing (Coorination with DPS Operations)	5 days	Mon 5/4/26	Fri 5/8/26
14		Garage Demo	10 days	Mon 5/11/26	Fri 5/22/26
15		Building Pad Prep	5 days	Tue 5/26/26	Mon 6/1/26
16		Foundations	10 days	Tue 5/26/26	Mon 6/8/26
17		Structure	20 days	Tue 5/26/26	Mon 6/22/26
18		Roof & Envelope	30 days	Tue 6/9/26	Tue 7/21/26
19		**Interior Buildout**	**46 days**	**Tue 6/2/26**	**Wed 8/5/26**
20		Install Staircse	5 days	Tue 6/2/26	Mon 6/8/26
21		Framing (Walls & Ceilings)	8 days	Tue 6/9/26	Thu 6/18/26
22		MEP Rough (Walls & Ceilings)	10 days	Fri 6/19/26	Thu 7/2/26
23		Inspections	3 days	Mon 7/6/26	Wed 7/8/26
24		Finishes / Millwork / FF&E	10 days	Thu 7/9/26	Wed 7/22/26
25		Install Garage Door	3 days	Thu 7/23/26	Mon 7/27/26
26		Final Commissioning	5 days	Thu 7/23/26	Wed 7/29/26
27		Final Inspections	5 days	Thu 7/30/26	Wed 8/5/26
28		**City Hall Work**	**147 days**	**Mon 5/4/26**	**Fri 12/4/26**
29		Temporary Barricade Install (City Hall)	3 days	Mon 5/4/26	Wed 5/6/26
30		Public Protection / Police Circulation Setup	5 days	Thu 5/7/26	Wed 5/13/26
31		**Phase 1: Interview Area**	**36 days**	**Thu 5/14/26**	**Mon 7/6/26**
32		Interior Demo	3 days	Thu 5/14/26	Mon 5/18/26
33		Framing (Walls & Ceilings)	5 days	Tue 5/19/26	Tue 5/26/26
34		MEP Rough (Walls & Ceilings)	5 days	Wed 5/27/26	Tue 6/2/26

Schedule reflects proposed start date noted in the RFP. Actual start and finish dates will be coordinated with the issuance of bid documents, bid process and GMP approval.

Schedule No.1: Executive Timeline for RFP
Data Date: 3/30/26
Print Date: Tue 3/31/26

Substantial Completion: 4/7/27
Duration: 48 weeks

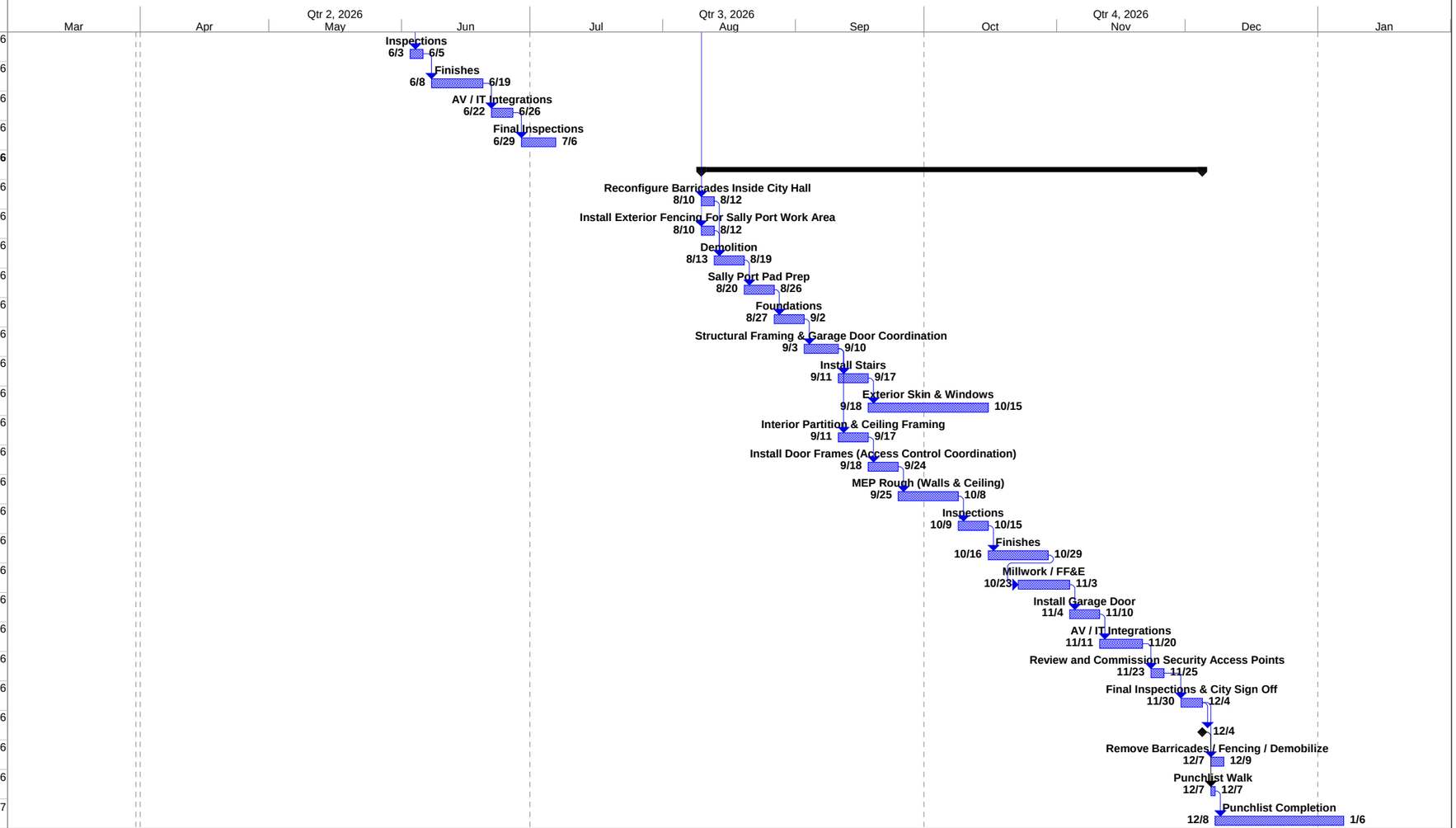
SACHSE CONSTRUCTION

Birmingham: Police Department & DPS Yard

Executive Timeline

Birmingham, MI

ID	Ta Mc	Task Name	Duration	Start	Finish
35		Inspections	3 days	Wed 6/3/26	Fri 6/5/26
36		Finishes	10 days	Mon 6/8/26	Fri 6/19/26
37		AV / IT Integrations	5 days	Mon 6/22/26	Fri 6/26/26
38		Final Inspections	5 days	Mon 6/29/26	Mon 7/6/26
39		**Phase 2: Sally Port & PSAP Work**	**79 days**	**Mon 8/10/26**	**Fri 12/4/26**
40		Reconfigure Barricades Inside City Hall	3 days	Mon 8/10/26	Wed 8/12/26
41		Install Exterior Fencing For Sally Port Work Area	3 days	Mon 8/10/26	Wed 8/12/26
42		Demolition	5 days	Thu 8/13/26	Wed 8/19/26
43		Sally Port Pad Prep	5 days	Thu 8/20/26	Wed 8/26/26
44		Foundations	5 days	Thu 8/27/26	Wed 9/2/26
45		Structural Framing & Garage Door Coordination	5 days	Thu 9/3/26	Thu 9/10/26
46		Install Stairs	5 days	Fri 9/11/26	Thu 9/17/26
47		Exterior Skin & Windows	20 days	Fri 9/18/26	Thu 10/15/26
48		Interior Partition & Ceiling Framing	5 days	Fri 9/11/26	Thu 9/17/26
49		Install Door Frames (Access Control Coordination)	5 days	Fri 9/18/26	Thu 9/24/26
50		MEP Rough (Walls & Ceiling)	10 days	Fri 9/25/26	Thu 10/8/26
51		Inspections	5 days	Fri 10/9/26	Thu 10/15/26
52		Finishes	10 days	Fri 10/16/26	Thu 10/29/26
53		Millwork / FF&E	8 days	Fri 10/23/26	Tue 11/3/26
54		Install Garage Door	5 days	Wed 11/4/26	Tue 11/10/26
55		AV / IT Integrations	5 days	Wed 11/11/26	Fri 11/20/26
56		Review and Commission Security Access Points	3 days	Mon 11/23/26	Wed 11/25/26
57		Final Inspections & City Sign Off	5 days	Mon 11/30/26	Fri 12/4/26
58		Substantial Completion	0 days	Fri 12/4/26	Fri 12/4/26
59		Remove Barricades / Fencing / Demobilize	3 days	Mon 12/7/26	Wed 12/9/26
60		Punchlist Walk	1 day	Mon 12/7/26	Mon 12/7/26
61		Punchlist Completion	20 days	Tue 12/8/26	Wed 1/6/27

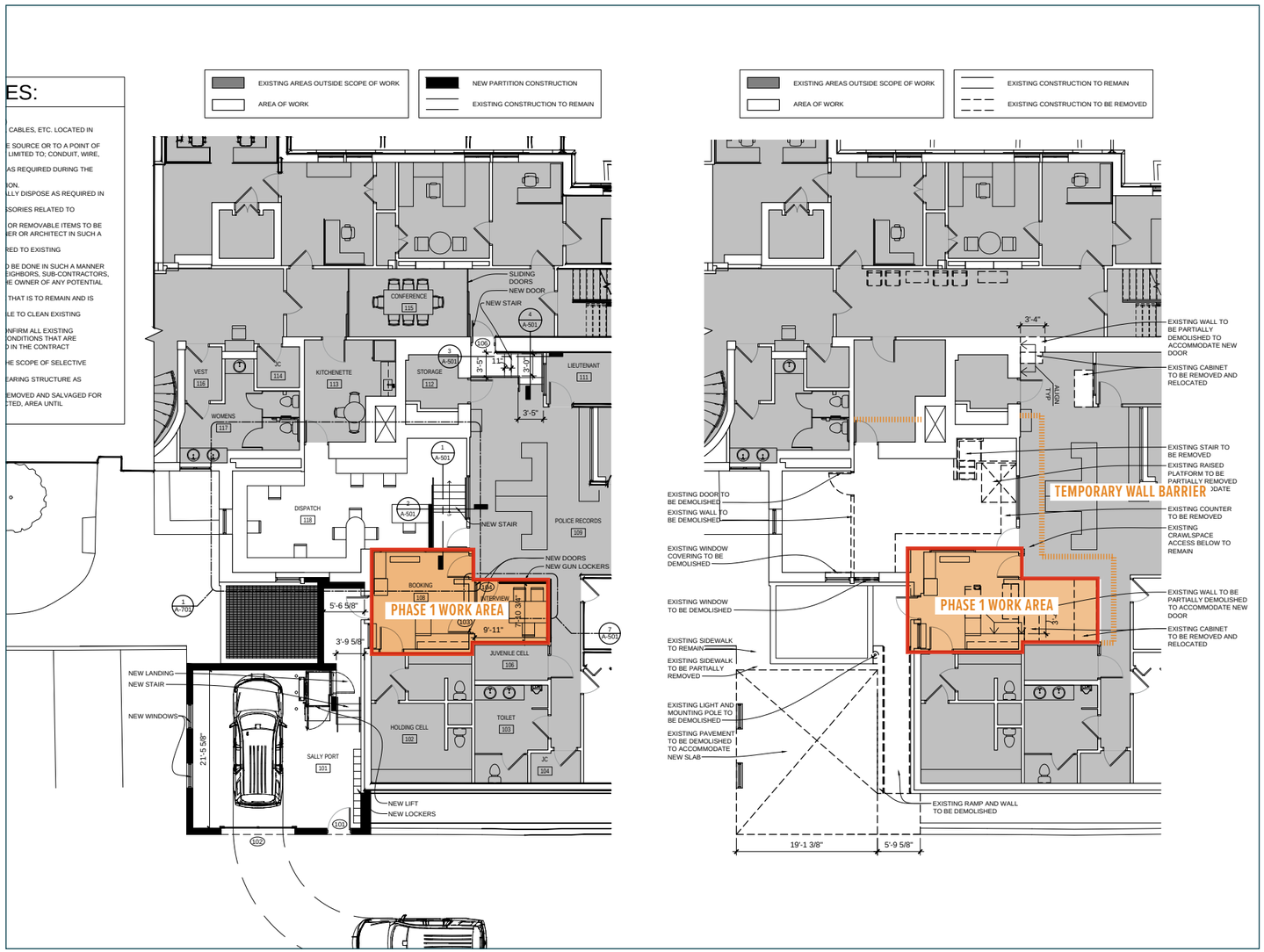


Schedule No.1: Executive Timeline for RFP
Data Date: 3/30/26
Print Date: Tue 3/31/26

Substantial Completion: 4/7/27
Duration: 48 weeks

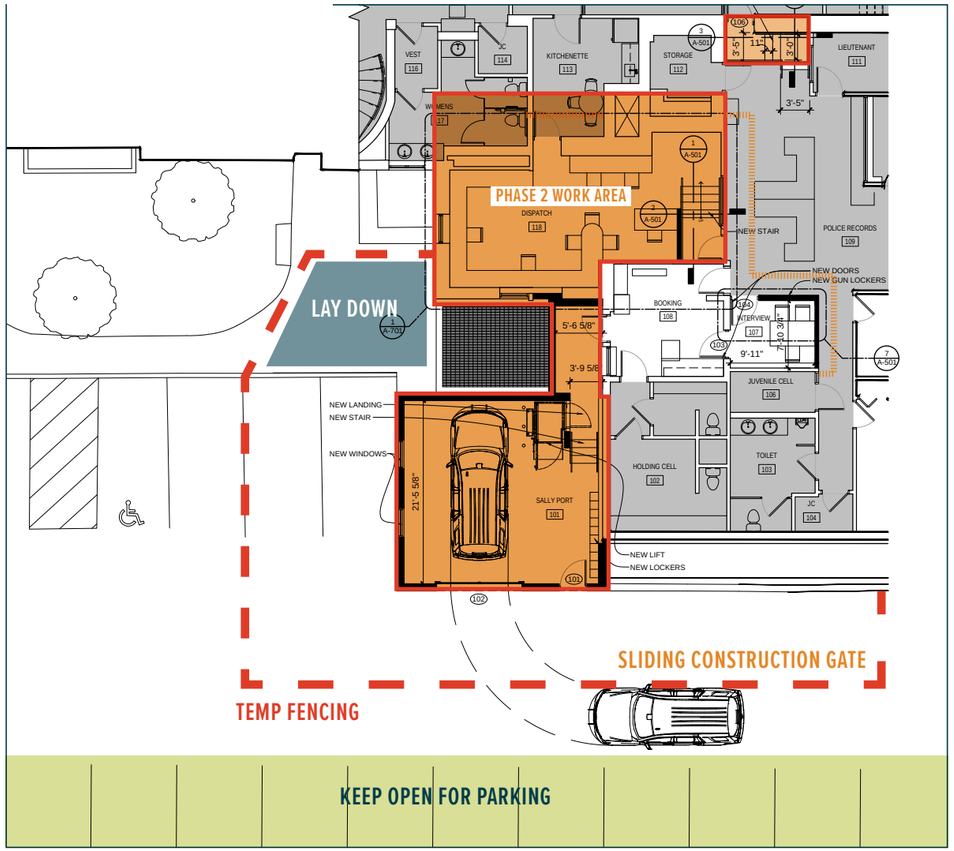
LOGISTICS PLAN | BIRMINGHAM PD - CITY HALL RENOVATIONS

PHASE 1 - INTERVIEW ROOM LOGISTICS



- Phase 1 work confined to a small, defined interior zone on the first floor
- Construction area isolated to maintain operations in adjacent occupied spaces
- Access to work zone routed from nearby exterior entry/parking area
- Temporary barriers and protection required around active construction area
- Selective demo only within limits; surrounding areas remain intact
  Coordination needed for material deliveries and debris removal in active facility

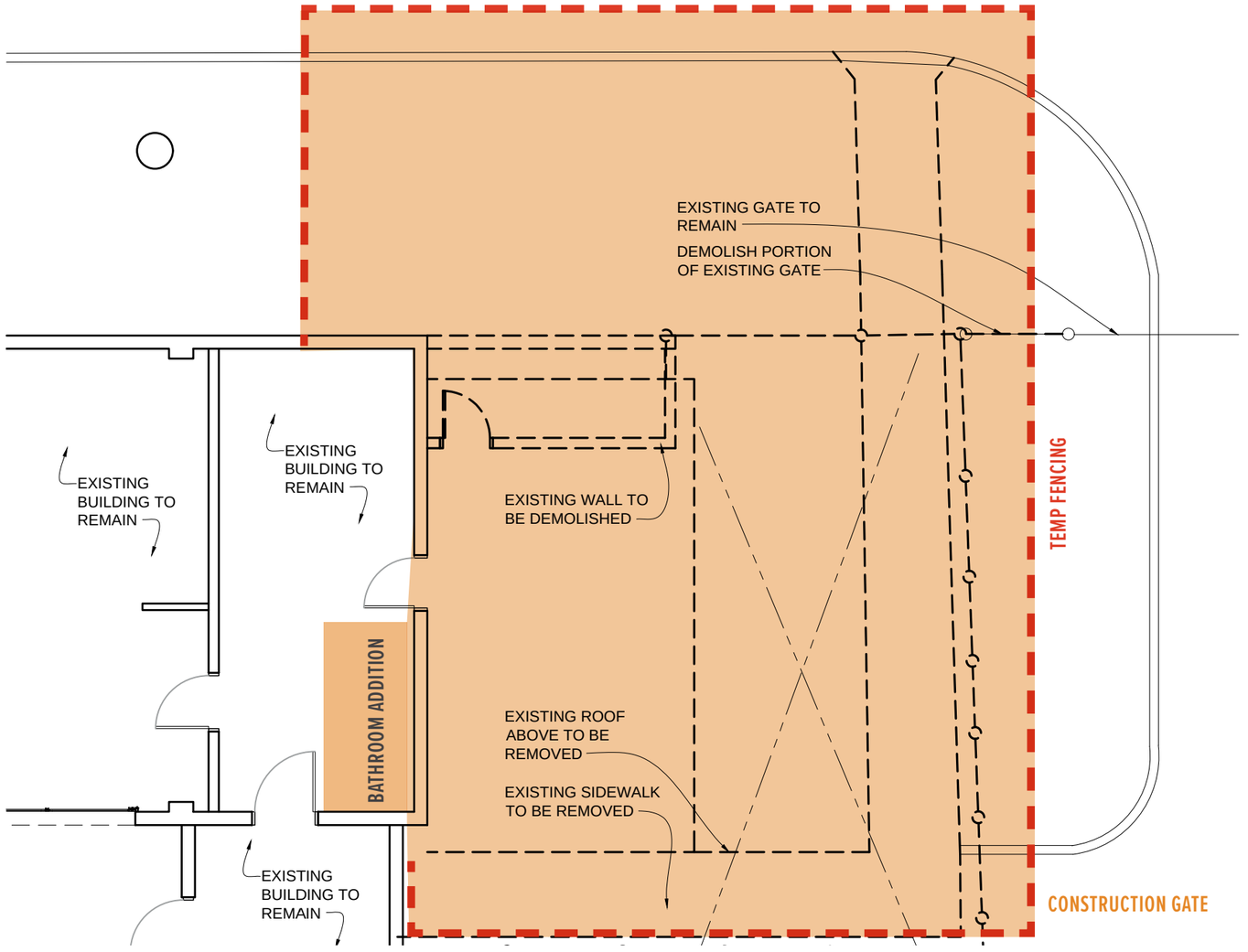
PHASE 2- INTERVIEW ROOM LOGISTICS



- Secure temporary fencing perimeter to create a controlled sally port work zone
- Dedicated construction gate established off the parking area for trade partner and material access
- Clear separation between public access and construction zone to maintain operations
- Use of exterior staging area for material laydown and debris management
- Controlled access points into the building to limit disruption to adjacent occupied spaces
- Coordination required around existing entry paths and accessible parking areas
- Phased work sequencing to maintain functionality of nearby police/PSAP spaces
- Temporary partitions/barriers required at interior tie-in points for dust and security control

LOGISTICS PLAN | DPS YARD GARAGE STORAGE RENOVATIONS

- Construction access and staging will be accommodated within the existing yard and drive areas to minimize disruption to adjacent properties and ongoing site operations.
- Demolition will be limited to the designated garage and storage areas, with selective removal performed to protect all adjacent structures, slabs, and elements scheduled to remain.
- Existing utilities serving the demolition area will be safely identified, disconnected, capped, or rerouted as required, with all new work coordinated to tie into existing systems.
- Work will be executed in a logical, phased manner to support efficient sequencing of demolition, construction, and MEP coordination across all levels.
- Temporary fencing, controlled access points, and debris management procedures will be maintained to ensure site safety and regulatory compliance throughout construction.
- All work will comply with applicable building codes, safety requirements, and disposal regulations, with timely coordination of inspections and approvals.



0
WORK DAYS LOST IN 2024

0.00
RECORDABLE INCIDENT RATE SINCE 2017

GOLD AWARD
CAM AWARD GOLD STATUS ACHIEVEMENT

.76
2025/26 EMR

COMMITMENT TO SAFETY

At Sachse Construction, safety is the number one priority on every job site. We strictly implement all Occupational Safety and Health Administration (OSHA) requirements and proactively address site-specific conditions such as working within an occupied building. This disciplined approach ensures the safety of building occupants, project partners, and our field teams throughout all phases of construction.

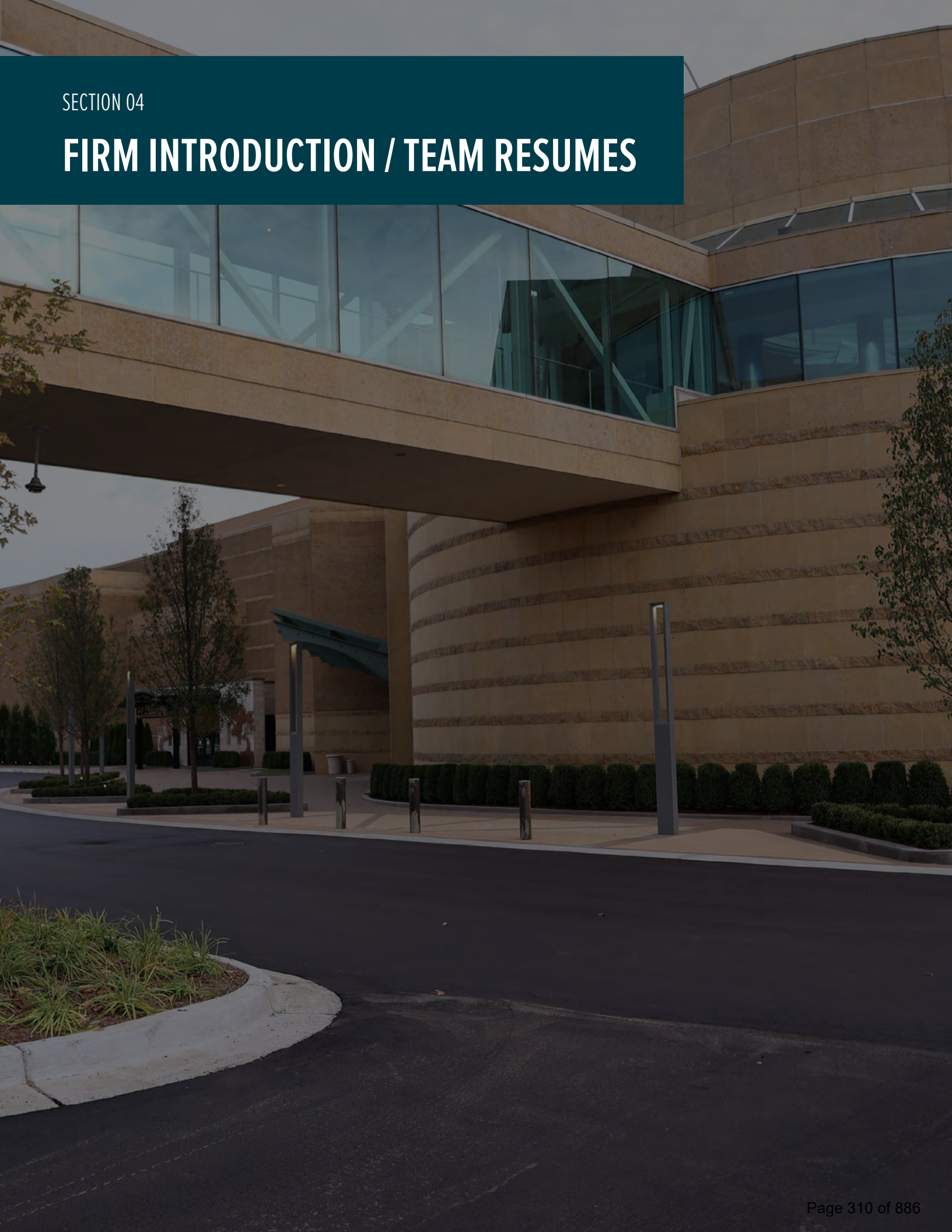
To maintain our culture of safety, we invest in a highly experienced full-time safety director, Mike McMahon. He brings over 35+ years experience, and will assure your project is a safe place to work and accident prevention is a top priority at all times. Mike's key tasks include auditing the safety program, regularly scheduled and unscheduled project inspections, and ensuring all sites specific OSHA rules and regulations are observed and enforced at all times.

MIKE MCMAHON, CHST, SAFETY DIRECTOR

- 35+ years of experience
- Regular on-site visits
- Site-specific safety program development
- Proactive issue consultation and resolution

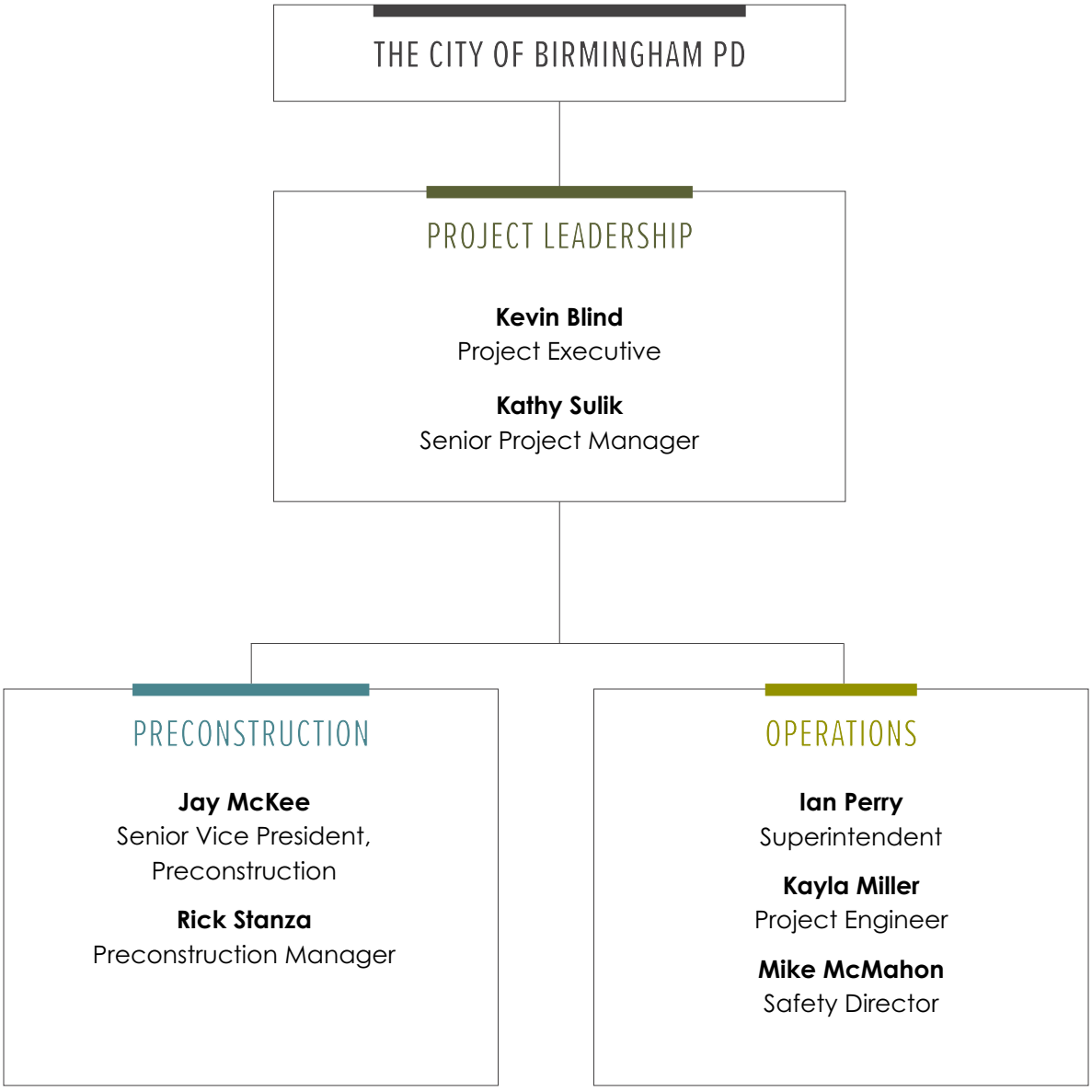
SECTION 04

FIRM INTRODUCTION / TEAM RESUMES



PROJECT TEAM

Our team is committed to providing the City of Birmingham Police Department with a unique and exceptional experience. We have aligned a great team for you will have a knowledgeable and reliable resource throughout the project.



SENIOR VICE PRESIDENT - OPERATIONS

KEVIN BLIND

With over 25 years of experience, Kevin brings invaluable expertise and a strategic mindset to your project. As Director of Operations, he is dedicated to leading teams to deliver exceptional results by driving performance, maintaining timelines, and ensuring accountability at every stage. Kevin's commitment to excellence means your project will stay on schedule, within budget, and aligned with the highest standards of quality, meeting and exceeding the expectations you've set.

FEDERAL RESERVE BANK OF CHICAGO - DETROIT BRANCH

Detroit, Michigan. Master General Contractor | 120,000 sf

370 BROWN MIXED-USED DEVELOPMENT

Birmingham, Michigan. New Construction | 132,672 sf

CONFIDENTIAL MIDWEST FOUNDATION HEADQUARTERS

Bloomfield, Michigan. New Construction | 35,500 sf

RH GALLERY

Birmingham, Michigan. New Construction | 52,000 sf

THE AC DETROIT HOTEL AT THE BONSTELLE

Detroit, Michigan. New Construction / Renovation | 96,000 sf; 153 keys

THE SCOTT AT BRUSH PARK

Detroit, Michigan. New Construction | 330,000 sf

WESTWOOD INN

Macomb, Michigan. New Construction | 120,000 sf

EDUCATION + EXPERIENCE

Western Michigan University, Bachelor of Applied Science - Construction Management

25+ Years of Experience

CREDENTIALS

LEED GA, OSHA 30-Hour, CPR & First Aid Certified, Fall Protection & Personal Arrest Training

SENIOR PROJECT MANAGER

KATHY SULIK

Kathy is an experienced professional in the construction industry, with a career spanning over 25 years. Her systematic approach to projects has earned her admiration from clients. She believes in exploring new approaches and encourages forward thinking by assembling and mentoring innovative project teams.

One of Kathy's strengths is her ability to communicate effectively with the entire project team. She values clear and consistent communication, which helps ensure that everyone involved in a project is well-informed and working towards the same goals. This not only enhances teamwork, but also minimizes misunderstandings and keeps the project on track.

RH GALLERY

Birmingham, Michigan. New Construction | 52,000 sf

CONFIDENTIAL MIDWEST FOUNDATION HEADQUARTERS

Bloomfield, Michigan. New Construction | 35,500 sf

AGREE REALTY

Royal Oak, Michigan. Renovation | 52,100 sf

CITY OF WARREN CITY HALL & LIBRARY COMPLEX*

Warren, Michigan. New Construction | 110,000 sf

WESTWOOD INN

Macomb, Michigan. New Construction | 120,000 sf

**Completed prior to joining Sachse Construction*

EDUCATION + EXPERIENCE

Michigan Technological University, Bachelors of Science in Civil Engineering

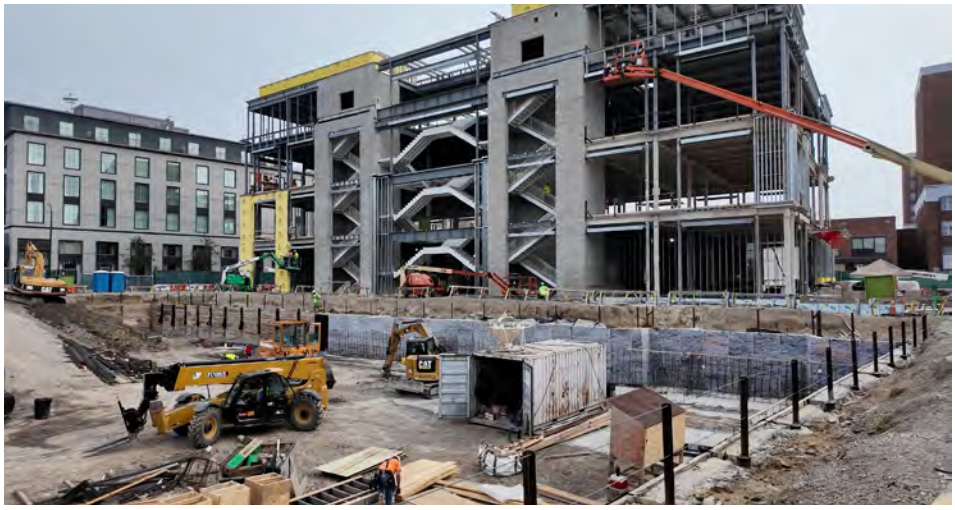
25+ Years of Experience

CREDENTIALS

OSHA 30-Hour, CPR & First Aid, LEED AP, MIOSHA & OSHA 10-hour, MIOSHA Level 1 Safety & Health Construction

SENIOR VICE PRESIDENT - PRECONSTRUCTION

JAY MCKEE, LEED AP



With vast knowledge of the local trade partner community, Jay's connections produce outstanding results in bidding and buyout. As Director of Preconstruction, Jay McKee oversees the preconstruction services of Sachse Construction's commercial group through lump sum bids, conceptual estimating, budgeting, procurement, constructability, and business development. Additionally, Jay develops and maintains relationships with the local trade partner community to enhance Sachse Construction's customer service experience.

FEDERAL RESERVE BANK OF CHICAGO - DETROIT BRANCH

Detroit, Michigan. Master General Contractor | 120,000 sf

370 BROWN MIXED-USED DEVELOPMENT

Birmingham, Michigan. New Construction | 132,672 sf

CONFIDENTIAL MIDWEST FOUNDATION HEADQUARTERS

Bloomfield, Michigan. New Construction | 35,500 sf

PLANTE MORAN 3000 TOWN CENTER

Southfield, Michigan. Tenant Improvement | 142,000 sf

HENRY FORD WEST BLOOMFIELD

West Bloomfield, Michigan. New Construction | 630,000 sf

BRUSH PARK PROGRAM

Detroit, Michigan. New Construction | 310,000 sf

EDUCATION + EXPERIENCE

University of Toronto
Bachelor of Science in Civil Engineering

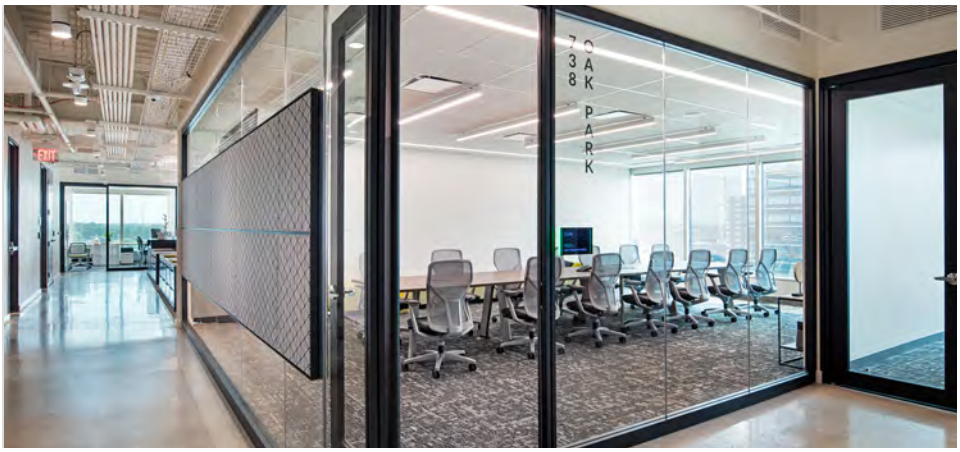
30 + Years of Experience

CREDENTIALS

LEED AP, OSHA 30-Hour, First Aid & CPR

PRECONSTRUCTION MANAGER

RICK STANZA



Rick is a highly skilled preconstruction manager specializing in large commercial projects. He collaborates effectively with teams to provide expertise in conceptual estimating, budgeting, procurement, constructability. Rick's ability to assess project feasibility and manage costs ensures successful project outcomes. Moreover, he excels in building and nurturing relationships with local trade partners.

MADISON CAPITAL*

Chicago, Illinois. Tenant Improvement | 65,000 sf

KINETIC CREATIONS HEADQUARTERS*

Royal Oak, Michigan. Tenant Improvement | 30,000 sf

HUMANETICS DETROIT HQ*

Plymouth Michigan. Renovation | 80,000 sf

COURTYARDS OF ANN ARBOR STUDENT HOUSING COMPLEX *

Ann Arbor, Michigan. New Construction | 360,000 sf

ST NICHOLAS GREEK ORTHODOX CHURCH*

Troy, Michigan. Renovation/Addition | 8,500 sf

ST JOHN EPISCOPAL CHURCH*

Detroit, Michigan. Addition | 7,500 sf

LANDMARK HEALTHCARE*

Jersey City, New Jersey. New Construction | 28,000 sf

EDUCATION + EXPERIENCE

New Jersey Institute of Technology
Bachelors in Construction Engineering

30+ Years of Experience

SUPERINTENDENT

IAN PERRY

Ian draws on years of experience in the commercial construction industryn to deliver a proven track record of producing projects that exceed expectations. **Notably, he served as the lead superintendent on the Federal Reserve project for eight years, successfully managing work within a highly secure, fully operational facility.**

Ian's solid work ethic, along with his exceptional communication and organizational skills, enables him to efficiently manage complex projects. From building strong relationships with owners, architects, and subcontractors to meticulously overseeing project documentation, he is relied upon to skillfully manage every aspect of the work he leads.

FEDERAL RESERVE BANK OF CHICAGO - DETROIT BRANCH

Detroit, Michigan. Master General Contractor | 120,000 sf

OAKLAND UNIVERSITY - ANN V. NICHOLSON APARTMENTS

Rochester, Michigan. Renovation | 120,000 sf

UNIVERSITY OF MICHIGAN HARLAN HATCHER LIBRARY RENOVATION

Ann Arbor, Michigan. Renovation | 79,365 sf

GENERAL DYNAMICS

Sterling Heights, Michigan. Renovation | 14,300 sf

UNIVERSITY OF MICHIGAN 6TH FLOOR INSTITUTE OF SOCIAL RESEARCH RENOVATION

Ann Arbor, Michigan. Renovation | 3,000 sf

WESTWOOD INN

Macomb, Michigan. New Construction | 125,000 sf

EDUCATION + EXPERIENCE

Eastern Michigan University,
Bachelors of Science
Construction Management

35+ Years of Experience

CREDENTIALS

OSHA 30-Hour, CPR & First Aid, AHA Heart Saver AED, AHA Adult CPR & AED, AHA Child CPR & AED, AHA Infant CPR

PROJECT ENGINEER

KAYLA MILLER

Kayla is a highly motivated project engineer who consistently earns the trust and confidence of clients through her dedication and drive. She plays a critical role in supporting her project teams, managing submittals, permitting, city approvals, and trade partner coordination with precision and efficiency. Known for her contagious enthusiasm and passion for her work, Kayla brings energy and positivity to every project. Clients value her expertise, professionalism, and collaborative spirit, recognizing her as an indispensable partner in achieving successful outcomes.

BAKER TILLY OFFICE RENOVATION

Southfield, Michigan. Tenant Improvement | 14,000 sf

CRITEO ANN ARBOR HQ

Ann Arbor, Michigan. Tenant Improvement | 10,250 sf

MICROSOFT - MTC PROJECT

Detroit, Michigan. New Construction | 2,500 sf

CAVA

Novi, Michigan. Tenant Improvement | 2,797 sf

CHANEL

Aspen, Colorado. Tenant Improvement | 2,533 sf

CHIPOTLE

Rockford, Michigan. Tenant Improvement | 2,389 sf

EDUCATION + EXPERIENCE

Wayne State University, Bachelor of Applied Science, Construction Management

5 Years of Experience

CREDENTIALS

OSHA 20-Hour, CPR & First Aid Certified

SAFETY DIRECTOR

MIKE MCMAHON

EDUCATION + EXPERIENCE

Columbia Southern University, Bachelor of Science, Occupational Safety & Health

Columbia Southern University Certificate, Industrial Hygiene Management

Eastern Michigan University OSHA 500 Trainer Course, Occupational Safety and Health

Naval Construction Training Center, Certified Instructor, Naval Safety Supervisor School

35+ Years of Experience

CREDENTIALS

OSHA Outreach Trainer

OSHA Qualified Rigger

Board of Certified Safety Professionals

Fire Prevention Program Manager

Certificate, Industrial Hygiene Management

First Aid, AED & CPR Training

62-Hour New York City Site Safety Trained Supervisor

As Safety Director, Mike McMahon assures that the jobsite is a safe place to work with safety top of mind at all times. His key tasks include auditing the safety program, inspections, and making sure all site-specific OSHA and MIOSHA rules and regulations are observed and enforced at all times.

Mike has been in the construction industry for over 30 years, having spent 15 years in the Naval Construction Force where he was named "Pacific Fleet Seabee of the Year". While working in the Naval Construction Force, Mike was involved in $450 million of military and humanitarian construction worldwide.

In his career, Mike has worked on projects in the commercial, data center, healthcare, retail, manufacturing, hotel, casino, and high-rise office buildings totaling $1.4 billion. He has worked with clients such as General Motors, Toyota, Hyundai, IBM, Dell, Hewlett Packard, Henry Ford Health Systems, Detroit Medical Center, Hudson's Bay Company, TD Bank, and Loblaw.

NOTABLE ACHIEVEMENTS:

- **AGC Michigan Outstanding Safety Performance Award, 2023**
- **CAM GOLD STATUS ACHIEVEMENT | CAM Magazine, 2022**
- **Zero Lost Working Days in 7 years**
- **Zero OSHA Violations last 5 years**

SECTION 04

LIST OF SUBCONTRACTORS

NATIONAL RESOURCES, LOCAL RELATIONSHIPS.

We are proud to share that Sachse has been actively operating in the Metro Detroit market for over 35 years. Our long-standing presence in the market has allowed us to establish vital relationships with key trade partners, fostering mutual growth and collaboration. Throughout our four decades of experience, we have successfully expanded both regionally and nationally.

See below for a sample of the trade partners we would bid to for this project. This represents a preliminary and partial list of trade partners. The final trade partner list will be further refined and expanded based on our extensive database of qualified firms within the Southeast Michigan market, ensuring the inclusion of the most appropriate and competitive partners for the project scope.

QUALIFIED TRADE PARTNERS (PRELIMINARY)
DEMOLITION
Blue Star, Inc.
DKI International, Inc.
Maverick Demolition
MASONRY
Dixon Inc.
James Ross Construction, Inc.
Leidal & Hart Mason Contractors, Inc.
RAM Construction Services
CARPENTRY
Landry Carpentry / Millwork
Morrey's Contracting, LLC.
Wally Kosorski & Co., Inc.
ROOFING
Bloom Roofing Systems, Inc.
JD Candler Roofing Co., Inc.
Schena Roofing & Sheet Metal
DOORS, FRAMES & HARDWARE
LaForce, Inc. (MI)
R.K. Hoppe Corp.
Rayhaven Group, Inc. (MI -DFH)
OVERHEAD DOORS
KVM Door Systems, Inc.
Overhead Door Co. - West
Service Pro Industrial Door & Dock
GLASS & GLAZING
Crystal Glass, Inc.
Curtis Glass Company
Glasco Corporation
DRY WALL
DeVange Construction, Inc.
New Hudson Construction, LLC
Turner-Brooks, Inc.

QUALIFIED TRADE PARTNERS (PRELIMINARY)
TILING
Artistic Tile and Stone, Inc.
Empire Tile & Marble
Wolverine Stone Co.
FLOORING - RESILIENT/CARPET
Interior Image Inc.
Master Craft Floors (MI)
Shock Brothers Floor Coverings, Inc.
PAINTING
Detroit Spectrum Painters, Inc
Tom Furnari Painting, LLC
United Painting & Decorating, Inc. (MI & FL)
FIRE SUPPRESSION
Absolute Fire Protection
Professional Sprinkler, Inc.
TSFP Holdings, Inc.
PLUMBING
Condor Piping, Inc.
Goyette Mechanical Company, Inc.
Snover Plumbing, Inc.
Solomon Plumbing
HVAC
Ainsworth
R.W. Mead & Sons, LLC
Stuart Mechanical, LLC.
ELECTRICAL
De-Cal, Inc.
Edgewood Electric, LLC.
GSI Electrical Services, Inc.
LaBelle Electrical Contractors, LLC

SECTION 06

CLIENT REFERENCES

REFERENCES

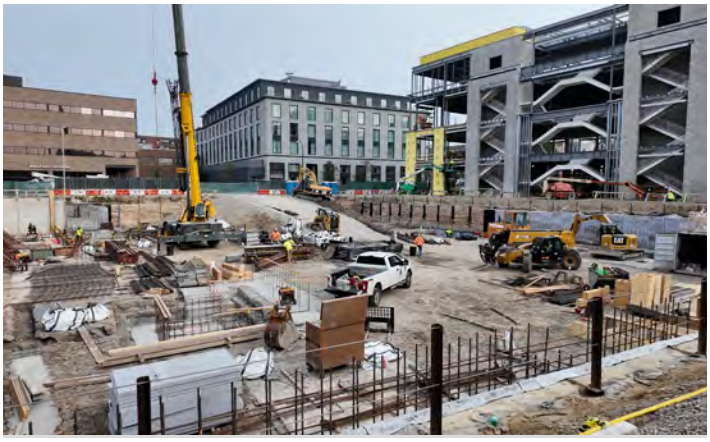
CITY OF BIRMINGHAM

Mike Morad, Building Official
mmorad@bhamgov.org | 248.530.1853

Jeff Scaife, Fire Marshal
jscaife@bhamgov.org | 248.530.1903

FEDERAL RESERVE

Jerry Bourdage, Sr. Project Manager at Federal Reserve Bank of Chicago.
gerald.Bourdage@chi.frb.org | 313.964.6016



BOJI GROUP

Ron Boji, CEO Boji Group
rboji@bojigroup.com | 517.525.9100

THE SACHSE GUARANTEE

IF YOU ARE NOT 100% SATISFIED WITH YOUR PROJECT, WE WILL REFUND 10% OF OUR MANAGEMENT FEE.

SACHSE
CONSTRUCTION

DETROIT - HQ
3663 Woodward Ave
Suite 500
Detroit, MI 48201

NEW YORK
290 Fifth Avenue
Floor 6
New York, NY 10001

FLORIDA
9201 Cockleshell Ct #1
Bonita Springs, FL 34135

CANADA
10 Ontario Road
St. Thomas, ON N5P 3N4

Attachment A
AGREEMENT FOR POLICE DEPARTMENT RENOVATIONS/EXPANSIONS

THIS AGREEMENT is entered into on the date signed by the Mayor, by and between the **CITY OF BIRMINGHAM,** whose address is 151 Martin Street, Birmingham, MI 48009 (hereinafter referred to as the City) and Sachse Construction and Development Company, LLC, whose address is 3663 Woodward Suite 500, Detroit, MI 48201, hereafter referred to as Contactor and the foregoing shall collectively be referred to as the parties.

WHEREAS, the City desires a contractor to furnish all labor, equipment, material and supervision necessary for the **CONSTRUCTION MANAGEMENT SERVICES FOR PD RENOVATIONS** designs construction services of this project.; and

WHEREAS, the City in connection therein has requested formal proposals and issued an Request for Proposal; and

WHEREAS, Contractor has successfully provided a response and cost proposal to perform the **CONSTRUCTION MANAGEMENT SERVICES FOR PD RENOVATIONS** and qualifications that meet the project requirements.

NOW, THEREFORE, in consideration of the foregoing preambles, the adequacy of which is acknowledged by and between the parties to this Agreement, the parties agree as follows:

1. MUTUALLY AGREE: It is mutually agreed by and between the parties that the City's Request for Proposal for **CONSTRUCTION MANAGEMENT SERVICES FOR PD RENOVATIONS** posted March 5. 2026, and the Contractor's response shall be fully incorporated herein by reference and shall become a part of this Agreement, and shall be binding upon both parties hereto (attached hereto as Attachment "A" . In the event of a conflict in any of the terms of this Agreement and the Contractor's response, the terms of this Agreement shall prevail.

2. TERM: This Agreement shall have a term of three years from the date stated above or until competed to the satisfaction of the City. The City shall have the right to unilaterally terminate this Agreement on thirty (30) days written notice. In the event of termination, the Contractor shall receive compensation for services to the date the termination takes effect and the City shall be entitled to retain and use the results of all designs and renovations prepared by the Contractor through such date.

3. TERMS OF PAYMENT: The Contractor will invoice monthly for all labor supplied and work completed. In no event shall invoices be submitted more than 30 days after completion of services. Submitted invoices shall include the following detailed information: the type of work performed, the time spent on the work, the individual who performed the work and the per hour billing rate charged. The City may, at its sole discretion demand review and the right to request at any time further detailed accounting information for any or all bills. The right to inspection of any bill and invoice shall never be at any cost or billings to the City, nor shall preparation of said invoices be billed

to the City or against the general retainer. Payment terms will be net 30 days unless otherwise specified by the City.

4. Contractor shall employ personnel of good moral character and fitness in performing all services under this Agreement.

5. INSURANCE SUBMISSION REQUIREMENTS: The Contractor has submitted proof to the City that it meets all City insurance requirements. Insurance, with coverage amounts at no less than the City's minimum requirements, must be held by the Contractor throughout the term of this Agreement. Certificates of insurance as stated below will be required no later than five (5) business days from the date of Contractors acceptance of the terms of this Agreement.

6. CONFIDENTIAL AND OR PROPRIETARY INFORMATION: The Contractor acknowledges that in performing services pursuant to this Agreement, certain confidential and/or proprietary information (including, but not limited to, internal organization, methodology, personnel and financial information, etc.) may become involved. The Contractor recognizes that unauthorized exposure of such confidential or proprietary information could irreparably damage the City. Therefore, the Contractor agrees to use reasonable care to safeguard the confidential and proprietary information and to prevent the unauthorized use or disclosure thereof. The Contractor shall inform its employees of the confidential or proprietary nature of such information and shall limit access thereto to employees rendering services pursuant to this Agreement. The Contractor further agrees to use such confidential or proprietary information only for the purpose of performing services pursuant to this Agreement.

7. INDEPENDENT CONTRACTOR: The Contractor and the City agree that the Contractor is acting as an independent contractor with respect to the Contractors role in providing services to the City pursuant to this Agreement, and as such, shall be liable for its own actions and neither the Contractor nor its employees shall be construed as employees of the City. Nothing contained in this Agreement shall be construed to imply a joint venture or partnership and neither party, by virtue of this Agreement, shall have any right, power or authority to act or create any obligation, express or implied, on behalf of the other party, except as specifically outlined herein. Neither the City nor the Contractor shall be considered or construed to be the agent of the other, nor shall either have the right to bind the other in any manner whatsoever, except as specifically provided in this Agreement, and this Agreement shall not be construed as a contract of agency. The Contractor shall not be considered entitled or eligible to participate in any benefits or privileges given or extended by the City, or be deemed an employee of the City for purposes of federal or state withholding taxes, FICA taxes, unemployment, workers' compensation or any other employer contributions on behalf of the City.

8. COMPLIANCE WITH LAWS: Contractor agrees to fully and faithfully carry out the duties of set forth herein using its best efforts in accomplishing all assignments from the City, and further, in addition to upholding all federal, and state laws and applicable codes of professional conduct to which Contractor is subject, Contractor hereby agrees to be bound by all Federal, State, or City of Birmingham ordinances, rules, regulations and policies as are amended from time to time, and including without limitation the Fair Labor Standards Act, the Equal Employment Opportunity rules and regulations, the Transportation Safety Act and the Occupational Safety and

Health Acts.

9. NON-COMPLIANCE WITH INSURANCE REQUIREMENTS: Failure to deliver and maintain insurance in accordance with the terms of this Agreement will be cause for the City, by and through its City Manager, to terminate this Agreement, or at the City's option, the City may purchase on the open market such required insurance and shall be entitled to charge any additional cost to the Contractor, either by offset to any amounts due and owing Contractor for services provided to the City, or, by separate bill and demand for payment. Nothing in this paragraph shall be deemed to create or be interpreted as establishing a "for cause" termination; Contractor agrees and understands that its engagement is at will and may be terminated by the City Manager for any cause or no cause.

10. INDEMNIFICATION: To the fullest extent permitted by law, the Architect shall indemnify and hold the City of Birmingham, its elected and appointed officials, employees and volunteers and others working on behalf of the City harmless from and against damages, losses and judgments, which may be asserted, claimed, or recovered against or from the City, its elected and appointed officials, employees, volunteers or others working on behalf of the City, including reasonable attorney fees and expenses recoverable under applicable law, but only to the extent of the degree of fault of the Michigan licensed architect for negligent acts or omissions of the Architect, its employees and its consultants in the performance of their professional services, in the performance of this Agreement.

11. STANDARD INSURANCE REQUIREMENTS: The Contractor shall maintain during the life of this Agreement the applicable types of insurance coverage and minimum limits as set forth below:

A. Workers' Compensation Insurance:

For Non-Sole Proprietorships: Contractor shall procure and maintain during the life of this Agreement, Workers' Compensation Insurance, including Employers Liability Coverage, in accordance with all applicable statutes of the State of Michigan.

For Sole Proprietorships: Contractor shall complete and furnish to the City prior to the commencement of work under this Agreement a signed and notarized Sole Proprietor Form, for sole proprietors with no employees or with employees, as the case may be.

B. Commercial General Liability Insurance: Contractor shall procure and maintain during the life of this Agreement, Commercial General Liability Insurance on an "Occurrence Basis" with limits of liability not less than **$2,000,000** per occurrence combined single limit, Personal Injury, Bodily Injury and Property Damage. Coverage shall include the following extensions: (A)

Contractual Liability; (B) Products and Completed Operations; (C) Independent Contractor Coverage; (D) Broad Form General Liability Extensions or equivalent; (E) Deletion of all Explosion, Collapse and Underground (XCU) Exclusions, if applicable.

C. Additional Insured: Commercial General Liability and Motor Vehicle Liability Insurance, as described above, shall include an endorsement stating the following **Additional Insureds: The City of Birmingham, including all elected and appointed officials, all employee and volunteers, all boards, commissions and/or authorities and board members, including employees and volunteers thereof.** This coverage shall be primary to any other coverage that may be available to the additional insured, whether any other available coverage by primary, contributing or excess.

D. Professional Liability: If applicable, professional liability insurance with limits of not less than $2,000,000 per claim if Contractor will provide services that are customarily subject to this type of coverage.

E. Coverage Expiration: If any of the above coverages expire during the term of this Agreement, Contractor shall deliver renewal certificates and/or policies to the City at least (10) days prior to the expiration date.

F. Proof of Insurance Coverage: Contractor shall provide the City of Birmingham at the time the Agreement is returned for execution, Certificates of Insurance and/or policies, acceptable to the City of Birmingham, as listed below.

1) Two (2) copies of Certificate of Insurance for Workers' Compensation Insurance, or a signed and notarized copy of the Sole Proprietor Form;
2) Two (2) copies of Certificate of Insurance for Commercial General Liability Insurance;
3) Two (2) copies of Certificate of Insurance for Vehicle Liability Insurance;
4) Two (2) copies of Certificate of Insurance for Professional Liability Insurance, if applicable;
5) If so requested, Certified Copies of all policies mentioned above will be furnished.

G. Maintaining Insurance: Upon failure of the Contactor to obtain or maintain such insurance coverage for the term of the Agreement, the City of Birmingham may, at its option, purchase such coverage and subtract the cost of obtaining such coverage from the Agreement amount. In obtaining such coverage, the City of Birmingham shall have no obligation to procure the most cost-effective coverage but may contract with any insurer for such coverage.

12. WRITTEN NOTICES: Written notices regarding this Agreement shall be

addressed to the following:

City: City of Birmingham
P.O. Box 3001
Birmingham, Michigan 48012
Attn: Chief Scott Grewe

Contractor: Sasche Construction
3663 Woodward Suite 500
Detroit, MI 48201
Attn: Jay McKee

13. AMENDMENTS: No amendment, modification or supplement to this Agreement shall be binding unless it is in writing and signed by authorized representatives of the parties.

14. WAIVER OF BREACH: No waiver by either party of any breach of any of the terms, covenants or conditions herein contained by the other party shall be construed as a waiver of any succeeding breach of this same or of any other term, covenant or condition.

15. COMPLETE AGREEMENT: The parties agree that the conditions set forth in this Agreement sets forth all terms and conditions of Contractor agreement with the City of Birmingham. This Agreement supersedes all prior agreements or understandings between the parties. There are no promises, conditions or understandings other than those stated herein, and, that any prior negotiations, terms or conditions discussed between the City and the Contractor shall not constitute a part of this Agreement. The term "agreement" as used in this clause shall include any future written amendments, modifications, or supplements made in accordance herewith.

16. DIRECT OR INDIRECT INTEREST: If, after the effective date of this Agreement, any official of the City, or spouse, child, parent or in-law of such official or employee shall become directly or indirectly interested in this Agreement or the affairs of the Contractor, the City shall have the right to terminate this Agreement without further liability to the Contractor if the disqualification has not been removed within thirty (30) days after the City has given the Contractor notice of the disqualifying interest. Ownership of less than one percent (1%) of the stock or other equity interest in a corporation or partnership shall not be a disqualifying interest. Employment shall be a disqualifying interest.

17. FAILURE TO PERFORM. If Contractor fails to perform its obligations hereunder, the City may take any and all remedial actions provided by the general specifications or otherwise permitted by law.

18. LEGAL PROCEEDINGS: Any controversy or claim arising out of or relating to this Agreement, or the breach thereof, shall be settled either by commencement of a suit in Oakland County Circuit Court, the 48th District Court or by arbitration. If both parties elect to have the dispute resolved by arbitration, it shall be settled pursuant to Chapter 50 of the Revised Judicature Act for the State of Michigan and administered by the American Arbitration Association with one arbitrator being used, or three arbitrators

in the event any party's claim exceeds $1,000,000. Each party shall bear its own costs and expenses and an equal share of the arbitrator's and administrative fees of arbitration. Such arbitration shall qualify as statutory arbitration pursuant to MCL §600.5001 et seq., and the Oakland County Circuit Court or any court having jurisdiction shall render judgment upon the award of the arbitrator made pursuant to this Agreement. The laws of the State of Michigan shall govern this Agreement, and the arbitration shall take place in Oakland County, Michigan. In the event that the parties elect not to have the matter in dispute arbitrated, any dispute between the parties may be resolved by the filing of a suit in a federal or state court with jurisdiction over Oakland County, Michigan.

19. RESPONSE TO REQUESTS FOR PROPOSALS: The Contractor shall be held to and bound by all terms, conditions, warranties and representations which it made in its written response dated _____, to the City's Request for Proposals dated March 5, 2026 (attached hereto as Attachment "A"). In the event of a conflict in any of the terms of this Agreement and the Contractors response, the terms of this Agreement shall prevail.

20. FAIR PROCUREMENT OPPORTUNITY: Procurement for the City of Birmingham will be handled in a manner providing fair opportunity for all businesses. This will be accomplished without abrogation or sacrifice of quality and as determined to be in the best interest of the City of Birmingham.

IN WITNESS WHEREOF, the parties hereto agree to be bound by the above terms and conditions, and Contractor, by its authorized signature below, expressly accepts this Agreement upon the above provided terms and conditions contained in this Agreement as of the date first above written.

Contractor Sachse Construction and Development Company, LLC

By: _____

Its: Jay McKee, Senior Vice President

STATE OF MICHIGAN)
) ss:
COUNTY OF OAKLAND)

On this 1st day of April, 2026, before me personally appeared Jay McKee, who acknowledged that with authority on behalf of Sachse Construction to do so he/she signed this Agreement.

_____
Notary Public
St. Clair County, Michigan
Acting in Wayne County, Michigan
My commission expires: 11/24/2028

CITY OF BIRMINGHAM:

By: _____
Clinton Baller, Mayor

By: _____
Alexandria D. Bingham, City Clerk

APPROVED:

_____
Jana Ecker, City Manager
(Approved as to substance)

_____
Scott A. Grewe, Police Chief
(Approved as to substance)

_____
Mary M. Kucharek, City Attorney w/RSM TWG
(Approved as to form)

_____
Mary Chavez, Finance Director
(Approved as to Financial Obligation)

ATTACHMENT B - BIDDER'S AGREEMENT
For CONSTRUCTION MANAGEMENT SERVICES FOR PD RENOVATIONS

In submitting this proposal, as herein described, the Contractor agrees that:

1. They have carefully examined the specifications, terms and Agreement of the Request for Proposal and all other provisions of this document and understand the meaning, intent, and requirement of it.

2. They will enter into a written contract and furnish the item or items in the time specified in conformance with the specifications and conditions contained therein for the price quoted by the proponent on this proposal.

Jay McKee	April 1, 2026
PREPARED BY (Print Name)	**DATE**
Senior Vice President	April 1, 2026
TITLE	**DATE**
	jmckee@sachse.net
AUTHORIZED SIGNATURE	**E-MAIL ADDRESS**

Sachse Construction and Development Company, LLC
COMPANY

3663 Woodward, Suite 500 Detroit, MI 48201	313-481-8200
ADDRESS	**PHONE**

Sachse Construction and Development Company, LLC

NAME OF PARENT COMPANY	**PHONE**
3663 Woodward, Suite 500 Detroit, MI 48201	313-481-8200
ADDRESS	

CONSTRUCTION MANAGEMENT COST PROPOSAL
(ATTACHMENT C SUPPLEMENT)

Project: Construction Management Services for PD Renovations
Firm Name: Sachse Construction and Development Company, LLC
Date: April 1, 2026

Note: The CM is responsible to provide services for both phases of the projects as outlined in the CM RFP.

1. CM FEE (%)

Per RFP: Fee shall be a percentage of construction cost, inclusive of overhead and profit

2. STAFFING COSTS

Estimated project duration is 7 months. Please provide, on a supplemental sheet, a breakdown of staff required with the monthly staffing costs and total estimated staffing costs.

3. GENERAL CONDITIONS

Estimated project duration is 7 months. Please provide, on a supplemental sheet, a breakdown of general condition anticipated and total costs.

Item:	Proposed:
1. CM Fee %	4.95%
2. Staffing Costs Total	$201,875
3. General Conditions Total	$17,972

Authorized Signature:
Printed Name: Jay McKee, Senior Vice President
Date: April 1, 2026

ATTACHMENT D - IRAN SANCTIONS ACT VENDOR CERTIFICATION FORM
For CONSTRUCTION MANAGEMENT SERVICES FOR PD RENOVATIONS

Pursuant to Michigan Law and the Iran Economic Sanction Act, 2012 PA 517 ("Act"), prior to the City accepting any bid or proposal, or entering into any contract for goods or services with any prospective Vendor, the Vendor must certify that it is not an "Iran Linked Business", as defined by the Act.

By completing this form, the Vendor certifies that it is not an "Iran Linked Business", as defined by the Act and is in full compliance with all provisions of the Act and is legally eligible to submit a bid for consideration by the City.

Jay McKee	April 1, 2026
PREPARED BY (Print Name)	**DATE**
Senior Vice President	April 1, 2026
TITLE	**DATE**
	jmckee@sachse.net
AUTHORIZED SIGNATURE	**E-MAIL ADDRESS**
Sachse Construction and Development Company, LLC	
COMPANY	
3663 Woodward, Suite 500 Detroit, MI 48201	313-481-8200
ADDRESS	**PHONE**
Sachse Construction and Development Company, LLC	
NAME OF PARENT COMPANY	**PHONE**
3663 Woodward, Suite 500 Detroit, MI 48201	313-481-8200
ADDRESS	
38-3011404	
TAXPAYER I.D.#	

RENOVATIONS FOR:

DPS YARD GARAGE STORAGE

2100 HOLLAND ST. BIRMINGHAM, MI 48009

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	LAV	LAVATORY
AHJ	AUTHORITIES HAVING JURISDICTION	LP	LOW POINT
AJS	ALL JOIST SYSTEM	MANUF	MANUFACTURER
ASBA	AS SELECTED BY ARCHITECT	MAX	MAXIMUM
BO	BOTTOM OF	MDF	MEDIUM DENSITY FIBERBOARD
BOF	BOTTOM OF FOOTING	MECH	MECHANICAL
BOS	BOTTOM OF STEEL	MEZZ	MEZZANINE
CFMF	COLD FORMED METAL FRAMING	MIN	MINIMUM
CLO	CLOSET	MISC	MISCELLANEOUS
CM	CONSTRUCTION MANAGER	MO	MASONRY OPENING
CMU	CONCRETE MASONRY UNITS	NCM	NON COMBUSTIBLE MATERIAL
CONC	CONCRETE	NIC	NOT IN CONTRACT
CONT	CONTINUOUS	NTS	NOT TO SCALE
CONTR	CONTRACTOR	OC	ON CENTER
CORR	CORRIDOR	OPP	OPPOSITE
CPT	CARPET	PLAM	PLASTIC LAMINATE
DEMO	DEMOLITION	PTD	PAINTED
DIA	DIAMETER	R	RISERS
EIFS	EXTERIOR INSULATION FINISH SYSTEM	REINF	REINFORCING
		REQ	REQUIRED
ELEV	ELEVATION	RS	ROOF SUMP
EMER	EMERGENCY	SF	SQUARE FEET
EQ	EQUAL	SIM	SIMILAR
EQUP	EQUIPMENT	SPECS	SPECIFICATIONS
EW	EACH WAY	T&G	TONGUE AND GROOVE
EWC	ELECTRIC WATER COOLER	TEMP	TEMPERED
EXIST	EXISTING	TME	TO MATCH EXISTING
EXT	EXTERIOR	TO	TOP OF
FD	FLOOR DRAIN	TOF	TOP OF FOOTING
FF	FINISHED FLOOR	TOS	TOP OF STEEL
FIN	FINISH	TOW	TOP OF WALL
FL	FLOOR	TYP	TYPICAL
FRT	FIRE RETARDANT TREATED	UNO	UNLESS NOTED OTHERWISE
GA	GAUGE	US	UNDERSIDE
GALV	GALVANIZED	VCT	VINYL COMPOSITION TILE
GC	GENERAL CONTRACTOR	VERT	VERTICAL
GYP. BD.	GYPSUM BOARD	VIF	VERIFY IN FIELD
HM	HOLLOW METAL	W	WITH
HOR.	HORIZONTAL	WWF	WELDED WIRE FABRIC
HP	HIGH POINT		
HVAC	HEATING, VENTILATING, AIR CONDITIONING		
INSUL	INSULATION		
JC	JANITOR'S CLOSET		

INDEX OF DRAWINGS

CM RFP 03.12.2026	NO.	SHEET TITLE
		ARCHITECTURAL DRAWINGS
●	G-101	COVER SHEET AND DRAWING INDEX
●	A-101	DEMOLITION AND PROPOSED PLANS
●	A-201	EXTERIOR ELEVATIONS
		MECHANICAL DRAWINGS
●	M-001	MECHANICAL SYMBOLS, ABBREVIATIONS AND NOTES
●	M-101	DEMO AND NEW MECHANICAL FIRST FLOOR PLANS
●	M-201	MECHANICAL SCHEDULES AND DETAILS
●	M-301	MECHANICAL SPECIFICATION
		ELECTRICAL DRAWINGS
●	E-001	ELEC. LEGEND, SHEET INDEX, PANEL SCHED., AND SPECS
●	E-101	DEMO. AND NEW LIGHTING FIRST AND SECOND FLOOR PLANS
●	E-201	DEMO. AND NEW POWER FIRST AND SECOND FLOOR PLANS

● SHEET ISSUED

○ SHEET ISSUED FOR REFERENCE ONLY

GENERAL NOTES:

1. LIGHT GAUGE STEEL FRAMING TO CONFORM TO ASTM STANDARDS C-645 AND C-754.
2. ALL DIMENSIONS ARE FROM FINISH FACE OF DRYWALL TO FINISH FACE OF DRYWALL OR FACE OF EXTERIOR WALL SHEATHING UNO.
3. ALL CONSTRUCTION TO CONFORM TO APPLICABLE STATE AND LOCAL CODES.
4. CONTRACTOR IS RESPONSIBLE FOR ALL APPLICABLE BUILDING INSPECTIONS.
5. ALTHOUGH EVERY EFFORT HAS BEEN MADE TO REFERENCE EACH PARTICULAR CONSTRUCTION ISSUE THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT THE ENTIRE PROJECT IS COMPLETED IN A MANNER THAT IS IN ACCORDANCE TO THE INTENT OF THE DRAWINGS AND FULLY COMPLIES WITH ALL APPLICABLE CODES, REGULATIONS, AND MANUFACTURER SPECIFICATIONS AND RECOMMENDATIONS.
6. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INVESTIGATE AND CONFIRM ALL EXISTING CONDITIONS AND TO NOTIFY THE OWNER AND ARCHITECT OF EXISTING CONDITIONS THAT ARE UNFORESEEN OR ARE DIFFERENT FROM CONDITIONS THAT ARE DEPICTED IN THE CONTRACT DOCUMENTS.
7. DO NOT SCALE DRAWINGS. CONTACT ARCHITECT FOR DIMENSIONAL CLARIFICATIONS.
8. THE CONTRACTOR IS REQUIRED TO MAINTAIN A SAFE, CLEAN, AND ORDERLY WORK ENVIRONMENT DURING ALL PHASES OF CONSTRUCTION.
9. ALL PRODUCTS SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS AND AS RECOMMENDED BY RECOGNIZED INDUSTRY AND TRADE STANDARDS.
10. ALL GYPSUM PRODUCTS SHALL BE INSTALLED PER THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND THE GUIDELINES AND SPECIFICATIONS PUBLISHED BY THE 'GYPSUM ASSOCIATION'.
11. ALL OUTSIDE GYP. BD. CORNERS SHALL RECEIVE "NO-COAT" DRYWALL CORNER BEAD.
12. ALL GYP. BD. SHALL RECEIVE A LEVEL 4 FINISH (BASED ON 'USG' GUIDELINES) FOR A SMOOTH MONOLITHIC APPEARANCE.
13. ALL GYP. BD. SHALL BE ATTACHED TO FRAMING AS OUTLINED:
    - A. ADHERED WITH A CONT. BEAD OF DRYWALL ADHESIVE TO EACH FRAMING MEMBER. ADHESIVE SHALL MEET ASTM C557 STANDARDS AND BE INSTALLED PER THE ADHESIVE MANUFACTURER AND 'USG' RECOMMENDATIONS.
    - B. MECHANICALLY FASTENED WITH 1-5/8" TYPE 'S' BUGLE HEAD SCREWS.
    - C. GYP. BD. SHALL BE APPLIED PERPENDICULAR TO WALL AND CEILING FRAMING WITH SCREWS AT 16" OC AT ENDS, AT EACH FRAMING MEMBER ALONG EDGES, AND WITH ONE FIELD SCREW PER FRAMING MEMBER.
16. ALL INTERIOR AND EXTERIOR PAINT SHALL BE FURNISHED AND INSTALLED PER THE 'ARCHITECTURAL PAINTING SPECIFICATION MANUAL', LATEST EDITION, PUBLISHED BY THE 'MASTER PAINTERS INSTITUTE'.
17. ALL SEALANTS SHALL COMPLY WITH AND BE INSTALLED TO COMPLY WITH THE RECOMMENDATIONS IN 'ASTM C 1193' AS APPLICABLE TO THE MATERIALS, APPLICATIONS, AND CONDITIONS BEING USED.
18. CONTRACTOR TO CAREFULLY REVIEW DRAWINGS AND REPORT ANY DISCREPANCIES TO ARCHITECT. THE CONTRACTOR SHALL ACCEPT RESPONSIBILITY FOR DISCREPANCIES IDENTIFIED AFTER AWARD OF THE CONTRACT AND THOSE DISCREPANCIES SHALL BE INTERPRETED PER THE SOLE DISCRETION OF THE ARCHITECT WITH NO ADVERSE IMPACT ON THE CONTRACT AMOUNT.
19. THE GENERAL CONTRACTOR MAY SUBMIT SPECIFICATIONS FOR ALTERNATE MATERIALS AND FIXTURES FOR CONSIDERATION BY THE ARCHITECT FOR ALL SPECIFIED MATERIALS AND FIXTURES.
20. EXIT AND TOILET ROOM DOORS SHALL BE IDENTIFIED WITH ACCESSIBLE SIGNAGE PER SECTION 110 MBC 2021 AND 703.4.5 ICC/ANSI - A117.1-2017

ISSUED:
CM RFP 03/12/2026

MCD ARCHITECTS
33610 GRAND RIVER
FARMINGTON, MI, 48335
www.mcdarchitects.com
248-374-0001

ADDITION FOR:

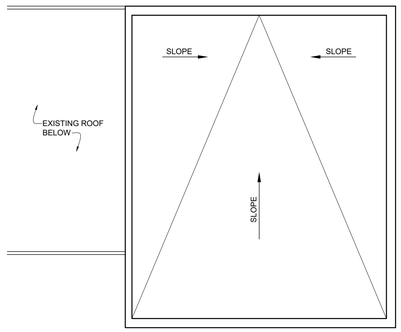
DPS YARD GARAGE STORAGE
2100 HOLLAND ST.
BIRMINGHAM, MI
48009

DEMOLITION AND PROPOSED FLOOR PLANS

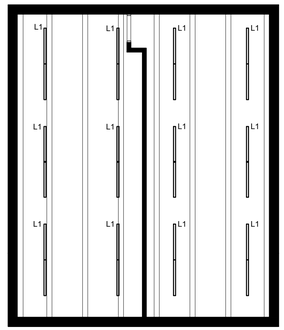
DRAWN BY: GA

APPROVED BY: SS

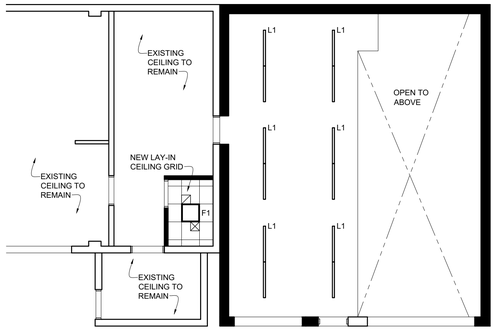
PROJECT NO.	SHEET NO.
25498	G-101



7 A-101 **PROP. ROOF PLAN**
1/8" = 1'-0"



5 A-101 **REFLECTED CEILING PLAN PROP. SECOND FLOOR**
1/8" = 1'-0"



4 A-101 **REFLECTED CEILING PLAN PROP. FIRST FLOOR PLAN**
1/8" = 1'-0"

NEW PARTITION CONSTRUCTION

EXISTING CONSTRUCTION TO REMAIN

EXISTING CONSTRUCTION TO REMAIN

EXISTING CONSTRUCTION TO BE REMOVED

SYMBOL KEY

F1 — 24"X24" LIGHT FIXTURE

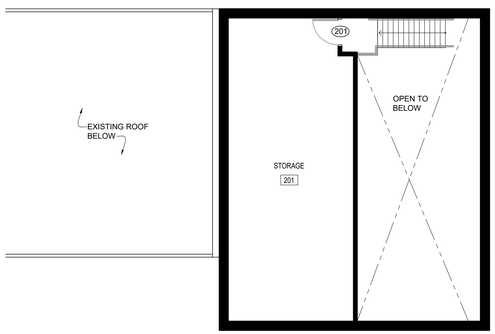
L1 — 4' PENDANT LED LIGHT

1'X1' VENT TO ROOF

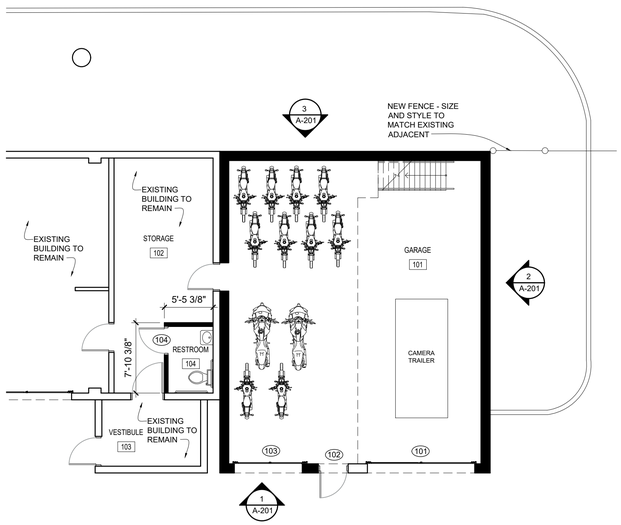
1'X1' SUPPLY DIFFUSER

DEMOLITION NOTES:

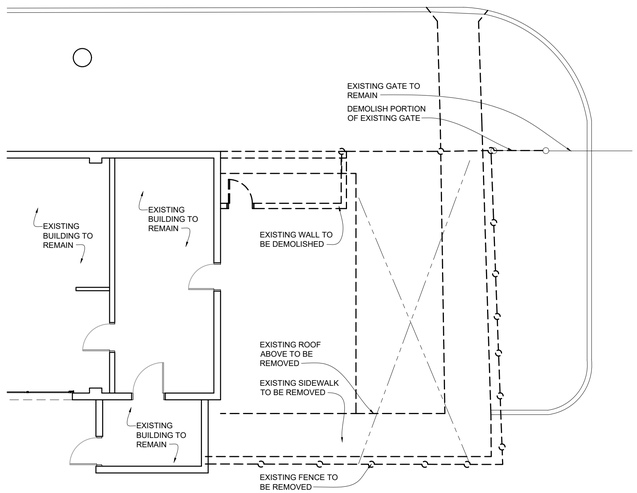
1. DASHED LINES DENOTE EXISTING CONSTRUCTION TO BE REMOVED (UNO)
2. CONTRACTOR SHALL COMPLETELY REMOVE ALL ELECTRICAL HARDWARE, CABLES, ETC. LOCATED IN EXISTING WALLS TO BE REMOVED.
3. ALL ELECTRICAL REMOVAL SHALL BE COMPLETE AND BACK TO EITHER THE SOURCE OR TO A POINT OF CONNECTION FOR NEW ELECTRICAL FIXTURE TIE IN, INCLUDING, BUT NOT LIMITED TO; CONDUIT, WIRE, BOXES, LOW VOLTAGE DEVICES, SWITCHES, AND FIXTURES.
4. DEMOLITION CONTRACTOR TO PROVIDE TEMPORARY SHORING/ BRACING AS REQUIRED DURING THE REMOVAL OF STRUCTURAL ELEMENTS & SELECTIVE DEMOLITION.
5. SEE FLOOR PLAN FOR DIMENSIONS AND LOCATIONS OF NEW CONSTRUCTION.
6. CAREFULLY REMOVE ALL MATERIALS AS INDICATED AND PROPERLY/ LEGALLY DISPOSE AS REQUIRED IN CONTRACTOR SUPPLIED DUMPSTERS.
7. FOR ITEMS TO BE REMOVED- REMOVE ALL MISCELLANEOUS ITEMS/ ACCESSORIES RELATED TO MATERIALS REMOVAL.
8. CAREFULLY DISMANTLE, REMOVE, SALVAGE & PROTECT ANY DEMOLITION OR REMOVABLE ITEMS TO BE RE-USED AS INDICATED IN THE DRAWINGS AND AS DIRECTED BY THE OWNER OR ARCHITECT IN SUCH A MANNER AS TO PREVENT DAMAGE
9. CONTRACTOR IS RESPONSIBLE TO REPLACE/REPAIR ANY DAMAGE INCURRED TO EXISTING BUILDING/PROPERTY AS A RESULT OF DEMOLITION ACTIVITIES.
10. ALL DEMOLITION WORK TO CONFORM TO LOCAL CODES/ORDINANCES AND BE DONE IN SUCH A MANNER AS TO PROTECT THE HEALTH, SAFETY AND WELFARE OF THE OWNERS, NEIGHBORS, SUB-CONTRACTORS, GENERAL PUBLIC. THE CONTRACTOR IS RESPONSIBLE TO IDENTIFY TO THE OWNER OF ANY POTENTIAL RISKS PRIOR TO DEMOLITION WORK.
11. PROTECT WALLS, CEILINGS, FLOORS, AND OTHER EXISTING FINISH WORK THAT IS TO REMAIN AND IS EXPOSED DURING SELECTIVE DEMOLITION OPERATIONS
12. UPON DEMOLITION/ REMOVAL OF ITEMS THE CONTRACTOR IS RESPONSIBLE TO CLEAN EXISTING SURFACES FOR NEW/ FINISHED APPEARANCE.
13. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INVESTIGATE AND CONFIRM ALL EXISTING CONDITIONS AND TO NOTIFY THE OWNER AND ARCHITECT OF EXISTING CONDITIONS THAT ARE UNFORESEEN OR ARE DIFFERENT FROM CONDITIONS THAT ARE DEPICTED IN THE CONTRACT DOCUMENTS.
14. CONTRACTORS ARE ENCOURAGED TO VISIT THE SITE TO UNDERSTAND THE SCOPE OF SELECTIVE DEMOLITION PRIOR TO SUBMITTING BIDS.
15. CONTRACTOR TO PROVIDE TEMPORARY SHORING & BRACING OF LOAD BEARING STRUCTURE AS REQUIRED.
16. CONTRACTOR TO COORDINATE WITH OWNER TO IDENTIFY ITEMS TO BE REMOVED AND SALVAGED FOR REUSE - CONTRACTOR TO STORE SALVAGED ITEMS IN A SECURE, PROTECTED, AREA UNTIL REINSTALLATION OCCURS



3 A-101 **PROP. SECOND FLOOR PLAN**
1/8" = 1'-0"



2 A-101 **PROP. FIRST FLOOR PLAN**
1/8" = 1'-0"



1 A-101 **DEMO. SITE PLAN**
1/8" = 1'-0"

ISSUED:
CM RFP 03/12/2026

MCD ARCHITECTS
33610 GRAND RIVER
FARMINGTON, MI, 48335
www.mcdarchitects.com
248-374-0001

ADDITION FOR:

DPS YARD GARAGE STORAGE

2100 HOLLAND ST.
BIRMINGHAM, MI
48009

DEMOLITION AND PROPOSED PLANS

DRAWN BY: GA

APPROVED BY: SS

PROJECT NO.	SHEET NO.
25498	A-101

ISSUED:
CM RFP 03/12/2026

MCD
ARCHITECTS

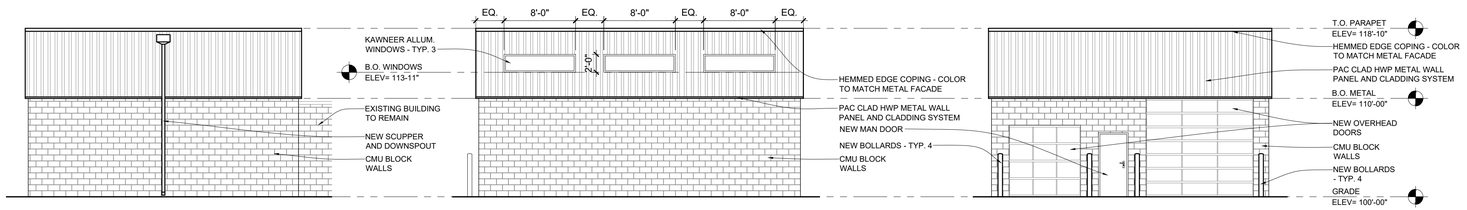
33610 GRAND RIVER
FARMINGTON, MI, 48335
www.mcdarchitects.com
248-374-0001

ADDITION FOR:

DPS YARD GARAGE STORAGE

2100 HOLLAND ST.
BIRMINGHAM, MI
48009

EXTERIOR ELEVATIONS



3 A-201 NORTH ELEVATION
1/8" = 1'-0"

2 A-201 EAST ELEVATION
1/8" = 1'-0"

1 A-201 SOUTH ELEVATION
1/8" = 1'-0"

DRAWN BY: GA

APPROVED BY: SS

PROJECT NO.	SHEET NO.
25498	A-201

ABBREVIATIONS

ACCU	AIR CONDITIONING CONDENSING UNIT
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AP	ACCESS PANEL
ASR	AUTOMATIC SPRINKLER RISER
BTU	BRITISH THERMAL UNIT
CC	COOLING COIL
CF	CENTRIFUGAL FAN
CFM	CUBIC FEET PER MINUTE
CI	CAST IRON
CO	CLEAN OUT
COND	CONDENSATE
CONT	CONTINUATION
CUH	CABINET UNIT HEATER
CW	COLD WATER
CWS	CHILLED WATER SUPPLY
CWR	CHILLED WATER RETURN
Db	DRY BULB TEMPERATURE, °F
dB	DECIBELS
DDC	DIRECT DIGITAL CONTROL
DET	DETAIL
DIA	DIAMETER
DN.	DOWN
DS	DOWNSPOUT
DWG.	DRAWING
EA	EXHAUST AIR
ECUH	ELECTRIC CABINET UNIT HEATER
EF	EXHAUST FAN
ELEV.	ELEVATION
ESP	EXTERNAL STATIC PRESSURE
EUH	ELECTRIC UNIT HEATER
EX.	EXISTING
EXH	EXHAUST
EXIST	EXISTING

F	FAHRENHEIT
FD	FLOOR DRAIN
FLR	FLOOR
FPM	FEET PER MINUTE
FSW	FLOW SWITCH
FS	FLOOR SINK
FT.	FEET
GPM	GALLONS PER MINUTE
HB	HOSE BIBB
HO	HUB OUTLET
HP	HORSEPOWER
HW	HOT WATER (POTABLE)
HWR	HOT WATER RETURN (POTABLE)
IN	INCHES
INL	INLET
INV	INVERT
LAT	LEAVING AIR TEMPERATURE
LAV	LAVATORY
LBS/HR	POUNDS PER HOUR
LWT	LEAVING WATER TEMPERATURE
MAX.	MAXIMUM
MBH	1000 BTU/HR
MECH	MECHANICAL
MIN.	MINIMUM
MISC	MISCELLANEOUS
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NOM.	NOMINAL
NFWH	NON FREEZE WALL HYDRANT
OA	OUTSIDE AIR
OF	OVERFLOW
OFD	OVERFLOW DRAIN

P	PUMP
PD	PRESSURE DROP (FEET OF WATER)
PSI	POUNDS PER SQUARE INCH
PRV	PRESSURE REDUCING VALVE
RA	RETURN AIR
RD/SP	ROOF DRAIN/STAND PIPE
BAL.	BALANCE
RET	RETURN
RF	RETURN FAN
RH	REHEAT COIL
Rh	RELATIVE HUMIDITY
RPM	REVOLUTIONS PER MINUTE
RS	ROOF SUMP
RC	RAIN CONDUCTOR
REL	RELOCATED
REB	REBALANCE
SA	SUPPLY AIR
SAN	SANITARY WASTE
SD	SMOKE DETECTOR
SF	SUPPLY FAN
SG	SPECIFIC GRAVITY
SP	STATIC PRESSURE (INCHES OF WATER)
SP	STAND PIPE
SPR	SPRINKLER
SPR/STP	SPRINKLER STANDPIPE
SPS	STATIC PRESSURE SENSOR
STK	STACK
TP	TOTAL PRESSURE
TYP	TYPICAL
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
V	VALVE
VTR	VENT THRU ROOF
W	WASTE
WG	WATER GAUGE
WH	WALL HYDRANT

PLUMBING, PIPING & FIRE PROTECTION

- ITEM TO BE REMOVED
- EXISTING WORK
- NEW WORK
- ISOLATION VALVE
- CHECK VALVE
- WATER FLOW SWITCH
- VALVE IN RISER
- STRAINER
- PIPE ANCHOR
- EXPANSION JOINT - SLIDING
- ALIGNMENT GUIDE
- UNION
- SPRINKLER HEAD (PENDANT)
- SPRINKLER HEAD (UPRIGHT)
- CO CLEANOUT
- FCO CLEANOUT FLOOR
- WCO CLEANOUT WALL
- GCO CLEANOUT GRADE
- FLOOR DRAIN (FD)
- REDUCER - CONCENTRIC
- PRESSURE GAUGE WITH COCK
- THERMOMETER
- CAP OR PLUG
- ELBOW - TURNED DOWN
- ELBOW - TURNED UP
- TEE OUTLET - DOWN
- TEE OUTLET - UP
- DIRECTION OF FLOW
- BALANCING VALVE
- TWO-WAY MODULATING CONTROL VALVE
- THREE-WAY MODULATING CONTROL VALVE
- MANUAL AIR VENT
- TEST PLUG (PRESSURE/TEMPERATURE)
- NEW CONNECTION
- COLD WATER PIPING
- HOT WATER PIPING
- HOT WATER RETURN PIPING
- VENT PIPING
- SAN SANITARY LINE (UNDERGROUND)
- SAN SANITARY LINE (AVOVE GROUND)
- ST STORM LINE
- G NATURAL GAS
- F FIRE SPRINKLER PIPE (FS)

MECHANICAL SHEET INDEX

M-001	MECHANICAL SYMBOLS, ABBREVIATIONS AND NOTES
M-101	DEMO AND NEW MECHANICAL FIRST FLOOR PLANS
M-201	MECHANICAL SCHEDULES AND DETAILS
M-301	MECHANICAL SPECIFICATION

GENERAL HVAC NOTES:

THE FOLLOWING NOTES APPLY TO ALL HVAC DRAWINGS, EXCEPT WHERE OTHERWISE INDICATED.

1. WHEREVER VOLUME DAMPERS OCCUR ABOVE CEILINGS WITHOUT REMOVABLE TILE AND AN ACCESS PANEL IS NOT FURNISHED, PROVIDE AN EXPOSED DAMPER REGULATOR TO ALLOW DAMPER ADJUSTMENT FROM BELOW CEILING. UNIT TO BE EQUAL TO VENTLOCK No. 666 IN 1/2"x3/8" SIZE.
2. ALL DIMMENSION SHOWN FOR DUCTWORK ARE NET INSIDE DIMENSIONS.
3. DIFFUSER AND REGISTER LOCATIONS SHALL BE COORDINATED WITH ARCHITECTURAL REFLECTED CEILING PLAN.
4. THOUGH SOME OFFSETS & TRANSITIONS ARE SHOWN IN PIPING AND SHEET METAL TO HELP INDICATE THE PHYSICAL RELATIONSHIP BETWEEN THEM. IT IS NOT THE INTENT OF THE DRAWINGS TO SHOW ALL PIPING AND SHEET METAL OFFSET & TRANSITIONS REQUIRED. THE CONTRACTOR SHALL FULLY COORDINATE THE MECHANICAL WORK WITHIN ITSELF AND WITH THE WORK OF ALL TRADES TO PROVIDE COMPLETE AND OPERABLE SYSTEMS WITHOUT INTERFERENCES.
5. DUCT PRESSURE CONSTRUCTION CLASSIFICATION SHALL BE AS SPECIFIED.
6. ALL ROUND RUNOUTS AND DROPS TO DIFFUSERS SHALL BE SAME NOMINAL SIZE AS INDICATED ON THE DRAWINGS.
7. ALL PIPING AND DUCTS IN FINISHED ROOMS OR SPACES SHALL BE CONCEALED IN FURRED CHASE OR SUSPENDED CEILING.
8. ACCESS PANELS AND DOORS (MECHANICAL CONTRACTOR TO PROVIDE) ARE REQUIRED THROUGH BUILDING CONSTRUCTION ASSEMBLIES SUCH AS WALLS, CEILING, PARTITIONS AND FLOORS TO SERVICE AND MAINTAIN DAMPERS, CONTROL MOTORS, REGULATORS, VALVES, FLEXIBLE DUCT CONNECTIONS AND OTHER ITEMS OR DEVICES INCORPORATED IN MECHANICAL WORK. SUCH PANELS AND DOORS SHALL BE PROVIDED AND INSTALLED UNDER THE ARCHITECTURAL SPECIFICATIONS. MECHANICAL CONTRACTOR SHALL COORDINATE LOCATION OF ACESS DOORS AND PANELS AND VERIFY THE EXACT QUANTITY, SIZE, FIRE-RATING AND LOCATION AFTER THE SYSTEMS AND EQUIPMENT REQUIRING ACCESS HAVE BEEN INSTALLED AND PRIOR TO THE CLOSURE OF THE AFFECTED CEILING AND BUILDING ASSEMBLIES. MINIMUM ACCESS PANEL AND DOOR SIZE SHALL BE 24 INCHES BY 18 INCHES UNLESS OTHERWISE NOTED.
9. ALL DUCTWORK PENETRATIONS FIRE-RATED WALLS AND FLOORS SHALL BE PROVIDED WITH FIRE DAMPERS AND ACCESS DOOR.

PLUMBING GENERAL NOTES:

1. FOR PIPE SIZES TO INDIVIDUAL PLUMBING FIXTURES AND VARIOUS PIECES OF EQUIPMENT REFER TO SPECIFICATIONS.
2. IN ALL WASTE DRAINAGE PIPING THE CONTRACTOR SHALL FURNISH AND INSTALL CLEANOUTS (IN ADDITION TO THE CLEANOUTS INDICATED ON DRAWINGS AS REQUIRED BY THE GOVERNING PLUMBING CODE).
3. REFER TO HVAC GENERAL NOTE-4
4. FOR ADDITION NOTES COMMON TO PLUMBING REFER TO HVAC NOTES.

HVAC LEGEND & SYMBOLS

- 18x6 — INDICATES RECTANGULAR DUCT WITH DUCT SIZE 18 INCHES WIDE (IN PLANE OF DRAWING) AND 6 INCHES DEEP. SIZE PERTAINS TO THE ENTIRE RUN OF DUCT UNLESS OTHERWISE NOTED.
- 22x14ø — INDICATES FLAT OVAL DUCT WITH DUCT SIZE 22 INCHES WIDE (IN PLANE OF DRAWING) AND 14 INCHES DEEP. SIZE PERTAINS TO THE ENTIRE RUN OF DUCT UNLESS OTHERWISE NOTED.
- 6"ø — INDICATES ROUND DUCT WITH DUCT SIZE OF 6 INCHES IN DIAMETER. SIZE PERTAINS TO THE ENTIRE RUN OF DUCT (FROM DUCT ORIGIN AT TAP TO END OF DUCT) UNLESS OTHERWISE NOTED.
- VANE TURN ELBOW & AIR SPLIT TYPE DUCT TAKE-OFF
- RISE — INCLINED RISE IN RESPECT TO AIR FLOW
- DN. — INCLINED DROP IN RESPECT TO AIR FLOW
- VANED ELBOW (PROVIDE ALL SQUARE OR RECTANGULAR ELBOWS WITH VANES)
- VANED ELBOW (SHORT RADIUS)
- INDICATES FLEXIBLE DUCT (RUNOUT) OF SIZE AS SCHEDULED OR SHOWN. LENGTH SHALL NOT EXCEED 5 FT.
- DUCT TURNING UP
- DUCT TURNING DOWN
- VERTICAL FIRE DAMPER
- HORIZONTAL FIRE DAMPER
- POINT OF NEW CONNECTION
- SD DUCT SMOKE DETECTOR
- ITEM TO BE REMOVED
- SUPPLY AIR DIFFUSER
- RETURN AIR GRILLE
- LINEAR SUPPLY AIR DIFFUSER
- SUPPLY AIR GRILLE
- MD VOLUME CONTROL DAMPER (MANUAL)
- FLEXIBLE CONNECTION OR FLEXIBLE DUCT CONNECTOR
- M MOTORIZED DAMPER
- C COMBINATION FIRE AND SMOKE DAMPER
- RF RF SHEILDING DAMPER
- T THERMOSTAT
- S TEMPERATURE SENSOR

ISSUED:

CM RFP	03/12/26

MCD ARCHITECTS
33610 GRAND RIVER
FARMINGTON, MI, 48335
www.mcdarchitects.com
248-374-0001

MAENGINEERING
MECHANICAL ELECTRICAL
180 High Oak Road
Bloomfield Hills, Michigan 48304
t | 248 | 258 | 1610
f | 248 | 258 | 9538

RENOVATIONS FOR:

DPL YARD GARAGE STORAGE

2100 HOLLAND ST.
BIRMINGHAM, MI
48009

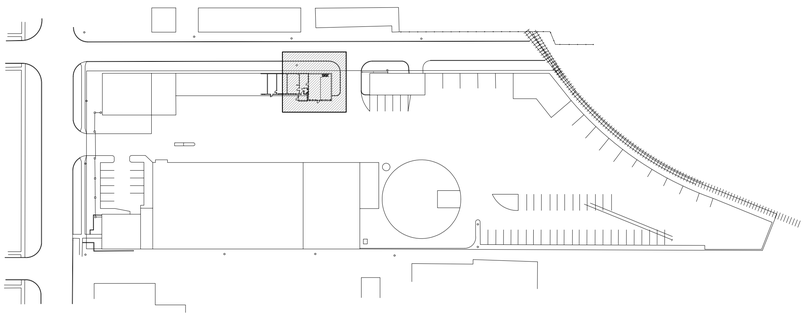
MECHANICAL SYMBOLS, ABBREVIATIONS AND NOTES

DRAWN BY: MS

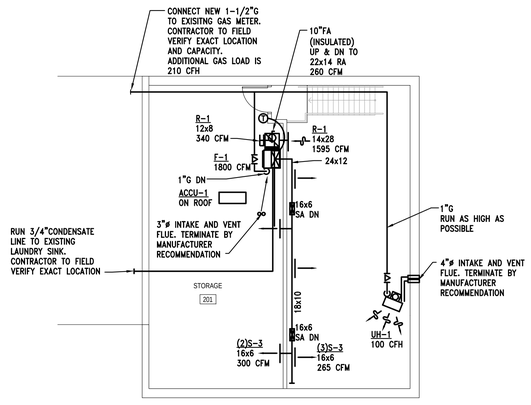
APPROVED BY: MS

PROJECT NO.	SHEET NO.
25498	M-001

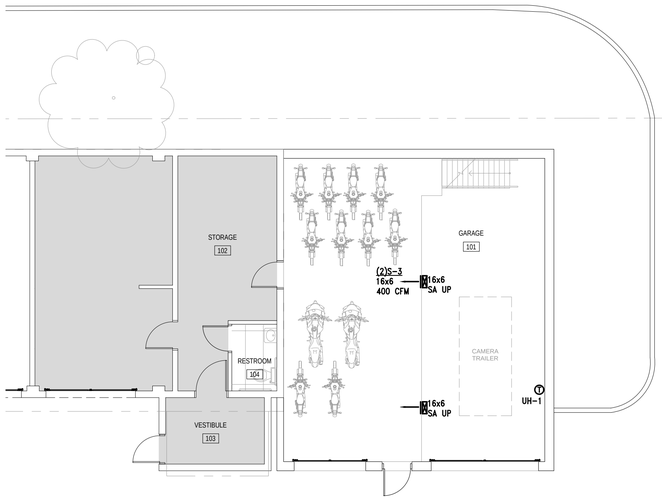
H:\ACAD\FILES\98\98530 birmingham police renovation and expansion\dpl yard garage storage\CAD\MECH\98530-DPL-M-001-COVER PAGE.dwg Thu, 12 Mar 2026 - 2:17pm



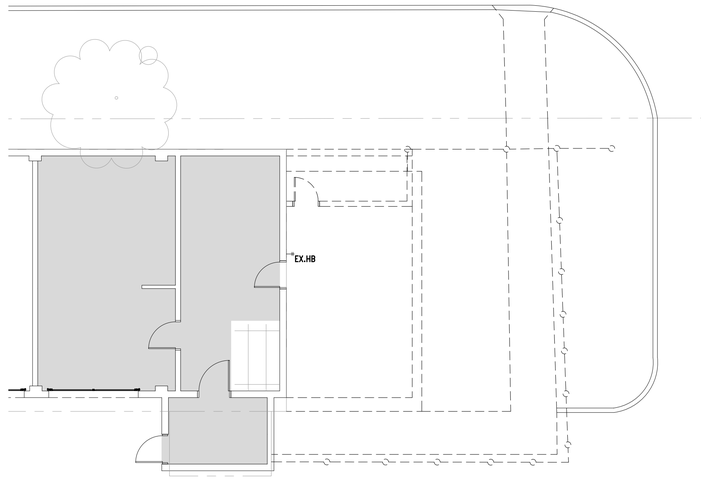
E-101 KEY PLAN
N.T.S.



3 M-101 NEW MECHANICAL SECOND FLOOR PLAN
1/8" = 1'-0"



2 M-101 NEW MECHANICAL FIRST FLOOR PLAN
1/8" = 1'-0"



1 M-101 DEMO MECHANICAL FIRST FLOOR PLAN
1/8" = 1'-0"

ISSUED:

CM RFP	03/12/26

MCD ARCHITECTS
33610 GRAND RIVER
FARMINGTON, MI, 48335
www.mcdarchitects.com
248-374-0001

MAENGINEERING
MECHANICAL ELECTRICAL
180 High Oak Road
Bloomfield Hills, Michigan 48304
t | 248 | 258 | 1610
f | 248 | 258 | 9538

RENOVATIONS FOR:

DPL YARD GARAGE STORAGE

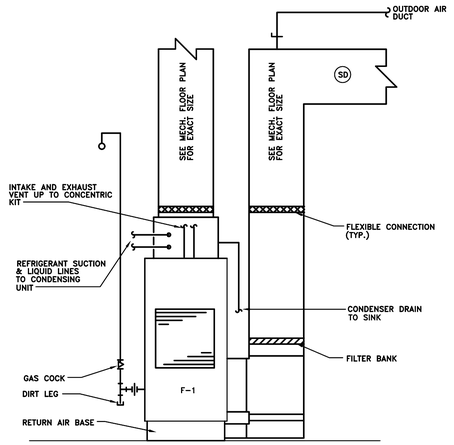
2100 HOLLAND ST.
BIRMINGHAM, MI
48009

DEMO AND NEW MECHANICAL FIRST AND SECOND FLOOR PLANS

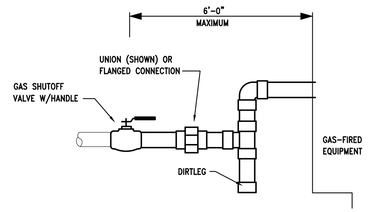
DRAWN BY: SM
APPROVED BY: MS

PROJECT NO.	SHEET NO.
25498	M-101

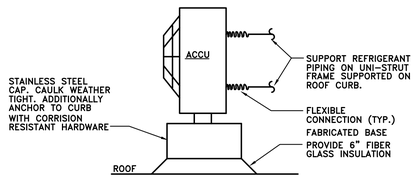
H:\ACAD\FILES\88\88530 birmingham police renovation and expansion\dpl yard garage storage\CAD\MECH\88530-DPL-M-101-Mech-plans.dwg Thu, 12 Mar 2026 - 2:17pm



TYPICAL FURNACE DETAIL
NO SCALE



TYPICAL GAS PIPING CONNECTION
NO SCALE



ACCU MOUNTING DETAIL
NO SCALE

WARM AIR FURNANCE SCHEDULE

TAG	MANUFACTURER & MODEL No.	AREA SERVED	AFLUE	TYPE	"ESP	CFM	MIN. O.A. (CFM)	GAS DATA		ELECTRICAL				NOTES/ ACCESSORIES
								TYPE	INPUT MBTU	VOLTS	HP	FLA	MCA	
F-1	CARRIER 59TP6C SERIES 120V24-22	SEE PLAN	96.7	**UPFLOW**	.6	1800	265	NAT	110	120/1	1	11.5	16.6	A B C D E F G H

NOTES AND ACCESSORIES DESIGNATION			
A	DISCONNECT SWITCH		
B	PROGRAMMABLE THERMOSTAT		
C	ROOF TERMINATION KIT		
D	THROWAWAY FILTER (25%)		
E	2 STAGE COOLING / 2 STAGE HEATING		
F	SMOKE DETECTOR IN RETURN		
G	RUN CONDENSATE LINE TO EXISTING SERVICE SINK		
H	5-TON CASING		

AIR COOLED CONDENSING UNIT SCHEDULE

TAG	MANUFACTURER & MODEL No.	UNIT SERVED	COOLING CAPACITY		REFRIG.	SUCTION TEMP DEG °F	LIQUID TEMP DEG °F	AMBIENT TEMP DEG °F	ELECTRICAL			SEER	NOTES/ACCESSORIES
			TOTAL MBH	SENS. MBH					VOLTS	MCA	MOCP		
ACCU-1	CARRIER 26TPA8-60	F-1	60.0	--	R-454B	44	95	95	208/1	30.5	50	16.5	A B C

NOTES AND ACCESSORIES DESIGNATION	
A	PROVIDE EQUIPMENT PAD
B	DISCONNECT SWITCH
C	REFRIGERANT PIPING

GRILLE, REGISTER & DIFFUSER SCHEDULE

TAG	MANUFACTURER & MODEL No.	SERVICE	MOUNTING	OVERALL SIZE	NECK SIZE	NOTES/ ACCESSORIES
S-1	TITUS 272RL	SAD	DUCT	SEE PLAN	SEE PLAN	A B
R-1	TITUS 25 RL	RAG	WALL	SEE PLAN	----	A

KEY:
SAD – CEILING SUPPLY DIFFUSER
TAG – CEILING OR WALL TRANSFER GRILLE
RAG – CEILING OR WALL RETURN GRILLE
EAG – CEILING OR WALL EXHAUST GRILLE

NOTES AND ACCESSORIES DESIGNATION			
A	COLOR BY ARCHITECH		
B	PROVIDE DAMPER		

GAS FIRED UNIT HEATER SCHEDULE

TAG	MANUFACTURER & MODEL No.	AREA SERVED	TYPE	CFM	INTAKE VENT SIZES	GAS DATA			ELECTRICAL		NOTES/ACCESSORIES
						TYPE	MBH IN	MBH OUT	VOLTS	HP	
GUH-1	RE-VERBER-RAY FA-100	SEE PLAN	PROP.	1500	4"	NAT	100	80	120	1/8	A B C D E F

NOTES AND ACCESSORIES DESIGNATION			
A	VIBRATION ISOLATORS	E	TWO STAGE GAS VALVE W/SAFETY PILOT, 100% SHUT-OFF
B	4 POINT SUSPENSION KIT	F	WALL CONCENTRIC KIT
C	REMOTE THERMOSTAT		
D	MOUNT BOTTOM AS HIGH AS POSSIBLE		

ISSUED:

CM RFP 03/12/26

MCD ARCHITECTS
33610 GRAND RIVER
FARMINGTON, MI, 48335
www.mcdarchitects.com
248-374-0001

MAENGINEERING
MECHANICAL ELECTRICAL
180 High Oak Road t | 248 | 258 | 1610
Bloomfield Hills, Michigan 48304 f | 248 | 258 | 9538

RENOVATIONS FOR:

DPL YARD GARAGE STORAGE

2100 HOLLAND ST.
BIRMINGHAM, MI
48009

MECHANICAL SCHEDULES & DETAILS

DRAWN BY: MS
APPROVED BY: MS

PROJECT NO.	SHEET NO.
25498	M-201

H:\ACAD\FILES\88888530 birmingham police renovation and expansion\dpl yard garage storage\CAD\MECH\88530-DPL-M-201-SCHEDULES_DETAILS.dwg Thu, 12 Mar 2026 - 2:17pm

MECHANICAL SPECIFICATION

MECHANICAL MATERIALS, METHODS AND EXECUTION WORK INCLUDED:

WORK INCLUDED:

A. FURNISH ALL LABOR AND MATERIAL, APPLIANCES, EQUIPMENT AND SUPERVISION TO PUT IN PLACE A COMPLETE AND FUNCTIONING MECHANICAL INSTALLATION READY FOR OPERATION, AS SPECIFIED HEREIN AND AS INDICATED ON THE DRAWINGS. SYSTEMS SHALL INCLUDE BUT NOT NECESSARILY LIMITED TO THE FOLLOWING MAJOR EQUIPMENT OR OPERATIONS:
1. PLUMBING.
2. HEATING, VENTILATING AND AIR CONDITIONING.
3. INSULATION.
4. TEMPERATURE CONTROLS.

DEFINITIONS:
A. "PROVIDE": TO FURNISH AND COMPLETELY INSTALL SPECIFIED PRODUCTS AND INCIDENTALS, WHETHER SPECIFICALLY INDICATED OR NOT, NECESSARY FOR A COMPLETE, FUNCTIONAL INSTALLATION. INCLUDES ALL GENERAL AND SPECIALIZED LABOR, EQUIPMENT AND TOOLS NECESSARY TO COMPLETE THE INSTALLATION.
B. "PIPING": A COMPLETE SYSTEM, INCLUDING PIPE, TUBING, FITTINGS, HANGERS, SUPPORTS, VALVES, AND ALL SPECIALTIES THAT COMPRISE A FULLY FUNCTIONAL PIPING SYSTEM, WHETHER SPECIFICALLY INDICATED OR NOT.

CODES, ORDINANCES, AND STANDARDS:
A. ALL WORK SHALL CONFORM IN ALL RESPECTS TO THE REQUIREMENTS OF THE LATEST ADOPTED FEDERAL, STATE AND LOCAL CODES, ORDINANCES, AND STANDARDS HAVING JURISDICTION OVER THE WORK.
B. WHERE CONTRACT DOCUMENT REQUIREMENTS EXCEED THE REQUIREMENTS OF THE REFERENCED CODES, ORDINANCES, AND STANDARDS, THE CONTRACT DOCUMENT REQUIREMENTS SHALL BE TAKEN AS MINIMUM.
C. ALL EQUIPMENT CONTAINING ELECTRICAL WIRING AND/OR ELECTRICAL COMPONENTS SHALL HAVE A UNDERWRITERS LABORATORIES (UL) "PACKAGE" LABEL.
D. ALL GAS FIRED EQUIPMENT SHALL HAVE THE AMERICAN GAS ASSOCIATION (AGA) LABEL.

PERMITS, FEES AND INSPECTIONS:
A. SECURE ALL NECESSARY PERMITS, CONNECTION FEES, TAD FEES, LICENSES AND APPROVALS AND ARRANGE FOR ALL INSPECTIONS, INCLUDE ALL RELATED COSTS.
B. FURNISH CERTIFICATES OF FINAL INSPECTION AND APPROVAL UPON COMPLETION OF PROJECT.

EXAMINATION OF SITE:
A. VISIT PROJECT SITE AND BECOME FULLY COGNIZANT OF ALL EXISTING ARCHITECTURAL, MECHANICAL, ELECTRICAL, STRUCTURAL AND SITE CONDITIONS, OR EXISTING CODE VIOLATIONS WHICH MAY AFFECT THE WORK.
B. NOTIFY ARCHITECT PRIOR TO SUBMITTING BID IF REVISIONS TO CONTRACT DOCUMENTS ARE NECESSARY TO RECTIFY ANY OF THE AFOREMENTIONED EXISTING CONDITIONS.
C. NO "EXTRAS" TO CONTRACT PRICE WILL BE ALLOWED AFTER RECEIVING BID IN ORDER TO RECTIFY EXISTING CONDITIONS IN ORDER TO MEET THE DESIGN INTENT OF THE CONTRACT DOCUMENTS OR SATISFY CODE REQUIREMENTS.

COORDINATION WITH OTHER TRADES:
A. COORDINATE ALL WORK BEFORE AND DURING CONSTRUCTION WITH ALL OTHER AFFECTED TRADES.
B. WHERE INTERFERENCES DEVELOP, NOTIFY ARCHITECT FOR RESOLUTION OF CONFLICT.
C. RELOCATION OF CONFLICTING INSTALLED WORK, DUE TO LACK OF COORDINATION, OR POOR COORDINATION WILL NOT BE CONSIDERED EXTRA WORK.

APPROVED MANUFACTURERS:
A. USE ONLY MATERIALS SPECIFICALLY INDICATED IN CONTRACT DOCUMENTS, OR COMPARABLE MATERIALS BY OTHER LISTED ACCEPTABLE MANUFACTURERS. NOTE THAT "ACCEPTABLE MANUFACTURER" DOES NOT CONSTRUE AUTOMATIC APPROVAL OF SPECIFIC MATERIALS BY ONE OR ALL OF THE LISTED ACCEPTABLE MANUFACTURERS. ARCHITECT AND/OR ENGINEER OF RECORD RESERVES THE RIGHT OF FINAL DETERMINATION OF ACCEPTABILITY OF EACH ITEM.

SHOP DRAWINGS:
A. SUBMIT COMPLETE SHOP DRAWINGS FOR ALL MATERIALS AND EQUIPMENT INTENDED FOR USE ON THIS PROJECT.
B. SHOP DRAWINGS SHALL CLEARLY INDICATE ALL PHYSICAL, PERFORMANCE AND ELECTRICAL CHARACTERISTICS FOR ALL MATERIALS AND EQUIPMENT.
C. SUBMIT ELECTRONIC COPY OF ALL SHOP DRAWINGS FOR REVIEW.
D. NO WORK IS TO BE INSTALLED PRIOR TO RETURN OF ARCHITECT REVIEWED SHOP DRAWINGS.

OPERATION AND MAINTENANCE MANUALS:
A. UPON COMPLETION OF PROJECT, SUBMIT TWO (2) COMPLETE BOUND SETS OF OPERATING AND MAINTENANCE MANUALS FOR ALL EQUIPMENT AND SYSTEMS INSTALLED IN THIS PROJECT.
B. MANUALS SHALL INCLUDE GUARANTEE(S), COMPLETE OPERATING INSTRUCTIONS, REPAIR PARTS LIST, PREVENTATIVE MAINTENANCE SCHEDULE, BELT AND FILTER SCHEDULE, AND LIST OF ALL SUBCONTRACTORS ASSOCIATED WITH THE WORK, INCLUDING TELEPHONE NUMBER AND CONTACT PERSON.

OPERATING AND MAINTENANCE INSTRUCTIONS:
A. PRIOR TO FINAL ACCEPTANCE BY OWNER, PROVIDE ALL PERSONNEL, EQUIPMENT, AND LABOR AS NECESSARY TO INSTRUCT OWNER'S PERSONNEL IN PROPER OPERATION AND MAINTENANCE OF THE SYSTEMS AND EQUIPMENT INSTALLED IN THIS PROJECT. PROVIDE INSTRUCTIONAL SESSION DURING TIME PERIOD AGREED TO WITH OWNER.

CUTTING AND PATCHING:
A. ALL CUTTING AND PATCHING SHALL BE PROVIDED BY THE GENERAL TRADES UNDER THE DIRECTION OF THE MECHANICAL TRADES. COST WILL BE PAID BY THE MECHANICAL TRADE REQUESTING THE WORK.
B. RESTORED SURFACES SHALL BE OF SAME MATERIALS AND QUALITY AS ADJACENT SURFACES, AND SHALL MATCH SURROUNDING SURFACES, AND/OR BE RESTORED TO PRE-CONSTRUCTION CONDITION.

PROTECTION OF EXISTING SERVICES:
A. PROTECT FROM ALL DAMAGE, EXISTING SERVICES (I.E., GAS, WATER, ELECTRICAL, ETC.), ENCOUNTERED IN THE WORK, NOT SPECIFICALLY INDICATED TO BE DEMOLISHED. INCLUDE ALL RELATED COSTS.
B. REPAIR AND/OR REPLACE EXISTING ACTIVE SERVICES INTENDED TO REMAIN IN SERVICE, BUT DAMAGED DURING THE COURSE OF CONSTRUCTION. ABSORB ALL RELATED COSTS. NO "EXTRAS" WILL BE PAID TO RESTORE EXISTING ACTIVE SERVICES DAMAGED DURING CONSTRUCTION.
C. ARCHITECT WILL DETERMINE COURSE OF ACTION WHEN EXISTING INACTIVE SERVICES ARE DAMAGED DURING COURSE OF CONSTRUCTION. ABSORB ALL COSTS RELATIVE TO ADDITIONAL DEMOLITION, TERMINATION, RELOCATION AND/OR RESTORATION OF EXISTING, DAMAGED INACTIVE SERVICES AS DIRECTED BY ARCHITECT.

ELECTRICAL WORK:
A. PROVIDE ALL ELECTRICAL WORK ASSOCIATED WITH, AND NECESSARY TO COMPLETE THIS PROJECT, WHICH IS NOT INCLUDED AS ELECTRICAL TRADES WORK.
B. PROVIDE ALL ELECTRICAL WORK, AS APPLICABLE, IN ACCORDANCE WITH DIVISION 16 REQUIREMENTS.
C. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION (WITH ELECTRICAL TRADES) OF CORRECT VOLTAGES FOR ALL MECHANICAL EQUIPMENT. IN CASE OF DISCREPANCY, NOTIFY ENGINEER IMMEDIATELY AND PRIOR TO SHOP DRAWING SUBMITTALS. FAILURE TO COMPLY WITH THIS REQUIREMENT HOLDS THE CONTRACTOR FULLY RESPONSIBLE FOR ANY SUBSEQUENT PROBLEMS

CLEANING AND FINISHING:
A. PRIOR TO FINAL ACCEPTANCE BY OWNER, THOROUGHLY CLEAN ALL WORK INSIDE AND OUT AS APPLICABLE, AND LEAVE ALL SYSTEMS AND EQUIPMENT IN PERFECT WORKING ORDER. THOROUGHLY CLEAN ALL PLUMBING FIXTURES, EXPOSED PIPING, FLOOR DRAIN GRATES, AND CLEANOUT COVERS AS APPLICABLE.

GUARANTEE:
A. REFER TO ARCHITECTURAL SPECIFICATIONS FOR GUARANTEES, IF NONE EXIST THE FOLLOWING MINIMUM GUARANTEES SHALL BE PROVIDED.
1. PROVIDE A ONE (1) YEAR GUARANTEE COVERING ALL LABOR AND MATERIAL PROVIDED IN THIS PROJECT. GUARANTEE SHALL INCLUDE ALL SHIPPING AND TRANSPORTATION CHARGES NECESSARY TO RETURN DEFECTIVE MATERIALS TO MANUFACTURER, AS WELL AS LABOR CHARGES NECESSARY TO REMOVE AND REPLACE DEFECTIVE MATERIALS.
2. PROVIDE 5 YEAR GUARANTEE FOR ALL COMPRESSORS.
3. DEFECTIVE MATERIALS AND/OR EQUIPMENT MAY BE REPAIRED IN LIEU OF REPLACED WITH PRIOR APPROVAL OF ARCHITECT AND/OR OWNER.

NATURAL GAS PIPING:

ABOVE GRADE:
PIPE 4" AND UNDER: ASTM A-120, SCHEDULE 40, BLACK STEEL
PIPE OVER 4": ASTM A-53, GRADE A OR GRADE B, SEAMLESS OR ERW, SCHEDULE 40, BLACK STEEL.
FITTINGS: ANSI B16.3, 150 POUND, MALLEABLE IRON SCREWED; ANSI B16.9 STEEL BUTTWELD.
JOINTS: 2" AND SMALLER, ANSI B2.1 THREADS; 2-1/2" AND LARGER, ANSI B16.25 BUTTWELD.

BELOW GRADE:
STANDARD WEIGHT SEAMLESS STEEL PIPING ASTM A53 GRADE B WITH WELDED FITTINGS ALL COATED AND WRAPPED IN ACCORDANCE WITH LOCAL UTILITY COMPANY AND AGA RECOMMENDATIONS.

NATURAL GAS SYSTEM VALVES:

PIPELINE AND SERVICE VALVES SHALL BE RESUN, MANUFACTURED BY J.M. HUBER CORPORATION. EACH VALVE SHALL BE U.L. APPROVED AND BEAR THE PROPER U.L. STAMP.

FOR PIPING 2" AND SMALLER MILWAUKEE VALVE CO., INC., MODEL #BB-1-100 "BUTTERBALL" OR APPROVED EQUAL AGA CERTIFIED AND UL LISTED QUARTER-TURN BUTTERFLY VALVE, BRONZE BODY, THREADED ENDS, STAINLESS STEEL STEM AND DISC, VITON SEAL WITH POSITIVE SHUT-OFF AND RATED FOR 175 LB. WORKING

EACH VALVE SHALL BE PROVIDED WITH A WRENCH OPERATOR.

DUCT SMOKE DETECTORS:

SMOKE DETECTORS SHALL BE PROVIDED BY CONTROL TRADES. IF THERE IS NO CONTROL TRADES, THIS CONTRACTOR SHALL PROVIDE DETECTORS. FOR AIR HANDLING UNITS SUPPLYING MORE THAN 2000 CFM, DUCT SMOKE DETECTORS SHALL BE PROVIDED IN RETURN AIR STREAM. FOR AIR HANDLING UNITS SUPPLYING MORE THAN 15,000 CFM, DUCT SMOKE DETECTORS SHALL BE PROVIDED IN RETURN AIR AND SUPPLY AIR STREAM. DUCT SMOKE DETECTORS FOR AIR HANDLING UNITS SHALL BE 24VDC PHOTOELECTRIC TYPE WITH 2 AUXILIARY CONTACTS, ONE FOR FAN SHUTDOWN AND ONE FOR ANNUNCIATION. DETECTORS SHALL BE COMPLETE WITH SAMPLING TUBES. IN OCCUPANCES NOT REQUIRED TO BE EQUIPPED WITH A FIRE ALARM SYSTEM, ACTUATION OF A SMOKE DETECTOR SHALL ACTIVATE A VISIBLE AND AN AUDIBLE SIGNAL IN AN APPROVED LOCATION. SMOKE DETECTOR TROUBLE CONDITIONS SHALL ACTIVATE A VISIBLE OR AUDIBLE SIGNAL IN AN APPROVED LOCATION AND SHALL BE IDENTIFIED AS AIR DUCT DETECTOR TROUBLE.

SHEET METAL NOTES:

INSTALL TRANSFER GRILLES IN ALL FULL HEIGHT PARTITIONS TO ALLOW RETURN AIR FLOW. SIZE PER MECHANICAL ENGINEER REQUIREMENTS. THESE SHALL BE FIRE DAMPERS IN RATED WALLS.

BLANK-OFF RETURN DUCTWORK IN AREAS OF WORK THAT CREATES DUST TO PREVENT DEBRIS FROM ENTERING MECHANICAL SYSTEM.

LOW PRESSURE DUCTWORK: ALL DUCTWORK ON DISCHARGE OF HVAC UNIT, ALL RETURN AIR DUCTWORK AND EXHAUST AIR DUCTWORK SHALL BE CONSTRUCTED AND SUPPORTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST SMACNA'S ISSUE OF "LOW PRESSURE DUCT CONSTRUCTION STANDARDS".

IN ADDITION, ALL JOINTS AND SEAMS SHALL BE SEALED WITH DUCT SEALANT EQUAL TO FOSTER #32-14. APPROVED SEALANT MANUFACTURERS: 3M COMPANY, BENJAMIN FOSTER COMPANY, UNITED SHEET METAL, FLINTKOTE.

FLEXIBLE CONNECTIONS:
AT EACH POINT OF CONNECTION OF DUCTWORK TO FANS, PROVIDE A FLEXIBLE CONNECTION, VENTFABRICS, INC., "VENTGLAS L.A." NOT LESS THAN 12" IN LENGTH AND MADE OF HEAVY GRADE GLASS FABRIC DOUBLE COATED WITH NEOPRENE AND PROVIDED WITH A SUITABLE FRAME AT EACH END ARRANGED FOR BOLTING TO INLET AND OUTLET OF FAN AND DUCTWORK, RESPECTIVELY.

FOR RANGE HOOD EXHAUST FANS, WHERE INDICATED, PROVIDE VENTFABRICS, INC., "VENTBESTOS" FLEXIBLE CONNECTIONS. ALL AS APPROVED BY THE FIRE MARSHAL, AND ANY OTHER LOCAL AUTHORITY HAVING JURISDICTION.

VANES AND DEFLECTORS: ALL ELBOWS AND TURNS SHALL BE MADE WITH A RADIUS NOT LESS THE 1-1/2" TIMES THE DUCT DIAMETER OR WIDTH. WHERE BUILDING CONSTRUCTION DOES NOT PERMIT A LONG RADIUS ELBOW OR TURN OR IF SHOWN ON THE CONTRACT DOCUMENTS, ACOUSTICAL TURNING VANES AND DEFLECTORS SHALL BE PROVIDED.

DUCT INSULATION:

ALL DUCTWORK SHALL BE THERMALLY INSULATED:
ALL DUCT INSULATION SHALL HAVE A FLAME SPREAD CLASSIFICATION OF 25 OR LESS, A FUEL CONTRIBUTED RATING OF 35 OR LESS AND SMOKE DEVELOPED RATING OF 50 OR LESS, AS RATED BY UNDERWRITERS' LABORATORIES
BLANKET TYPE (UP TO 1-1/2 LB./CU. FT. INSULATION):
INSULATION WITH ATTACHED FACING SHALL BE SECURED TO THE DUCTS WITH ADHESIVE APPLIED IN 6" BRUSH WIDTHS EVERY 12". THE ADHESIVE SHALL BE RIDGED SLIGHTLY BY USING A SERRATED TROWEL. INSULATION WITHOUT ATTACHED FACING (PLAIN) SHALL BE SECURED TOT HE DUCTS THE SAME AS ABOVE THEN BIND WITH TYING CORD, SPIRAL WRAPPED OR HALF HITCHED.
DUCT FITTINGS SHALL BE INSULATED BY WRAPPING WITH A GLASS FIBER BLANKET. BLANKETS SHALL BE SECURED TOT HE DUCT FITTINGS BY INSULATION STAPLES OR JUTE TWINE. THE BLANKET SHALL BE COVERED WITH AN OPEN MESH CLOTH OR GLASS FIBER HEAVILY COATED WITH VAPOR BARRIER ADHESIVE. THE INSULATION THICKNESS SHALL BE EQUAL TO THE THICKNESS OF THE INSULATION ON THE ADJOINING DUCTWORK.
FOR OUTSIDE DUCT, SEE DETAIL ON SHEET M201.

TESTING AND BALANCING:

TEST AND ADJUST ALL NEW PIPING SYSTEMS INSTALLED IN THIS PROJECT. PROVIDE ALL TESTING INSTRUMENTS, GAUGES, PUMPS AND OTHER EQUIPMENT REQUIRED OR NECESSARY FOR TEST. REPAIR ALL DEFECTS DISCLOSED BY TESTS WITHOUT ADDITIONAL COST TO THE OWNER. REPEAT TESTS AFTER ANY DEFECTS DISCLOSED ARE REPAIRED OR REPLACED, UNLESS WAIVED BY ARCHITECT. ARRANGE AND PAY THE COST OF ALL UTILITIES USED ON TESTS. COMPLETE ALL TESTS BEFORE COVERING IS APPLIED. ISOLATE ALL PIPING SYSTEM COMPONENTS NOT CONSTRUCTED TO WITHSTAND TEST PRESSURES.

NATURAL GAS SYSTEM:
ALL GAS PIPING SHALL BE TESTED IN ACCORDANCE WITH RULES AND REGULATIONS OF THE COMPANY OR UTILITY SERVING THE PROJECT, AND IN ANY CASE SHALL NOT BE LESS THAN THE FOLLOWING:
THE PIPING SYSTEM OR PORTIONS OF THE PIPING SYSTEM TO BE TESTED SHALL BE SUBJECTED TO AN AIR PRESSURE, USING OIL-FREE COMPRESSOR AIR, OF NOT LESS THAN 100 POUNDS PER SQUARE INCH, EQUAL 204" OF MERCURY. THE PRESSURE SHALL BE APPLIED WITH A FORCE PUMP AND SHALL BE MAINTAINED FOR NOT LESS THAN 30 MINUTES WITHOUT LEAKAGE. A MERCURY COLUMN GAUGE SHALL BE USED IN MAKING THE TESTS. TESTS SHALL BE SCHEDULED WITH LOCAL AUTHORITY FOR PRESENCE OF PROPER INSPECTOR. THE CONTRACTOR INSTALLING THESE PIPING SYSTEMS SHALL BE HELD RESPONSIBLE FOR THE TEST AND SHALL CERTIFY THE APPLICATION AND SHALL CERTIFY THE APPLICATION AND SUCCESS OF THE TEST.
NATURAL GAS LINES SHALL BE BLOWN OUT WITH DRY, OIL-FREE COMPRESSED

AIR BALANCING:
BALANCE ALL OUTLETS AND TERMINAL BOXES TO WITHIN 10% OF RATED C.F.M IN ACCORDANCE WITH AABC AND NEBB, SUBMIT BALANCING REPORT.

TEMPERATURE CONTROLS:

FURNACE AND CONDENSER:

WIRE PROGRAMMABLE THERMOSTAT FURNISHED BY UNIT MANUFACTURER.
DURING OCCUPIED CYCLE, SUPPLY FAN SHALL RUN CONTINUOUSLY.
(WINTER) SPACE STAT SHALL CYCLE THE GAS FIRED HEATING SECTION (GAS VALVE) TO MAINTAIN HEATING SET TEMPERATURE.
(SUMMER) SPACE STAT SHALL CYCLE THE CONDENSER UNIT TO MAINTAIN COOLING SET TEMPERATURE.

DURING UNOCCUPIED CYCLE, SUPPLY FAN SHALL CYCLE THE BLOWER FAN ON AND OFF.
(WINTER) SPACE STAT SHALL CYCLE SUPPLY FAN, AND GAS FIRED HEATING SECTION TO MAINTAIN HEATING SET TEMPERATURE.
(SUMMER), UNIT SHALL BE DEACTIVATED.

SMOKE DETECTOR DEACTIVATES FAN WHENEVER PRODUCTS OF COMBUSTION ARE SENSED.

GAS FIRED UNIT HEATERS:

WIRE THERMOSTAT THAT THE SPACE TEMPERATURE SENSOR SHALL MODULATE THE UNIT TO MAINTAIN TEMPERATURE SET POINT.

ISSUED:

CM RFP 03/12/26

MCD ARCHITECTS
33610 GRAND RIVER
FARMINGTON, MI, 48335
www.mcdarchitects.com
248-374-0001

MAENGINEERING
MECHANICAL ELECTRICAL
180 High Oak Road t | 248 | 258 | 1610
Bloomfield Hills, Michigan 48304 f | 248 | 258 | 9538

RENOVATIONS FOR:

DPL YARD GARAGE STORAGE
2100 HOLLAND ST.
BIRMINGHAM, MI
48009

MECHANICAL SPECIFICATION

DRAWN BY: MS

APPROVED BY: MS

PROJECT NO.	SHEET NO.
25498	M-301

H:\ACAD\FILES\88888530 birmingham police renovation and expansion\dpl yard garage storage\CAD\MECH\88530-DPL-M-301-SPECIFICATION.dwg Thu, 12 Mar 2026 - 2:17pm

ELECTRICAL SPECIFICATIONS:

ALL WORK SHALL BE IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE, LATEST EDITION, AND ALL LOCAL AND STATE AUTHORITIES HAVING JURISDICTION THEREOF.

ALL EQUIPMENT SHALL BE SPECIFICATION GRADE AND SHALL HAVE U.L. LABEL FOR INTENDED USE.

ELECTRICAL SYSTEMS SHALL BE COMPLETE IN EVERY DETAIL, INCLUDING ALL INCIDENTAL ITEMS FOR A PROPER AND FUNCTIONING INSTALLATION SUBJECT TO FINAL APPROVAL OF ARCHITECT/ENGINEER.

ALL REQUIRED PERMIT AND INSPECTIONS SHALL BE OBTAINED BY CONTRACTOR AND SUCH COSTS SHALL BE INCLUDED IN BID PRICE FOR THIS WORK.

PROVIDE UL LISTED SYSTEM FOR FIRE STOPPING PENETRATIONS THROUGH FIRE RATED ASSEMBLIES. PROVIDE SYSTEM WITH EQUAL OR GREATER RATING THAN ASSEMBLY. REFER TO ARCHITECTURAL DOCUMENTS FOR RATINGS AND LOCATIONS OF ASSEMBLIES.

EXAMINATION OF SITE IS MANDATORY. CONTRACTOR IS HEREBY HELD TO HAVE EXAMINED THE SITE AND HAVE INCLUDED IN HIS BID PRICE ALL COSTS DUE TO SITE AND FIELD CONDITIONS.

COMPLETE IDENTIFICATION OF PROJECT ELECTRICAL COMPONENTS IS REQUIRED. IDENTIFY ALL PANELS, DISCONNECTS, CONTROL DEVICES, ETC., WITH THE NOMENCLATURE INDICATED ON THE DOCUMENTS AND WITH POWER SOURCE AND ELECTRICAL RATINGS USING PLASTIC LAMINATE NAMEPLATE. INSTALL TYPEWRITTEN DIRECTORIES OF ALL CIRCUITS ON INSIDE OF PANELS. IDENTIFY WIRING DEVICE COVERPLATES WITH PANELBOARD AND BRANCH CIRCUIT NUMBER SERVING DEVICE, E.G. "A-15". PROVIDE ¼" MACHINE-WRITTEN BLACK LETTERING ON CLEAR PLASTIC ADHESIVE TAPE. LOCATE ON BOTTOM FRONT OF COVERPLATE, CENTERED BELOW WIRING DEVICE(S). SUBMIT SAMPLE OF LABELED TAPE WITH WIRING DEVICE/COVERPLATE SUBMITTAL. SAMPLE MAY BE ADHERED TO PAPERWORK IN SUBMITTAL, RATHER THAN TO A COVERPLATE.

PROVIDE TEMPORARY POWER AND LIGHTING DURING CONSTRUCTION. REMOVE TEMPORARY WIRING UPON COMPLETION OF THE PROJECT. TEMPORARY SERVICES SHALL BE AS REQUIRED, BY N.E.C. AND OSHA. CONTRACTOR IS RESPONSIBLE TO MEET WITH UTILITY TO FOR TEMPORARY POWER PROVISION AND ALL REQUIRED SKID UNITS.

GROUND CONTINUITY SHALL BE MAINTAINED THROUGHOUT THE ELECTRICAL SYSTEM. INSTALL EQUIPMENT GROUNDING CONDUCTOR WITH EVERY CIRCUIT.

COORDINATE SIZE AND LOCATION OF ANY REQUIRED ACCESS PANELS IN WALLS OR FINISHED CEILINGS WITH ARCHITECT PRIOR TO INSTALLATION.

WARRANTY:
UNLESS A LONGER PERIOD IS SPECIFIED IN INDIVIDUAL PARAGRAPHS, PROVIDE A MINIMUM OF ONE YEAR WARRANTY ON ALL ELECTRICAL WORK BEGINNING THE DATE OF FINAL ACCEPTANCE OF THE PROJECT BY THE OWNER.

SUBMITTALS:
SUBMIT SHOP DRAWINGS FOR ALL MAJOR COMPONENTS OR SYSTEMS OF THE PROJECT. SUBMIT ADDITIONAL SHOP DRAWINGS IF REQUESTED BY ENGINEER.

NO APPARATUS OR EQUIPMENT SHALL BE SHIPPED FROM STOCK OR FABRICATED UNTIL ITS SHOP DRAWINGS HAVE BEEN STAMPED "REVIEWED" OR "APPROVED AS NOTED". SUBMIT DATA REQUIRED FOR TRANSFORMERS SUCH AS EFFICIENCY, REGULATION, CORE LOSS AND SOUND LEVELS. (SEE APPLICABLE SECTIONS).

SUBMIT SYSTEM COMPONENTS, PRODUCT DATA AND SHOP DRAWINGS COMPLETE FOR EACH SYSTEM UNDER ONE SUBMITTAL. DO NOT BREAK OUT EQUIPMENT FOR ONE SYSTEM BETWEEN MULTIPLE SUBMITTALS.

ALL SHOP DRAWINGS MUST BE CLEARLY MARKED TO SHOW EQUIPMENT SUBMITTED AND ANY DEVIATIONS FROM SPECIFICATIONS SHALL BE NOTED THEREON. DO NOT INCLUDE ONLY MODEL NUMBERS TO INDICATE SUBMITTED EQUIPMENT. STRIKE OUT ANY INFORMATION ON PRODUCT DATA THAT IS NOT PROJECT SPECIFIC, AND EDIT RELEVANT INFORMATION TO SHOW ACTUAL EQUIPMENT SUBMITTED. ELECTRICAL CONTRACTOR MUST SIGN AND APPROVE ALL SHOP DRAWINGS PRIOR TO SUBMITTAL. UNIQUELY NUMBER EACH PAGE IN SUBMITTAL.

IF DIFFERENT SYSTEMS ARE INCLUDED IN ONE SUBMITTAL, CLEARLY SEPARATE INFORMATION AND PROVIDE DIFFERENT SUB-NUMBERING OF SYSTEMS. SHOP DRAWINGS THAT ARE INCOMPLETE, UNSIGNED AND NOT PLAINLY MARKED WILL NOT BE REVIEWED.

DEMOLITION AND RENOVATION WORK:

DISCONNECT, REMOVE, RELOCATE, REWIRE OR DISPOSE OF ANY EQUIPMENT INTERFERING WITH NEW CONSTRUCTION OR AFFECTED BY RENOVATION WORK.

ANY ELECTRICAL EQUIPMENT OR SYSTEMS WHICH ARE TO REMAIN, AND ARE AFFECTED BY THIS WORK, SHALL BE IMMEDIATELY RESTORED TO FULL OPERATING CONDITION AND AT NO ADDITIONAL COST TO THE CONTRACT.

EQUIPMENT REMOVED SHALL BE DISPOSED OF AS DIRECTED, EITHER TO STORAGE OR OFF THE PREMISES.

WHERE SERVICES OR CIRCUITS ARE DISCONNECTED OR DISCONTINUED, IT IS MANDATORY THAT ANY EXISTING UNUSED WIRING BE REMOVED TO THE SOURCE UNLESS SPECIFICALLY NOTED ON THE DRAWINGS. IT IS THE INTENT OF THIS ARTICLE TO PERMANENTLY DISCONNECT ALL UNUSED CIRCUITS AT THE MAIN SOURCE WHENEVER POSSIBLE. NO ENERGIZED CIRCUIT SHALL BE TAPED AND ABANDONED IN OUTLET BOXES UNLESS SO SPECIFIED ON DRAWINGS.

CIRCUIT TRACE EXISTING TO REMAIN CIRCUITS AS NECESSARY FOR PROPER IDENTIFICATION, AND AS REQUIRED TO PERFORM AND DOCUMENT WORK.

REMODELING WORK INVOLVING EXISTING BRANCH CIRCUIT PANELBOARD SHALL BE SUCH THAT, WHEN ALL WORK IS COMPLETED EXISTING PANELS ARE PROVIDED WITH NEW AND UPDATED ACCURATE DIRECTORIES. ALL VACATED CIRCUITS SHALL BE MARKED SPARE. WHEN NEW BREAKERS ARE REQUIRED, THEY SHALL BE INSTALLED IN EXISTING SPACES AND SHALL MATCH THOSE THAT ARE EXISTING. PROVIDE NEW PANELS IF REQUIRED AND WHERE INDICATED.

CONTRACTOR MAY USE EXISTING CONDUITS AND OUTLET BOXES, PROVIDED THEY ARE IN GOOD ELECTRICAL CONDITION AND THE INSTALLATION IS APPROVED BY THE AHJ. RE-SUPPORT EXISTING TO REMAIN CONDUIT AND BOXES IN RENOVATION AREA IF INADEQUATELY SUPPORTED. PROVIDE SUPPORT AS REQUIRED TO COMPLY WITH NEC AND AHJ REQUIREMENTS.

IT IS THE INTENT OF THE OVERALL DESIGN TO CONCEAL ALL WORK EXCEPT IN UNFINISHED AREAS. CUT AND PATCH EXISTING SURFACES AS REQUIRED FOR A CONCEALED INSTALLATION.

ALL ELECTRICAL OPENINGS THAT ARE ABANDONED IN WALLS, CEILINGS OR FLOOR SHALL BE PROVIDED WITH SUITABLE BLANK COVER PLATES. ABANDONED FLOOR OUTLETS AND PENETRATIONS SHALL BE FILLED TO MATCH EXISTING SURROUNDING CONDITIONS.

CONDUITS AND OTHER PARTS OF ELECTRICAL SYSTEMS THAT BECOME EXPOSED AS A PART OF NEW WORK SHALL BE REMOVED AS REQUIRED TO A POINT WHERE THE ABANDONED PORTION IS TOTALLY CONCEALED.

ALL SURFACES DAMAGED BY THIS CONTRACTOR IN THE COURSE OF PERFORMING WORK SHALL BE RESTORED TO SATISFACTORY CONDITION, AS DIRECTED BY THE ARCHITECT AND ALL COSTS OF REPAIRS SHALL BE PAID FOR BY THE CONTRACTOR

REMOVE SERVICE TO MECHANICAL, ELECTRICAL AND BUILDING EQUIPMENT SPECIFIED AND/OR INDICATED AS REMOVED OR DISCONNECTED. MAINTAIN CIRCUITS TO EXISTING-TO-REMAIN EQUIPMENT. IDENTIFY UNUSED, REMOVED CIRCUITS ON PANEL SCHEDULE AS SPARE. COORDINATE WITH ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR EXISTING TO REMAIN EQUIPMENT AND FOR DEMOLITION WORK.

SERVICE SHUTDOWN AND POWER OUTAGES SHALL BE SCHEDULED WITH THE OWNER PRIOR TO PERFORMING ANY WORK ON EXISTING SERVICE. SCHEDULE SHALL BE PROVIDED IN WRITING 72 HOURS IN ADVANCE AND SHALL SHOW A DETAILED DESCRIPTION OF THE PROPOSED WORK AND THE DURATION OF OUTAGE.

PROVIDE LUMINAIRE DISCONNECTING MEANS PER LIGHTING SPECIFICATIONS.

ELECTRICAL EQUIPMENT AND DEVICES:
STEP DOWN TRANSFORMERS SHALL BE GENERAL PURPOSE, DRY TYPE, SELF AIR COOLED, TWO WINDING, UL CLASS 220 INSULATION (115 DEGREE C RISE, 30 DEGREE C HOT SPOT, AND 40 DEGREE C AMBIENT) WITH STANDARD FULL CAPACITY TAPS. VOLTAGE AND KVA AS INDICATED. MANUFACTURERS:
GE, EATON, SIEMENS, SQUARE D, OR APPROVED EQUAL. PROVIDE GROUNDING OF TRANSFORMERS AS SEPARATELY DERIVED SOURCES PER NEC ARTICLE 250.30. INCLUDE INSULATION CLASS IN SUBMITTAL INFORMATION.

RECEPTACLES SHALL BE SPECIFICATION GRADE, GROUNDING TYPE, 2-POLE, 3-WIRE, AND POLARIZED. RECEPTACLES IN GENERAL SHALL BE 20A, 125 V., HUBBELL #HBL5362 OR EQUAL MOUNTED 16" AFF IN OFFICES AREAS AND 48" AFF IN SHOP AREAS EXCEPT AT COUNTERS WHERE THEY SHALL BE 6" ABOVE COUNTER AND IN TOILET ROOMS AT 48" AFF. RECEPTACLES ON SINGLE CIRCUIT SHALL BE 20 AMPERES, HUBBELL #HBL5362. HIGH AMPERE RATINGS AND VOLTAGES ARE INDICATED ON DRAWINGS.

RECEPTACLES DESIGNATED "GFR" SHALL BE GROUND FAULT RECEPTACLES, SIMILAR TO HUBBELL #GF-5362. FOR OUTDOOR OR WET LOCATIONS, PROVIDE WEATHERPROOF BOX AND GASKETED COVER PLATE. WIRE "GFR" RECEPTACLES FOR SELF PROTECTION AND NOT DOWNSTREAM PROTECTION OF OTHER WIRING DEVICES.

SWITCHES SHALL BE SINGLE POLE, TWO POLE, OR THREE-WAY, AS INDICATED, TOGGLE TYPE, 20A, 120/277V., QUIET TYPE, HUBBELL #1221/1222/1223 OR APPROVED EQUAL. PILOT TYPE SWITCHES HUBBELL #1251.

WIRING DEVICE COLORS SHALL BE WHITE OR AS SELECTED BY OWNER/ARCHITECT.

DEVICE COVER PLATES SHALL BE OF TYPE AND NUMBER OF GANGS FOR DEVICES INSTALLED, SMOOTH EDGED 302/304 GRADE BRUSHED STAINLESS STEEL. PROVIDE BRANCH CIRCUIT IDENTIFICATION ON ALL COVERPLATES AS SPECIFIED UNDER "GENERAL REQUIREMENTS". COVERPLATES FOR DEVICES CONNECTED TO THE EMERGENCY SYSTEM SHALL ALSO BE FACTORY LABELED WITH BLACK LETTERING TO READ "EMERGENCY".

CONDUCTORS:
ALL CONDUCTORS SHALL BE SOFT-DRAWN COPPER OF SIZES INDICATED ON THE DRAWINGS. ALL CONDUCTORS SHALL BE INSULATED FOR 600 VOLTS AND WITH 90 DEGREES (CENTIGRADE) CODE GRADE INSULATION.

CONDUCTORS SIZED #10 AND SMALLER SHALL BE SOLID. ALL CONDUCTORS LARGER THAN #10 SHALL BE MADE UP OF STRANDED SINGLE CONDUCTOR CABLE. CONDUCTORS SHALL HAVE THWN OR THHN INSULATION AS APPLICABLE. CONDUCTORS IN UNDERGROUND CONDUIT AND FOR SERVICE ENTRANCE CONDUCTOR SHALL HAVE XHHW OR THWN INSULATION.

#12 AWG SHALL BE THE MINIMUM WIRE SIZE ALLOWED EXCEPT #14 AWG MAY BE USED FOR CONTROL WIRING.

TYPICAL BRANCH CIRCUITS FROM 20A, 1-POLE BRANCH OVERRCURRENT DEVICES ARE 1/2"C, 2#12 AND 1#12G.

INSTALLATION AND METHODS OF EXECUTION:
ALL WIRING SHALL BE IN CONDUIT, MINIMUM ½"- FLEXIBLE METAL CONDUIT SHALL BE USED FOR SHORT CONNECTION TO MOTORS, FINAL CONNECTION TO RECESSED LIGHTING FIXTURES FROM RIGIDLY MOUNTED OUTLET BOX (NOT BETWEEN FIXTURES), VIBRATING EQUIPMENT, ETC., BUT NEVER LONGER THAN 6 FEET. PROVIDE LIQUID TIGHT FLEXIBLE METAL CONDUIT FOR ALL APPLICATIONS EXPOSED TO WATER OR WEATHER. PROVIDE ANTI-SHORT BUSHINGS FOR ALL FLEXIBLE CONDUIT ANWOR TERMINATIONS. PROVIDE SEPARATE EQUIPMENT GROUND WIRE IN ALL CONDUIT RUNS.

CONDUIT CONCEALED IN CEILING, WALLS OR FURRED SPACES OR EXPOSED IN DRY LOCATIONS SHALL BE EMT, THIN WALL ELECTRIC METALLIC TUBING. CONDUIT EXPOSED TO WEATHER, IN CONTACT WITH CONCRETE, BURIED IN SLAB, OR IN HAZARDOUS AREAS, SHALL BE HEAVY WALL, RIGID. ALL CONDUITS SHALL BE HOT DIPPED GALVANIZED STEEL.

CONDUIT RUNS SHOWN ON DRAWINGS ARE DIAGRAMMATIC. EXACT ROUTING OF CONDUIT RUNS SHALL SUIT JOB CONDITIONS. EXPOSED CONDUIT SHALL BE RUN ONLY IN UNFINISHED AREAS SUBJECT TO FINAL APPROVAL OF ENGINEER AND SHALL RUN PARALLEL TO BUILDING LINES, NEVER DIAGONALLY.

CONNECTION TO EQUIPMENT SHALL BE DONE IN ACCORDANCE WITH MANUFACTURER'S SHOP AND INSTALLATION DRAWINGS. REQUIREMENTS GENERALLY VARY FROM ONE MANUFACTURER TO ANOTHER AND CONTRACTOR IS BOUND TO COMPLY AND PROVIDE ALL WORK AS REQUIRED ALTHOUGH CERTAIN DISCREPANCIES MAY EXIST REGARDING THE REQUIREMENT FROM ONE MANUFACTURER TO ANOTHER.

PROVIDE POWER WIRING, DISCONNECTS, AND PROTECTION DEVICES TO ALL MECHANICAL EQUIPMENT AND MAKE FINAL CONNECTIONS, INCLUDING TESTING OF MOTORS FOR PROPER ROTATION.

OUTLET BOXES MAY-BE SURFACE MOUNTED ON EXISTING WALLS (CMU, BRICK OR CONCRETE) WITH SMALLEST SURFACE RACEWAY AS REQUIRED FOR WIRING INSTALLED. PROVIDE FLUSH OUTLET BOXES AND CONDUIT AT NEW CONSTRUCTION WALL AND AT EXISTING WALLS WHICH ARE NOT CMU BRICK OR CONCRETE CONSTRUCTION. CUT AND PATCH EXISTING WALLS AS REQUIRED FOR FLUSH INSTALLATION.

ALL WIRING LOCATED ABOVE THE SUSPENDED CEILING MUST BE SUPPORTED INDEPENDENTLY OF THE SUPPORT WIRES FOR THE SUSPENDED CEILING.

ELECTRICAL OPENINGS AROUND ELECTRICAL PENETRATIONS THROUGH FIRE RESISTANT RATED WALLS, PARTITIONS, FLOORS, OR CEILINGS SHALL BE FIRESTOPPED USING APPROVED METHODS TO MAINTAIN THE FIRE RESISTANCE RATING PER ARTICLE 300.21 2017 NEC.

PROVIDE PROPER WORKING CLEARANCES FOR ELECTRICAL EQUIPMENT AS REQUIRED PER NEC.

LIGHTING SPECIFICATIONS:

LED LIGHTING FIXTURES SHALL HAVE 5 YEAR WARRANTY, A COLOR RENDERING INDEX OF 90 OR HIGHER, 3500K COLOR TEMPERATURE UNLESS OTHERWISE INDICATED ON DRAWINGS, LIFETIME: 50,000 HOURS OR GREATER AND MAINTAIN AT LEAST 70% OF INITIAL LUMEN OUTPUT. RATED FOR OUTDOOR USE AND WET LOCATION, IF IN OPEN FIXTURE.

SHALL POSSESS COLOR MANAGEMENT SYSTEM TO MAINTAIN COLOR CONSISTENCY OVER TIME AND TEMPERATURE OF NO GREATER THAN ±100K OVER LIFE.

REFER TO LIGHTING FIXTURE SCHEDULE ON ARCHITECTURAL REFLECTED CEILING PLANS FOR LED FIXTURES WITH DIMMING CONTROLS.

LED DRIVERS TO BE ELECTRONIC, HIGH POWER FACTOR, MIN. 0.9; UNIVERSAL VOLTAGE 120-277V; 5 YEAR WARRANTY, COMPATIBLE WITH THE LED LAMP OR MODULE USED.

ELECTRICAL LEGEND ✱

"A"	FIXTURE TYPE
	1x4 LIGHT FIXTURE
	POLE MOUNTED LIGHTING FIXTURE
	STRIP LIGHTING FIXTURE
	2'X2' OR 2'X4' LIGHTING FIXTURE
	FULL SHADED LIGHTING FIXTURES ARE WIRED UNSWITCHED NIGHT LIGHTS
	HALF SHADED FIXTURES ARE FIXTURES PROVIDED WITH BUILT-IN EMERGENCY BATTERY PACK FOR EGRESS LIGHTING
	RECESSED DOWN LIGHT
	WALL MOUNTED LIGHTING FIXTURE
	TRACK LIGHTING FIXTURE
	EXIT LIGHTING FIXTURE - SHADING INDICATES ILLUMINATED FACE (S) CHEVRONS AS INDICATED
	EMERGENCY LIGHTING UNIT
	COMBINATION OF EXIT AND EMERGENCY LIGHTING UNIT
S	SINGLE POLE LIGHT SWITCH
S_3	THREE WAY LIGHT SWITCH
S_4	FOUR WAY LIGHT SWITCH
S_K	KEY OPERATED SWITCH
S_P	LIGHT SWITCH WITH PILOT LIGHT
S_{P3}	THREE WAY LIGHT SWITCH WITH PILOT LIGHT
S_D	DIMMER SWITCH, COMPATIBLE WITH LIGHTS CONTROLLED
S_{WD}	DIMMER SWITCH WITH WALL OCCUPANCY SENSOR (SINGLE POLE)
S_{D3}	THREE WAY LIGHT SWITCH WITH DIMMER
S_T [TS]	TIMER SWITCH
S_{LV}	LOW VOLTAGE CONTROL STATION WITH DIMMING CAPABILITIES, NUMBER OF BUTTONS AS INDICATED TO PROVIDE PRESET SCENES, RISER, LOWER, ON, OFF CONTROL FOR ZONES INDICATED, COORDINATE WITH LIGHT DIMMING CONTRACTOR FOR DEVICE MODEL NUMBERS, QUANTITIES, LOCATIONS, AND ADDITIONAL REQUIREMENTS.
[RPD]	RELAY PACK WITH 0-10V DIMMING OUTPUT
[OS]	CEILING MOUNTED OCCUPANCY SENSOR. DUAL TECHNOLOGY (PASSIVE INFRARED AND MICROPHONIC/ULTRASONIC), WITH AUXILIARY RELAY FOR HVAC CONTROL. PROVIDE QUANTITY OF 20A, 120V/277V RATED POWER PACKS AND RELAY PACKS AS REQUIRED TO CONTROL SWITCH LEGS INDICATED. ALL FIXTURES IN ROOM/SPACE ARE TO BE CONTROLLED BY THE SENSORS.
S_W	WALL MOUNTED VACANCY SENSOR, SINGLE POLE. DUAL TECHNOLOGY (PASSIVE INFRARED AND MICROPHONICS/ULTRASONIC), 120/277V. SWITCH IS RATED 800W AT 120V AND 1200W AT 277V, 1/4 HP. IVORY WITH STAINLESS STEEL COVERPLATE. FACTORY COLOR-MATCHED PLATE IS NOT ACCEPTABLE.
S_{W2}	SAME AS S_W EXCEPT WITH DUAL POLE
	SINGLE RECEPTACLE
	DUPLEX RECEPTACLE
	QUADRUPLEX RECEPTACLE
	DUPLEX RECEPTACLE WITH GROUND FAULT (GFCI)
GFP	FACELESS GROUND FAULT CIRCUIT INTERRUPTER
C	SAME AS DUPLEX RECEPTACLE EXCEPT CEILING MOUNTED
C	SAME AS QUADRUPLEX RECEPTACLE EXCEPT CEILING MOUNTED
S	SAME AS DUPLEX RECEPTACLE EXCEPT SHOW WINDOW TO BE MOUNTED 6" ABOVE WINDOW, COORDINATE WITH OWNER/ ARCHITECT PRIOR TO INSTALLATION
	COMBINATION DUPLEX POWER RECEPTACLE AND TWO USB PORTS
H	SAME AS DUPLEX RECEPTACLE EXCEPT HORIZONTALLY MOUNTED
	SPLIT RECEPTACLES
	FLOOR RECEPTACLE
R	COMMERCIAL GRADE CORD REEL WITH GFCI MOUNTED TO STEEL STRUCTURE
	SAME AS CORRESPONDENCE RECEPTACLE EXCEPT WITH SURFACE MOUNT
	SPECIAL PURPOSE RECEPTACLE - NEMA TYPE
R	SPECIAL PURPOSE RECEPTACLE - NEMA TYPE ON A CORD REEL MOUNTED TO STEEL STRUCTURE
	DUPLEX RECEPTACLE FLOOR MOUNTED
J	CEILING JUNCTION BOX
J	WALL JUNCTION
	PUSH BUTTON STATION (1, 2, OR 3 BUTTON)
PP	DOOR ACTIVATOR PUSH PLATE
	ELECTRIC CLOCK OUTLET
	COMBINATION DATA AND TELEPHONE OUTLET
	PHONE OUTLET SAME AS COMBINATION VOICE/DATA (W: WALL MOUNTED AT +48")
	DATA OUTLET
	SAME AS DATA OUTLET EXCEPT WITH SURFACE MOUNT
TV	TELEVISION OUTLET, DOUBLE GANG BOX WITH SINGLE MUD RING AND 1"C TO CEILING SPACE
AV	AUDIO/VIDEO OUTLET, DOUBLE GANG BACK BOX WITH 1 1/4"C TO ABOVE ACCESSIBLE CEILING, TERMINATE CONDUIT WITH INSULATING BUSHING, PROVIDE PULL STRING
AV	FLOOR MOUNTED THREE GANG (3G) FLUSH BOX, DUPLEX RECEPTACLE, A/V & DATA/PHONE COMPARTMENTS
	DUPLEX RECEPTACLE & DATA/PHONE FLUSH FLOOR MOUNTED TWO GANG (2G) COMPLETE WITH FLANGE AND COVER
C	CEILING MOUNTED TWO GANG (2G) FLUSH BOX, DUPLEX RECEPTACLE & DATA/PHONE COMPARTMENTS
F1	MULTI-SERVICE STAMPED STEEL FLUSH FLOOR BOX - TYPE F1 - WITH (2)-20A DUPLEX RECEPTACLES & (2) DATA COMPARTMENT, WIREMOLD #RFB4 SERIES OR APPROVED EQUAL BY HUBBELL
F2	MULTI-SERVICE STAMPED STEEL FLUSH FLOOR POKE-THROUGH BOX - TYPE F2 - WITH (2)-20A DUPLEX RECEPTACLES & (2) DATA COMPARTMENT, WIREMOLD OR APPROVED EQUAL BY HUBBELL.
	FLOOR MOUNTED TWO GANG (2G) FLUSH BOX WITH SEPARATE POWER AND DATA COMPARTMENTS FOR FURNITURE CONNECTION PROVISION

J	FLOOR MOUNTED ONE GANG FLUSH POWER BOX FOR FURNITURE CONNECTION PROVISION
FVD	FIRE RATED FLUSH FLOOR POKE THRU WITH SEPARATE POWER AND DATA COMPARTMENTS FOR FURNITURE CONNECTION SIMILAR TO LEGRAND 4FFATC.
DFV DFV	FIRE RATED FLUSH FLOOR POKE THRU WITH DUPLEX OR QUAD RECEPTACLE & LOW VOLTAGE COMPARTMENTS SIMILAR TO LEGRAND RC7 OR RC4.
DFV &	FIRE RATED RECESSED DEEP FLOOR POKE THRU WITH DUPLEX OR QUAD RECEPTACLE & LOW VOLTAGE COMPARTMENTS SIMILAR TO LEGRAND EVOLUTION 6 SERIES.
P D J	JUNCTION BOX FOR FLEXIBLE CONNECTION TO SYSTEMS (P: POWER, D: DATA). FURNITURE WHIP PROVIDED BY FURNITURE SUPPLIER. FOR NEW WORK PROVIDE 1"C OR 1 1/4"C FOR DATA TO ABOVE ACCESSIBLE CEILING. UNLESS OTHERWISE NOTED. COORDINATE LOCATION WITH FURNITURE SYSTEM SUPPLIER. PROVIDE FINAL CONNECTION AND COVERPLATE SUITABLE FOR WHIP CONNECTION.
	DISTRIBUTION PANEL
	SURFACE MOUNTED LIGHTING AND/OR RECEPTACLE PANEL
	RECESSED MOUNTED LIGHTING AND/OR RECEPTACLE PANEL
CB	MOLDED CASE CIRCUIT BREAKER - SURFACE MOUNTED IN NEMA ENCLOSURE
CB	MOLDED CASE CIRCUIT BREAKER - FLUSH MOUNTED IN NEMA ENCLOSURE
	MOTOR - SINGLE PHASE
	MOTOR - THREE PHASE
	MANUAL SINGLE PHASE MOTOR STARTER WITH PILOT LIGHT, LOCKABLE OFF, FOR MOTOR APPLICATIONS. MANUAL SINGLE PHASE MOTOR SWITCH WITH PILOT LIGHT, LOCKABLE OFF AND WITHOUT OVERLOADS FOR DISCONNECT APPLICATIONS TO EQUIPMENT NOT REQUIRING OVERLOADS AND FOR APPLICATIONS WHERE OVERLOADS ARE INTEGRAL TO MOTOR-BASED LOADS. FLUSH MOUNT STARTERS / SWITCHES IN FINISHED SPACES. SURFACE MOUNT IN UNFINISHED SPACES.
	NON-FUSIBLE DISCONNECT SWITCH
	FUSIBLE DISCONNECT SWITCH
	THREE PHASE COMBINATION MAGNETIC FUSIBLE MOTOR STARTER
	BUS PLUG FUSIBLE DISCONNECT SWITCH
T	TRANSFORMER
C	CONTACTOR
M	METER
	GROUND
	HOMERUN TO LIGHTING PANEL
CT	CABLE TRAY
PS	PLUG-IN STRIP

EF	EXHAUST FAN	EWC	ELECTRIC WATER COOLER
EDH	ELECT. DUCT HTR.	AFF	ABOVE FINISHED FLOOR
A	ABOVE COUNTER	WP	WEATHERPROOF
A/E	ARCHITECT / ENGINEER	RT	RAINTIGHT
CM	COFFEE MAKER	UFD	UNDER FLOOR DUCT
MW	MICROWAVE	FPB	FAN POWER BOX
HOA	HAND-OFF-AUTOMATIC	DW	DISHWASHER
PC	PHOTOCELL	GD	GARBAGE DISPOSAL
HG	HOSPITAL GRADE	REF	REFRIGERATOR
UH	UNIT HEATER	(E)	EXISTING TO REMAIN
UON	UNLESS OTHERWISE NOTED	(RE)	RELOCATED EXISTING
EG	EQUIPMENT GROUND	IG	ISOLATED GROUND

H	HORIZONTALLY MOUNT 6" ABOVE COUNTER BACK SPLASH
GFI or GFR	GROUND FAULT CIRCUIT INTERRUPTER
	POWER POLE VOICE/DATA/POWER
	AUDIO/VISUAL HEAD END EQUIPMENT
DR	DRIVER FOR 24V UNDER CABINET LED LIGHT
CR	CARD READER
IC	INTERCOM OUTLET
PC	PHOTOELECTRIC CONTROLLER
WPS	COMBINE PARTITION SENSOR
WAP	WIRELESS ACCESS PANEL
CP	CONTROL PANEL, PROVIDE AS PART OF THE EQUIPMENT THEY CONTROL
TS	TIME SWITCH
B B	BELL
RB	RADIO ALERT SYSTEM BELL
DS	DOOR SWITCH
IC	INTERCOM STATION
EPO	EMERGENCY POWER OFF PUSHBUTTON
FACP	FIRE ALARM CONTROL PANEL
FAA	FIRE ALARM ANNUNCIATOR PANEL
NACP	NOTIFICATION APPLIANCE CONTROL PANEL
MC	MICROPHONE
S	CEILING MOUNTED SPEAKER
V V	VOLUME CONTROL DIAL
SD	SMOKE DETECTOR
HD	HEAT DETECTOR
TS	TAMPER SWITCH
FS	FLOW SWITCH
A/V	OUTDOOR FIRE DEPARTMENT CONNECTION - AUDIO VISUAL DEVICE
DH	MAGNETIC DOOR HOLDER
DS	DUCT SMOKE DETECTOR
SCD	COMBINATION SMOKE/CO DETECTOR
F	MANUAL FIRE ALARM STATION
F	FIRE ALARM STROBE
F	FIRE ALARM HORN/STROBE
F	FIRE ALARM HORN/STROBE - CEILING MOUNTED
F_S	FIRE ALARM STROBE - CEILING MOUNTED

✱ THIS IS STANDARD SYMBOL LIST - SOME OF THESE SYMBOL MAY NOT APPEAR ON DRAWINGS.

ELECTRICAL SHEET INDEX

SHEET	DESCRIPTION
E-001	ELECTRICAL LEGEND, SHEET INDEX, PANEL SCHEDULE AND SPECIFICATIONS
E-101	DEMO AND NEW LIGHTING FIRST AND SECOND FLOOR PLANS
E-201	DEMO AND NEW POWER FIRST AND SECOND FLOOR PLANS

PANELBOARD: **MCB (EXISTING)** — MOUNTING: EXISTING
VOLTAGE: 120/240V, 1 PHASE, 3 WIRE + G — AIC: EXISTING
MAIN: 200 A MCB — FEEDER: EXISTING
LOCATION: STORAGE ROOM — SPD EQUIPPED: NO

Circ No	Breaker Pole	Breaker Trip	Load Information Location	Description	Code		Connected Watts Phase A	Phase C
1	2		ROOFTOP UNIT			EX.LOAD	1730	
3		20				EX.LOAD		1730
5	2		DEDICATED OUTLET			EX.LOAD	5200	
7		60				EX.LOAD		5200
9	2		SIGN AREA HEATER			EX.LOAD	2600	
11		30				EX.LOAD		2600
13	1	20	GARAGE DOOR OPENER			EX.LOAD	1000	
15	1	20	FUNNEL CIRCUIT			EX.LOAD		1000
17	1	20	OVERHEAD LIGHT BAY#2			EX.LOAD	500	
19	1	20	PANEL OUTLET			EX.LOAD		180
21	1	20	WATER HEATER			EX.LOAD	1000	
23	1	**20**	**RM# 101**	**GENERAL PURPOSE RECEPTACLES**	**NOTE-1**			**360**
25	1	**20**	**RM#101**	**GENERAL PURPOSE RECEPTACLES**	**NOTE-1**		**360**	
27	1	**20**	**RM# 104, 201**	**GENERAL PURPOSE RECEPTACLES**	**NOTE-1**			**720**
29	1	**20**	**RM#s# 101**	**LIGHTING**	**NOTE-1**		**786**	
31	1	**20**	**RM# 104, 201**	**LIGHTING**	**NOTE-1**			**426**
33	1	**20**	**RM# 101**	**DOOR OPERATOR**	**NOTE-1**		**1000**	
35	1	**20**	**RM# 101**	**DOOR OPERATOR**	**NOTE-1**			**1000**
37	1		SPACE					
39	1		SPACE					
2	1	20	BIKE STORAGE AREA PLUGS			EX.LOAD	720	
4	1	20	SIGN AREA PLUGS			EX.LOAD		720
6	1	20	ENTRY HEATER			EX.LOAD	1000	
8	1	20	WORKSHOP PLUGS			EX.LOAD		720
10	1	20	WORKSHOP PLUGS			EX.LOAD	720	
12	1	20	COUNTER PLUGS			EX.LOAD		720
14	1	20	OVERHEAD LIGHT BAY#1			EX.LOAD	500	
16	1	20	WORKSHOP PLUGS			EX.LOAD		720
18	1	20	ENTRY OUTLETS			EX.LOAD	720	
20	1	20	ROOFTOP GFCI PLUGS			EX.LOAD		360
22	**2**		**ROOF**			**NOTE-1**	**2700**	
24		**50**		**ACCU-1**		**NOTE-1**		**2700**
26	**1**	**30**	**RM# 201**	**F-1**		**NOTE-1**	**1700**	
28	**1**	**20**	**RM# 101**	**GUH-1**		**NOTE-1**		**360**
30	1		SPACE					
32	1

LIGHTING FIXTURES SCHEDULE :

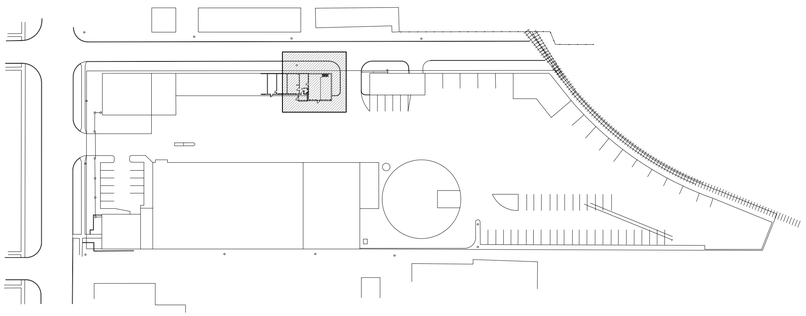
"A" 8' SURFACE MOUNTED, LED STRIP FIXTURE WITH SQUARE LENS, WHITE FINISH, 9568 LUMENS, 80CRI, 3500K COLOR, 0-10V DIMMING, UNIVERSAL VOLTAGE, 65.5W.
H.E.WILLIAMS LIGHTING #7SS-8-L100-80-35-DIM-UNV, OR APPROVED EQUAL.

"AEM" SAME AS TYPE "A" EXCEPT WITH 10W BUILT-IN EMERGENCY BATTERY TO PROVIDE MINIMUM 1600 LUMENS FOR 90 MINUTES.
H.E.WILLIAMS LIGHTING #7SS-4-L50-80-35-EM/10WLP-DIM1-UNV, OR APPROVED EQUAL.

"B" LED 2'X2' RECESSED STATIC TROFFER LIGHT FIXTURE, WHITE FLAT ALUMINUM FULL DOOR FRAME, FROSTED ACRYLIC LENS, TAMPER RESISTANT SCREWS, 4363 LUMENS, 80CRI, 3500K COLOR, 0-10V DIMMING, UNIVERSAL VOLTAGE, 33 WATT.
H.E.WILLIAMS LIGHTING #50-G-S-2-2-L43-8-35-F-AF12125-DIM-UNV.

"X" UNIVERSAL MOUNT LED EXIT LIGHT, NO LAMP HEADS, RED LETTERS, WHITE FINISH, 120/277 VOLT, SELF DIAGNOSTIC TEST, 9.6V, NICD BATTERY, 6W REMOTE CAPACITY.
H.E.WILLIAMS LIGHTING #EXIT/EM/LED-R-WHT-NH-RC-SDT-D, OR APPROVED EQUAL.

"RE" DUAL HEADS REMOTE EMERGENCY LIGHT FIXTURE, DIE-CAST HOUSING, BLACK FINISH, WET LOCATION, (2)1.5W LED, MULTI VOLT,
H.E.WILLIAMS LIGHTING #WETDRHL-D-BLK-HL-SDT-MV, OR APPROVED EQUAL.



KEY PLAN
E-101 N.T.S.

ELECTRICAL GENERAL NOTES:

A. GENERAL NEW WORK NOTES APPLY TO ALL NEW ELECTRICAL PLANS INCLUDED WITHIN THIS DOCUMENT SET.

B. PROVIDE FIRE STOPPING WHERE REQUIRED.

C. COORDINATE EXACT LOCATION AND QUANTITIES OF POWER AND DATA/PHONE OUTLETS WITH FINAL FURNITURE AND EQUIPMENT LAYOUT AND AS DIRECTED BY ARCHITECT/OWNER.

D. ALL EQUIPMENT WILL BE SINGLE PHASE, UNLESS OTHERWISE NOTED.

E. ALL WIRING WILL BE CONCEALED WITHIN THE WALLS AND/OR FLOOR, UNLESS OTHERWISE NOTED.

F. THE ELECTRICIAN WILL TAG ALL WIRES AT TERMINATION POINTS.

G. THE ELECTRICIAN WILL REMOVE ALL EXISTING RECEPTACLES AND SWITCHES IN THE AREA OF WORK. THE ELECTRICIAN WILL EITHER INSTALL A BLANK PLATE OVER RECEPTACLE OR SWITCH BOX OR REMOVE BOX ENTIRELY. THE ELECTRICIAN WILL TERMINATE WIRING AND CONDUIT IN A MANNER IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE.

H. IN THE EVENT OF ANY EQUIPMENT BEING RELOCATED TO ANOTHER LOCATION, ANY AND ALL CIRCUITS MUST BE TERMINATED BY THE ELECTRICIAN IN ACCORDANCE WITH LOCAL CODE. VERIFY RESPONSIBILITY WITH THE OWNER.

I. ALL 120 VOLT, 20 AMP OUTLETS INSTALLED WITHIN 6 FEET OF A SINK AND THOSE LOCATED OUTDOORS SHALL HAVE GFCI PROTECTION.

J. ELECTRICAL OPENINGS AROUND ELECTRICAL PENETRATIONS THROUGH FIRE RESISTANT RATED WALLS, PARTITIONS, FLOORS, OR CEILINGS SHALL BE FIRESTOPPED USING APPROVED METHODS TO MAINTAIN THE FIRE RESISTANCE RATING PER ARTICLE 300.21 2017 NEC.

K. PROVIDE PROPER WORKING CLEARANCES FOR ELECTRICAL EQUIPMENT PER ARTICLE 110.26 2023 NEC.

L. MAINTAIN A MINUMUM OF 24" HORIZONTAL SEPARATION BETWEEN BOXES INSTALLED ON OPPOSITE SIDES OF FIRE RATED WALLS TO COMPLY WITH NEC 300.21.

M. ALL WIRING LOCATED ABOVE SUSPENDED CEILING MUST BE SUPPORTED INDEPENDENTLY OF THE SUPPORT WIRES FOR THE SUSPENDED CEILING PER ARTICLE 300.11 2023 NEC.

N. PROVIDE COMPLETE SYSTEM GROUNDING AND BONDING PER ARTICLE 250 2023 NEC.

NEW WORK KEY NOTES :

1. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL CEILING MOUNTED LIGHTING FIXTURES.
2. WIRE EXIT LIGHTS TO SAME ROOM OR AREA NORMAL LIGHTING CIRCUIT AHEAD OF ANY LOCAL SWITCHING AND/OR AUTOMATIC LIGHTING CONTROL.
3. WIRE EMERGENCY SENSING UNIT IN SWITCHED LED FIXTURES WITH BUILT-IN EMERGENCY BATTERY BACK-UP TO ROOM OR AREA NORMAL LIGHTING CIRCUIT AHEAD OF ANY LOCAL SWITCHING AND/OR AUTOMATIC LIGHTING CONTROL.
4. PROVIDE OCCUPANCY SENSOR CONTROL IN ALL AREAS INDICATED WITH SYMBOLS (OS) OR (SW) OR (SLV) TO COMPLY WITH ASHRAE 90.1-2013, CEILING SYMBOLS ARE SHOWN FOR REFERENCE ONLY, CONTRACTOR SHALL DETERMINE QUANTITY AND LOCATION PER MANUFACTURER'S RECOMMENDATIONS TO PROVIDE PROPER COVERAGE IN ALL AREAS INDICATED.

DEMOLITION GENERAL NOTES:

A. GENERAL DEMOLITION NOTES APPLY TO ALL ELECTRICAL DEMOLITION PLANS INCLUDED WITHIN THIS DOCUMENT SET.

B. CIRCUITING INFORMATION ON THESE SHEETS HAVE BEEN OBTAINED FROM AS-BUILT DRAWINGS PROVIDED BY OWNER AND FROM SITE PANEL DIRECTORIES AND SHALL BE USED FOR REFERENCE ONLY, CONTRACTOR SHALL FIELD VERIFY TO DETERMINE EXISTING CONDITIONS AND UPDATE PANEL DIRECTORIES AS REQUIRED AFTER NEW WORK IS COMPLETED.

C. DEVICES SHOWN ON DEMOLITION PLANS HAVE BEEN OBTAINED FROM OLD CONSTRUCTION DOCUMENTS AND FIELD SURVEY WITH LIMITED ACCESSIBILITY TO CERTAIN AREAS, CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND INCLUDE IN THE SCOPE OF WORK DEMOLITION OF ALL EXISTING DEVICES, WIRES, RACEWAYS, SUPPORTS AND ACCESSORIES, REFER TO KEY NOTES FOR DETAILS.

D. COORDINATE ANY SERVICE SHUTDOWNS OR WORK INVOLVING OTHER AREAS WITH PROJECT MANAGER.

E. CONTRACTOR SHALL PROTECT NON-CONSTRUCTION AREAS OF OWNER'S BUILDING FROM CONSTRUCTION DUST/DEBRIS.

F. ANY CIRCUITS WHICH ARE TO BE FULLY DEMOLISHED SHOULD BE DEMOLISHED TO THE UPSTREAM PANEL, REMOVE ALL WIRING AND UNUSED CONDUITS. THE FEEDING BREAKER SHALL BE LABELED AS SPARE, REFER TO SPECIFICATION FOR DETAILS.

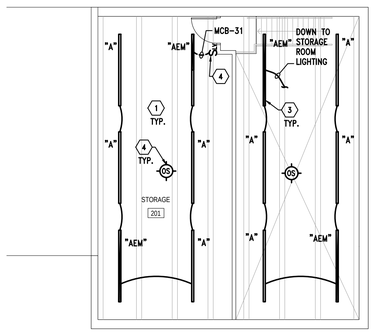
G. ANY LOW VOLTAGE COMMUNICATION ON CEILING SUCH AS: WIRELESS ACCESS POINTS, SPEAKERS, SMOKE DETECTORS...ETC. SHALL BE REMOVED AND STORED FOR RE-INSTALLATION AS COORDINATED WITH COMMUNICATION DEPARTMENT.

H. ALL ELECTRICAL ITEMS SHOWN ON THESE PLANS ARE EXISTING TO REMAIN UNLESS OTHERWISE INDICATED.

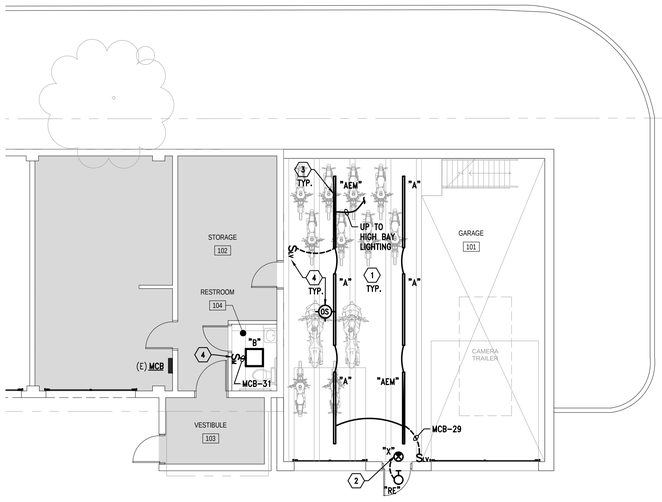
DEMOLITION KEY NOTES :

D1. DISCONNECT AND REMOVE LIGHT FIXTURES, SWITCHES AND OCCUPANCY SENSORS IN DEMOLITION AREA INDICATED, TURN OVER OCCUPANCY SENSORS TO LANDLORD, REMOVE WIRING BACK TO SOURCE, RE-WORK ANY LIGHTING CIRCUITS WITH ADJACENT ROOM TO MAINTAIN LIGHTING IN ADJACENT ROOM ON A SEPARATE CIRCUIT FROM THE DEMOLITION AREA. ANY UN-USED BRANCH CIRCUIT SHALL BE PULLED BACK TO SOURCE PANEL AND THAT BREAKER SHALL BE TURNED OFF AND LABELED AS SPARE.

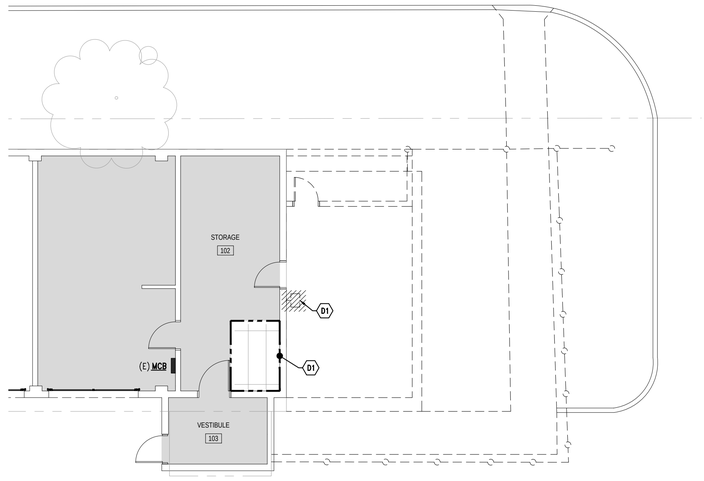
D2. DISCONNECT AND REMOVE LIGHT FIXTURE SHOWN HATCHED, REMOVE WIRING BACK TO SOURCE.



3 E-101 NEW LIGHTING SECOND FLOOR PLAN
1/8" = 1'-0"



2 E-101 NEW LIGHTING FIRST FLOOR PLAN
1/8" = 1'-0"



1 E-101 DEMO LIGHTING FIRST FLOOR PLAN
1/8" = 1'-0"

ISSUED:

CM RFP 03/12/26

MCD ARCHITECTS
33610 GRAND RIVER
FARMINGTON, MI, 48335
www.mcdarchitects.com
248-374-0001

MAENGINEERING
MECHANICAL ELECTRICAL
180 High Oak Road t | 248 | 258 | 1610
Bloomfield Hills, Michigan 48304 f | 248 | 258 | 9538

RENOVATIONS FOR:

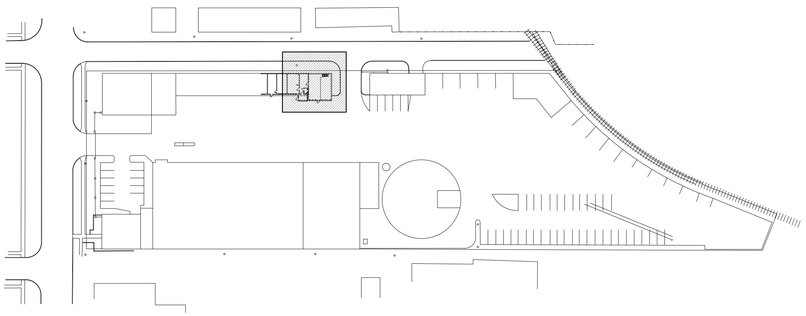
DPS YARD GARAGE STORAGE
2100 HOLLAND ST.
BIRMINGHAM, MI
48009

DEMO AND NEW LIGHTING FIRST AND SECOND FLOOR PLANS

DRAWN BY: SM
APPROVED BY: WZ

PROJECT NO.	SHEET NO.
25498	E-101

H:\ACAD\FILES\98888530 birmingham police renovation and expansion\dpl yard garage storage\CAD\ELEC\88530-DPL-E-101-Lighting.dwg Thu, 12 Mar 2026 - 3:49pm



KEY PLAN
E-101 N.T.S.

NEW WORK KEY NOTES :

1. PROVIDE AND/OR MODIFY EXISTING FIRE ALARM SYSTEM COVERAGE IN THE RENOVATED AREAS AS AN EXTENSION OF THE EXISTING BUILDING FIRE ALARM SYSTEM INCLUDING ALL MONITORING, POWER SUPPLIES, INITIATING DEVICES, INDICATING AND NOTIFICATION APPLIANCES, CONTROL MODULES, WIRING AND TESTING AS REQUIRED BY THE AUTHORITIES HAVING JURISDICTION. SYSTEM EXTENSION/MODIFICATION SHALL BE LAID OUT ON A PERFORMANCE BASIS AND APPROVAL BY THE AUTHORITIES, NEW DEVICES SHALL MATCH EXISTING.
2. CIRCUIT NUMBERS INDICATED ON THIS DRAWING MIGHT NOT REPRESENT ACTUAL BREAKER NUMBER IN PANEL BUT IT IS USED FOR CIRCUITING AND DEVICE GROUPING PURPOSES, CONTRACTOR SHALL VERIFY FIELD CONDITIONS AND UPDATE PANEL DIRECTORIES ACCORDINGLY.
3. BOND CONCRETE ENCASED STEEL REBAR IN NEW FOUNDATION TO EXISTING BUILDING GROUNDING ELECTRODE SYSTEM AS REQUIRED BY ARTICLE 250 OF 2023 NEC.

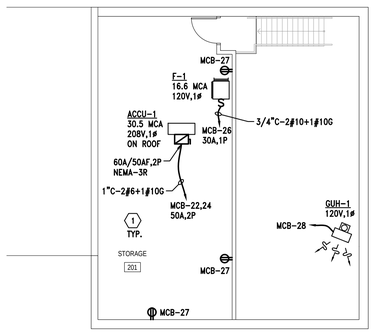
DEMOLITION KEY NOTES :

D1. DISCONNECT AND REMOVE ANY FIRE ALARM DEVICES LOCATED ON DEMOLISHED WALL AND/OR INTERFERING WITH NEW WORK AND SALVAGE FOR RE-LOCATION, EXTEND EXISTING WIRING AS REQUIRED TO NEW LOCATION, RE-LOCATION TO BE DETERMINED BY PERFORMANCE SPECIFICATION AND AS APPROVED BY AUTHORITY HAVING JURISDICTION.

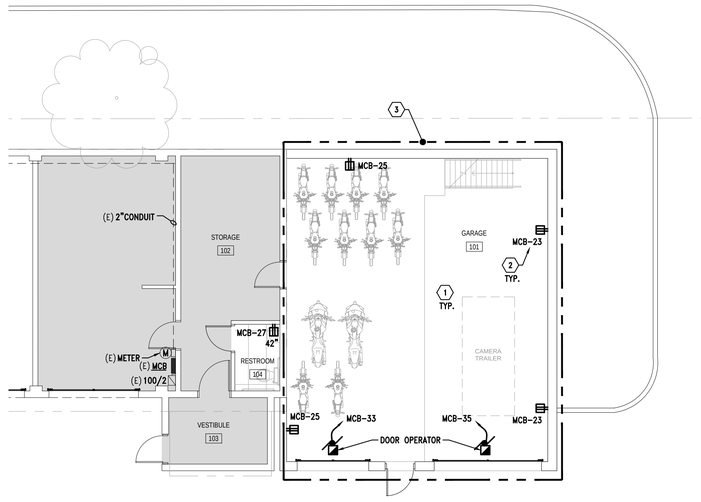
D2. DISCONNECT AND REMOVE RECEPTACLES AND DATA OUTLETS IN DEMOLISHED AREA, REMOVE WIRING BACK TO SOURCE. SALVAGE RECEPTACLES BRANCH CIRCUIT FOR POSSIBLE RE-USE AS SHOWN IN NEW POWER PLANS. PROVIDE COVER PLATE.

D3. VERIFY IN FIELD WITH OWNER AND LOW VOLTAGE CONTRACTOR THE USAGE OF LOW VOLTAGE WIRING SHOWN HATCHED AND RUNNING HORIZONTALLY ON WALL AND VERTICALLY TO UNDERGROUND, REROUTE CONDUITS ACCORDINGLY TO AVOID DEMOLITION AND NEW WORK AREA.

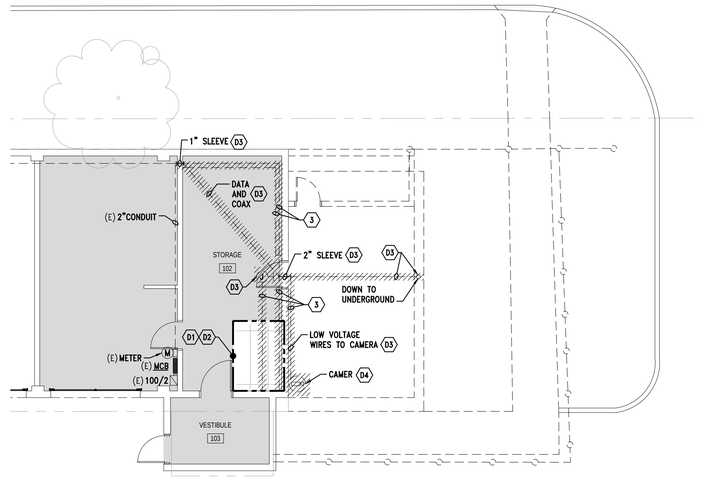
D4. DISCONNECT AND REMOVE SECURITY CAMERA, RETURN BACK TO OWNER, REMOVE LOW VOLTAGE WIRING.



3 E-101 NEW POWER SECOND FLOOR PLAN
1/8" = 1'-0"



2 E-101 NEW POWER FIRST FLOOR PLAN
1/8" = 1'-0"



1 E-101 DEMO POWER FIRST FLOOR PLAN
1/8" = 1'-0"

ISSUED:

CM RFP	03/12/26

MCD ARCHITECTS
33610 GRAND RIVER
FARMINGTON, MI, 48335
www.mcdarchitects.com
248-374-0001

MAENGINEERING
MECHANICAL ELECTRICAL
180 High Oak Road t | 248 | 258 | 1610
Bloomfield Hills, Michigan 48304 f | 248 | 258 | 9538

RENOVATIONS FOR:

DPS YARD GARAGE STORAGE

2100 HOLLAND ST.
BIRMINGHAM, MI
48009

DEMO AND NEW POWER FIRST AND SECOND FLOOR PLANS

DRAWN BY: SM
APPROVED BY: WZ

PROJECT NO.	SHEET NO.
25498	E-201

H:\ACAD\FILES\98\98530 birmingham police renovation and expansion\dpl yard garage storage\CAD\ELEC\98530-DPL-E-201-Power.dwg Thu, 12 Mar 2026 - 3:49pm

RENOVATIONS FOR:

BIRMINGHAM CITY HALL

151 MARTIN ST. BIRMINGHAM MI 48009

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	LAV	LAVATORY
AHJ	AUTHORITIES HAVING JURISDICTION	LP	LOW POINT
AJS	ALL JOIST SYSTEM	MANUF	MANUFACTURER
ASBA	AS SELECTED BY ARCHITECT	MAX	MAXIMUM
BO	BOTTOM OF	MDF	MEDIUM DENSITY FIBERBOARD
BOF	BOTTOM OF FOOTING	MECH	MECHANICAL
BOS	BOTTOM OF STEEL	MEZZ	MEZZANINE
CFMF	COLD FORMED METAL FRAMING	MIN	MINIMUM
CLO	CLOSET	MISC	MISCELLANEOUS
CM	CONSTRUCTION MANAGER	MO	MASONRY OPENING
CMU	CONCRETE MASONRY UNITS	NCM	NON COMBUSTIBLE MATERIAL
CONC	CONCRETE	NIC	NOT IN CONTRACT
CONT	CONTINUOUS	NTS	NOT TO SCALE
CONTR	CONTRACTOR	OC	ON CENTER
CORR	CORRIDOR	OPP	OPPOSITE
CPT	CARPET	PLAM	PLASTIC LAMINATE
DEMO	DEMOLITION	PTD	PAINTED
DIA	DIAMETER	R	RISERS
EIFS	EXTERIOR INSULATION FINISH SYSTEM	REINF	REINFORCING
ELEV	ELEVATION	REQ	REQUIRED
EMER	EMERGENCY	RS	ROOF SUMP
EQ	EQUAL	SF	SQUARE FEET
EQUP	EQUIPMENT	SIM	SIMILAR
EW	EACH WAY	SPECS	SPECIFICATIONS
EWC	ELECTRIC WATER COOLER	T&G	TONGUE AND GROOVE
EXIST	EXISTING	TEMP	TEMPERED
EXT	EXTERIOR	TME	TO MATCH EXISTING
FD	FLOOR DRAIN	TO	TOP OF
FF	FINISHED FLOOR	TOF	TOP OF FOOTING
FIN	FINISH	TOS	TOP OF STEEL
FL	FLOOR	TOW	TOP OF WALL
FRT	FIRE RETARDANT TREATED	TYP	TYPICAL
GA	GAUGE	UNO	UNLESS NOTED OTHERWISE
GALV	GALVANIZED	US	UNDERSIDE
GC	GENERAL CONTRACTOR	VCT	VINYL COMPOSITION TILE
GYP. BD.	GYPSUM BOARD	VERT	VERTICAL
HM	HOLLOW METAL	VIF	VERIFY IN FIELD
HOR.	HORIZONTAL	W	WITH
HP	HIGH POINT	WWF	WELDED WIRE FABRIC
HVAC	HEATING, VENTILATING, AIR CONDITIONING		
INSUL	INSULATION		
JC	JANITOR'S CLOSET		

INDEX OF DRAWINGS

CM RFP 03.12.2026	DESIGN REVIEW 03.02.2026	NO.	SHEET TITLE
			ARCHITECTURAL DRAWINGS
●	●	G-101	COVER SHEET AND DRAWING INDEX
●	●	A-101	DEMOLITION AND PROPOSED FLOOR PLANS
●	●	A-102	DEMOLITION AND PROPOSED REFLECTED CEILING PLANS
●	●	A-201	EXTERIOR ELEVATIONS
●		A-501	DETAILS
●		A-701	MILLWORK PLANS, SECTIONS, AND ELEVATIONS
	●	A-901	EXISTING PHOTOGRAPHS
			CIVIL DRAWINGS
	○	-	ALTA / NSPS / LAND TITLE / BOUNDARY / TOPOGRAPHIC / TREE SURVEY
			MECHANICAL DRAWINGS
●		M-001	MECHANICAL SYMBOLS, ABBREVIATIONS AND NOTES
●		M-101	DEMO. AND NEW MECHANICAL FIRST FLOOR PLANS
●		M-201	MECHANICAL SCHEDULES AND DETAILS
●		M-202	MECHANICAL SCHEDULES AND DETAILS
●		M-301	MECHANICAL SPECIFICATION
			ELECTRICAL DRAWINGS
●		E-001	ELECTRICAL LEGEND, SHEET INDEX AND SPECS.
●		E-002	PANEL SCHEDULES
●		E-101	DEMO. AND NEW LIGHTING FIRST FLOOR PLANS
●		E-201	DEMO. AND NEW LIGHTING FIRST FLOOR PLANS

● SHEET ISSUED

○ SHEET ISSUED FOR REFERENCE ONLY

GENERAL NOTES:

1. LIGHT GAUGE STEEL FRAMING TO CONFORM TO ASTM STANDARDS C-645 AND C-754.
2. ALL DIMENSIONS ARE FROM FINISH FACE OF DRYWALL TO FINISH FACE OF DRYWALL OR FACE OF EXTERIOR WALL SHEATHING UNO.
3. ALL CONSTRUCTION TO CONFORM TO APPLICABLE STATE AND LOCAL CODES.
4. CONTRACTOR IS RESPONSIBLE FOR ALL APPLICABLE BUILDING INSPECTIONS.
5. ALTHOUGH EVERY EFFORT HAS BEEN MADE TO REFERENCE EACH PARTICULAR CONSTRUCTION ISSUE THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT THE ENTIRE PROJECT IS COMPLETED IN A MANNER THAT IS IN ACCORDANCE TO THE INTENT OF THE DRAWINGS AND FULLY COMPLIES WITH ALL APPLICABLE CODES, REGULATIONS, AND MANUFACTURER SPECIFICATIONS AND RECOMMENDATIONS.
6. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INVESTIGATE AND CONFIRM ALL EXISTING CONDITIONS AND TO NOTIFY THE OWNER AND ARCHITECT OF EXISTING CONDITIONS THAT ARE UNFORESEEN OR ARE DIFFERENT FROM CONDITIONS THAT ARE DEPICTED IN THE CONTRACT DOCUMENTS.
7. DO NOT SCALE DRAWINGS. CONTACT ARCHITECT FOR DIMENSIONAL CLARIFICATIONS.
8. THE CONTRACTOR IS REQUIRED TO MAINTAIN A SAFE, CLEAN, AND ORDERLY WORK ENVIRONMENT DURING ALL PHASES OF CONSTRUCTION.
9. ALL PRODUCTS SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS AND AS RECOMMENDED BY RECOGNIZED INDUSTRY AND TRADE STANDARDS.
10. ALL GYPSUM PRODUCTS SHALL BE INSTALLED PER THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND THE GUIDELINES AND SPECIFICATIONS PUBLISHED BY THE 'GYPSUM ASSOCIATION'.
11. ALL OUTSIDE GYP. BD. CORNERS SHALL RECEIVE "NO-COAT" DRYWALL CORNER BEAD.
12. ALL GYP. BD. SHALL RECEIVE A LEVEL 4 FINISH (BASED ON 'USG' GUIDELINES) FOR A SMOOTH MONOLITHIC APPEARANCE.
13. ALL GYP. BD. SHALL BE ATTACHED TO FRAMING AS OUTLINED:
    - A. ADHERED WITH A CONT. BEAD OF DRYWALL ADHESIVE TO EACH FRAMING MEMBER. ADHESIVE SHALL MEET ASTM C557 STANDARDS AND BE INSTALLED PER THE ADHESIVE MANUFACTURER AND 'USG' RECOMMENDATIONS.
    - B. MECHANICALLY FASTENED WITH 1-5/8" TYPE 'S' BUGLE HEAD SCREWS.
    - C. GYP. BD. SHALL BE APPLIED PERPENDICULAR TO WALL AND CEILING FRAMING WITH SCREWS AT 16" OC AT ENDS, AT EACH FRAMING MEMBER ALONG EDGES, AND WITH ONE FIELD SCREW PER FRAMING MEMBER.
16. ALL INTERIOR AND EXTERIOR PAINT SHALL BE FURNISHED AND INSTALLED PER THE 'ARCHITECTURAL PAINTING SPECIFICATION MANUAL', LATEST EDITION, PUBLISHED BY THE 'MASTER PAINTERS INSTITUTE'.
17. ALL SEALANTS SHALL COMPLY WITH AND BE INSTALLED TO COMPLY WITH THE RECOMMENDATIONS IN 'ASTM C 1193' AS APPLICABLE TO THE MATERIALS, APPLICATIONS, AND CONDITIONS BEING USED.
18. CONTRACTOR TO CAREFULLY REVIEW DRAWINGS AND REPORT ANY DISCREPANCIES TO ARCHITECT. THE CONTRACTOR SHALL ACCEPT RESPONSIBILITY FOR DISCREPANCIES IDENTIFIED AFTER AWARD OF THE CONTRACT AND THOSE DISCREPANCIES SHALL BE INTERPRETED PER THE SOLE DISCRETION OF THE ARCHITECT WITH NO ADVERSE IMPACT ON THE CONTRACT AMOUNT.
19. THE GENERAL CONTRACTOR MAY SUBMIT SPECIFICATIONS FOR ALTERNATE MATERIALS AND FIXTURES FOR CONSIDERATION BY THE ARCHITECT FOR ALL SPECIFIED MATERIALS AND FIXTURES.
20. EXIT AND TOILET ROOM DOORS SHALL BE IDENTIFIED WITH ACCESSIBLE SIGNAGE PER SECTION 110 MBC 2021 AND 703.4.5 ICC/ANSI - A117.1-2017

LOCATION MAP

ISSUED:

DESIGN REVIEW	03/02/2026
CM RFP	03/12/2026

MCD ARCHITECTS

33610 GRAND RIVER
FARMINGTON, MI, 48335
www.mcdarchitects.com
248-374-0001

RENOVATIONS FOR:

BIRMINGHAM CITY HALL

151 MARTIN ST,
BIRMINGHAM, MI
48009

TITLE SHEET AND DRAWING INDEX

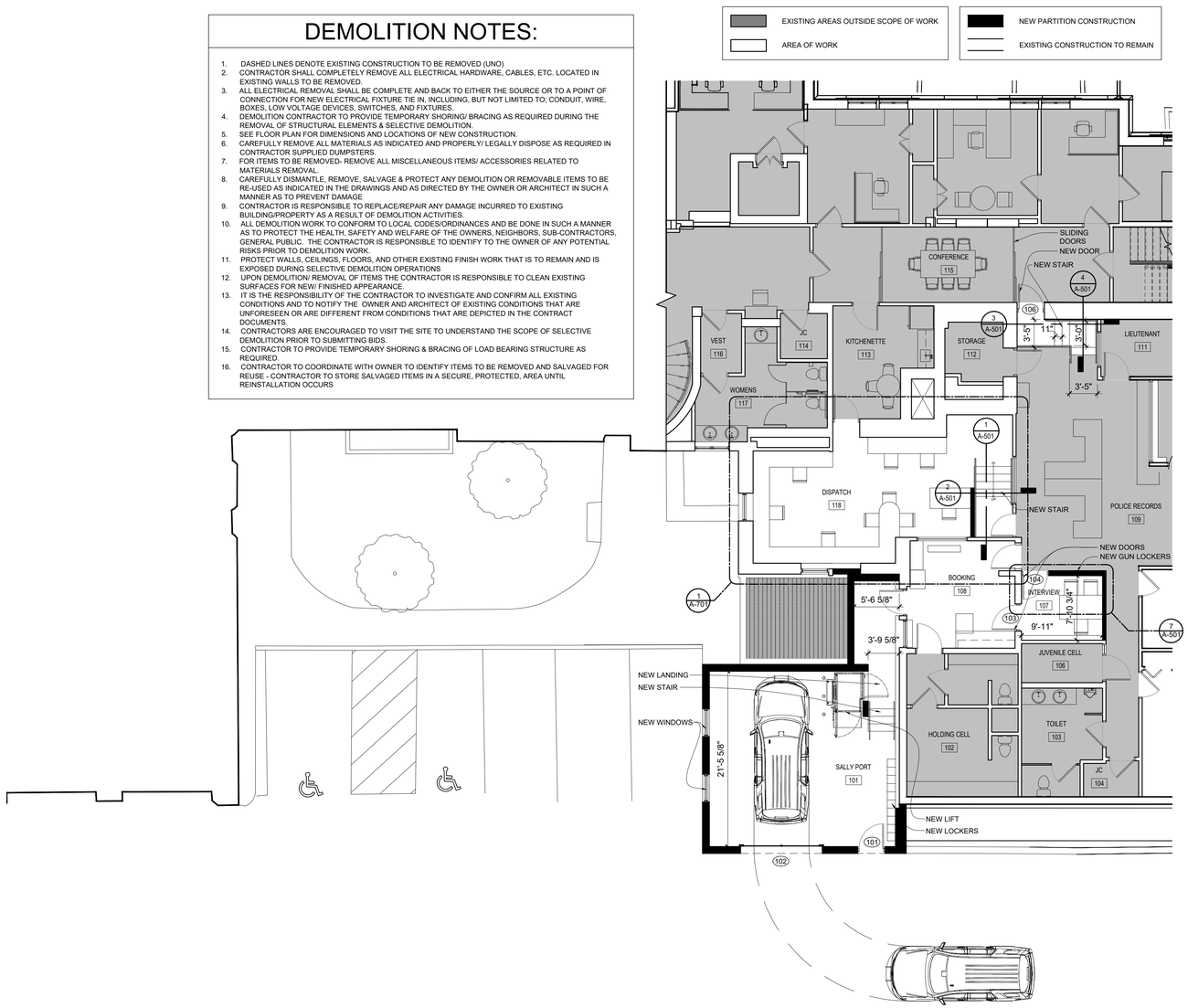
DRAWN BY: GA

APPROVED BY: SS

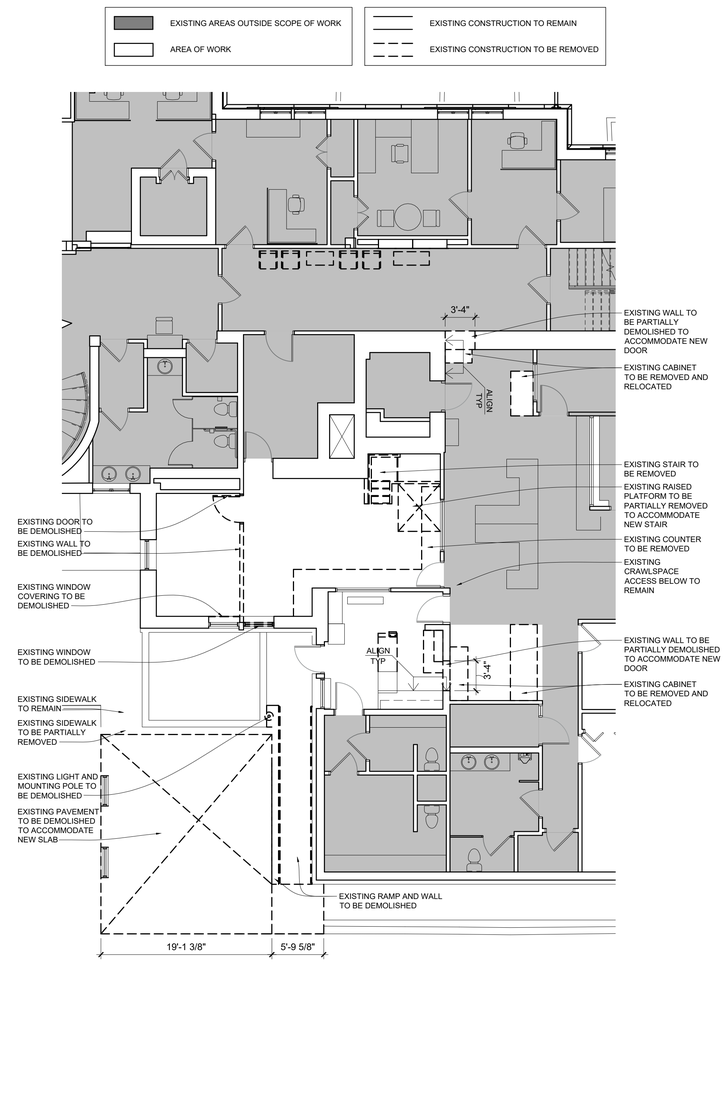
PROJECT NO.	SHEET NO.
25498	G-101

DEMOLITION NOTES:

1. DASHED LINES DENOTE EXISTING CONSTRUCTION TO BE REMOVED (UNO)
2. CONTRACTOR SHALL COMPLETELY REMOVE ALL ELECTRICAL HARDWARE, CABLES, ETC. LOCATED IN EXISTING WALLS TO BE REMOVED.
3. ALL ELECTRICAL REMOVAL SHALL BE COMPLETE AND BACK TO EITHER THE SOURCE OR TO A POINT OF CONNECTION FOR NEW ELECTRICAL FIXTURE TIE IN, INCLUDING, BUT NOT LIMITED TO; CONDUIT, WIRE, BOXES, LOW VOLTAGE DEVICES, SWITCHES, AND FIXTURES.
4. DEMOLITION CONTRACTOR TO PROVIDE TEMPORARY SHORING/ BRACING AS REQUIRED DURING THE REMOVAL OF STRUCTURAL ELEMENTS & SELECTIVE DEMOLITION.
5. SEE FLOOR PLAN FOR DIMENSIONS AND LOCATIONS OF NEW CONSTRUCTION.
6. CAREFULLY REMOVE ALL MATERIALS AS INDICATED AND PROPERLY/ LEGALLY DISPOSE AS REQUIRED IN CONTRACTOR SUPPLIED DUMPSTERS.
7. FOR ITEMS TO BE REMOVED- REMOVE ALL MISCELLANEOUS ITEMS/ ACCESSORIES RELATED TO MATERIALS REMOVAL.
8. CAREFULLY DISMANTLE, REMOVE, SALVAGE & PROTECT ANY DEMOLITION OR REMOVABLE ITEMS TO BE RE-USED AS INDICATED IN THE DRAWINGS AND AS DIRECTED BY THE OWNER OR ARCHITECT IN SUCH A MANNER AS TO PREVENT DAMAGE
9. CONTRACTOR IS RESPONSIBLE TO REPLACE/REPAIR ANY DAMAGE INCURRED TO EXISTING BUILDING/PROPERTY AS A RESULT OF DEMOLITION ACTIVITIES.
10. ALL DEMOLITION WORK TO CONFORM TO LOCAL CODES/ORDINANCES AND BE DONE IN SUCH A MANNER AS TO PROTECT THE HEALTH, SAFETY AND WELFARE OF THE OWNERS, NEIGHBORS, SUB-CONTRACTORS, GENERAL PUBLIC. THE CONTRACTOR IS RESPONSIBLE TO IDENTIFY TO THE OWNER OF ANY POTENTIAL RISKS PRIOR TO DEMOLITION WORK.
11. PROTECT WALLS, CEILINGS, FLOORS, AND OTHER EXISTING FINISH WORK THAT IS TO REMAIN AND IS EXPOSED DURING SELECTIVE DEMOLITION OPERATIONS
12. UPON DEMOLITION/ REMOVAL OF ITEMS THE CONTRACTOR IS RESPONSIBLE TO CLEAN EXISTING SURFACES FOR NEW/ FINISHED APPEARANCE.
13. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INVESTIGATE AND CONFIRM ALL EXISTING CONDITIONS AND TO NOTIFY THE OWNER AND ARCHITECT OF EXISTING CONDITIONS THAT ARE UNFORESEEN OR ARE DIFFERENT FROM CONDITIONS THAT ARE DEPICTED IN THE CONTRACT DOCUMENTS.
14. CONTRACTORS ARE ENCOURAGED TO VISIT THE SITE TO UNDERSTAND THE SCOPE OF SELECTIVE DEMOLITION PRIOR TO SUBMITTING BIDS.
15. CONTRACTOR TO PROVIDE TEMPORARY SHORING & BRACING OF LOAD BEARING STRUCTURE AS REQUIRED.
16. CONTRACTOR TO COORDINATE WITH OWNER TO IDENTIFY ITEMS TO BE REMOVED AND SALVAGED FOR REUSE - CONTRACTOR TO STORE SALVAGED ITEMS IN A SECURE, PROTECTED, AREA UNTIL REINSTALLATION OCCURS



2 A-101 PROP. FIRST FLOOR
1/8" = 1'-0"



1 A-101 DEMO. FIRST FLOOR
1/8" = 1'-0"

ISSUED:

DESIGN REVIEW	03/02/2026
CM RFP	03/12/2026

MCD ARCHITECTS

33610 GRAND RIVER
FARMINGTON, MI, 48335
www.mcdarchitects.com
248-374-0001

RENOVATIONS FOR:

BIRMINGHAM CITY HALL

151 MARTIN ST,
BIRMINGHAM, MI
48009

DEMOLITION AND PROPOSED FLOOR PLANS

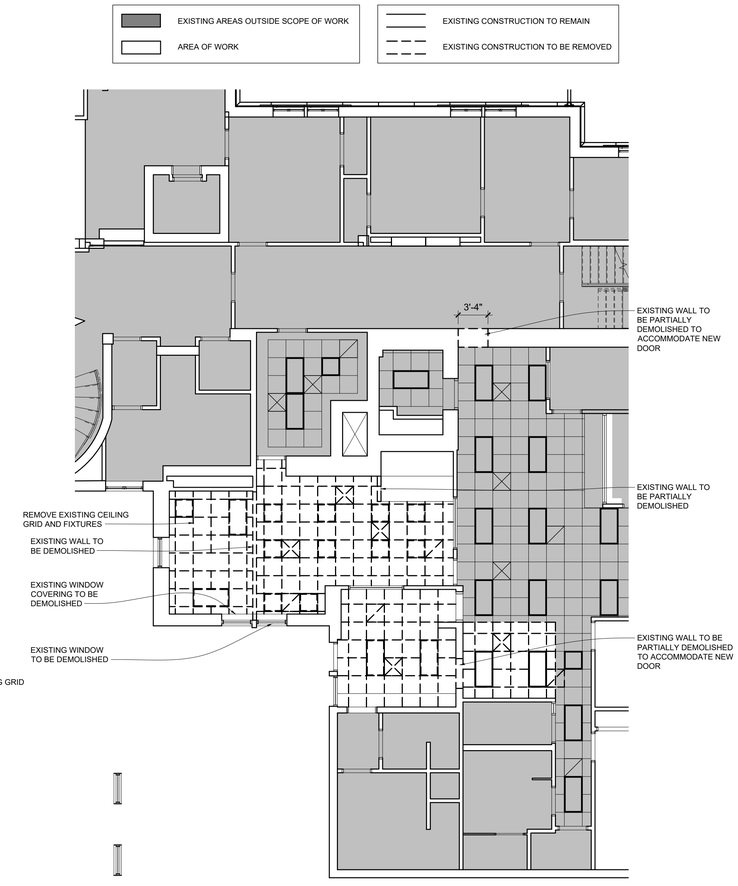
DRAWN BY: GA
APPROVED BY: SS

PROJECT NO.	SHEET NO.
25498	A-101

DEMOLITION NOTES:

1. DASHED LINES DENOTE EXISTING CONSTRUCTION TO BE REMOVED (UNO)
2. CONTRACTOR SHALL COMPLETELY REMOVE ALL ELECTRICAL HARDWARE, CABLES, ETC. LOCATED IN EXISTING WALLS TO BE REMOVED.
3. ALL ELECTRICAL REMOVAL SHALL BE COMPLETE AND BACK TO EITHER THE SOURCE OR TO A POINT OF CONNECTION FOR NEW ELECTRICAL FIXTURE TIE IN, INCLUDING, BUT NOT LIMITED TO; CONDUIT, WIRE, BOXES, LOW VOLTAGE DEVICES, SWITCHES, AND FIXTURES.
4. DEMOLITION CONTRACTOR TO PROVIDE TEMPORARY SHORING/ BRACING AS REQUIRED DURING THE REMOVAL OF STRUCTURAL ELEMENTS & SELECTIVE DEMOLITION.
5. SEE FLOOR PLAN FOR DIMENSIONS AND LOCATIONS OF NEW CONSTRUCTION.
6. CAREFULLY REMOVE ALL MATERIALS AS INDICATED AND PROPERLY/ LEGALLY DISPOSE AS REQUIRED IN CONTRACTOR SUPPLIED DUMPSTERS.
7. FOR ITEMS TO BE REMOVED- REMOVE ALL MISCELLANEOUS ITEMS/ ACCESSORIES RELATED TO MATERIALS REMOVAL.
8. CAREFULLY DISMANTLE, REMOVE, SALVAGE & PROTECT ANY DEMOLITION OR REMOVABLE ITEMS TO BE RE-USED AS INDICATED IN THE DRAWINGS AND AS DIRECTED BY THE OWNER OR ARCHITECT IN SUCH A MANNER AS TO PREVENT DAMAGE
9. CONTRACTOR IS RESPONSIBLE TO REPLACE/REPAIR ANY DAMAGE INCURRED TO EXISTING BUILDING/PROPERTY AS A RESULT OF DEMOLITION ACTIVITIES.
10. ALL DEMOLITION WORK TO CONFORM TO LOCAL CODES/ORDINANCES AND BE DONE IN SUCH A MANNER AS TO PROTECT THE HEALTH, SAFETY AND WELFARE OF THE OWNERS, NEIGHBORS, SUB-CONTRACTORS, GENERAL PUBLIC. THE CONTRACTOR IS RESPONSIBLE TO IDENTIFY TO THE OWNER OF ANY POTENTIAL RISKS PRIOR TO DEMOLITION WORK.
11. PROTECT WALLS, CEILINGS, FLOORS, AND OTHER EXISTING FINISH WORK THAT IS TO REMAIN AND IS EXPOSED DURING SELECTIVE DEMOLITION OPERATIONS
12. UPON DEMOLITION/ REMOVAL OF ITEMS THE CONTRACTOR IS RESPONSIBLE TO CLEAN EXISTING SURFACES FOR NEW/ FINISHED APPEARANCE.
13. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INVESTIGATE AND CONFIRM ALL EXISTING CONDITIONS AND TO NOTIFY THE OWNER AND ARCHITECT OF EXISTING CONDITIONS THAT ARE UNFORESEEN OR ARE DIFFERENT FROM CONDITIONS THAT ARE DEPICTED IN THE CONTRACT DOCUMENTS.
14. CONTRACTORS ARE ENCOURAGED TO VISIT THE SITE TO UNDERSTAND THE SCOPE OF SELECTIVE DEMOLITION PRIOR TO SUBMITTING BIDS.
15. CONTRACTOR TO PROVIDE TEMPORARY SHORING & BRACING OF LOAD BEARING STRUCTURE AS REQUIRED.
16. CONTRACTOR TO COORDINATE WITH OWNER TO IDENTIFY ITEMS TO BE REMOVED AND SALVAGED FOR REUSE - CONTRACTOR TO STORE SALVAGED ITEMS IN A SECURE, PROTECTED, AREA UNTIL REINSTALLATION OCCURS

2 A-102 PROP. FIRST FLOOR RCP
1/8" = 1'-0"



1 A-102 DEMO. FIRST FLOOR RCP
1/8" = 1'-0"

ISSUED:

DESIGN REVIEW	03/02/2026
CM RFP	03/12/2026

MCD ARCHITECTS

33610 GRAND RIVER
FARMINGTON, MI, 48335
www.mcdarchitects.com
248-374-0001

RENOVATIONS FOR:

BIRMINGHAM CITY HALL

151 MARTIN ST,
BIRMINGHAM, MI
48009

DEMOLITION AND PROPOSED REFLECTED CEILING PLANS

DRAWN BY: GA

APPROVED BY: SS

PROJECT NO.	SHEET NO.
25498	A-102

1 A-201 WEST ELEVATION
1/8" = 1'-0"

1 A-201 SOUTH ELEVATION
1/8" = 1'-0"

ISSUED:

DESIGN REVIEW	03/02/2026
CM RFP	03/12/2026

MCD ARCHITECTS
33610 GRAND RIVER
FARMINGTON, MI, 48335
www.mcdarchitects.com
248-374-0001

RENOVATIONS FOR:

BIRMINGHAM CITY HALL

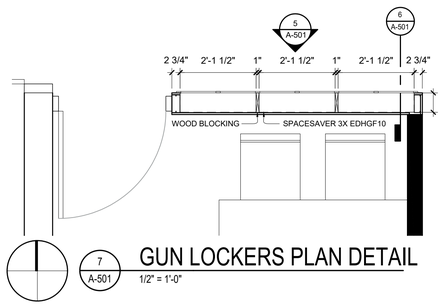
151 MARTIN ST,
BIRMINGHAM, MI
48009

EXTERIOR ELEVATIONS

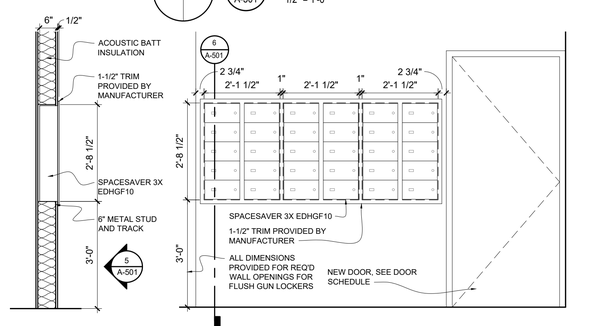
DRAWN BY: GA

APPROVED BY: SS

PROJECT NO.	SHEET NO.
25498	A-201

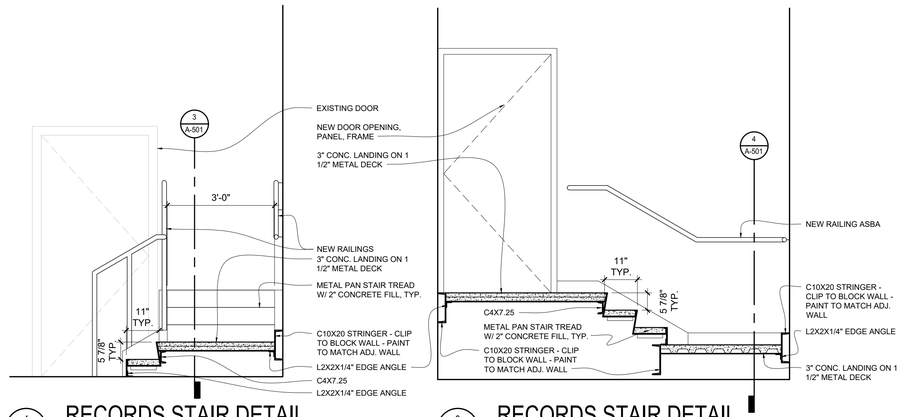


7 A-501 **GUN LOCKERS PLAN DETAIL**
1/2" = 1'-0"



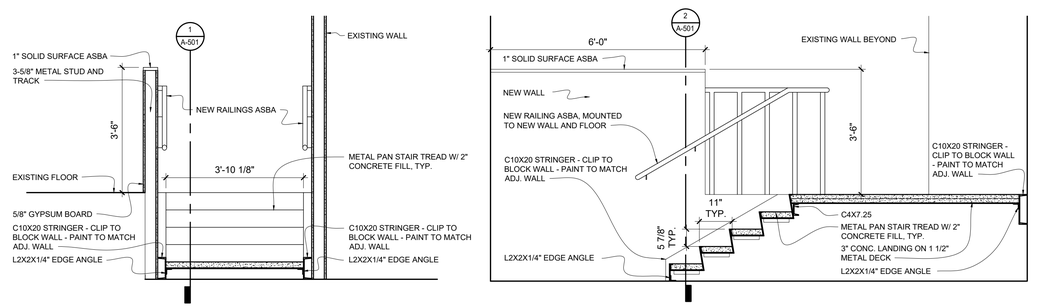
6 A-501 **GUN LOCKERS SECTION**
1/2" = 1'-0"

5 A-501 **GUN LOCKERS ELEVATION**
1/2" = 1'-0"



4 A-501 **RECORDS STAIR DETAIL**
1/2" = 1'-0"

3 A-501 **RECORDS STAIR DETAIL**
1/2" = 1'-0"



2 **DISPATCH STAIR DETAIL**

1 **DISPATCH STAIR DETAIL**

ISSUED:

DESIGN REVIEW	03/02/2026
CM RFP	03/12/2026

MCD ARCHITECTS
33610 GRAND RIVER
FARMINGTON, MI, 48335
www.mcdarchitects.com
248-374-0001

RENOVATIONS FOR:

BIRMINGHAM CITY HALL

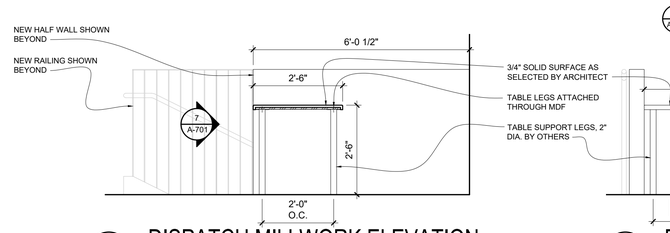
151 MARTIN ST,
BIRMINGHAM, MI
48009

DETAILS

DRAWN BY: BB

APPROVED BY: SS

PROJECT NO.	SHEET NO.
25498	A-501

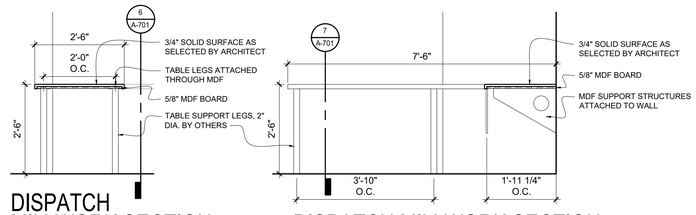


8 A-701 **DISPATCH MILLWORK ELEVATION**
1/2" = 1'-0"

7 A-701 **DISPATCH MILLWORK ELEVATION**
1/2" = 1'-0"

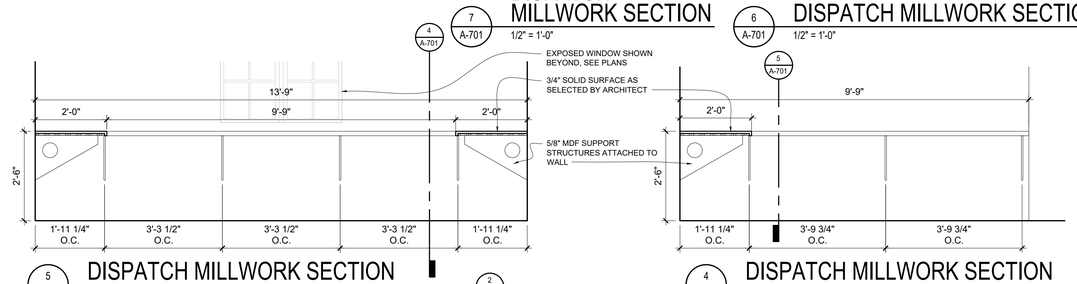
GENERAL MILLWORK NOTES:

1. MILLWORK TO CONFORM TO AWI PREMIUM QUALITY STANDARD
2. ALL DOOR AND DRAWER MILLWORK HARDWARE TO BE SOFT CLOSE
3. FOR "WIRE PULL (TYP.)" CALLOUTS - FINISH AS SELECTED BY ARCHITECT - TYP. FOR ALL CABINETRY
4. ALL INTERIOR AND EXTERIOR EXPOSED MILLWORK SURFACES TO BE PLASTIC LAMINATE



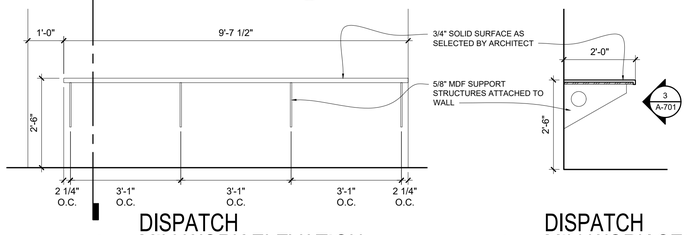
DISPATCH MILLWORK SECTION
7 A-701 1/2" = 1'-0"

6 A-701 **DISPATCH MILLWORK SECTION**
1/2" = 1'-0"



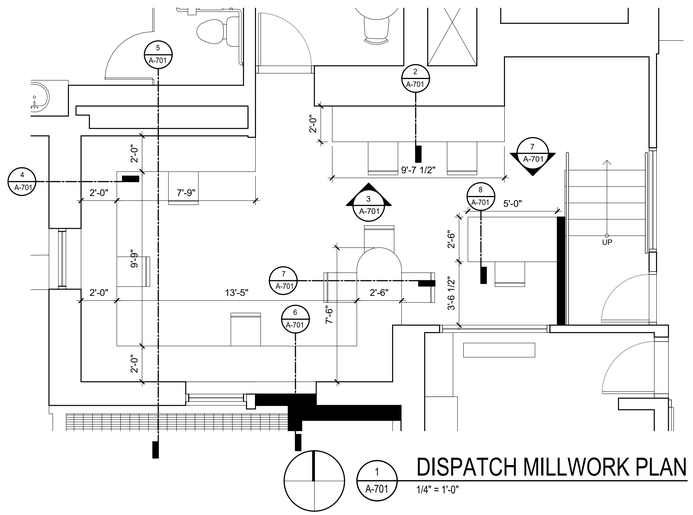
5 A-701 **DISPATCH MILLWORK SECTION**
1/2" = 1'-0"

4 A-701 **DISPATCH MILLWORK SECTION**
1/2" = 1'-0"



3 A-701 **DISPATCH MILLWORK ELEVATION**
1/2" = 1'-0"

2 A-701 **DISPATCH MILLWORK SECTION**
1/2" = 1'-0"



1 A-701 **DISPATCH MILLWORK PLAN**
1/4" = 1'-0"

ISSUED:

DESIGN REVIEW	03/02/2026
CM RFP	03/12/2026

MCD ARCHITECTS
33610 GRAND RIVER
FARMINGTON, MI, 48335
www.mcdarchitects.com
248-374-0001

RENOVATIONS FOR:

BIRMINGHAM CITY HALL

151 MARTIN ST,
BIRMINGHAM, MI
48009

MILLWORK PLANS, SECTIONS, ELEVATIONS

DRAWN BY: BB
APPROVED BY: SS

PROJECT NO.	SHEET NO.
25498	A-701

ABBREVIATIONS

ACCU	AIR CONDITIONING CONDENSING UNIT
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AP	ACCESS PANEL
ASR	AUTOMATIC SPRINKLER RISER
BTU	BRITISH THERMAL UNIT
CC	COOLING COIL
CF	CENTRIFUGAL FAN
CFM	CUBIC FEET PER MINUTE
CI	CAST IRON
CO	CLEAN OUT
COND	CONDENSATE
CONT	CONTINUATION
CUH	CABINET UNIT HEATER
CW	COLD WATER
CWS	CHILLED WATER SUPPLY
CWR	CHILLED WATER RETURN
Db	DRY BULB TEMPERATURE, °F
dB	DECIBELS
DDC	DIRECT DIGITAL CONTROL
DET	DETAIL
DIA	DIAMETER
DN.	DOWN
DS	DOWNSPOUT
DWG.	DRAWING
EA	EXHAUST AIR
ECUH	ELECTRIC CABINET UNIT HEATER
EF	EXHAUST FAN
ELEV.	ELEVATION
ESP	EXTERNAL STATIC PRESSURE
EUH	ELECTRIC UNIT HEATER
EX.	EXISTING
EXH	EXHAUST
EXIST	EXISTING

F	FAHRENHEIT
FD	FLOOR DRAIN
FLR	FLOOR
FPM	FEET PER MINUTE
FSW	FLOW SWITCH
FS	FLOOR SINK
FT.	FEET
GPM	GALLONS PER MINUTE
HB	HOSE BIBB
HO	HUB OUTLET
HP	HORSEPOWER
HW	HOT WATER (POTABLE)
HWR	HOT WATER RETURN (POTABLE)
IN	INCHES
INL	INLET
INV	INVERT
LAT	LEAVING AIR TEMPERATURE
LAV	LAVATORY
LBS/HR	POUNDS PER HOUR
LWT	LEAVING WATER TEMPERATURE
MAX.	MAXIMUM
MBH	1000 BTU/HR
MECH	MECHANICAL
MIN.	MINIMUM
MISC	MISCELLANEOUS
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NOM.	NOMINAL
NFWH	NON FREEZE WALL HYDRANT
OA	OUTSIDE AIR
OF	OVERFLOW
OFD	OVERFLOW DRAIN

P	PUMP
PD	PRESSURE DROP (FEET OF WATER)
PSI	POUNDS PER SQUARE INCH
PRV	PRESSURE REDUCING VALVE
RA	RETURN AIR
RD/SP	ROOF DRAIN/STAND PIPE
BAL.	BALANCE
RET	RETURN
RF	RETURN FAN
RH	REHEAT COIL
Rh	RELATIVE HUMIDITY
RPM	REVOLUTIONS PER MINUTE
RS	ROOF SUMP
RC	RAIN CONDUCTOR
REL	RELOCATED
REB	REBALANCE
SA	SUPPLY AIR
SAN	SANITARY WASTE
SD	SMOKE DETECTOR
SF	SUPPLY FAN
SG	SPECIFIC GRAVITY
SP	STATIC PRESSURE (INCHES OF WATER)
SP	STAND PIPE
SPR	SPRINKLER
SPR/STP	SPRINKLER STANDPIPE
SPS	STATIC PRESSURE SENSOR
STK	STACK
TP	TOTAL PRESSURE
TYP	TYPICAL
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
V	VALVE
VTR	VENT THRU ROOF
W	WASTE
WG	WATER GAUGE
WH	WALL HYDRANT

PLUMBING, PIPING & FIRE PROTECTION

- ITEM TO BE REMOVED
- EXISTING WORK
- NEW WORK
- ISOLATION VALVE
- CHECK VALVE
- WATER FLOW SWITCH
- VALVE IN RISER
- STRAINER
- PIPE ANCHOR
- EXPANSION JOINT - SLIDING
- ALIGNMENT GUIDE
- UNION
- SPRINKLER HEAD (PENDANT)
- SPRINKLER HEAD (UPRIGHT)
- CO CLEANOUT
- FCO CLEANOUT FLOOR
- WCO CLEANOUT WALL
- GCO CLEANOUT GRADE
- FLOOR DRAIN (FD)
- REDUCER - CONCENTRIC
- PRESSURE GAUGE WITH COCK
- THERMOMETER
- CAP OR PLUG
- ELBOW - TURNED DOWN
- ELBOW - TURNED UP
- TEE OUTLET - DOWN
- TEE OUTLET - UP
- DIRECTION OF FLOW
- BALANCING VALVE
- TWO-WAY MODULATING CONTROL VALVE
- THREE-WAY MODULATING CONTROL VALVE
- MANUAL AIR VENT
- TEST PLUG (PRESSURE/TEMPERATURE)
- NEW CONNECTION
- COLD WATER PIPING
- HOT WATER PIPING
- HOT WATER RETURN PIPING
- VENT PIPING
- SAN SANITARY LINE (UNDERGROUND)
- SAN SANITARY LINE (AVOVE GROUND)
- ST STORM LINE
- G NATURAL GAS
- F FIRE SPRINKLER PIPE (FS)

MECHANICAL SHEET INDEX

M-001	MECHANICAL SYMBOLS, ABBREVIATIONS AND NOTES
M-101	DEMO AND NEW MECHANICAL FIRST FLOOR PLANS
M-201	MECHANICAL SCHEDULES AND DETAILS
M-301	MECHANICAL SPECIFICATION

GENERAL HVAC NOTES:

THE FOLLOWING NOTES APPLY TO ALL HVAC DRAWINGS, EXCEPT WHERE OTHERWISE INDICATED.

1. WHEREVER VOLUME DAMPERS OCCUR ABOVE CEILINGS WITHOUT REMOVABLE TILE AND AN ACCESS PANEL IS NOT FURNISHED, PROVIDE AN EXPOSED DAMPER REGULATOR TO ALLOW DAMPER ADJUSTMENT FROM BELOW CEILING. UNIT TO BE EQUAL TO VENTLOCK No. 666 IN 1/2"x3/8" SIZE.
2. ALL DIMMENSION SHOWN FOR DUCTWORK ARE NET INSIDE DIMENSIONS.
3. DIFFUSER AND REGISTER LOCATIONS SHALL BE COORDINATED WITH ARCHITECTURAL REFLECTED CEILING PLAN.
4. THOUGH SOME OFFSETS & TRANSITIONS ARE SHOWN IN PIPING AND SHEET METAL TO HELP INDICATE THE PHYSICAL RELATIONSHIP BETWEEN THEM. IT IS NOT THE INTENT OF THE DRAWINGS TO SHOW ALL PIPING AND SHEET METAL OFFSET & TRANSITIONS REQUIRED. THE CONTRACTOR SHALL FULLY COORDINATE THE MECHANICAL WORK WITHIN ITSELF AND WITH THE WORK OF ALL TRADES TO PROVIDE COMPLETE AND OPERABLE SYSTEMS WITHOUT INTERFERENCES.
5. DUCT PRESSURE CONSTRUCTION CLASSIFICATION SHALL BE AS SPECIFIED.
6. ALL ROUND RUNOUTS AND DROPS TO DIFFUSERS SHALL BE SAME NOMINAL SIZE AS INDICATED ON THE DRAWINGS.
7. ALL PIPING AND DUCTS IN FINISHED ROOMS OR SPACES SHALL BE CONCEALED IN FURRED CHASE OR SUSPENDED CEILING.
8. ACCESS PANELS AND DOORS (MECHANICAL CONTRACTOR TO PROVIDE) ARE REQUIRED THROUGH BUILDING CONSTRUCTION ASSEMBLIES SUCH AS WALLS, CEILING, PARTITIONS AND FLOORS TO SERVICE AND MAINTAIN DAMPERS, CONTROL MOTORS, REGULATORS, VALVES, FLEXIBLE DUCT CONNECTIONS AND OTHER ITEMS OR DEVICES INCORPORATED IN MECHANICAL WORK. SUCH PANELS AND DOORS SHALL BE PROVIDED AND INSTALLED UNDER THE ARCHITECTURAL SPECIFICATIONS. MECHANICAL CONTRACTOR SHALL COORDINATE LOCATION OF ACESS DOORS AND PANELS AND VERIFY THE EXACT QUANTITY, SIZE, FIRE-RATING AND LOCATION AFTER THE SYSTEMS AND EQUIPMENT REQUIRING ACCESS HAVE BEEN INSTALLED AND PRIOR TO THE CLOSURE OF THE AFFECTED CEILING AND BUILDING ASSEMBLIES. MINIMUM ACCESS PANEL AND DOOR SIZE SHALL BE 24 INCHES BY 18 INCHES UNLESS OTHERWISE NOTED.
9. ALL DUCTWORK PENETRATIONS FIRE-RATED WALLS AND FLOORS SHALL BE PROVIDED WITH FIRE DAMPERS AND ACCESS DOOR.

PLUMBING GENERAL NOTES:

1. FOR PIPE SIZES TO INDIVIDUAL PLUMBING FIXTURES AND VARIOUS PIECES OF EQUIPMENT REFER TO SPECIFICATIONS.
2. IN ALL WASTE DRAINAGE PIPING THE CONTRACTOR SHALL FURNISH AND INSTALL CLEANOUTS (IN ADDITION TO THE CLEANOUTS INDICATED ON DRAWINGS AS REQUIRED BY THE GOVERNING PLUMBING CODE).
3. REFER TO HVAC GENERAL NOTE-4
4. FOR ADDITION NOTES COMMON TO PLUMBING REFER TO HVAC NOTES.

HVAC LEGEND & SYMBOLS

- 18x6 — INDICATES RECTANGULAR DUCT WITH DUCT SIZE 18 INCHES WIDE (IN PLANE OF DRAWING) AND 6 INCHES DEEP. SIZE PERTAINS TO THE ENTIRE RUN OF DUCT UNLESS OTHERWISE NOTED.
- 22x14ø — INDICATES FLAT OVAL DUCT WITH DUCT SIZE 22 INCHES WIDE (IN PLANE OF DRAWING) AND 14 INCHES DEEP. SIZE PERTAINS TO THE ENTIRE RUN OF DUCT UNLESS OTHERWISE NOTED.
- 6"ø — INDICATES ROUND DUCT WITH DUCT SIZE OF 6 INCHES IN DIAMETER. SIZE PERTAINS TO THE ENTIRE RUN OF DUCT (FROM DUCT ORIGIN AT TAP TO END OF DUCT) UNLESS OTHERWISE NOTED.
- VANE TURN ELBOW & AIR SPLIT TYPE DUCT TAKE-OFF
- RISE — INCLINED RISE IN RESPECT TO AIR FLOW
- DN. — INCLINED DROP IN RESPECT TO AIR FLOW
- VANED ELBOW (PROVIDE ALL SQUARE OR RECTANGULAR ELBOWS WITH VANES)
- VANED ELBOW (SHORT RADIUS)
- INDICATES FLEXIBLE DUCT (RUNOUT) OF SIZE AS SCHEDULED OR SHOWN. LENGTH SHALL NOT EXCEED 5 FT.
- DUCT TURNING UP
- DUCT TURNING DOWN
- VERTICAL FIRE DAMPER
- HORIZONTAL FIRE DAMPER
- POINT OF NEW CONNECTION
- SD DUCT SMOKE DETECTOR
- ITEM TO BE REMOVED
- SUPPLY AIR DIFFUSER
- RETURN AIR GRILLE
- LINEAR SUPPLY AIR DIFFUSER
- SUPPLY AIR GRILLE
- VOLUME CONTROL DAMPER (MANUAL) — MD
- FLEXIBLE CONNECTION OR FLEXIBLE DUCT CONNECTOR
- M MOTORIZED DAMPER
- C COMBINATION FIRE AND SMOKE DAMPER
- RF RF SHEILDING DAMPER
- T THERMOSTAT
- S TEMPERATURE SENSOR

ISSUED:

CM RFP	03/12/26

MCD ARCHITECTS

33610 GRAND RIVER
FARMINGTON, MI, 48335
www.mcdarchitects.com
248-374-0001

MAENGINEERING
MECHANICAL ELECTRICAL
180 High Oak Road
Bloomfield Hills, Michigan 48304
t | 248 | 258 | 1610
f | 248 | 258 | 9538

RENOVATIONS FOR:

BIRMINGHAM CITY HALL

151 MARTIN ST,
BIRMINGHAM, MI
48009

MECHANICAL SYMBOLS, ABBREVIATIONS AND NOTES

DRAWN BY: MS

APPROVED BY: MS

PROJECT NO.	SHEET NO.
25498	M-001

H:\ACAD\FILES\98988530 birmingham police renovation and expansion\birmingham city hall\CAD\MECH\98530-BCH-M-001-COVER PAGE.dwg Thu, 12 Mar 2026 - 2:24pm

NEW WORK KEY NOTES :

1. RELOCATED EXISTING SUPPLY AIR DIFFUSER (EX.REL.SAD). EXTEND 8"FLEX DUCT TO THIS LOCATION.
2. NEW SUPPLY AIR DIFFUSER (S-1). EXTEND 8"FLEX DUCT TO THIS LOCATION.
3. PROVIDE DRAIN UNDER THE AHU-1 AND PIPE CONDENSATE AND UNIT CONDENSATE TO CONDENSATE PUMP. RUN CONDENSATE TUBING TO JC SINK.

FIRE PROTECTION KEY NOTES:

A. FOR THE AREA INDICATED, REMOVE OR MODIFY EXISTING SPRINKLER SYSTEM AND PROVIDE A HYDRAULICALLY DESIGNED SPRINKLER SYSTEM WITH RECESSED HEADS (WITH LIGHT HAZARD COVERAGE), IN ACCORDANCE WITH NFPA-13, THE MICHIGAN BUILDING CODE, THE OWNER'S UNDERWRITER AND THE AUTHORITY HAVING JURISDICTION. PROVIDE DESIGN DENSITIES AS REQUIRED BY NFPA-13.

DEMOLITION KEY NOTES :

D1. REMOVE AND LEGALLY DISCARD EXISTING WALL MOUNTED AC UNIT WITH ALL RELATED ACCESSORIES, CONDENSATE PUMP, CONTROLS, REFRIGERANT LINES AND RELATED CONDENSER.

D2. REMOVE AND LEGALLY DISCARD EXISTING HYDRONIC CABINET UNIT HEATER WITH ALL RELATED ACCESSORIES, CONTROL AND PIPING TO MAIN AND CAP.

D3. REMOVE AND LEGALLY DISCARD EXISTING HEAT PUMP SYSTEM WITH RELATED DUCTS, OUTSIDE AIR MOTORIZED DAMPER (AND CONTROLS) SUPPLY AIR DIFFUSERS, RETURN GRILLES, OUTSIDE AIR DUCT, CONTROLS, CONDENSATE PUMP, REFRIGERANT LINES AND RELATED CONDENSER.

D4. REMOVE AND RELOCATE EXISTING DIFFUSER. EXTEND FLEX DUCT AS REQUIRED TO THE NEW LOCATION.

D5. REMOVE AND LEGALLY DISCARD EXISTING DIFFUSER/GRILLE. EXTEND AND PROVIDE NEW FLEX DUCT AS REQUIRED TO THE NEW LOCATION.

FIRE PROTECTION GENERAL NOTES:

THE FOLLOWING GENERAL NOTES APPLY TO ALL FIRE PROTECTION SHEETS INCLUDED WITHIN THIS DOCUMENT SET, EXCEPT WHERE OTHERWISE INDICATED.

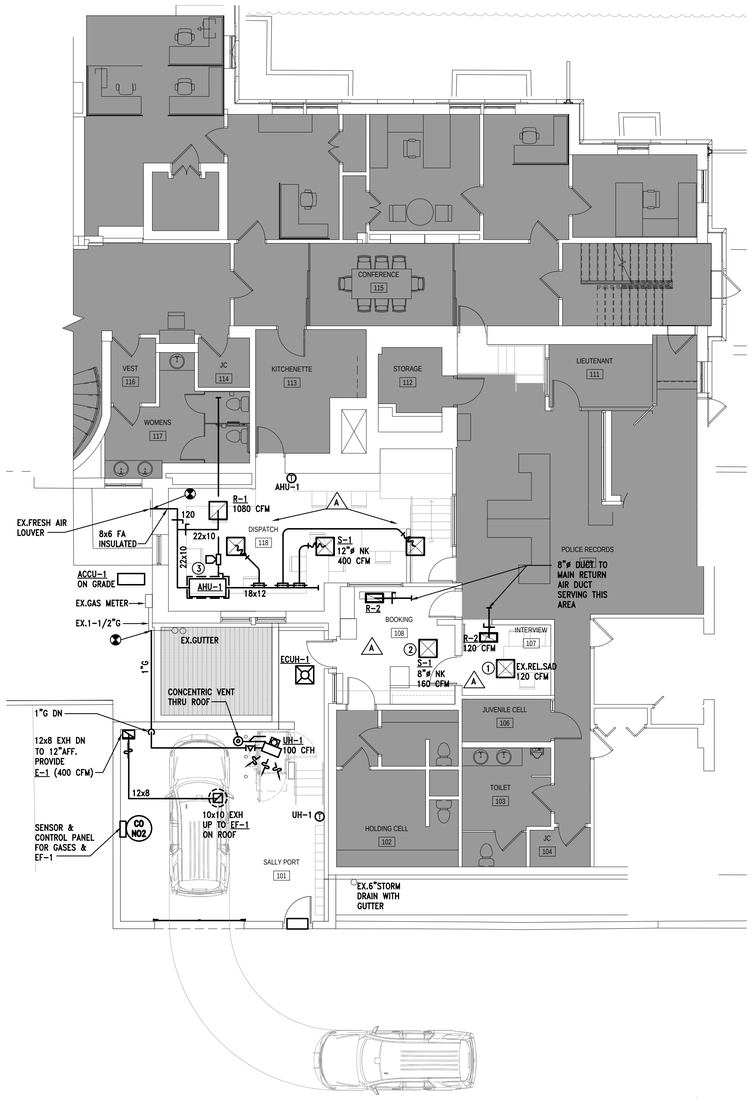
A. COORDINATE ALL WORK WITH THE OWNER AND ARCHITECTURAL PLANS.

B. SUBMIT DRAWINGS TO THE AUTHORITY HAVING JURISDICTION AND OWNER'S INSURANCE COMPANY FOR REVIEW AND APPROVAL.

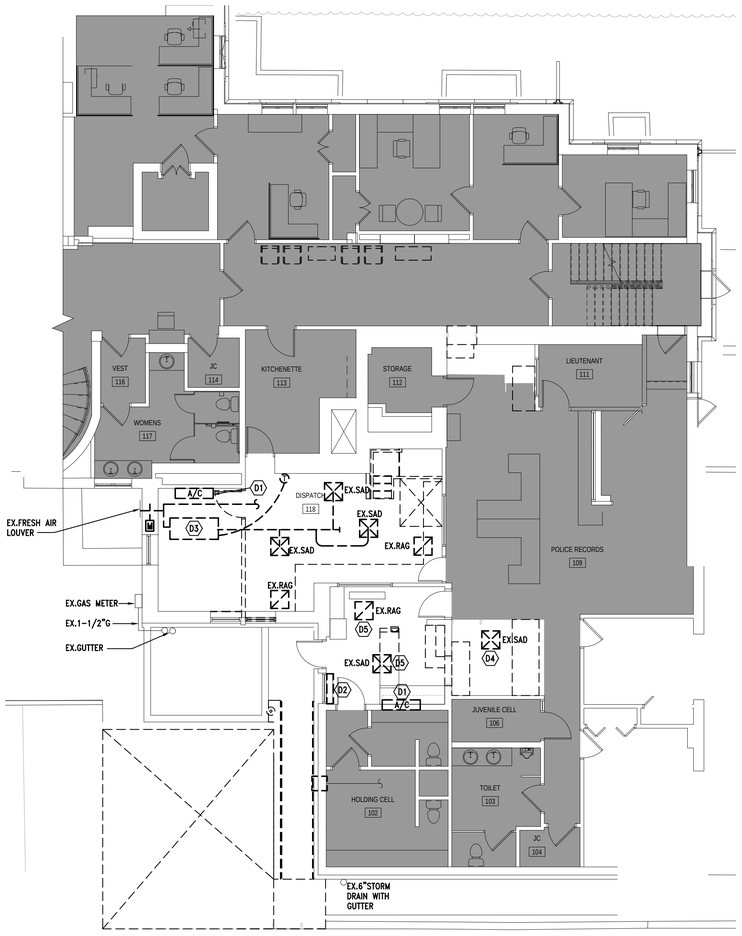
C. PAY ALL FEES RELATED TO THE REQUIRED PERMITS AND INSPECTIONS.

D. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR COORDINATION OF SPRINKLER HEAD LOCATIONS. IT IS THE FIRE PROTECTION CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL SPRINKLERS REQUIRED BY THE CODE REGARDLESS IF SHOWN ON THE REFLECTED CEILING PLANS.

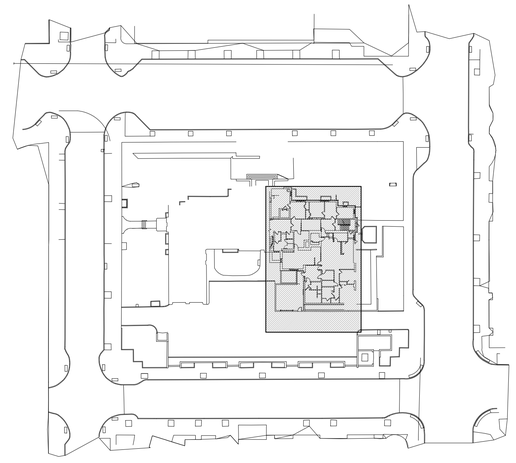
E. ALL SPRINKLER TAKE-OFFS FROM MAIN SHALL BE OFF THE TOP OF THE MAIN WITH TWO ELBOWS OR U.L. LISTED FLEXIBLE SPRINKLER CONNECTION.



1 M-101 NEW MECHANICAL FIRST FLOOR PLAN
1/8" = 1'-0"



1 M-101 DEMO MECHANICAL FIRST FLOOR PLAN
1/8" = 1'-0"



M-101 KEY PLAN
N.T.S.

ISSUED:

CM RFP	03/12/26

MCD ARCHITECTS
33610 GRAND RIVER
FARMINGTON, MI, 48335
www.mcdarchitects.com
248-374-0001

MAENGINEERING
MECHANICAL ELECTRICAL
180 High Oak Road t | 248 | 258 | 1610
Bloomfield Hills, Michigan 48304 f | 248 | 258 | 9538

RENOVATIONS FOR:

BIRMINGHAM CITY HALL

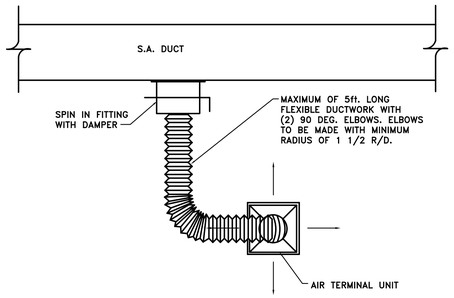
151 MARTIN ST,
BIRMINGHAM, MI
48009

DEMO AND NEW MECHANICAL FIRST FLOOR PLANS

DRAWN BY: MS
APPROVED BY: MS

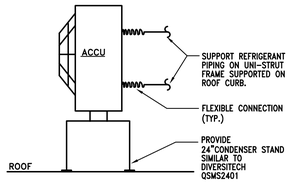
PROJECT NO.	SHEET NO.
25498	M-101

H:\ACAD\FILES\98988530 birmingham police renovation and expansion\birmingham city hall\CAD\MECH\98530-BCH-M-101-MECHANICAL-PLANS.dwg Thu, 12 Mar 2026 - 2:24pm



FLEXIBLE DUCT CONNECTION DETAIL

NO SCALE



ACCU MOUNTING DETAIL

NO SCALE

FAN COIL SCHEDULE

TAG	MANUFACTURER & MODEL No.	AREA SERVED	LOCATION	TYPE	"ESP	CFM	MIN. O.A. (CFM)	ELECTRIC HEAT		TOTAL ELECTRICAL				NOTES/ ACCESSORIES
								STAGE	KW	VOLTS	HP	MCA	MOCP	
AHU-1	CARRIER FJ5A-36	SEE PLAN	SEE PLAN	UPFLOW	.5	1200	120	1	5.0	208/1	1/2	45	50	A B C D E F G H I J K L

NOTES AND ACCESSORIES DESIGNATION

A	CASING COOLING COIL 3 TON	G	SINGLE POINT WIRING KIT AIR HANDLER AND ELECTRIC HEAT
B	SMOKE DETECTOR AT RETURN	H	DISCONNECT SWITCH
C	UP FLOW SUPPLY, DOWNFLOW RETURN WITH PLENUM. SEE DRAWING.	I	TXV-R-454B
D	HORIZONTAL INSTALLATION AS INDICATED ON DRAWING	J	CONDENSATE DRAIN TRAP KIT
E	THROWAWAY FILTER (25%)	K	CONDENSATE PUMP VCMA-15 BY LITTLE GIANT, 1/50 HP, 120/1, 1 AMPS
F	ELECTRONIC HEAT PUMP THERMOSTAT	L	DRAIN PAN

OUTDOOR HEAT PUMP UNIT SCHEDULE

TAG	MANUFACTURER & MODEL No.	UNIT SERVED	COOLING CAP.		HEATING @ -0°F MBH	REFRIG.	SUCTION TEMP DEG °F	LIQUID TEMP DEG °F	AMBIENT TEMP DEG °F	ELECTRICAL			NOTES/ACCESSORIES
			TOTAL MBH	SENS. MBH						VOLTS	MCA	MOCP	
ACCU-1	CARRIER 37MUHAQ-36	AHU-1	36	--	32.0	454B	44	95	95	208/1	29	30	A B C D E

NOTES AND ACCESSORIES DESIGNATION

A	24" HIGH EQUIPMENT STAND	D	DISCONNECT SWITCH
B	REFRIGERANT LINE KIT	E	LOW AMBIENT CONTROL FOR COOLING AND HEATING
C	DRYER/SIGHT GLASS		

ELECTRIC CABINET UNIT HEATER SCHEDULE

TAG	MANUFACTURER & MODEL No.	AREA SERVED	MOUNTING	LENGTH	CFM	BTU/HR	ELECTRICAL DATA			NOTES/ACCESSORIES
							WATTS	VOLT	AMPS	
ECUH-1	MARKEL 3480 SERIES	SEE PLAN	RC	--	175	10236	5000	208/1	24.1	A B

MOUNTING KEY

PD - PEDISTAL
FL - FLOOR
RC - FULLY RECESSED CEILING
WL - WALL
WR - WALL RECESS

NOTES AND ACCESSORIES DESIGNATION

A	INTERGRAL THERMOSTAT		
B	UNIT MOUNTED DISCONNECT SWITCH		

GAS FIRED UNIT HEATER SCHEDULE

TAG	MANUFACTURER & MODEL No.	AREA SERVED	TYPE	CFM	INTAKE VENT SIZES	GAS DATA			ELECTRICAL		NOTES/ACCESSORIES
						TYPE	MBH IN	MBH OUT	VOLTS	HP	
GUH-1	RE-VERBER-RAY FA-100	SEE PLAN	PROP.	1500	4"	NAT	100	80	120	1/8	A B C D E F

NOTES AND ACCESSORIES DESIGNATION

A	VIBRATION ISOLATORS	E	TWO STAGE GAS VALVE W/SAFETY PILOT, 100% SHUT-OFF
B	4 POINT SUSPENSION KIT	F	WALL CONCENTRIC KIT
C	REMOTE THERMOSTAT		
D	MOUNT BOTTOM AS HIGH AS POSSIBLE		

EXHAUST FAN SCHEDULE

TAG	MANUFACTURER & MODEL NO.	WEIGHT (LBS)	AREA SERVED	LOCATION	CFM	ESP (IN OF WATER)	RPM	DRIVE TYPE	FAN TYPE	ELECTRICAL		NOTES/ ACCESSORIES
										HP OR WATTS	VOLTS/PHASE	
EF-1	GREENHECK CUE-095VG	45	SEE PLAN	ROOF	400	0.6	1514	DIRECT	CENTRIFUGAL	1/6 HP	120/1	A B G H I

NOTES AND ACCESSORIES DESIGNATION

A	ROOF CURB
B	FURNISH DISCONNECT SWITCH.
C	INTERCLOCK WITH GAS PANEL
D	PROVIDE STARTER.

ISSUED:

CM RFP 03/12/26

MCD ARCHITECTS

33610 GRAND RIVER
FARMINGTON, MI, 48335
www.mcdarchitects.com
248-374-0001

MAENGINEERING
MECHANICAL ELECTRICAL
180 High Oak Road t | 248 | 258 | 1610
Bloomfield Hills, Michigan 48304 f | 248 | 258 | 9538

RENOVATIONS FOR:

BIRMINGHAM CITY HALL

151 MARTIN ST,
BIRMINGHAM, MI
48009

MECHANICAL SCHEDULES & DETAILS

DRAWN BY: MS

APPROVED BY: MS

PROJECT NO.	SHEET NO.
25498	M-201

H:\ACAD\FILES\98\898530 birmingham police renovation and expansion\birmingham city hall\CAD\MECH\898530-BCH-M-201-SCHEDULES_DETAILS.dwg Thu, 12 Mar 2026 - 2:24pm

armstrong MONITORING

Hazardous Gas Monitoring *Specialists*

AMC-122X Series

Multi Drop Gas Sensor Modules

For gas monitoring applications requiring a large number of sensors, installation costs represent a significant share of total project expenses. In an effort to lower these costs, AMC developed the AMC-122X Series multi drop gas sensor module.

Compatible with the AMC 1AD1/D2 Series, as well as the AMC-1400 and 1800, sensors are wired in series utilizing low power, three wire cabling. Dual wiring inputs on some models, combined with multi zone capabilities, permit a nearly unlimited range of configurations, thereby minimizing both installation time and materials.

Up to eight AMC-122Xs of different sensor types can be connected to a single zone with a maximum of 150ft between sensors and panel. Power supplies can be upgraded allowing more sensors per zone making the AMC-122X Series an economical solution to your gas monitoring needs.

BUILT WITH 100% GREEN ELECTRICITY

Part Number	AMC-1222	AMC-1225	AMC-1228-20	AMC-1228-28
Detectable Gas(es)	CO & NO_2	Combustible Gas	CO	NO_2
Sensor Type	Electrochemical	Solid State	Electrochemical	Electrochemical
Range	0-100 ppm CO/0-3 ppm NO2	0-50% LEL	0-100 PPM	0-10 PPM
Sensor Warranty	CO – 3 Years NO2 – 1 Year	2 Years	3 Years	1 Year
Standard Trip Points	25/100 ppm CO 1/3 ppm NO_2	20/40 % LEL	25/100 ppm	1/3 ppm
Installation Wiring	3 Wire 18 AWG Shielded			
Dimensions	10.2 cm H x 10.2 cm W x 6 cm D (4" W x 4" H x 2.25" D)			
Operating Temperature	-20°C to 40°C			
Operating Humidity	15-90% RH Non Condensing			
Coverage Area	50' Radius	25' Radius	50' Radius	50' Radius
Replacement Sensor(s)	AMC-91AD / AMC-98AC	AMC-F4168E	AMC-91AD	AMC-98AC

Comfort Zone Technology

Unique to the AMC-1222, our "Comfort Zone" technology utilizes an interactive logic function with a simple user interface to allow incremental sensitivity adjustments without the need for recalibration, in order to optimize indoor air quality and occupant comfort.

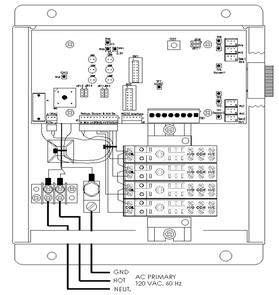
215 Colonnade Road South Ottawa, Ontario K2E 7K3 CANADA
Toll Free: 800.465.5777 gas@armstrongmonitoring.com www.armstrongmonitoring.com

ISO 9001 REGISTERED 050511A

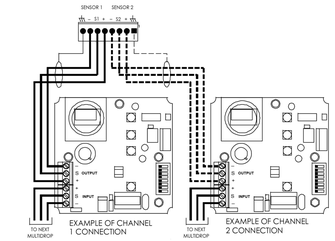
armstrong MONITORING

Hazardous Gas Monitoring *Specialists*

AMC-1AD Series Internal View



AMC-1AD Sensor Wiring



215 Colonnade Road South Ottawa, Ontario K2E 7K3 CANADA
Toll Free: 800.465.5777 gas@armstrongmonitoring.com www.armstrongmonitoring.com

ISO 9001 REGISTERED 050511A

armstrong MONITORING

Hazardous Gas Monitoring *Specialists*

AMC-1AD1/2 Series

Single/Dual Zone Monitor

The AMC-1AD Series Gas Monitor provides a highly economical monitoring package for multipoint vehicle exhaust monitoring applications.

Incorporating micro-controller based design; it provides accuracy, durability, and ease of use within a compact package. The AMC-1AD Series Monitor works with any combination of AMC-122X Series sensor modules, with up to 8 modules per zone.

The monitor delivers low cost and versatility, turning even the simplest job into big savings. It incorporates a robust enclosure designed to provide years of trouble free operation.

SPECIFICATIONS

Enclosure: ASA 61 gray enameled 16 gauge steel
Nema 4X Fiberglass (Optional)
Supply Voltage: 120 VAC, 60 Hz
Dimensions: 20.32cm H x 20.32cm W x 12.70cm D
(8" x 8" x 5")
Weight: 4.54 kg (10 lb)
Operating Temperature: -20°C to 40°C (-4°F to 104°F)
Storage Temperature: -40°C to 65°C (-40°F to 149°F)
Monitor Warranty: Two years
Relay Contacts: 2 or 4 DPDT 10A @ 250 VAC Res.
Alarm Thresholds: Set at Sensor Modules
Indicators (per Zone):
Red LED – **Alarm**
Yellow LED – **Warning**
Green LED
- LED On – **Run**
- LED Flashing – **Fault**
- LED Off – **Off**

Recommended Mounting Height: 4-5 ft. A.F.F.

Features

Alarms disabled during warm up
System test switch
User selectable:
- Activation delays, five minutes for Warning and/or Alarm set points
- Minimum Run Timer
- 95 dBa Audio alarm with Warning and/or Alarm set points

Hinged door
Optional latching relays with manual reset
Optional enclosure key lock

Available VFD Output Option

BUILT WITH 100% GREEN ELECTRICITY

215 Colonnade Road South Ottawa, Ontario K2E 7K3 CANADA
Toll Free: 800.465.5777 gas@armstrongmonitoring.com www.armstrongmonitoring.com

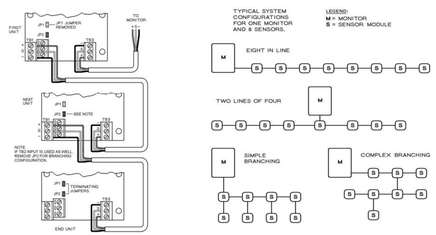
ISO 9001 REGISTERED 050511A

armstrong MONITORING

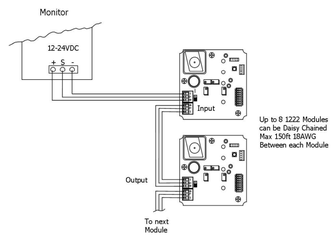
Hazardous Gas Monitoring *Specialists*

AMC-122X SERIES WIRING DIAGRAMS

Wiring for AMC-1228 & 1225



Wiring for AMC-1222 (CO & NO_2)



215 Colonnade Road South Ottawa, Ontario K2E 7K3 CANADA
Toll Free: 800.465.5777 gas@armstrongmonitoring.com www.armstrongmonitoring.com

ISO 9001 REGISTERED 050511A

ISSUED:

CM RFP 03/12/26

MCD ARCHITECTS
33610 GRAND RIVER
FARMINGTON, MI, 48335
www.mcdarchitects.com
248-374-0001

MAENGINEERING
MECHANICAL ELECTRICAL
180 High Oak Road t | 248 | 258 | 1610
Bloomfield Hills, Michigan 48304 f | 248 | 258 | 9538

RENOVATIONS FOR:

BIRMINGHAM CITY HALL

151 MARTIN ST,
BIRMINGHAM, MI
48009

MECHANICAL SCHEDULES & DETAILS

DRAWN BY: MS

APPROVED BY: MS

PROJECT NO.	SHEET NO.
25498	M-202

H:\ACAD\FILES\88888530 birmingham police renovation and expansion\birmingham city hall\CAD\MECH\88530-BCH-M-201-SCHEDULES_DETAILS.dwg Thu, 12 Mar 2026 - 2:24pm

MECHANICAL SPECIFICATION

MECHANICAL MATERIALS, METHODS AND EXECUTION WORK INCLUDED:

WORK INCLUDED:

A. FURNISH ALL LABOR AND MATERIAL, APPLIANCES, EQUIPMENT AND SUPERVISION TO PUT IN PLACE A COMPLETE AND FUNCTIONING MECHANICAL INSTALLATION READY FOR OPERATION, AS SPECIFIED HEREIN AND AS INDICATED ON THE DRAWINGS. SYSTEMS SHALL INCLUDE BUT NOT NECESSARILY LIMITED TO THE FOLLOWING MAJOR EQUIPMENT OR OPERATIONS:
1. PLUMBING.
2. HEATING, VENTILATING AND AIR CONDITIONING.
3. INSULATION.
4. TEMPERATURE CONTROLS.

DEFINITIONS:
A. "PROVIDE": TO FURNISH AND COMPLETELY INSTALL SPECIFIED PRODUCTS AND INCIDENTALS, WHETHER SPECIFICALLY INDICATED OR NOT, NECESSARY FOR A COMPLETE, FUNCTIONAL INSTALLATION. INCLUDES ALL GENERAL AND SPECIALIZED LABOR, EQUIPMENT AND TOOLS NECESSARY TO COMPLETE THE INSTALLATION.
B. "PIPING": A COMPLETE SYSTEM, INCLUDING PIPE, TUBING, FITTINGS, HANGERS, SUPPORTS, VALVES, AND ALL SPECIALTIES THAT COMPRISE A FULLY FUNCTIONAL PIPING SYSTEM, WHETHER SPECIFICALLY INDICATED OR NOT.

CODES, ORDINANCES, AND STANDARDS:
A. ALL WORK SHALL CONFORM IN ALL RESPECTS TO THE REQUIREMENTS OF THE LATEST ADOPTED FEDERAL, STATE AND LOCAL CODES, ORDINANCES, AND STANDARDS HAVING JURISDICTION OVER THE WORK.
B. WHERE CONTRACT DOCUMENT REQUIREMENTS EXCEED THE REQUIREMENTS OF THE REFERENCED CODES, ORDINANCES, AND STANDARDS, THE CONTRACT DOCUMENT REQUIREMENTS SHALL BE TAKEN AS MINIMUM.
C. ALL EQUIPMENT CONTAINING ELECTRICAL WIRING AND/OR ELECTRICAL COMPONENTS SHALL HAVE A UNDERWRITERS LABORATORIES (UL) "PACKAGE" LABEL.
D. ALL GAS FIRED EQUIPMENT SHALL HAVE THE AMERICAN GAS ASSOCIATION (AGA) LABEL.

PERMITS, FEES AND INSPECTIONS:
A. SECURE ALL NECESSARY PERMITS, CONNECTION FEES, TAD FEES, LICENSES AND APPROVALS AND ARRANGE FOR ALL INSPECTIONS, INCLUDE ALL RELATED COSTS.
B. FURNISH CERTIFICATES OF FINAL INSPECTION AND APPROVAL UPON COMPLETION OF PROJECT.

EXAMINATION OF SITE:
A. VISIT PROJECT SITE AND BECOME FULLY COGNIZANT OF ALL EXISTING ARCHITECTURAL, MECHANICAL, ELECTRICAL, STRUCTURAL AND SITE CONDITIONS, OR EXISTING CODE VIOLATIONS WHICH MAY AFFECT THE WORK.
B. NOTIFY ARCHITECT PRIOR TO SUBMITTING BID IF REVISIONS TO CONTRACT DOCUMENTS ARE NECESSARY TO RECTIFY ANY OF THE AFOREMENTIONED EXISTING CONDITIONS.
C. NO "EXTRAS" TO CONTRACT PRICE WILL BE ALLOWED AFTER RECEIVING BID IN ORDER TO RECTIFY EXISTING CONDITIONS IN ORDER TO MEET THE DESIGN INTENT OF THE CONTRACT DOCUMENTS OR SATISFY CODE REQUIREMENTS.

COORDINATION WITH OTHER TRADES:
A. COORDINATE ALL WORK BEFORE AND DURING CONSTRUCTION WITH ALL OTHER AFFECTED TRADES.
B. WHERE INTERFERENCES DEVELOP, NOTIFY ARCHITECT FOR RESOLUTION OF CONFLICT.
C. RELOCATION OF CONFLICTING INSTALLED WORK, DUE TO LACK OF COORDINATION, OR POOR COORDINATION WILL NOT BE CONSIDERED EXTRA WORK.

APPROVED MANUFACTURERS:
A. USE ONLY MATERIALS SPECIFICALLY INDICATED IN CONTRACT DOCUMENTS, OR COMPARABLE MATERIALS BY OTHER LISTED ACCEPTABLE MANUFACTURERS. NOTE THAT "ACCEPTABLE MANUFACTURER" DOES NOT CONSTRUE AUTOMATIC APPROVAL OF SPECIFIC MATERIALS BY ONE OR ALL OF THE LISTED ACCEPTABLE MANUFACTURERS. ARCHITECT AND/OR ENGINEER OF RECORD RESERVES THE RIGHT OF FINAL DETERMINATION OF ACCEPTABILITY OF EACH ITEM.

SHOP DRAWINGS:
A. SUBMIT COMPLETE SHOP DRAWINGS FOR ALL MATERIALS AND EQUIPMENT INTENDED FOR USE ON THIS PROJECT.
B. SHOP DRAWINGS SHALL CLEARLY INDICATE ALL PHYSICAL, PERFORMANCE AND ELECTRICAL CHARACTERISTICS FOR ALL MATERIALS AND EQUIPMENT.
C. SUBMIT ELECTRONIC COPY OF ALL SHOP DRAWINGS FOR REVIEW.
D. NO WORK IS TO BE INSTALLED PRIOR TO RETURN OF ARCHITECT REVIEWED SHOP DRAWINGS.

OPERATION AND MAINTENANCE MANUALS:
A. UPON COMPLETION OF PROJECT, SUBMIT TWO (2) COMPLETE BOUND SETS OF OPERATING AND MAINTENANCE MANUALS FOR ALL EQUIPMENT AND SYSTEMS INSTALLED IN THIS PROJECT.
B. MANUALS SHALL INCLUDE GUARANTEE(S), COMPLETE OPERATING INSTRUCTIONS, REPAIR PARTS LIST, PREVENTATIVE MAINTENANCE SCHEDULE, BELT AND FILTER SCHEDULE, AND LIST OF ALL SUBCONTRACTORS ASSOCIATED WITH THE WORK, INCLUDING TELEPHONE NUMBER AND CONTACT PERSON.

OPERATING AND MAINTENANCE INSTRUCTIONS:
A. PRIOR TO FINAL ACCEPTANCE BY OWNER, PROVIDE ALL PERSONNEL, EQUIPMENT, AND LABOR AS NECESSARY TO INSTRUCT OWNER'S PERSONNEL IN PROPER OPERATION AND MAINTENANCE OF THE SYSTEMS AND EQUIPMENT INSTALLED IN THIS PROJECT. PROVIDE INSTRUCTIONAL SESSION DURING TIME PERIOD AGREED TO WITH OWNER.

CUTTING AND PATCHING:
A. ALL CUTTING AND PATCHING SHALL BE PROVIDED BY THE GENERAL TRADES UNDER THE DIRECTION OF THE MECHANICAL TRADES. COST WILL BE PAID BY THE MECHANICAL TRADE REQUESTING THE WORK.
B. RESTORED SURFACES SHALL BE OF SAME MATERIALS AND QUALITY AS ADJACENT SURFACES, AND SHALL MATCH SURROUNDING SURFACES, AND/OR BE RESTORED TO PRE-CONSTRUCTION CONDITION.

PROTECTION OF EXISTING SERVICES:
A. PROTECT FROM ALL DAMAGE, EXISTING SERVICES (I.E., GAS, WATER, ELECTRICAL, ETC.), ENCOUNTERED IN THE WORK, NOT SPECIFICALLY INDICATED TO BE DEMOLISHED. INCLUDE ALL RELATED COSTS.
B. REPAIR AND/OR REPLACE EXISTING ACTIVE SERVICES INTENDED TO REMAIN IN SERVICE, BUT DAMAGED DURING THE COURSE OF CONSTRUCTION. ABSORB ALL RELATED COSTS. NO "EXTRAS" WILL BE PAID TO RESTORE EXISTING ACTIVE SERVICES DAMAGED DURING CONSTRUCTION.
C. ARCHITECT WILL DETERMINE COURSE OF ACTION WHEN EXISTING INACTIVE SERVICES ARE DAMAGED DURING COURSE OF CONSTRUCTION. ABSORB ALL COSTS RELATIVE TO ADDITIONAL DEMOLITION, TERMINATION, RELOCATION AND/OR RESTORATION OF EXISTING, DAMAGED INACTIVE SERVICES AS DIRECTED BY ARCHITECT.

ELECTRICAL WORK:
A. PROVIDE ALL ELECTRICAL WORK ASSOCIATED WITH, AND NECESSARY TO COMPLETE THIS PROJECT, WHICH IS NOT INCLUDED AS ELECTRICAL TRADES WORK.
B. PROVIDE ALL ELECTRICAL WORK, AS APPLICABLE, IN ACCORDANCE WITH DIVISION 16 REQUIREMENTS.
C. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION (WITH ELECTRICAL TRADES) OF CORRECT VOLTAGES FOR ALL MECHANICAL EQUIPMENT. IN CASE OF DISCREPANCY, NOTIFY ENGINEER IMMEDIATELY AND PRIOR TO SHOP DRAWING SUBMITTALS. FAILURE TO COMPLY WITH THIS REQUIREMENT HOLDS THE CONTRACTOR FULLY RESPONSIBLE FOR ANY SUBSEQUENT PROBLEMS

CLEANING AND FINISHING:
A. PRIOR TO FINAL ACCEPTANCE BY OWNER, THOROUGHLY CLEAN ALL WORK INSIDE AND OUT AS APPLICABLE, AND LEAVE ALL SYSTEMS AND EQUIPMENT IN PERFECT WORKING ORDER. THOROUGHLY CLEAN ALL PLUMBING FIXTURES, EXPOSED PIPING, FLOOR DRAIN GRATES, AND CLEANOUT COVERS AS APPLICABLE.

GUARANTEE:
A. REFER TO ARCHITECTURAL SPECIFICATIONS FOR GUARANTEES, IF NONE EXIST THE FOLLOWING MINIMUM GUARANTEES SHALL BE PROVIDED.
1. PROVIDE A ONE (1) YEAR GUARANTEE COVERING ALL LABOR AND MATERIAL PROVIDED IN THIS PROJECT. GUARANTEE SHALL INCLUDE ALL SHIPPING AND TRANSPORTATION CHARGES NECESSARY TO RETURN DEFECTIVE MATERIALS TO MANUFACTURER, AS WELL AS LABOR CHARGES NECESSARY TO REMOVE AND REPLACE DEFECTIVE MATERIALS.
2. PROVIDE 5 YEAR GUARANTEE FOR ALL COMPRESSORS.
3. DEFECTIVE MATERIALS AND/OR EQUIPMENT MAY BE REPAIRED IN LIEU OF REPLACED WITH PRIOR APPROVAL OF ARCHITECT AND/OR OWNER.

NATURAL GAS PIPING:

ABOVE GRADE:
PIPE 4" AND UNDER: ASTM A-120, SCHEDULE 40, BLACK STEEL
PIPE OVER 4": ASTM A-53, GRADE A OR GRADE B, SEAMLESS OR ERW, SCHEDULE 40, BLACK STEEL.
FITTINGS: ANSI B16.3, 150 POUND, MALLEABLE IRON SCREWED; ANSI B16.9 STEEL BUTTWELD.
JOINTS: 2" AND SMALLER, ANSI B2.1 THREADS; 2-1/2" AND LARGER, ANSI B16.25 BUTTWELD.

BELOW GRADE:
STANDARD WEIGHT SEAMLESS STEEL PIPING ASTM A53 GRADE B WITH WELDED FITTINGS ALL COATED AND WRAPPED IN ACCORDANCE WITH LOCAL UTILITY COMPANY AND AGA RECOMMENDATIONS.

NATURAL GAS SYSTEM VALVES:

PIPELINE AND SERVICE VALVES SHALL BE RESUN, MANUFACTURED BY J.M. HUBER CORPORATION. EACH VALVE SHALL BE U.L. APPROVED AND BEAR THE PROPER U.L. STAMP.

FOR PIPING 2" AND SMALLER MILWAUKEE VALVE CO., INC., MODEL #BB-1-100 "BUTTERBALL" OR APPROVED EQUAL AGA CERTIFIED AND UL LISTED QUARTER-TURN BUTTERFLY VALVE, BRONZE BODY, THREADED ENDS, STAINLESS STEEL STEM AND DISC, VITON SEAL WITH POSITIVE SHUT-OFF AND RATED FOR 175 LB. WORKING

EACH VALVE SHALL BE PROVIDED WITH A WRENCH OPERATOR.

DUCT SMOKE DETECTORS:

SMOKE DETECTORS SHALL BE PROVIDED BY CONTROL TRADES. IF THERE IS NO CONTROL TRADES, THIS CONTRACTOR SHALL PROVIDE DETECTORS. FOR AIR HANDLING UNITS SUPPLYING MORE THAN 2000 CFM, DUCT SMOKE DETECTORS SHALL BE PROVIDED IN RETURN AIR STREAM. FOR AIR HANDLING UNITS SUPPLYING MORE THAN 15,000 CFM, DUCT SMOKE DETECTORS SHALL BE PROVIDED IN RETURN AIR AND SUPPLY AIR STREAM. DUCT SMOKE DETECTORS FOR AIR HANDLING UNITS SHALL BE 24VDC PHOTOELECTRIC TYPE WITH 2 AUXILIARY CONTACTS, ONE FOR FAN SHUTDOWN AND ONE FOR ANNUNCIATION. DETECTORS SHALL BE COMPLETE WITH SAMPLING TUBES. IN OCCUPANCES NOT REQUIRED TO BE EQUIPPED WITH A FIRE ALARM SYSTEM, ACTUATION OF A SMOKE DETECTOR SHALL ACTIVATE A VISIBLE AND AN AUDIBLE SIGNAL IN AN APPROVED LOCATION. SMOKE DETECTOR TROUBLE CONDITIONS SHALL ACTIVATE A VISIBLE OR AUDIBLE SIGNAL IN AN APPROVED LOCATION AND SHALL BE IDENTIFIED AS AIR DUCT DETECTOR TROUBLE.

FIRE DAMPERS:

ALL DUCTS, EXCEPT COMBUSTION AIR DUCTS, PASSING THROUGH A REQUIRED FIRE RATED AREA SEPARATION SHALL BE EQUIPPED WITH AN APPROVED MULTI-BLADE OR CURTAIN TYPE FIRE DAMPER COMPLYING WITH THE REQUIREMENTS OF THE LOCAL APPLICABLE BUILDING CODE, FIRE MARSHAL AND NAY OTHER LOCAL AUTHORITY HAVING JURISDICTION. CURTAIN TYPE FIRE DAMPERS SHALL BE AIR BALANCE, INC., NO. 119 UL LISTED WITH TYPE "B" FRAMES.

SHEET METAL NOTES:

INSTALL TRANSFER GRILLES IN ALL FULL HEIGHT PARTITIONS TO ALLOW RETURN AIR FLOW. SIZE PER MECHANICAL ENGINEER REQUIREMENTS. THESE SHALL BE FIRE DAMPERS IN RATED WALLS.

BLANK-OFF RETURN DUCTWORK IN AREAS OF WORK THAT CREATES DUST TO PREVENT DEBRIS FROM ENTERING MECHANICAL SYSTEM.

LOW PRESSURE DUCTWORK: ALL DUCTWORK ON DISCHARGE OF HVAC UNIT, ALL RETURN AIR DUCTWORK AND EXHAUST AIR DUCTWORK SHALL BE CONSTRUCTED AND SUPPORTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST SMACNA'S ISSUE OF "LOW PRESSURE DUCT CONSTRUCTION STANDARDS".

IN ADDITION, ALL JOINTS AND SEAMS SHALL BE SEALED WITH DUCT SEALANT EQUAL TO FOSTER #32-14. APPROVED SEALANT MANUFACTURERS: 3M COMPANY, BENJAMIN FOSTER COMPANY, UNITED SHEET METAL, FLINTKOTE.

FLEXIBLE CONNECTIONS:
AT EACH POINT OF CONNECTION OF DUCTWORK TO FANS, PROVIDE A FLEXIBLE CONNECTION, VENTFABRICS, INC., "VENTGLAS L.A." NOT LESS THAN 12" IN LENGTH AND MADE OF HEAVY GRADE GLASS FABRIC DOUBLE COATED WITH NEOPRENE AND PROVIDED WITH A SUITABLE FRAME AT EACH END ARRANGED FOR BOLTING TO INLET AND OUTLET OF FAN AND DUCTWORK, RESPECTIVELY.

FOR RANGE HOOD EXHAUST FANS, WHERE INDICATED, PROVIDE VENTFABRICS, INC., "VENTBESTOS" FLEXIBLE CONNECTIONS. ALL AS APPROVED BY THE FIRE MARSHAL, AND ANY OTHER LOCAL AUTHORITY HAVING JURISDICTION.

VANES AND DEFLECTORS: ALL ELBOWS AND TURNS SHALL BE MADE WITH A RADIUS NOT LESS THE 1-1/2" TIMES THE DUCT DIAMETER OR WIDTH. WHERE BUILDING CONSTRUCTION DOES NOT PERMIT A LONG RADIUS ELBOW OR TURN OR IF SHOWN ON THE CONTRACT DOCUMENTS, ACOUSTICAL TURNING VANES AND DEFLECTORS SHALL BE PROVIDED.

FLEXIBLE DUCTWORK:

ALL LOW PRESSURE AND HIGH PRESSURE FLEXIBLE DUCT SHALL BE FLEXMASTER USA, INC., TYPE #8M INSULATED FLEXIBLE DUCT CONSISTING OF A FACTORY FABRICATED ASSEMBLY OF A TRILAMINATE ALUMINUM FOIL, FIBERGLASS AND POLYESTER. THE FLEXIBLE DUCT SHALL BE UL LISTED 181 CLASS 1 AIR DUCT AND COMPLY WITH NFPA 90A AND 90B AND HAVE A FLAME SPREAD OF NOT OVER 25 AND A SMOKE DEVELOPED OF NOT OVER 50. THE FLEXIBLE DUCT SHALL HAVE A MINIMUM PRESSURE RATING OF 12" WC THROUGH TEMPERATURE RANGE OF -20 DEGREES F. TO + 250 DEGREES F.

DUCT INSULATION:

ALL DUCTWORK SHALL BE THERMALLY INSULATED:
ALL DUCT INSULATION SHALL HAVE A FLAME SPREAD CLASSIFICATION OF 25 OR LESS, A FUEL CONTRIBUTED RATING OF 35 OR LESS AND SMOKE DEVELOPED RATING OF 50 OR LESS, AS RATED BY UNDERWRITERS' LABORATORIES
BLANKET TYPE (UP TO 1-1/2 LB./CU. FT. INSULATION):
INSULATION WITH ATTACHED FACING SHALL BE SECURED TO THE DUCTS WITH ADHESIVE APPLIED IN 6" BRUSH WIDTHS EVERY 12". THE ADHESIVE SHALL BE RIDGED SLIGHTLY BY USING A SERRATED TROWEL. INSULATION WITHOUT ATTACHED FACING (PLAIN) SHALL BE SECURED TOT HE DUCTS THE SAME AS ABOVE THEN BIND WITH TYING CORD, SPIRAL WRAPPED OR HALF HITCHED.
DUCT FITTINGS SHALL BE INSULATED BY WRAPPING WITH A GLASS FIBER BLANKET. BLANKETS SHALL BE SECURED TOT HE DUCT FITTINGS BY INSULATION STAPLES OR JUTE TWINE. THE BLANKET SHALL BE COVERED WITH AN OPEN MESH CLOTH OR GLASS FIBER HEAVILY COATED WITH VAPOR BARRIER ADHESIVE. THE INSULATION THICKNESS SHALL BE EQUAL TO THE THICKNESS OF THE INSULATION ON THE ADJOINING DUCTWORK.
FOR OUTSIDE DUCT, SEE DETAIL ON SHEET M201.

TESTING AND BALANCING:

TEST AND ADJUST ALL NEW PIPING SYSTEMS INSTALLED IN THIS PROJECT. PROVIDE ALL TESTING INSTRUMENTS, GAUGES, PUMPS AND OTHER EQUIPMENT REQUIRED OR NECESSARY FOR TEST. REPAIR ALL DEFECTS DISCLOSED BY TESTS WITHOUT ADDITIONAL COST TO THE OWNER. REPEAT TESTS AFTER ANY DEFECTS DISCLOSED ARE REPAIRED OR REPLACED, UNLESS WAIVED BY ARCHITECT. ARRANGE AND PAY THE COST OF ALL UTILITIES USED ON TESTS. COMPLETE ALL TESTS BEFORE COVERING IS APPLIED. ISOLATE ALL PIPING SYSTEM COMPONENTS NOT CONSTRUCTED TO WITHSTAND TEST PRESSURES.

NATURAL GAS SYSTEM:
ALL GAS PIPING SHALL BE TESTED IN ACCORDANCE WITH RULES AND REGULATIONS OF THE COMPANY OR UTILITY SERVING THE PROJECT, AND IN ANY CASE SHALL NOT BE LESS THAN THE FOLLOWING:
THE PIPING SYSTEM OR PORTIONS OF THE PIPING SYSTEM TO BE TESTED SHALL BE SUBJECTED TO AN AIR PRESSURE, USING OIL-FREE COMPRESSOR AIR, OF NOT LESS THAN 100 POUNDS PER SQUARE INCH, EQUAL 204" OF MERCURY. THE PRESSURE SHALL BE APPLIED WITH A FORCE PUMP AND SHALL BE MAINTAINED FOR NOT LESS THAN 30 MINUTES WITHOUT LEAKAGE. A MERCURY COLUMN GAUGE SHALL BE USED IN MAKING THE TESTS. TESTS SHALL BE SCHEDULED WITH LOCAL AUTHORITY FOR PRESENCE OF PROPER INSPECTOR. THE CONTRACTOR INSTALLING THESE PIPING SYSTEMS SHALL BE HELD RESPONSIBLE FOR THE TEST AND SHALL CERTIFY THE APPLICATION AND SHALL CERTIFY THE APPLICATION AND SUCCESS OF THE TEST.
NATURAL GAS LINES SHALL BE BLOWN OUT WITH DRY, OIL-FREE COMPRESSED

AIR BALANCING:
BALANCE ALL OUTLETS AND TERMINAL BOXES TO WITHIN 10% OF RATED C.F.M IN ACCORDANCE WITH AABC AND NEBB, SUBMIT BALANCING REPORT.

DEMOLITION:

DEMOLITION DRAWINGS ARE DIAGRAMMATIC, INTENDED TO CONVEY THE SCOPE OF THE WORK AND INDICATE GENERAL ARRANGEMENT OF EQUIPMENT, PLUMBING FIXTURES, DUCTS, PIPING AND APPROXIMATE SIZES AND APPROXIMATE LOCATIONS. DO NOT SCALE DRAWINGS FOR EXACT MEASUREMENTS.
ALL MECHANICAL WORK SHOWN ON THE DEMOLITION DRAWINGS HAS BEEN TAKEN FROM THE OWNER'S RECORD DRAWINGS AND/OR CERTAIN FIELD OBSERVATIONS. EXACT SIZES, LOCATIONS, ARRANGEMENT AND ELEVATIONS OF ALL EXISTING MECHANICAL EQUIPMENT, EXISTING PLUMBING FIXTURES, EXISTING DUCTWORK, EXISTING PIPING AND EXISTING MECHANICAL DEVICES SHALL BE VERIFIED IN THE FIELD.
THE CONTRACTOR SHALL INCLUDE, IN HIS QUOTE, ALLOWANCES FOR REASONABLE DEVIATIONS BETWEEN WHAT IS SHOWN AND ACTUAL JOB CONDITIONS IN ORDER TO COMPLETE THE WORK IN THE SCOPE INDICATED.
REMOVE, RECONNECT, CAP, PLUG AND REPLACE EXISTING PIPING AND DUCTWORK ONLY WHERE INDICATED IN THE CONTRACT DOCUMENTS.
REMOVE AND/OR REPLACE EXISTING EQUIPMENT, VALVES, CONTROLS, ETC., ONLY WHERE INDICATED IN THE CONTRACT DOCUMENTS.
INTERRUPTION OF EXISTING ACTIVE PIPING: WHERE THE WORK MAKES TEMPORARY SHUT-DOWNS OF SERVICE UNAVOIDABLE , SHUT-DOWN AT TIME AS APPROVED BY THE OWNER, WHICH WILL CAUSE LEAST INTERFERENCES WITH ESTABLISHED OPERATING ROUTINE.
ARRANGE TO WORK CONTINUOUSLY, INCLUDING OVERTIME, IF REQUIRED TO MAKE NECESSARY CONNECTION TO EXISTING WORK.
UNLESS SPECIFICALLY NOTED TO THE CONTRARY, REMOVED MATERIALS SHALL NOT BE REUSED IN THE WORK.
SALVAGE MATERIALS THAT ARE TO BE REUSED SHALL BE STORED SAFE AGAINST DAMAGE AND TURNED OVER TO THE APPROPRIATE TRADE FOR REUSE. SALVAGED MATERIALS OF VALUE THAT ARE NOT TO BE REUSED SHALL REMAIN THE PROPERTY OF THE OWNER
UNLESS POSSESSION RIGHTS ARE WAIVED. THE MATERIALS ARE TO BE REMOVED FROM THE SYSTEMS BY THIS CONTRACTOR AND TURNED OVER TO THE OWNER IN THEIR ORIGINAL CONDITIONS. THE OWNER SHALL MOVE AND STORE THE MATERIALS. WHERE THE OWNER WAIVES POSSESSION RIGHTS, THESE MATERIALS SHALL BECOME THE PROPERTY OF THIS CONTRACTOR, WHO SHALL REMOVE AND LEGALLY DISPOSE OF THE SAME, AWAY FROM THE PREMISES.

ISSUED:

CM RFP 03/12/26

MCD ARCHITECTS
33610 GRAND RIVER
FARMINGTON, MI, 48335
www.mcdarchitects.com
248-374-0001

MAENGINEERING
MECHANICAL ELECTRICAL
180 High Oak Road t | 248 | 258 | 1610
Bloomfield Hills, Michigan 48304 f | 248 | 258 | 9538

RENOVATIONS FOR:

BIRMINGHAM CITY HALL
151 MARTIN ST,
BIRMINGHAM, MI
48009

MECHANICAL SPECIFICATION

DRAWN BY: MS
APPROVED BY: MS

PROJECT NO.	SHEET NO.
25498	M-301

H:\ACAD\FILES\18\18B530 birmingham police renovation and expansion\birmingham city hall\CAD\MECH\18B530-BCH-M-301-SPECIFICATION.dwg Thu, 12 Mar 2026 - 2:24pm

ELECTRICAL SPECIFICATIONS:

ALL WORK SHALL BE IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE, LATEST EDITION, AND ALL LOCAL AND STATE AUTHORITIES HAVING JURISDICTION THEREOF.

ALL EQUIPMENT SHALL BE SPECIFICATION GRADE AND SHALL HAVE U.L. LABEL FOR INTENDED USE.

ELECTRICAL SYSTEMS SHALL BE COMPLETE IN EVERY DETAIL, INCLUDING ALL INCIDENTAL ITEMS FOR A PROPER AND FUNCTIONING INSTALLATION SUBJECT TO FINAL APPROVAL OF ARCHITECT/ENGINEER.

ALL REQUIRED PERMIT AND INSPECTIONS SHALL BE OBTAINED BY CONTRACTOR AND SUCH COSTS SHALL BE INCLUDED IN BID PRICE FOR THIS WORK.

PROVIDE UL LISTED SYSTEM FOR FIRE STOPPING PENETRATIONS THROUGH FIRE RATED ASSEMBLIES. PROVIDE SYSTEM WITH EQUAL OR GREATER RATING THAN ASSEMBLY. REFER TO ARCHITECTURAL DOCUMENTS FOR RATINGS AND LOCATIONS OF ASSEMBLIES.

EXAMINATION OF SITE IS MANDATORY. CONTRACTOR IS HEREBY HELD TO HAVE EXAMINED THE SITE AND HAVE INCLUDED IN HIS BID PRICE ALL COSTS DUE TO SITE AND FIELD CONDITIONS.

COMPLETE IDENTIFICATION OF PROJECT ELECTRICAL COMPONENTS IS REQUIRED. IDENTIFY ALL PANELS, DISCONNECTS, CONTROL DEVICES, ETC., WITH THE NOMENCLATURE INDICATED ON THE DOCUMENTS AND WITH POWER SOURCE AND ELECTRICAL RATINGS USING PLASTIC LAMINATE NAMEPLATE. INSTALL TYPEWRITTEN DIRECTORIES OF ALL CIRCUITS ON INSIDE OF PANELS. IDENTIFY WIRING DEVICE COVERPLATES WITH PANELBOARD AND BRANCH CIRCUIT NUMBER SERVING DEVICE, E.G. "A-15". PROVIDE ¼" MACHINE-WRITTEN BLACK LETTERING ON CLEAR PLASTIC ADHESIVE TAPE. LOCATE ON BOTTOM FRONT OF COVERPLATE, CENTERED BELOW WIRING DEVICE(S). SUBMIT SAMPLE OF LABELED TAPE WITH WIRING DEVICE/COVERPLATE SUBMITTAL. SAMPLE MAY BE ADHERED TO PAPERWORK IN SUBMITTAL, RATHER THAN TO A COVERPLATE.

PROVIDE TEMPORARY POWER AND LIGHTING DURING CONSTRUCTION. REMOVE TEMPORARY WIRING UPON COMPLETION OF THE PROJECT. TEMPORARY SERVICES SHALL BE AS REQUIRED, BY N.E.C. AND OSHA. CONTRACTOR IS RESPONSIBLE TO MEET WITH UTILITY TO FOR TEMPORARY POWER PROVISION AND ALL REQUIRED SKID UNITS.

GROUND CONTINUITY SHALL BE MAINTAINED THROUGHOUT THE ELECTRICAL SYSTEM. INSTALL EQUIPMENT GROUNDING CONDUCTOR WITH EVERY CIRCUIT.

COORDINATE SIZE AND LOCATION OF ANY REQUIRED ACCESS PANELS IN WALLS OR FINISHED CEILINGS WITH ARCHITECT PRIOR TO INSTALLATION.

WARRANTY:
UNLESS A LONGER PERIOD IS SPECIFIED IN INDIVIDUAL PARAGRAPHS, PROVIDE A MINIMUM OF ONE YEAR WARRANTY ON ALL ELECTRICAL WORK BEGINNING THE DATE OF FINAL ACCEPTANCE OF THE PROJECT BY THE OWNER.

SUBMITTALS:
SUBMIT SHOP DRAWINGS FOR ALL MAJOR COMPONENTS OR SYSTEMS OF THE PROJECT. SUBMIT ADDITIONAL SHOP DRAWINGS IF REQUESTED BY ENGINEER.

NO APPARATUS OR EQUIPMENT SHALL BE SHIPPED FROM STOCK OR FABRICATED UNTIL ITS SHOP DRAWINGS HAVE BEEN STAMPED "REVIEWED" OR "APPROVED AS NOTED". SUBMIT DATA REQUIRED FOR TRANSFORMERS SUCH AS EFFICIENCY, REGULATION, CORE LOSS AND SOUND LEVELS. (SEE APPLICABLE SECTIONS).

SUBMIT SYSTEM COMPONENTS, PRODUCT DATA AND SHOP DRAWINGS COMPLETE FOR EACH SYSTEM UNDER ONE SUBMITTAL. DO NOT BREAK OUT EQUIPMENT FOR ONE SYSTEM BETWEEN MULTIPLE SUBMITTALS.

ALL SHOP DRAWINGS MUST BE CLEARLY MARKED TO SHOW EQUIPMENT SUBMITTED AND ANY DEVIATIONS FROM SPECIFICATIONS SHALL BE NOTED THEREON. DO NOT INCLUDE ONLY MODEL NUMBERS TO INDICATE SUBMITTED EQUIPMENT. STRIKE OUT ANY INFORMATION ON PRODUCT DATA THAT IS NOT PROJECT SPECIFIC, AND EDIT RELEVANT INFORMATION TO SHOW ACTUAL EQUIPMENT SUBMITTED. ELECTRICAL CONTRACTOR MUST SIGN AND APPROVE ALL SHOP DRAWINGS PRIOR TO SUBMITTAL. UNIQUELY NUMBER EACH PAGE IN SUBMITTAL.

IF DIFFERENT SYSTEMS ARE INCLUDED IN ONE SUBMITTAL, CLEARLY SEPARATE INFORMATION AND PROVIDE DIFFERENT SUB-NUMBERING OF SYSTEMS. SHOP DRAWINGS THAT ARE INCOMPLETE, UNSIGNED AND NOT PLAINLY MARKED WILL NOT BE REVIEWED.

DEMOLITION AND RENOVATION WORK:

DISCONNECT, REMOVE, RELOCATE, REWIRE OR DISPOSE OF ANY EQUIPMENT INTERFERING WITH NEW CONSTRUCTION OR AFFECTED BY RENOVATION WORK.

ANY ELECTRICAL EQUIPMENT OR SYSTEMS WHICH ARE TO REMAIN, AND ARE AFFECTED BY THIS WORK, SHALL BE IMMEDIATELY RESTORED TO FULL OPERATING CONDITION AND AT NO ADDITIONAL COST TO THE CONTRACT.

EQUIPMENT REMOVED SHALL BE DISPOSED OF AS DIRECTED, EITHER TO STORAGE OR OFF THE PREMISES.

WHERE SERVICES OR CIRCUITS ARE DISCONNECTED OR DISCONTINUED, IT IS MANDATORY THAT ANY EXISTING UNUSED WIRING BE REMOVED TO THE SOURCE UNLESS SPECIFICALLY NOTED ON THE DRAWINGS. IT IS THE INTENT OF THIS ARTICLE TO PERMANENTLY DISCONNECT ALL UNUSED CIRCUITS AT THE MAIN SOURCE WHENEVER POSSIBLE. NO ENERGIZED CIRCUIT SHALL BE TAPED AND ABANDONED IN OUTLET BOXES UNLESS SO SPECIFIED ON DRAWINGS.

CIRCUIT TRACE EXISTING TO REMAIN CIRCUITS AS NECESSARY FOR PROPER IDENTIFICATION, AND AS REQUIRED TO PERFORM AND DOCUMENT WORK.

REMODELING WORK INVOLVING EXISTING BRANCH CIRCUIT PANELBOARD SHALL BE SUCH THAT, WHEN ALL WORK IS COMPLETED EXISTING PANELS ARE PROVIDED WITH NEW AND UPDATED ACCURATE DIRECTORIES. ALL VACATED CIRCUITS SHALL BE MARKED SPARE. WHEN NEW BREAKERS ARE REQUIRED, THEY SHALL BE INSTALLED IN EXISTING SPACES AND SHALL MATCH THOSE THAT ARE EXISTING. PROVIDE NEW PANELS IF REQUIRED AND WHERE INDICATED.

CONTRACTOR MAY USE EXISTING CONDUITS AND OUTLET BOXES, PROVIDED THEY ARE IN GOOD ELECTRICAL CONDITION AND THE INSTALLATION IS APPROVED BY THE AHJ. RE-SUPPORT EXISTING TO REMAIN CONDUIT AND BOXES IN RENOVATION AREA IF INADEQUATELY SUPPORTED. PROVIDE SUPPORT AS REQUIRED TO COMPLY WITH NEC AND AHJ REQUIREMENTS.

IT IS THE INTENT OF THE OVERALL DESIGN TO CONCEAL ALL WORK EXCEPT IN UNFINISHED AREAS. CUT AND PATCH EXISTING SURFACES AS REQUIRED FOR A CONCEALED INSTALLATION.

ALL ELECTRICAL OPENINGS THAT ARE ABANDONED IN WALLS, CEILINGS OR FLOOR SHALL BE PROVIDED WITH SUITABLE BLANK COVER PLATES. ABANDONED FLOOR OUTLETS AND PENETRATIONS SHALL BE FILLED TO MATCH EXISTING SURROUNDING CONDITIONS.

CONDUITS AND OTHER PARTS OF ELECTRICAL SYSTEMS THAT BECOME EXPOSED AS A PART OF NEW WORK SHALL BE REMOVED AS REQUIRED TO A POINT WHERE THE ABANDONED PORTION IS TOTALLY CONCEALED.

ALL SURFACES DAMAGED BY THIS CONTRACTOR IN THE COURSE OF PERFORMING WORK SHALL BE RESTORED TO SATISFACTORY CONDITION, AS DIRECTED BY THE ARCHITECT AND ALL COSTS OF REPAIRS SHALL BE PAID FOR BY THE CONTRACTOR

REMOVE SERVICE TO MECHANICAL, ELECTRICAL AND BUILDING EQUIPMENT SPECIFIED AND/OR INDICATED AS REMOVED OR DISCONNECTED. MAINTAIN CIRCUITS TO EXISTING-TO-REMAIN EQUIPMENT. IDENTIFY UNUSED, REMOVED CIRCUITS ON PANEL SCHEDULE AS SPARE. COORDINATE WITH ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR EXISTING TO REMAIN EQUIPMENT AND FOR DEMOLITION WORK.

SERVICE SHUTDOWN AND POWER OUTAGES SHALL BE SCHEDULED WITH THE OWNER PRIOR TO PERFORMING ANY WORK ON EXISTING SERVICE. SCHEDULE SHALL BE PROVIDED IN WRITING 72 HOURS IN ADVANCE AND SHALL SHOW A DETAILED DESCRIPTION OF THE PROPOSED WORK AND THE DURATION OF OUTAGE.

PROVIDE LUMINAIRE DISCONNECTING MEANS PER LIGHTING SPECIFICATIONS.

ELECTRICAL EQUIPMENT AND DEVICES:
STEP DOWN TRANSFORMERS SHALL BE GENERAL PURPOSE, DRY TYPE, SELF AIR COOLED, TWO WINDING, UL CLASS 220 INSULATION (115 DEGREE C RISE, 30 DEGREE C HOT SPOT, AND 40 DEGREE C AMBIENT) WITH STANDARD FULL CAPACITY TAPS. VOLTAGE AND KVA AS INDICATED.
MANUFACTURERS:
GE, EATON, SIEMENS, SQUARE D, OR APPROVED EQUAL. PROVIDE GROUNDING OF TRANSFORMERS AS SEPARATELY DERIVED SOURCES PER NEC ARTICLE 250.30. INCLUDE INSULATION CLASS IN SUBMITTAL INFORMATION.

RECEPTACLES SHALL BE SPECIFICATION GRADE, GROUNDING TYPE, 2-POLE, 3-WIRE, AND POLARIZED. RECEPTACLES IN GENERAL SHALL BE 20A, 125 V., HUBBELL #HBL5362 OR EQUAL MOUNTED 16" AFF IN OFFICES AREAS AND 48" AFF IN SHOP AREAS EXCEPT AT COUNTERS WHERE THEY SHALL BE 6" ABOVE COUNTER AND IN TOILET ROOMS AT 48" AFF. RECEPTACLES ON SINGLE CIRCUIT SHALL BE 20 AMPERES, HUBBELL #HBL5362. HIGH AMPERE RATINGS AND VOLTAGES ARE INDICATED ON DRAWINGS.

RECEPTACLES DESIGNATED "GFR" SHALL BE GROUND FAULT RECEPTACLES, SIMILAR TO HUBBELL #GF-5362. FOR OUTDOOR OR WET LOCATIONS, PROVIDE WEATHERPROOF BOX AND GASKETED COVER PLATE. WIRE "GFR" RECEPTACLES FOR SELF PROTECTION AND NOT DOWNSTREAM PROTECTION OF OTHER WIRING DEVICES.

SWITCHES SHALL BE SINGLE POLE, TWO POLE, OR THREE-WAY, AS INDICATED, TOGGLE TYPE, 20A, 120/277V., QUIET TYPE, HUBBELL #1221/1222/1223 OR APPROVED EQUAL. PILOT TYPE SWITCHES HUBBELL #1251.

WIRING DEVICE COLORS SHALL BE WHITE OR AS SELECTED BY OWNER/ARCHITECT.

DEVICE COVER PLATES SHALL BE OF TYPE AND NUMBER OF GANGS FOR DEVICES INSTALLED, SMOOTH EDGED 302/304 GRADE BRUSHED STAINLESS STEEL. PROVIDE BRANCH CIRCUIT IDENTIFICATION ON ALL COVERPLATES AS SPECIFIED UNDER "GENERAL REQUIREMENTS". COVERPLATES FOR DEVICES CONNECTED TO THE EMERGENCY SYSTEM SHALL ALSO BE FACTORY LABELED WITH BLACK LETTERING TO READ "EMERGENCY".

CONDUCTORS:
ALL CONDUCTORS SHALL BE SOFT-DRAWN COPPER OF SIZES INDICATED ON THE DRAWINGS. ALL CONDUCTORS SHALL BE INSULATED FOR 600 VOLTS AND WITH 90 DEGREES (CENTIGRADE) CODE GRADE INSULATION.

CONDUCTORS SIZED #10 AND SMALLER SHALL BE SOLID. ALL CONDUCTORS LARGER THAN #10 SHALL BE MADE UP OF STRANDED SINGLE CONDUCTOR CABLE. CONDUCTORS SHALL HAVE THWN OR THHN INSULATION AS APPLICABLE. CONDUCTORS IN UNDERGROUND CONDUIT AND FOR SERVICE ENTRANCE CONDUCTOR SHALL HAVE XHHW OR THWN INSULATION.

#12 AWG SHALL BE THE MINIMUM WIRE SIZE ALLOWED EXCEPT #14 AWG MAY BE USED FOR CONTROL WIRING.

TYPICAL BRANCH CIRCUITS FROM 20A, 1-POLE BRANCH OVERRCURRENT DEVICES ARE 1/2"C, 2#12 AND 1#12G.

INSTALLATION AND METHODS OF EXECUTION:
ALL WIRING SHALL BE IN CONDUIT, MINIMUM ½". FLEXIBLE METAL CONDUIT SHALL BE USED FOR SHORT CONNECTION TO MOTORS, FINAL CONNECTION TO RECESSED LIGHTING FIXTURES FROM RIGIDLY MOUNTED OUTLET BOX (NOT BETWEEN FIXTURES), VIBRATING EQUIPMENT, ETC., BUT NEVER LONGER THAN 6 FEET. PROVIDE LIQUID TIGHT FLEXIBLE METAL CONDUIT FOR ALL APPLICATIONS EXPOSED TO WATER OR WEATHER. PROVIDE ANTI-SHORT BUSHINGS FOR ALL FLEXIBLE CONDUIT ARMOR TERMINATIONS. PROVIDE SEPARATE EQUIPMENT GROUND WIRE IN ALL CONDUIT RUNS.

CONDUIT CONCEALED IN CEILING, WALLS OR FURRED SPACES OR EXPOSED IN DRY LOCATIONS SHALL BE EMT, THIN WALL ELECTRIC METALLIC TUBING. CONDUIT EXPOSED TO WEATHER, IN CONTACT WITH CONCRETE, BURIED IN SLAB, OR IN HAZARDOUS AREAS, SHALL BE HEAVY WALL, RIGID. ALL CONDUITS SHALL BE HOT DIPPED GALVANIZED STEEL.

CONDUIT RUNS SHOWN ON DRAWINGS ARE DIAGRAMMATIC. EXACT ROUTING OF CONDUIT RUNS SHALL SUIT JOB CONDITIONS. EXPOSED CONDUIT SHALL BE RUN ONLY IN UNFINISHED AREAS SUBJECT TO FINAL APPROVAL OF ENGINEER AND SHALL RUN PARALLEL TO BUILDING LINES, NEVER DIAGONALLY.

CONNECTION TO EQUIPMENT SHALL BE DONE IN ACCORDANCE WITH MANUFACTURER'S SHOP AND INSTALLATION DRAWINGS. REQUIREMENTS GENERALLY VARY FROM ONE MANUFACTURER TO ANOTHER AND CONTRACTOR IS BOUND TO COMPLY AND PROVIDE ALL WORK AS REQUIRED ALTHOUGH CERTAIN DISCREPANCIES MAY EXIST REGARDING THE REQUIREMENT FROM ONE MANUFACTURER TO ANOTHER.

PROVIDE POWER WIRING, DISCONNECTS, AND PROTECTION DEVICES TO ALL MECHANICAL EQUIPMENT AND MAKE FINAL CONNECTIONS, INCLUDING TESTING OF MOTORS FOR PROPER ROTATION.

OUTLET BOXES MAY-BE SURFACE MOUNTED ON EXISTING WALLS (CMU, BRICK OR CONCRETE) WITH SMALLEST SURFACE RACEWAY AS REQUIRED FOR WIRING INSTALLED. PROVIDE FLUSH OUTLET BOXES AND CONDUIT AT NEW CONSTRUCTION WALL AND AT EXISTING WALLS WHICH ARE NOT CMU BRICK OR CONCRETE CONSTRUCTION. CUT AND PATCH EXISTING WALLS AS REQUIRED FOR FLUSH INSTALLATION.

ALL WIRING LOCATED ABOVE THE SUSPENDED CEILING MUST BE SUPPORTED INDEPENDENTLY OF THE SUPPORT WIRES FOR THE SUSPENDED CEILING.

ELECTRICAL OPENINGS AROUND ELECTRICAL PENETRATIONS THROUGH FIRE RESISTANT RATED WALLS, PARTITIONS, FLOORS, OR CEILINGS SHALL BE FIRESTOPPED USING APPROVED METHODS TO MAINTAIN THE FIRE RESISTANCE RATING PER ARTICLE 300.21 2017 NEC.

PROVIDE PROPER WORKING CLEARANCES FOR ELECTRICAL EQUIPMENT AS REQUIRED PER NEC.

LIGHTING SPECIFICATIONS:

LED LIGHTING FIXTURES SHALL HAVE 5 YEAR WARRANTY, A COLOR RENDERING INDEX OF 90 OR HIGHER, 3500K COLOR TEMPERATURE UNLESS OTHERWISE INDICATED ON DRAWINGS, LIFETIME: 50,000 HOURS OR GREATER AND MAINTAIN AT LEAST 70% OF INITIAL LUMEN OUTPUT. RATED FOR OUTDOOR USE AND WET LOCATION, IF IN OPEN FIXTURE.

SHALL POSSESS COLOR MANAGEMENT SYSTEM TO MAINTAIN COLOR CONSISTENCY OVER TIME AND TEMPERATURE OF NO GREATER THAN ±100K OVER LIFE.

REFER TO LIGHTING FIXTURE SCHEDULE ON ARCHITECTURAL REFLECTED CEILING PLANS FOR LED FIXTURES WITH DIMMING CONTROLS.

LED DRIVERS TO BE ELECTRONIC, HIGH POWER FACTOR, MIN. 0.9; UNIVERSAL VOLTAGE 120-277V; 5 YEAR WARRANTY, COMPATIBLE WITH THE LED LAMP OR MODULE USED.

ELECTRICAL LEGEND *

"A"	FIXTURE TYPE
	1x4 LIGHT FIXTURE
	POLE MOUNTED LIGHTING FIXTURE
	STRIP LIGHTING FIXTURE
	2'X2' OR 2'X4' LIGHTING FIXTURE
	FULL SHADED LIGHTING FIXTURES ARE WIRED UNSWITCHED NIGHT LIGHTS
	HALF SHADED FIXTURES ARE FIXTURES PROVIDED WITH BUILT-IN EMERGENCY BATTERY PACK FOR EGRESS LIGHTING
	RECESSED DOWN LIGHT
	WALL MOUNTED LIGHTING FIXTURE
	TRACK LIGHTING FIXTURE
	EXIT LIGHTING FIXTURE - SHADING INDICATES ILLUMINATED FACE (S) CHEVRONS AS INDICATED
	EMERGENCY LIGHTING UNIT
	COMBINATION OF EXIT AND EMERGENCY LIGHTING UNIT
S	SINGLE POLE LIGHT SWITCH
S_3	THREE WAY LIGHT SWITCH
S_4	FOUR WAY LIGHT SWITCH
S_K	KEY OPERATED SWITCH
S_P	LIGHT SWITCH WITH PILOT LIGHT
S_{P3}	THREE WAY LIGHT SWITCH WITH PILOT LIGHT
S_D	DIMMER SWITCH, COMPATIBLE WITH LIGHTS CONTROLLED
S_{MD}	DIMMER SWITCH WITH WALL OCCUPANCY SENSOR (SINGLE POLE)
S_{D3}	THREE WAY LIGHT SWITCH WITH DIMMER
S_T [TS]	TIMER SWITCH
S_{LV}	LOW VOLTAGE CONTROL STATION WITH DIMMING CAPABILITIES, NUMBER OF BUTTONS AS INDICATED TO PROVIDE PRESET SCENES, RISER, LOWER, ON, OFF CONTROL FOR ZONES INDICATED, COORDINATE WITH LIGHT DIMMING CONTRACTOR FOR DEVICE MODEL NUMBERS, QUANTITIES, LOCATIONS, AND ADDITIONAL REQUIREMENTS.
[RPD]	RELAY PACK WITH 0-10V DIMMING OUTPUT
[OS]	CEILING MOUNTED OCCUPANCY SENSOR. DUAL TECHNOLOGY (PASSIVE INFRARED AND MICROPHONIC/ULTRASONIC), WITH AUXILIARY RELAY FOR HVAC CONTROL. PROVIDE QUANTITY OF 20A, 120V/277V RATED POWER PACKS AND RELAY PACKS AS REQUIRED TO CONTROL SWITCH LEGS INDICATED. ALL FIXTURES IN ROOM/SPACE ARE TO BE CONTROLLED BY THE SENSORS.
S_W	WALL MOUNTED VACANCY SENSOR, SINGLE POLE. DUAL TECHNOLOGY (PASSIVE INFRARED AND MICROPHONICS/ULTRASONIC), 120/277V. SWITCH IS RATED 800W AT 120V AND 1200W AT 277V, 1/4 HP. IVORY WITH STAINLESS STEEL COVERPLATE. FACTORY COLOR-MATCHED PLATE IS NOT ACCEPTABLE.
S_{W2}	SAME AS S_W EXCEPT WITH DUAL POLE
	DUPLEX ISOLATED GROUND RECEPTACLE
	DUPLEX RECEPTACLE
	QUADRUPLEX RECEPTACLE
	DUPLEX RECEPTACLE WITH GROUND FAULT (GFCI)
[GFP]	FACELESS GROUND FAULT CIRCUIT INTERRUPTER
$_C$	SAME AS DUPLEX RECEPTACLE EXCEPT CEILING MOUNTED
$_C$	SAME AS QUADRUPLEX RECEPTACLE EXCEPT CEILING MOUNTED
$_S$	SAME AS DUPLEX RECEPTACLE EXCEPT SHOW WINDOW TO BE MOUNTED 6" ABOVE WINDOW, COORDINATE WITH OWNER/ ARCHITECT PRIOR TO INSTALLATION
	COMBINATION DUPLEX POWER RECEPTACLE AND TWO USB PORTS
$_H$	SAME AS DUPLEX RECEPTACLE EXCEPT HORIZONTALLY MOUNTED
	SPLIT RECEPTACLES
	FLOOR RECEPTACLE
$_R$	COMMERCIAL GRADE CORD REEL WITH GFCI MOUNTED TO STEEL STRUCTURE
	SAME AS CORRESPONDENCE RECEPTACLE EXCEPT WITH SURFACE MOUNT
	SPECIAL PURPOSE RECEPTACLE - NEMA TYPE
$_R$	SPECIAL PURPOSE RECEPTACLE - NEMA TYPE ON A CORD REEL MOUNTED TO STEEL STRUCTURE
	DUPLEX RECEPTACLE FLOOR MOUNTED
[J]	CEILING JUNCTION BOX
	WALL JUNCTION
	PUSH BUTTON STATION (1, 2, OR 3 BUTTON)
[PP]	DOOR ACTIVATOR PUSH PLATE
	ELECTRIC CLOCK OUTLET
	COMBINATION DATA AND TELEPHONE OUTLET
	PHONE OUTLET SAME AS COMBINATION VOICE/DATA (W: WALL MOUNTED AT +48")
	DATA OUTLET
	SAME AS DATA OUTLET EXCEPT WITH SURFACE MOUNT
[TV]	TELEVISION OUTLET, DOUBLE GANG BOX WITH SINGLE MUD RING AND 1"C TO CEILING SPACE
[AV]	AUDIO/VIDEO OUTLET, DOUBLE GANG BACK BOX WITH 1 1/4"C TO ABOVE ACCESSIBLE CEILING, TERMINATE CONDUIT WITH INSULATING BUSHING, PROVIDE PULL STRING
[AV]	FLOOR MOUNTED THREE GANG (3G) FLUSH BOX, DUPLEX RECEPTACLE, A/V & DATA/PHONE COMPARTMENTS
	DUPLEX RECEPTACLE & DATA/PHONE FLUSH FLOOR MOUNTED TWO GANG (2G) COMPLETE WITH FLANGE AND COVER
C	CEILING MOUNTED TWO GANG (2G) FLUSH BOX, DUPLEX RECEPTACLE & DATA/PHONE COMPARTMENTS
$_{F1}$	MULTI-SERVICE STAMPED STEEL FLUSH FLOOR BOX - TYPE F1 - WITH (2)-20A DUPLEX RECEPTACLES & (2) DATA COMPARTMENT, WIREMOLD #RFB4 SERIES OR APPROVED EQUAL BY HUBBELL
$_{F2}$	MULTI-SERVICE STAMPED STEEL FLUSH FLOOR POKE-THROUGH BOX - TYPE F2 - WITH (2)-20A DUPLEX RECEPTACLES & (2) DATA COMPARTMENT, WIREMOLD OR APPROVED EQUAL BY HUBBELL.
[PD]	FLOOR MOUNTED TWO GANG (2G) FLUSH BOX WITH SEPARATE POWER AND DATA COMPARTMENTS FOR FURNITURE CONNECTION PROVISION

[J]	FLOOR MOUNTED ONE GANG FLUSH POWER BOX FOR FURNITURE CONNECTION PROVISION
[PD]	FIRE RATED FLUSH FLOOR POKE THRU WITH SEPARATE POWER AND DATA COMPARTMENTS FOR FURNITURE CONNECTION SIMILAR TO LEGRAND 4FFATC.
[DV] [HV]	FIRE RATED FLUSH FLOOR POKE THRU WITH DUPLEX OR QUAD RECEPTACLE & LOW VOLTAGE COMPARTMENTS SIMILAR TO LEGRAND RC7 OR RC4.
[HV]	FIRE RATED RECESSED DEEP FLOOR POKE THRU WITH DUPLEX OR QUAD RECEPTACLE & LOW VOLTAGE COMPARTMENTS SIMILAR TO LEGRAND EVOLUTION 6 SERIES.
[P] [D] [J]	JUNCTION BOX FOR FLEXIBLE CONNECTION TO SYSTEMS (P: POWER, D: DATA). FURNITURE WHIP PROVIDED BY FURNITURE SUPPLIER. FOR NEW WORK PROVIDE 1"C OR 1 1/4"C FOR DATA TO ABOVE ACCESSIBLE CEILING. UNLESS OTHERWISE NOTED. COORDINATE LOCATION WITH FURNITURE SYSTEM SUPPLIER. PROVIDE FINAL CONNECTION AND COVERPLATE SUITABLE FOR WHIP CONNECTION.
	DISTRIBUTION PANEL
	SURFACE MOUNTED LIGHTING AND/OR RECEPTACLE PANEL
	RECESSED MOUNTED LIGHTING AND/OR RECEPTACLE PANEL
[CB]	MOLDED CASE CIRCUIT BREAKER - SURFACE MOUNTED IN NEMA ENCLOSURE
[CB]	MOLDED CASE CIRCUIT BREAKER - FLUSH MOUNTED IN NEMA ENCLOSURE
	MOTOR - SINGLE PHASE
	MOTOR - THREE PHASE
	MANUAL SINGLE PHASE MOTOR STARTER WITH PILOT LIGHT, LOCKABLE OFF, FOR MOTOR APPLICATIONS. MANUAL SINGLE PHASE MOTOR SWITCH WITH PILOT LIGHT, LOCKABLE OFF AND WITHOUT OVERLOADS FOR DISCONNECT APPLICATIONS TO EQUIPMENT NOT REQUIRING OVERLOADS AND FOR APPLICATIONS WHERE OVERLOADS ARE INTEGRAL TO MOTOR-BASED LOADS. FLUSH MOUNT STARTERS / SWITCHES IN FINISHED SPACES. SURFACE MOUNT IN UNFINISHED SPACES.
	NON-FUSIBLE DISCONNECT SWITCH
	FUSIBLE DISCONNECT SWITCH
	THREE PHASE COMBINATION MAGNETIC FUSIBLE MOTOR STARTER
	BUS PLUG FUSIBLE DISCONNECT SWITCH
[T]	TRANSFORMER
[C]	CONTACTOR
[M]	METER
	GROUND
	HOMERUN TO LIGHTING PANEL
[CT]	CABLE TRAY
[PS]	PLUG-IN STRIP

EF	EXHAUST FAN	EWC	ELECTRIC WATER COOLER
EDH	ELECT. DUCT HTR.	AFF	ABOVE FINISHED FLOOR
A	ABOVE COUNTER	WP	WEATHERPROOF
A/E	ARCHITECT / ENGINEER	RT	RAINTIGHT
CM	COFFEE MAKER	UFD	UNDER FLOOR DUCT
MW	MICROWAVE	FPB	FAN POWER BOX
HOA	HAND-OFF-AUTOMATIC	DW	DISHWASHER
PC	PHOTOCELL	GD	GARBAGE DISPOSAL
HG	HOSPITAL GRADE	REF	REFRIGERATOR
UH	UNIT HEATER	(E)	EXISTING TO REMAIN
UON	UNLESS OTHERWISE NOTED	(RE)	RELOCATED EXISTING
EG	EQUIPMENT GROUND	IG	ISOLATED GROUND
H	HORIZONTALLY MOUNT 6" ABOVE COUNTER BACK SPLASH		
GFI or GFR	GROUND FAULT CIRCUIT INTERRUPTER		

[D]	POWER POLE VOICE/DATA/POWER
[V]	AUDIO/VISUAL HEAD END EQUIPMENT
[DR]	DRIVER FOR 24V UNDER CABINET LED LIGHT
[CR]	CARD READER
[IC]	INTERCOM OUTLET
[PC]	PHOTOELECTRIC CONTROLLER
[WPS]	COMBINE PARTITION SENSOR
[WAP]	WIRELESS ACCESS PANEL
[CP]	CONTROL PANEL, PROVIDE AS PART OF THE EQUIPMENT THEY CONTROL
[TS]	TIME SWITCH
[B] [B]	BELL
[RB]	RADIO ALERT SYSTEM BELL
[DS]	DOOR SWITCH
[IC]	INTERCOM STATION
[EPO]	EMERGENCY POWER OFF PUSHBUTTON
[FACP]	FIRE ALARM CONTROL PANEL
[FAA]	FIRE ALARM ANNUNCIATOR PANEL
[NACP]	NOTIFICATION APPLIANCE CONTROL PANEL
[MC]	MICROPHONE
[S]	CEILING MOUNTED SPEAKER
[V] [V]	VOLUME CONTROL DIAL
[SD]	SMOKE DETECTOR
[HD]	HEAT DETECTOR
[TS]	TAMPER SWITCH
[FS]	FLOW SWITCH
[A/V]	OUTDOOR FIRE DEPARTMENT CONNECTION - AUDIO VISUAL DEVICE
[DH]	MAGNETIC DOOR HOLDER
[DS]	DUCT SMOKE DETECTOR
[SCD]	COMBINATION SMOKE/CO DETECTOR
[F]	MANUAL FIRE ALARM STATION
[F]	FIRE ALARM STROBE
[F]	FIRE ALARM HORN/STROBE
[F]	FIRE ALARM HORN/STROBE - CEILING MOUNTED
[F] $_S$	FIRE ALARM STROBE - CEILING MOUNTED

* THIS IS STANDARD SYMBOL LIST - SOME OF THESE SYMBOL MAY NOT APPEAR ON DRAWINGS.

ELECTRICAL SHEET INDEX

SHEET	DESCRIPTION
E-001	ELECTRICAL LEGEND, SHEET INDEX AND SPECIFICATIONS
E-002	PANEL SCHEDULES
E-101	DEMO AND NEW LIGHTING FIRST FLOOR PLANS
E-201	DEMO AND NEW POWER FIRST FLOOR PLANS

ISSUED:

CM RFP 03/12/26

MCD ARCHITECTS
33610 GRAND RIVER
FARMINGTON, MI, 48335
www.mcdarchitects.com
248-374-0001

MAENGINEERING
MECHANICAL ELECTRICAL
180 High Oak Road t | 248 | 258 | 1610
Bloomfield Hills, Michigan 48304 f | 248 | 258 | 9538

RENOVATIONS FOR:

BIRMINGHAM CITY HALL
151 MARTIN ST,
BIRMINGHAM, MI
48009

ELECTRICAL LEGEND, SHEET INDEX AND SPECIFICATIONS

DRAWN BY: SM

APPROVED BY: WZ

PROJECT NO.	SHEET NO.
25498	E-001

H:\ACAD\FILES\98888530 birmingham police renovation and expansion\birmingham city hall\CAD\ELEC\98530-BCH-E-001-Legend and Specs.dwg Thu, 12 Mar 2026 - 3:42pm

PANELBOARD: **LP-10 (BEFORE DEMO)** MOUNTING: EXISTING
VOLTAGE: 208Y/120V, 3 PHASE, 4 WIRE + G AIC: EXISTING
MAIN: 125 A MLO FEEDER: EXISTING
LOCATION: DISPATCH 118 SPD EQUIPPED: NO

Circ	Breaker		Load Information			Connected Watts		
No	Pole	Trip	Location	Description	Code	Phase A	Phase B	Phase C
1	1	20	DISPATCH 118	IG PLUG PRINTER	EX.LOAD	1000		
3	1	20	DISPATCH 118	IG PLUG PRINTER	EX.LOAD		1000	
5	1	20	DISPATCH 118	LIGHTING	EX.LOAD			800
7	1	20	DISPATCH 118	TV CAMERA & MONITOR	EX.LOAD	500		
9	1	20	DISPATCH 118	IG PLUG	EX.LOAD		720	
11	1	20	COMPUTER RM.	LIGHTING	EX.LOAD			800
13	1	20	SPARE					
15	1	20	1ST/2ND FLR.		EX.LOAD		750	
17	1	20	DISPATCH 118	NEW 911 CIRCUIT	EX.LOAD			720
19	1	20	SPARE					
21	1	20	SPARE					
23	1	20	SPARE					
2	1	20	DISPATCH 118	IG CONSOLE PLUG	EX.LOAD	720		
4	1	20	DISPATCH 118	IG CONSOLE PLUG	EX.LOAD		720	
6	1	20	DISPATCH 118	IG CONSOLE PLUG	EX.LOAD			720
8	1	20	DISPATCH 118	IG CONSOLE PLUG	EX.LOAD	720		
10	1	20	WINDOW	IG CONSOLE PLUG	EX.LOAD		720	
12	1	20	DISPATCH 118	IG PLUG	EX.LOAD			720
14	1	20	CONSOLE WALL	IG PLUG	EX.LOAD	720		
16	1	20	TELEPHONE EQUIP.	IG PLUG	EX.LOAD		720	
18	1	20	TELEPHONE EQUIP.	IG PLUG	EX.LOAD			720
20	1	20	TELEPHONE EQUIP.	IG PLUG	EX.LOAD	720		
22	1	20	TELEPHONE/COMPUTER	IG PLUG	EX.LOAD		720	
24	1	20	NEW A/C		EX.LOAD			1200
			CONNECTED KW:	15				
			CONNECTED AMPS:	43	Phase Watts:	4,380	5,350	5,680
			DEMAND KW:	13				
			DEMAND AMPS:	36				

PANELBOARD: **LP-10 (AFTER NEW WORK)** MOUNTING: EXISTING
VOLTAGE: 208Y/120V, 3 PHASE, 4 WIRE + G AIC: EXISTING
MAIN: 125 A MLO FEEDER: EXISTING
LOCATION: DISPATCH 118 SPD EQUIPPED: NO

Circ	Breaker		Load Information			Connected Watts		
No	Pole	Trip	Location	Description	Code	Phase A	Phase B	Phase C
1	1	20	**RM# 118**	**PRINTER**	**IG**	**1000**		
3	1	20	**RM# 107, 118**	**GENERAL RECEPTACLES**	**IG**		**1080**	
5	1	20	**RM# 101, 107, 108, 118**	**LIGHTING**				**842**
7	1	20	**RM# 118**	**GNERAL PURPOSE RECEPTACLES**		**720**		
9	1	20	**RM# 118**	**GNERAL PURPOSE RECEPTACLES**			**720**	
11	1	20	COMPUTER RM.	LIGHTING	EX.LOAD			
13	1	20	SPARE					
15	1	20	1ST/2ND FLR.		EX.LOAD		750	
17	1	20	**SPARE**					
19	1	20	SPARE					
21	1	20	SPARE					
23	1	20	SPARE					
2	1	20	**RM# 101**	**DOOR OPERATOR**		**1200**		
4	1	20	**RM# 101**	**LIFT**			**1000**	
6	1	20	**RM# 101**	**GNERAL PURPOSE RECEPTACLES**				**540**
8	1	20	**SPARE**					
10	1	20	WINDOW	IG CONSOLE PLUG	EX.LOAD		720	
12	1	20	**SPARE**					
14	1	20	CONSOLE WALL	IG PLUG	EX.LOAD	720		
16	1	20	TELEPHONE EQUIP.	IG PLUG	EX.LOAD		720	
18	1	20	TELEPHONE EQUIP.	IG PLUG	EX.LOAD			720
20	1	20	TELEPHONE EQUIP.	IG PLUG	EX.LOAD	720		
22	1	20	TELEPHONE/COMPUTER	IG PLUG	EX.LOAD		720	
24	1	20	**SPARE**					
			CONNECTED KW:	12				
			CONNECTED AMPS:	34	Phase Watts:	4,360	5,710	2,102
			DEMAND KW:	10				
			DEMAND AMPS:	29				

PANELBOARD: **LP-1E (BEFORE DEMO)** MOUNTING: EXISTING
VOLTAGE: 208Y/120V, 3 PHASE, 4 WIRE + G AIC: EXISTING
MAIN: 225 A MLO (200A SWITCH IN MSB) FEEDER: EXISTING
LOCATION: JC. 114 SPD EQUIPPED: NO

Circ	Breaker		Load Information			Connected Watts		
No	Pole	Trip	Location	Description	Code	Phase A	Phase B	Phase C
1	1	20	POLICE	RECEPTACLES	EX.LOAD	720		
3	1	20	CAPT. SECRETARY	RECEPTACLES	EX.LOAD		720	
5	1	20	CAPT. SECRETARY	RECEPTACLES	EX.LOAD			720
7	1	20	CAPT. SECRETARY	LIGHTING	EX.LOAD	800		
9	1	20	STAIRWELL	HEATER	EX.LOAD		1000	
11	1	20	CLERK LOBBY	LIGHTING	EX.LOAD			800
13	1	20	CLERK OFFICE	RECEPTACLES	EX.LOAD	720		
15	1	20	CLERK OFFICE	RECEPTACLES	EX.LOAD		720	
17	1	20	SPARE	RECEPTACLES	EX.LOAD			720
19	1	20	CLERK OFFICE	LIGHTING	EX.LOAD	800		
21	1	20	CLERK	LIGHTING	EX.LOAD		800	
23	1	20		LIGHTING	EX.LOAD			800
25	1	20	DISPATCH BACK RM	RECEPTACLES	EX.LOAD	720		
27	1	20	911	ISO QUAD	EX.LOAD		720	
29	1	20	911	ISO QUAD	EX.LOAD			720
31	1	20	911	ISO QUAD	EX.LOAD	720		
33	1	20	911	ISO QUAD	EX.LOAD		720	
35	1	20		FIRE ALARM	EX.LOAD			250
37	1	20	911	ISO QUAD	EX.LOAD	720		
39	1	20	WOMEN RESTRM.	HALL PLUG	EX.LOAD		360	
41	1		SPACE					
2	1	20		SURGE SURPRESSOR	EX.LOAD	1000		
4	1	15		SURGE SURPRESSOR	EX.LOAD		750	
6	1	15		SURGE SURPRESSOR	EX.LOAD			750
8	1	20	UPS	RECEPTACLES	EX.LOAD	720		
10	1	20	UPS	RECEPTACLES	EX.LOAD		720	
12	1	20	911 ROOM	WATER DISPENSER	EX.LOAD			1000
14	1	20	DISPATCH BACK RM	RECEPTACLES	EX.LOAD	720		
16	1	20	SPARE					
18	1	20	DISPATCH BACK RM	RECEPTACLES	EX.LOAD			720
20	1	20	DISPATCH BACK RM	RECEPTACLES	EX.LOAD	720		
22	1	20	DISPATCH BACK RM	RECEPTACLES	EX.LOAD		720	
24	1	20	WOMEN RESTRM.	RECEPTACLES	EX.LOAD			720
26	1	20	POLICE	RECEPTACLES	EX.LOAD	720		
28	1	20		MCM CONTROL	EX.LOAD		500	
30	1	20		LIGHTING	EX.LOAD			800
32	3				EX.LOAD	8500		
34			POLICE DEPT.	SUBPANEL LP-15E	EX.LOAD		8500	
36		100			EX.LOAD			8500
38	1	30	RADIO	SERVER EQUIPMENT	EX.LOAD	2500		
40	1	30	RADIO	SERVER EQUIPMENT	EX.LOAD		2500	
42	1	20	RADIO	EQUPMET RECEPTACLE	EX.LOAD			720
			CONNECTED KW:	56	E			
			CONNECTED AMPS:	156	Phase Watts:	20,080	18,730	17,220
			DEMAND KW:	48				
			DEMAND AMPS:	132				

PANELBOARD: **LP-1E (AFTER NEW WORK)** MOUNTING: EXISTING
VOLTAGE: 208Y/120V, 3 PHASE, 4 WIRE + G AIC: EXISTING
MAIN: 225 A MLO (200A SWITCH IN MSB) FEEDER: EXISTING
LOCATION: JC. 114 SPD EQUIPPED: NO

Circ	Breaker		Load Information			Connected Watts		
No	Pole	Trip	Location	Description	Code	Phase A	Phase B	Phase C
1	1	20	POLICE	RECEPTACLES	EX.LOAD	720		
3	1	20	CAPT. SECRETARY	RECEPTACLES	EX.LOAD		720	
5	1	20	CAPT. SECRETARY	RECEPTACLES	EX.LOAD			720
7	1	20	CAPT. SECRETARY	LIGHTING	EX.LOAD	800		
9	1	20	STAIRWELL	HEATER	EX.LOAD		1000	
11	1	20	CLERK LOBBY	LIGHTING	EX.LOAD			800
13	1	20	CLERK OFFICE	RECEPTACLES	EX.LOAD	720		
15	1	20	CLERK OFFICE	RECEPTACLES	EX.LOAD		720	
17	1	20	SPARE	RECEPTACLES	EX.LOAD			720
19	1	20	CLERK OFFICE	LIGHTING	EX.LOAD	800		
21	1	20	CLERK	LIGHTING	EX.LOAD		800	
23	1	20		LIGHTING	EX.LOAD			800
25	**2**		**RM# 118**	**AHU-1**		**3980**		
27		**50**					**3980**	
29	**2**		**EXTERIOR ON GRADE**	**ACCU-1**				**2560**
31		**30**				**2560**		
33	**2**		**RM# 101**	**ECUH-1**			**2500**	
35		**30**						**2500**
37	**1**	**20**	**RM# 101**	**GUH-1**		**360**		
39	1	20	WOMEN RESTRM.	HALL PLUG				
41	1		SPACE					
2	1	20		SURGE SURPRESSOR	EX.LOAD	1000		
4	1	15		SURGE SURPRESSOR	EX.LOAD		750	
6	1	15		SURGE SURPRESSOR	EX.LOAD			750
8	1	20	UPS	RECEPTACLES	EX.LOAD	720		
10	1	20	UPS	RECEPTACLES	EX.LOAD		720	
12	1	20	911 ROOM	WATER DISPENSER	EX.LOAD			1000
14	1	20		RECEPTACLES	EX.LOAD	720		
16	1	20	**ROOF**	**F-1**			**560**	
18	1	20	**SPARE**					
20	1	20	**SPARE**					
22	1	20	**RM# 107**	**GENERAL PURPOSE RECEPTACLES**			**540**	
24	1	20	WOMEN RESTRM.	RECEPTACLES	EX.LOAD			720
26	1	20	POLICE	RECEPTACLES	EX.LOAD	720		
28	1	20		MCM CONTROL	EX.LOAD		500	
30	1	20		LIGHTING	EX.LOAD			800
32	3				EX.LOAD	8500		
34			POLICE DEPT.	SUBPANEL LP-15E	EX.LOAD		8500	
36		100			EX.LOAD			8500
38	1	30	**SPARE**					
40	1	30	**SPARE**					
42	1	20	**RM# 108**	**GENERAL PURPOSE RECEPTACLES**				**360**
			CONNECTED KW:	63				
			CONNECTED AMPS:	175	Phase Watts:	21,600	21,290	20,230
			DEMAND KW:	54				
			DEMAND AMPS:	149				

H:\ACAD\FILES\88888530 birmingham police renovation and expansion\birmingham city hall\CAD\ELEC\888530-BCH-E-002-Panels.dwg Thu, 12 Mar 2026 - 3:42pm

ISSUED:

CM RFP 03/12/26

MCD ARCHITECTS
33610 GRAND RIVER
FARMINGTON, MI, 48335
www.mcdarchitects.com
248-374-0001

MAENGINEERING
MECHANICAL ELECTRICAL
180 High Oak Road t | 248 | 258 | 1610
Bloomfield Hills, Michigan 48304 f | 248 | 258 | 9538

RENOVATIONS FOR:

BIRMINGHAM CITY HALL

151 MARTIN ST,
BIRMINGHAM, MI
48009

PANEL SCHEDULES

DRAWN BY: SM

APPROVED BY: WZ

PROJECT NO.	SHEET NO.
25498	E-002

NEW WORK KEY NOTES :

1. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL CEILING MOUNTED LIGHTING FIXTURES.
2. WIRE EXIT LIGHTS TO SAME ROOM OR AREA NORMAL LIGHTING CIRCUIT AHEAD OF ANY LOCAL SWITCHING AND/OR AUTOMATIC LIGHTING CONTROL.
3. WIRE EMERGENCY SENSING UNIT IN SWITCHED LED FIXTURES WITH BUILT-IN EMERGENCY BATTERY BACK-UP TO ROOM OR AREA NORMAL LIGHTING CIRCUIT AHEAD OF ANY LOCAL SWITCHING AND/OR AUTOMATIC LIGHTING CONTROL.
4. PROVIDE COMPLETE LIGHTING CONTROL SYSTEM TO COMPLY WITH 2021 MICHIGAN UNIFORM ENERGY CODE BASED ON 2019 ASHRAE 90.1. SYSTEM SHALL SATISFY EACH SPACE REQUIREMENTS AS ILLUSTRATED ON TABLE 9.6.1 OF THE ASHRAE STANDARD. CONTRACTOR SHALL PROVIDE COMPLETE SYSTEM LAYOUT INCLUDING ALL DEVICES AND EQUIPMENT FOR REVIEW AND APPROVAL AS PART OF LIGHTING SYSTEMS SUBMITTAL. DESIRED CONTROL STATIONS (SLV) LOCATIONS HAVE BEEN INDICATED ON THESE PLANS TO CONTROL RESPECTIVE LIGHTING ZONES AS INDICATED, (SLV) SHALL HAVE DIMMING AND ON/OFF CONTROL OF ALL ZONES INDIVIDUALLY. FINAL LOCATION AND TYPE OF OCCUPANCY SENSORS SHALL BE AS RECOMMENDED BY MANUFACTURER TO PROVIDE PROPER COVERAGE IN THE SPACE. WHERE NO OCCUPANCY SENSORS ARE SHOWN, PROVIDE AUTOMATIC SCHEDULED TIME "OFF" AFTER 20 MINUTES OF NORMAL FACILITY NORMAL WORKING HOURS WITH AN OVERRIDE FOR 2 HOURS FOR AFTER HOURS OPERATION.
   CONTROL SEQUENCE FOR DIFFERENT SPACES SHALL BE AS FOLLOWS:
   1. DISPACH:
      a. NORMAL TIME SCHEDULE; OCCUPANCY SENSOR AUTOMATIC 100% "ON" AND DIM LIGHTS TO 50% AFTER 20 MINUTES OF VACANCY.
      b. AFTER HOURS SCHEDULE; OCCUPANCY SENSOR AUTOMATIC 100% "ON" AND TURN "OFF" LIGHTS AFTER 20 MINUTES OF VACANCY.
   2. COMMON ROOMS: OCCUPANCY SENSOR AUTOMATIC 50% "ON" AND FULL "OFF" AFTER 20 MINUTES OF VACANCY. WITH MANUAL OVERRIDE.
   3. SMALL OFFICES AND ENCLOSED ROOMS WITH WALL OCCUPANCY SWITCHES: MANUAL "ON" AND TIMED OFF AFTER 10 MINUTES.
5. CIRCUIT NUMBERS INDICATED ON THIS DRAWING MIGHT NOT REPRESENT ACTUAL BREAKER NUMBER IN PANEL BUT IT IS USED FOR CIRCUITING AND DEVICE GROUPING PURPOSES, CONTRACTOR SHALL VERIFY FIELD CONDITIONS AND UPDATE PANEL DIRECTORIES ACCORDINGLY.

DEMOLITION KEY NOTES :

D1. DISCONNECT AND REMOVE LIGHT FIXTURES, SWITCHES AND OCCUPANCY SENSORS IN DEMOLITION AREA INDICATED, TURN OVER OCCUPANCY SENSORS TO LANDLORD, REMOVE WIRING BACK TO BRANCH CIRCUIT HOME RUN AT CEILING J-BOX FOR RE-USE FOR NEW WORK, RE-WORK ANY LIGHTING CIRCUITS WITH ADJACENT ROOM/AREA TO MAINTAIN LIGHTING IN ADJACENT ROOM/AREA. ANY UN-USED BRANCH CIRCUIT SHALL BE PULLED BACK TO SOURCE PANEL AND THAT BREAKER SHALL BE TURNED OFF AND LABELED AS SPARE.

D2. DISCONNECT AND REMOVE LIGHT FIXTURE SHOWN HATCHED, REMOVE WIRING BACK TO SOURCE.

LIGHTING FIXTURES SCHEDULE :

"A"	8' SURFACE MOUNTED, LED STRIP FIXTURE,FULLY GASKETED, WHITE FINISH, 8018 LUMENS, 80CRI, 3500K COLOR, 0-10V DIMMING, UNIVERSAL VOLTAGE, 61W. H.E.WILLIAMS LIGHTING #96-8-L80-8-35-DIM-UNV, OR APPROVED EQUAL.
"AEM"	SAME AS TYPE "A" EXCEPT WITH 10W BUILT-IN EMERGENCY BATTERY TO PROVIDE MINIMUM 1600 LUMENS FOR 90 MINUTES.
"B"	LED 2'X2' RECESSED VANDAL RESISTANT LIGHT FIXTURE, TRANSPARENT LENSED DOOR, TAMPER RESISTANT SCREWS, 3100 LUMENS, 80CRI, 3500K COLOR, 0-10V DIMMING, UNIVERSAL VOLTAGE, 31.2WATT. H.E.WILLIAMS LIGHTING #VDIL-G-S-2-2-L31-8-35-F-DIM-UNV, OR APPROVED EQUAL.
"BEM"	SAME AS TYPE "B" EXCEPT WITH 10W BUILT-IN EMERGENCY BATTERY TO PROVIDE MINIMUM 1600 LUMENS FOR 90 MINUTES.
"B1"	SAME AS TYPE "B" EXCEPT WITH 2'X4', 4500 LUMENS AND 48 WATT. H.E.WILLIAMS LIGHTING #VDIL-G-S-2-4-L45-8-35-F-DIM-UNV, OR APPROVED EQUAL.
"B1EM"	SAME AS TYPE "B1" EXCEPT WITH 10W BUILT-IN EMERGENCY BATTERY TO PROVIDE MINIMUM 1600 LUMENS FOR 90 MINUTES.
"X"	NEMA-4X, VANDAL RESISTANT LED EXIT LIGHT, NO LAMP HEADS, RED LETTERS, WHITE FINISH, UNIVERSAL VOLTAGE, SELF DIAGNOSTIC TEST, 6V, NICD BATTERY, 13W REMOTE CAPACITY. LIGHT ALARMS #VX12E-WW-1-R-D-4X/0, OR APPROVED EQUAL.
"RE"	DUAL HEADS REMOTE EMERGENCY LIGHT FIXTURE, DIE-CAST HOUSING, VANDAL RESISTANT, GRAY FINISH, WET LOCATION, (2)1.5W LED, MULTI VOLT, LIGHT ALARMS #ELF651-G-6, OR APPROVED EQUAL.

DEMOLITION GENERAL NOTES:

A. GENERAL DEMOLITION NOTES APPLY TO ALL ELECTRICAL DEMOLITION PLANS INCLUDED WITHIN THIS DOCUMENT SET.

B. CIRCUITING INFORMATION ON THESE SHEETS HAVE BEEN OBTAINED FROM AS-BUILT DRAWINGS PROVIDED BY OWNER AND FROM SITE PANEL DIRECTORIES AND SHALL BE USED FOR REFERENCE ONLY, CONTRACTOR SHALL FIELD VERIFY TO DETERMINE EXISTING CONDITIONS AND UPDATE PANEL DIRECTORIES AS REQUIRED AFTER NEW WORK IS COMPLETED.

C. DEVICES SHOWN ON DEMOLITION PLANS HAVE BEEN OBTAINED FROM OLD CONSTRUCTION DOCUMENTS AND FIELD SURVEY WITH LIMITED ACCESSIBILITY TO CERTAIN AREAS, CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND INCLUDE IN THE SCOPE OF WORK DEMOLITION OF ALL EXISTING DEVICES, WIRES, RACEWAYS, SUPPORTS AND ACCESSORIES, REFER TO KEY NOTES FOR DETAILS.

D. COORDINATE ANY SERVICE SHUTDOWNS OR WORK INVOLVING OTHER AREAS WITH PROJECT MANAGER.

E. CONTRACTOR SHALL PROTECT NON-CONSTRUCTION AREAS OF OWNER'S BUILDING FROM CONSTRUCTION DUST/DEBRIS.

F. ANY CIRCUITS WHICH ARE TO BE FULLY DEMOLISHED SHOULD BE DEMOLISHED TO THE UPSTREAM PANEL, REMOVE ALL WIRING AND UNUSED CONDUITS. THE FEEDING BREAKER SHALL BE LABELED AS SPARE, REFER TO SPECIFICATION FOR DETAILS.

G. ANY LOW VOLTAGE COMMUNICATION ON CEILING SUCH AS: WIRELESS ACCESS POINTS, SPEAKERS, SMOKE DETECTORS...ETC. SHALL BE REMOVED AND STORED FOR RE-INSTALLATION AS COORDINATED WITH COMMUNICATION DEPARTMENT.

H. ALL ELECTRICAL ITEMS SHOWN ON THESE PLANS ARE EXISTING TO REMAIN UNLESS OTHERWISE INDICATED.

NEW WORK ELECTRICAL GENERAL NOTES:

A. GENERAL NEW WORK NOTES APPLY TO ALL NEW ELECTRICAL PLANS INCLUDED WITHIN THIS DOCUMENT SET.

B. PROVIDE FIRE STOPPING WHERE REQUIRED.

C. COORDINATE EXACT LOCATION AND QUANTITIES OF POWER AND DATA/PHONE OUTLETS WITH FINAL FURNITURE AND EQUIPMENT LAYOUT AND AS DIRECTED BY ARCHITECT/OWNER.

D. ALL EQUIPMENT WILL BE SINGLE PHASE, UNLESS OTHERWISE NOTED.

E. ALL WIRING WILL BE CONCEALED WITHIN THE WALLS AND/OR FLOOR, UNLESS OTHERWISE NOTED.

F. THE ELECTRICIAN WILL TAG ALL WIRES AT TERMINATION POINTS.

G. THE ELECTRICIAN WILL REMOVE ALL EXISTING RECEPTACLES AND SWITCHES IN THE AREA OF WORK. THE ELECTRICIAN WILL EITHER INSTALL A BLANK PLATE OVER RECEPTACLE OR SWITCH BOX OR REMOVE BOX ENTIRELY. THE ELECTRICIAN WILL TERMINATE WIRING AND CONDUIT IN A MANNER IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE.

H. IN THE EVENT OF ANY EQUIPMENT BEING RELOCATED TO ANOTHER LOCATION, ANY AND ALL CIRCUITS MUST BE TERMINATED BY THE ELECTRICIAN IN ACCORDANCE WITH LOCAL CODE. VERIFY RESPONSIBILITY WITH THE OWNER.

I. ALL 120 VOLT, 20 AMP OUTLETS INSTALLED WITHIN 6 FEET OF A SINK AND THOSE LOCATED OUTDOORS SHALL HAVE GFCI PROTECTION.

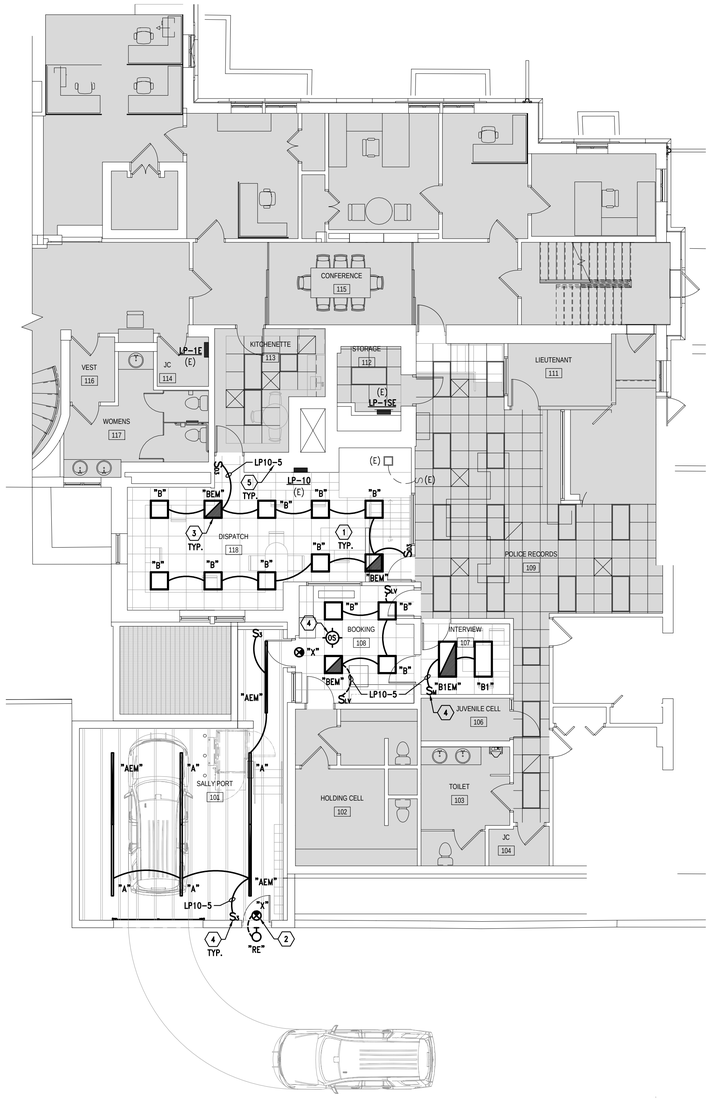
J. ELECTRICAL OPENINGS AROUND ELECTRICAL PENETRATIONS THROUGH FIRE RESISTANT RATED WALLS, PARTITIONS, FLOORS, OR CEILINGS SHALL BE FIRESTOPPED USING APPROVED METHODS TO MAINTAIN THE FIRE RESISTANCE RATING PER ARTICLE 300.21 2023 NEC.

K. PROVIDE PROPER WORKING CLEARANCES FOR ELECTRICAL EQUIPMENT PER ARTICLE 110.26 2023 NEC.

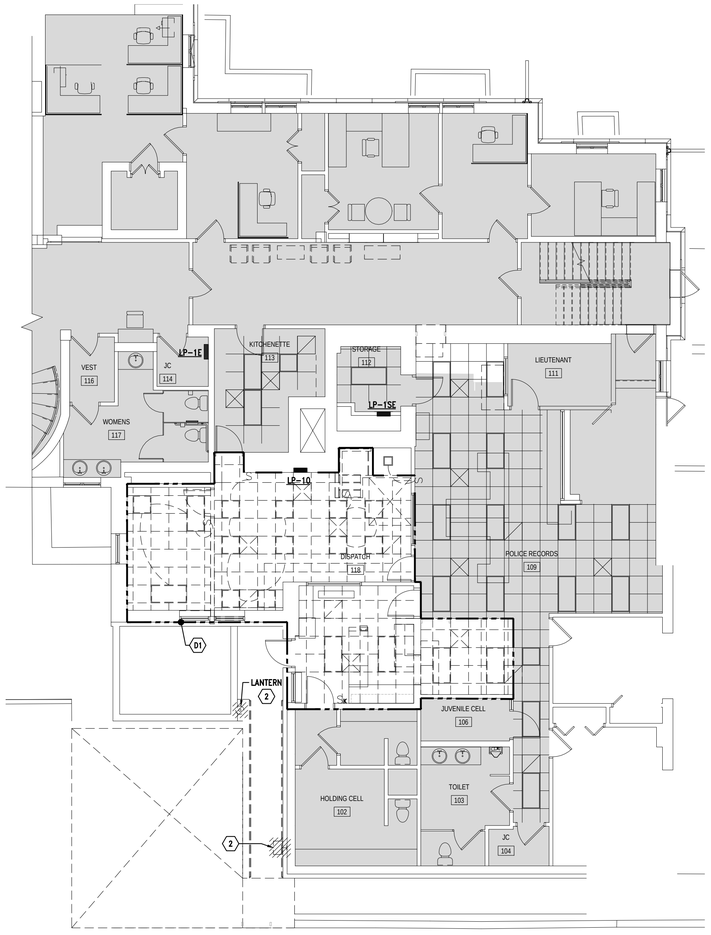
L. MAINTAIN A MINUMUM OF 24" HORIZONTAL SEPARATION BETWEEN BOXES INSTALLED ON OPPOSITE SIDES OF FIRE RATED WALLS TO COMPLY WITH NEC 300.21.

M. ALL WIRING LOCATED ABOVE SUSPENDED CEILING MUST BE SUPPORTED INDEPENDENTLY OF THE SUPPORT WIRES FOR THE SUSPENDED CEILING PER ARTICLE 300.11 2017 NEC.

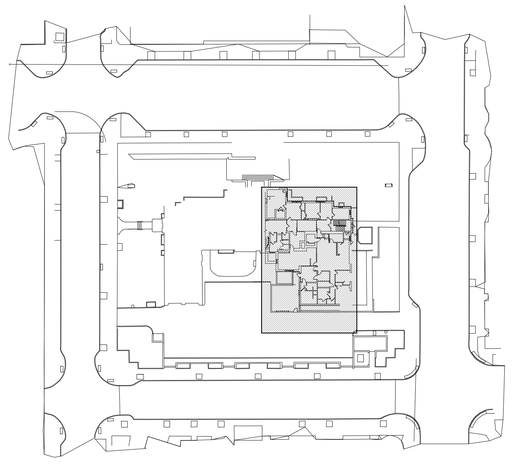
N. PROVIDE COMPLETE SYSTEM GROUNDING AND BONDING PER ARTICLE 250 2023 NEC.



2 E-101 NEW LIGHTING FIRST FLOOR PLAN
1/8" = 1'-0"



1 E-101 DEMO LIGHTING FIRST FLOOR PLAN
1/8" = 1'-0"



E-101 KEY PLAN
N.T.S.

ISSUED:

CM RFP	03/12/26

MCD ARCHITECTS
33610 GRAND RIVER
FARMINGTON, MI, 48335
www.mcdarchitects.com
248-374-0001

MAENGINEERING
MECHANICAL ELECTRICAL
180 High Oak Road t | 248 | 258 | 1610
Bloomfield Hills, Michigan 48304 f | 248 | 258 | 9538

RENOVATIONS FOR:

BIRMINGHAM CITY HALL

151 MARTIN ST,
BIRMINGHAM, MI
48009

DEMO AND NEW LIGHTING FIRST FLOOR PLANS

DRAWN BY: SM
APPROVED BY: WZ

PROJECT NO.	SHEET NO.
25498	E-101

H:\ACAD\FILES\98988530 birmingham police renovation and expansion\birmingham city hall\CAD\ELEC\98530-BCH-E-101-Lighting.dwg Thu, 12 Mar 2026 - 3:42pm

NEW WORK KEY NOTES :

1. PROVIDE AND/OR MODIFY EXISTING FIRE ALARM SYSTEM COVERAGE IN THE RENOVATED AREAS AS AN EXTENSION OF THE EXISTING BUILDING FIRE ALARM SYSTEM INCLUDING ALL MONITORING, POWER SUPPLIES, INITIATING DEVICES, INDICATING AND NOTIFICATION APPLIANCES, CONTROL MODULES, WIRING AND TESTING AS REQUIRED BY THE AUTHORITIES HAVING JURISDICTION. SYSTEM EXTENSION/MODIFICATION SHALL BE LAID OUT ON A PERFORMANCE BASIS AND APPROVAL BY THE AUTHORITIES, NEW DEVICES SHALL MATCH EXISTING.
2. CIRCUIT NUMBERS INDICATED ON THIS DRAWING MIGHT NOT REPRESENT ACTUAL BREAKER NUMBER IN PANEL BUT IT IS USED FOR CIRCUITING AND DEVICE GROUPING PURPOSES, CONTRACTOR SHALL VERIFY FIELD CONDITIONS AND UPDATE PANEL DIRECTORIES ACCORDINGLY.
3. PROTECT AND MAINTAIN EXISTING POWER RECEPTACLE OUTLET FOR USE AS PART OF THIS REVISION. PROVIDE NEW DEVICES AND COVER PLATES.
4. PROVIDE RECEPTACLES AUTOMATIC LOAD CONTROL FOR AT LEAST 50% OF THE RECEPTACLES IN SPACES INDICATED BELOW TO COMPLY WITH 2021 MICHIGAN ENERGY CODE BASED ON 2019 ASHRAE 90.1, AND TO SATISFY TABLE 8.4.2, WIRE UPPER RECEPTACLE IN EACH DUPLEX RECEPTACLE, OR RIGHT HALF OF A QUAD, TO EITHER OCCUPANCY SENSOR TO TURN OFF THE CONTROLLED HALF AFTER 20 MINUTES OF ALL OCCUPANTS LEAVING, OR TIME-OF-DAY CONTROL SWITCH WITH UP TO 2 HOUR MANUAL OVERRIDE. CONTROLLED PART OF RECEPTACLE SHALL BE MARKED PER TABLE 8.4.2, THE BOTTOM RECEPTACLE OR THE LEFT PART OF A QUAD SHALL BE WIRED WITH CONTINUOUS POWER, THIS REQUIREMENT APPLIES TO:
   1-PRIVATE OFFICES. 2-CONFERENCE ROOMS. 3-INDIVIDUAL WORKSTATIONS.
   THIS REQUIREMENT SHALL NOT APPLY TO APPLIANCES THAT ARE PERMANENTLY PLUGGED IN SUCH AS: REFRIGERATORS, VENDING MACHINES, WATER COOLERS, ICE MACHINES, COFFEE MAKERS AND SIMILAR.
5. WIRE TO EXISTING RECEPTACLES BRANCH CIRCUIT SERVING SAME ROOM/AREA.
6. COORDINATE WITH PLATFORM LIFT INSTALLERS FOR J-BOX AND CONTROL STATIONS EXACT LOCATIONS AND REQUIREMENTS.

DEMOLITION KEY NOTES :

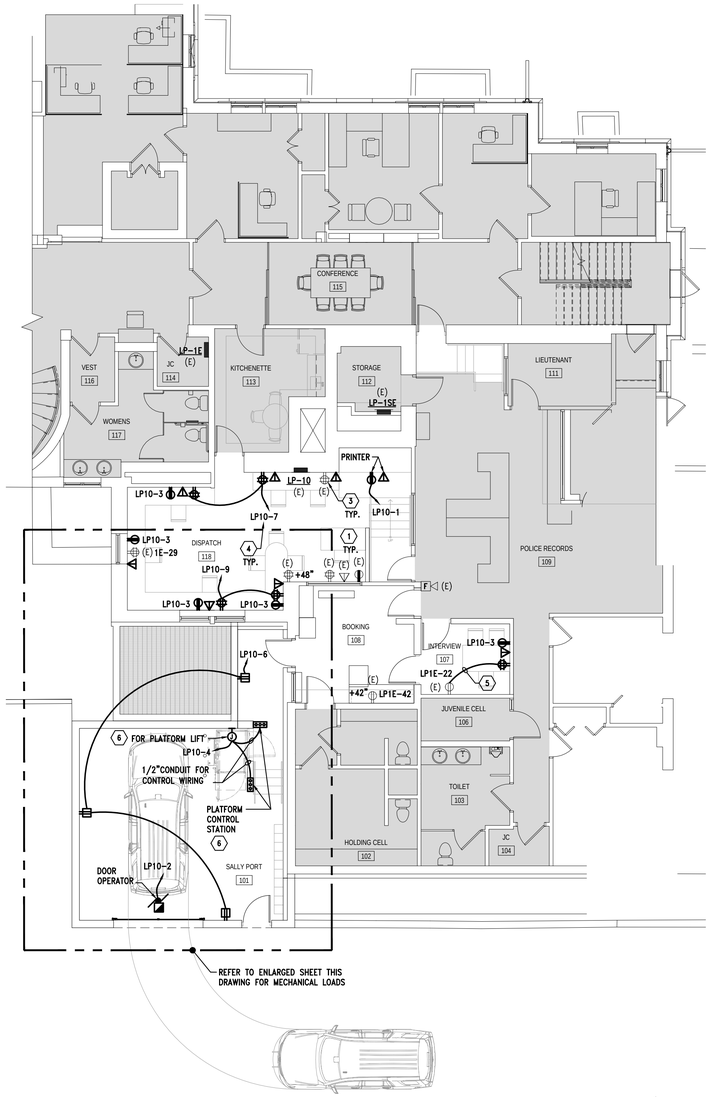
D1. DISCONNECT AND REMOVE ANY FIRE ALARM DEVICES LOCATED ON DEMOLISHED WALL AND/OR INTERFERING WITH NEW WORK AND SALVAGE FOR RE-LOCATION, EXTEND EXISTING WIRING AS REQUIRED TO NEW LOCATION, RE-LOCATION TO BE DETERMINED BY PERFORMANCE SPECIFICATION AND AS APPROVED BY AUTHORITY HAVING JURISDICTION.

D2. DISCONNECT AND REMOVE RECEPTACLES AND DATA OUTLETS IN DEMOLISHED AREA, REMOVE WIRING BACK TO SOURCE. SALVAGE RECEPTACLES BRANCH CIRCUIT FOR RE-USE AS SHOWN IN NEW POWER PLANS. ANY UN-USED BRANCH CIRCUIT SHALL BE PULLED BACK TO SOURCE PANEL AND THAT BREAKER SHALL BE TURNED OFF AND LABELED AS SPARE, PROVIDE COVER PLATE.

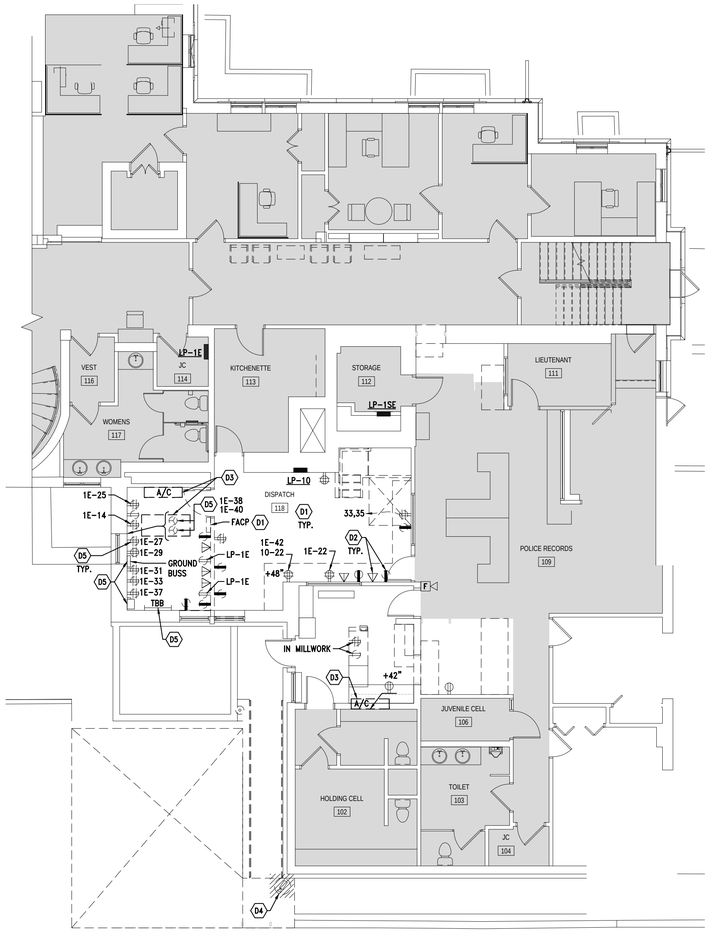
D3. DISCONNECT POWER TO MECHANICAL UNIT, REMOVE WIRING BACK TO SOURCE.

D4. DISCONNECT AND REMOVE SECURITY CAMERA, RETURN BACK TO OWNER, REMOVE LOW VOLTAGE WIRING.

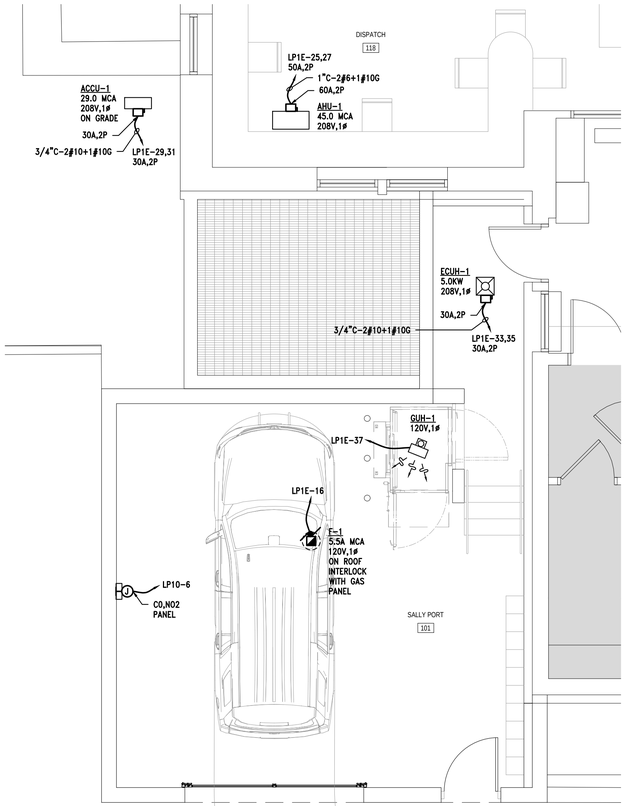
D5. DISCONNECT AND REMOVE POWER AND DATA TO I.T. RACKS, TBB, ISOLATED GROUND AND RELATED DISCONNECT SWITCH, REMOVE WIRING BACK TO SOURCE. OWNER IS RESPONSIBLE TO RELOCATE ALL I.T. RACKS TO NEW LOCATION (NOT IN SCOPE OF THIS WORK).



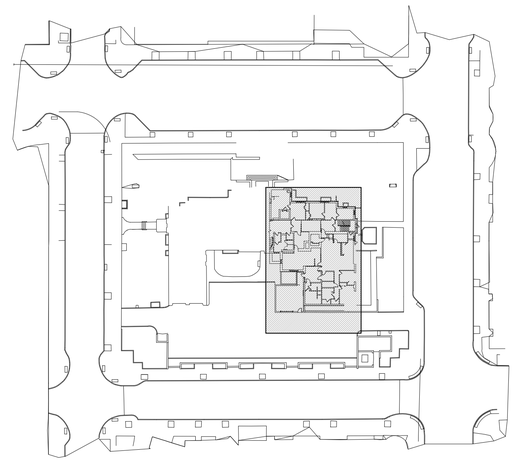
2 E-201 NEW POWER FIRST FLOOR PLAN
1/8" = 1'-0"



1 E-201 DEMO POWER FIRST FLOOR PLAN
1/8" = 1'-0"



3 E-201 ENLARGED SALLY PORT 101 MECHANICAL LOADS PLAN
1/4" = 1'-0"



E-101 KEY PLAN
N.T.S.

ISSUED:

CM RFP	03/12/26

MCD ARCHITECTS
33610 GRAND RIVER
FARMINGTON, MI, 48335
www.mcdarchitects.com
248-374-0001

MAENGINEERING
MECHANICAL ELECTRICAL
180 High Oak Road t | 248 | 258 | 1610
Bloomfield Hills, Michigan 48304 f | 248 | 258 | 9538

RENOVATIONS FOR:

BIRMINGHAM CITY HALL

151 MARTIN ST,
BIRMINGHAM, MI
48009

DEMO AND NEW POWER FIRST FLOOR PLANS

DRAWN BY: SM
APPROVED BY: WZ

PROJECT NO.	SHEET NO.
25498	E-201

H:\ACAD\FILES\98988530 birmingham police renovation and expansion\birmingham city hall\CAD\ELEC\988530-BCH-E-201-Power.dwg Thu, 12 Mar 2026 - 3:42pm

MEMORANDUM

Engineering Department

DATE: April 13, 2026

TO: Jana Ecker, City Manager

FROM: Melissa Coatta, City Engineer
Mark Akram, Civil Engineer

SUBJECT: 2025-2026 Sewer Rehabilitation Program
Contract #4-25(S) - Contract Award

INTRODUCTION:

The 2025-2026 Sewer Rehabilitation Program features the cleaning and lining of rear yard public sewers and manhole rehabilitation. The City received and opened bids for the 2025-2026 Sewer Rehabilitation Program Contract #4-25(S) on March 26, 2026. Four (4) bids were received for consideration. The Engineering Department recommends awarding this contract to Pamar Enterprises, Inc.

BACKGROUND:

The 2025–2026 Sewer Rehabilitation Program includes the cleaning and lining of rear yard public sewers, along with minor manhole rehabilitation. The rear yard sewers are located in the areas bounded by Ann Street and Purdy Street, E. Maple Street and Yorkshire Road, and Wallace Street and W. Lincoln Street.

The Engineering Department opened bids on March 26, 2026, and received four (4) bids, as summarized in the attached bid tabulation. The lowest responsive bidder was Pamar Enterprises, Inc., with a bid amount of $714,499.00. Pamar Enterprises, Inc. has previously completed work for the City of Birmingham, including the 2021 Asphalt Resurfacing Project, and has demonstrated the capability and experience necessary to successfully perform this work.

In accordance with City requirements for construction projects, Pamar Enterprises, Inc. submitted a bid security in the amount of five percent (5%) of the total bid. This security is subject to forfeiture in the event the contractor fails to execute the contract or provide the required bonds and insurance.

LEGAL REVIEW:

The City's standard contract language was used for bidding on this project, which the City Attorney has reviewed and approved. There are no objections by the City Attorney.

FISCAL IMPACT:

This project was originally budgeted at $580,000 in FY 2025–2026 within the Sewer Fund, with the intent to offset total project costs through a reimbursable Environmental Protection Agency (EPA) Community Grant. Because the grant is reimbursable, the City must fund all project costs upfront prior to receiving reimbursement.

The total estimated construction cost is $750,223.95, which includes the base bid from Pamar Enterprises, Inc. in the amount of $714,499.00, plus a 5% construction contingency. Project costs will be partially offset through the EPA Community Grant, which will reimburse 76.92% of eligible construction costs, up to a maximum of $1,300,000. The City is responsible for the remaining 23.08% of eligible costs, to be funded by the Sewer Fund.

A budget amendment will be required, as the City must pay project costs in advance and seek reimbursement from the EPA thereafter. Funding for this project has been allocated in the following account:

Fund Account	Fund ID Number	Project Award	5% Contingencies	Total
Sewer Fund	590.0-537.000-981.0200	$714,499.00	$35,724.95	$750,223.95

SUSTAINABILITY:
The sewer lining project will improve system functionality while sealing out groundwater infiltration. Reducing this infiltration will decrease the volume of flow entering the combined sewer system and thereby minimizing unnecessary treatment.

DESIGN CONSIDERATIONS:
N/A

PUBLIC COMMUNICATIONS:
Prior to the start of this project, property owners that will be affected will be notified in advance through a mailed letter. During the project, door-hangers and e-blasts will be used to notify residents.

SUMMARY:
The Engineering Department recommends the 2025-2026 Sewer Rehabilitation Program Contract #4-25(S) be awarded to Pamar Enterprises, Inc.

ATTACHMENTS:
1. Project Area Maps
2. Bid Summary
3. Contract Book and Plans

SUGGESTED COMMISSION ACTION:

Make a motion adopting a resolution to award the 2025-2026 Sewer Rehabilitation Program #4-25(S) to Pamar Enterprises, Inc. in the amount of $714,499.00 and a 5% construction contingency for a total of $750,223.95. In addition, to authorize the Mayor and City Clerk to sign the agreement on behalf of the City; and further to appropriate and amend the 2025-2026 City Commission budget as follows:

General Fund

Revenue		
Draw from Fund Balance	590.0-000.000-400.0000	$170,223.95
Expenditures		
Other Contractual Services	590.0-537.000-981.0200	$170,223.95

BIRMINGHAM
A WALKABLE CITY

Combined Sewer System Critical Rehabilitation Program

Legend

- City Limits
- City Roads
- Sewer Main
- Project Areas

N

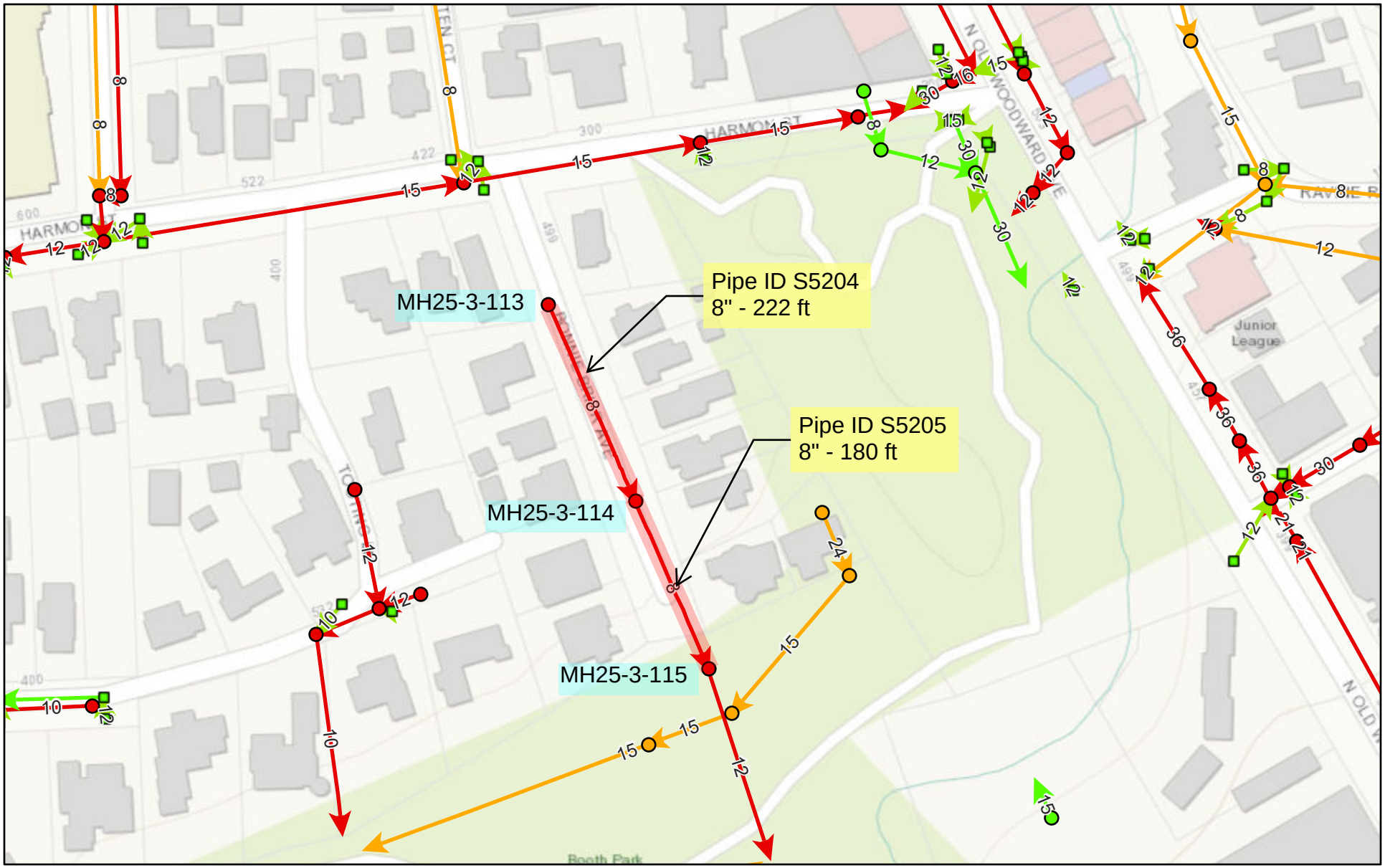
0 1,000 2,000 4,000 Feet

Disclaimer: The information provided by this program has been compiled from recorded deeds, plats, taxmaps, surveys, and other public records and data. It is not a legally recorded map or survey.

The data provided hereon may be inaccurate or out of date and any person or entity who relies on said information for any purpose whatsoever does so solely at his or her own risk.

Data Sources: Oakland County GIS Utility, City of Birmingham

Bonnie Brier Sewer System



1/13/2026, 2:40:19 PM

1:2,257

0 0.01 0.03 0.05 mi

0 0.02 0.04 0.09 km

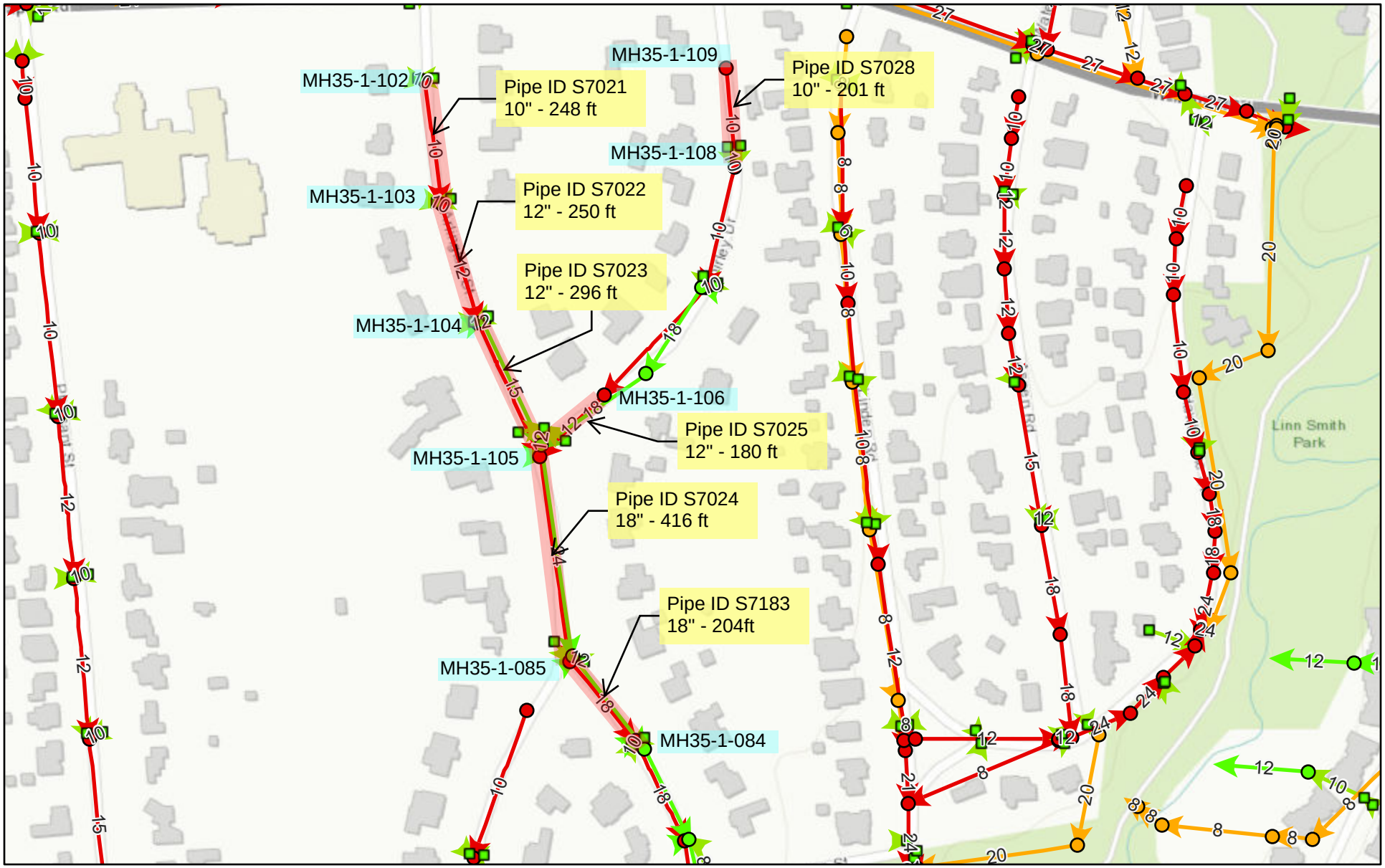
Birmingham-Owned Sewer Inlet
CombinedManhole
Combined
Birmingham-Owned Manhole
Birmingham-Owned Sewer Main
Catch Basin Lead
SanitaryManhole
Storm
StormManhole
Sanitary

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

City of Birmingham

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

North Arlington Shirley Sewer System



1/13/2026, 3:23:20 PM

Birmingham-Owned Sewer Inlet
CombinedManhole
Combined
Birmingham-Owned Manhole
Birmingham-Owned Sewer Main
Catch Basin Lead
SanitaryManhole
Storm
StormManhole
Sanitary

1:4,514

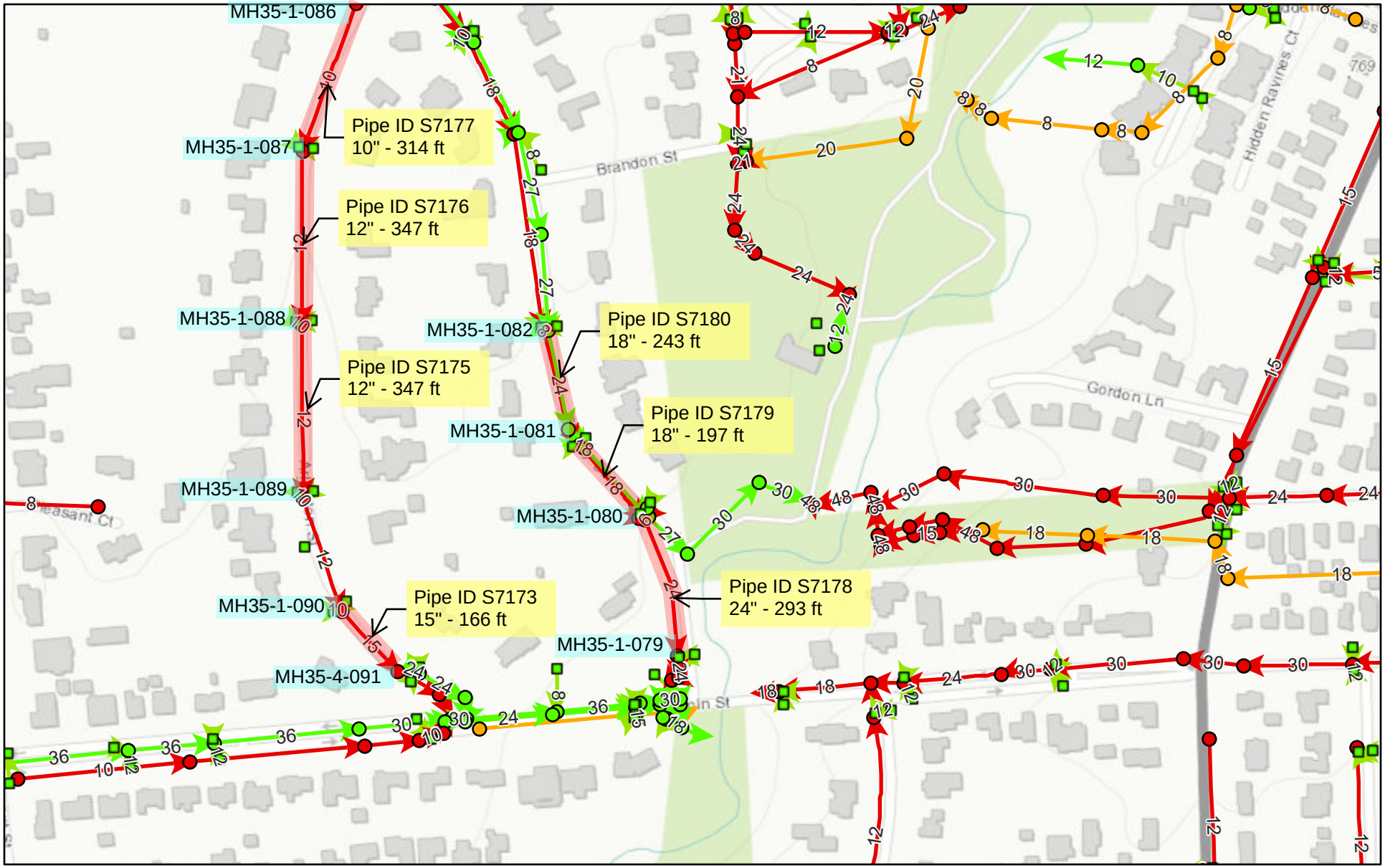
0 0.03 0.06 0.11 mi
0 0.04 0.09 0.18 km

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

City of Birmingham

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

South Arlington Shirley Sewer System



1/13/2026, 3:21:38 PM

1:4,514

0 0.03 0.06 0.11 mi

0 0.04 0.09 0.18 km

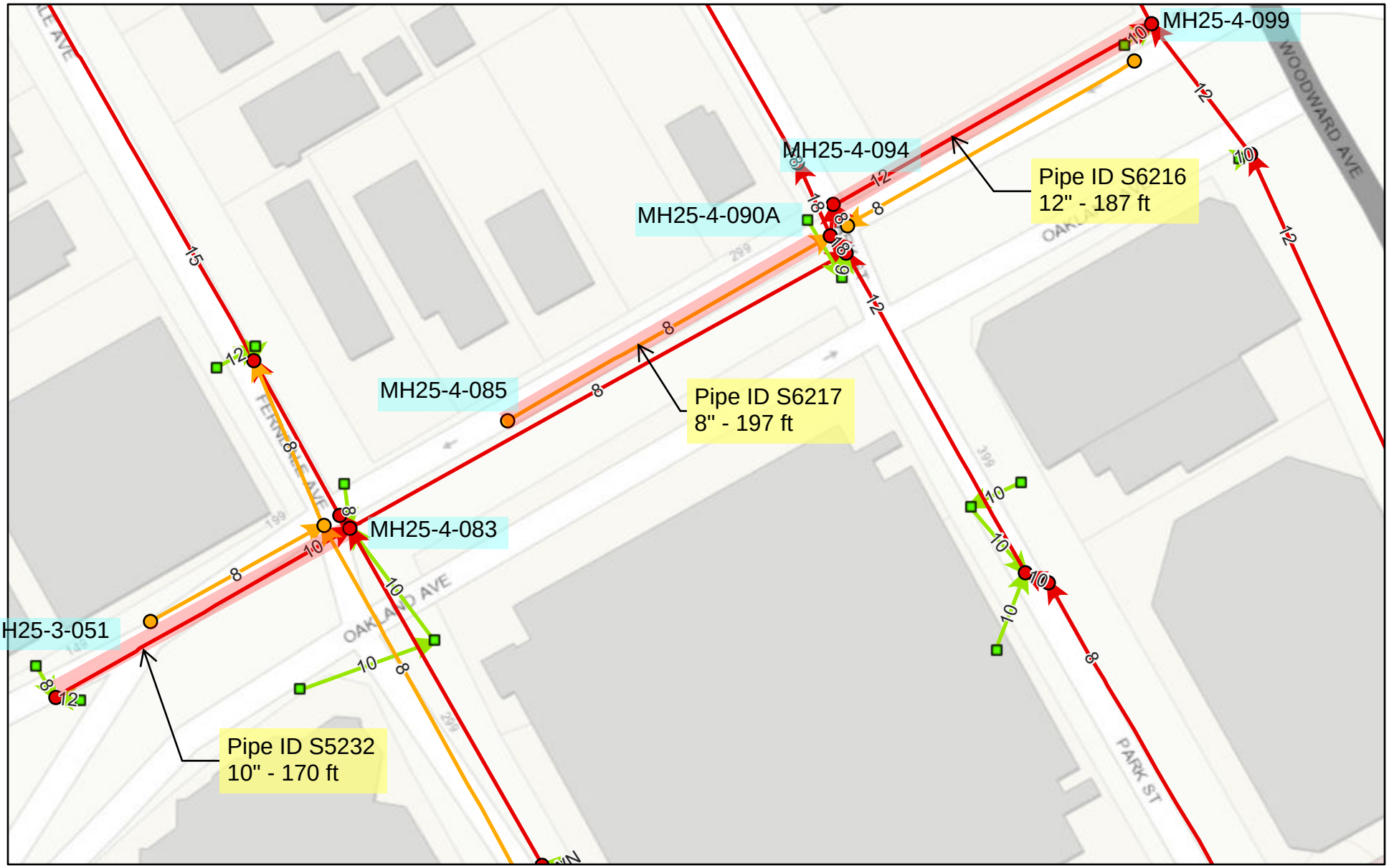
- Birmingham-Owned Sewer Inlet
- CombinedManhole
- Combined
- Birmingham-Owned Manhole
- Birmingham-Owned Sewer Main
- Catch Basin Lead
- SanitaryManhole
- Storm
- StormManhole
- Sanitary

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

City of Birmingham

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

Oakland Sewer System



1/13/2026, 2:43:57 PM

1:1,128

0 0.01 0.01 0.02 mi

0 0.01 0.02 0.04 km

Birmingham-Owned Sewer Inlet

CombinedManhole

Combined

Birmingham-Owned Manhole

Birmingham-Owned Sewer Main

Catch Basin Lead

SanitaryManhole

Sanitary

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

City of Birmingham

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

Rear Yard Ann Sewer System

1/13/2026, 3:02:26 PM

1:1,128

0 0.01 0.01 0.02 mi

0 0.01 0.02 0.04 km

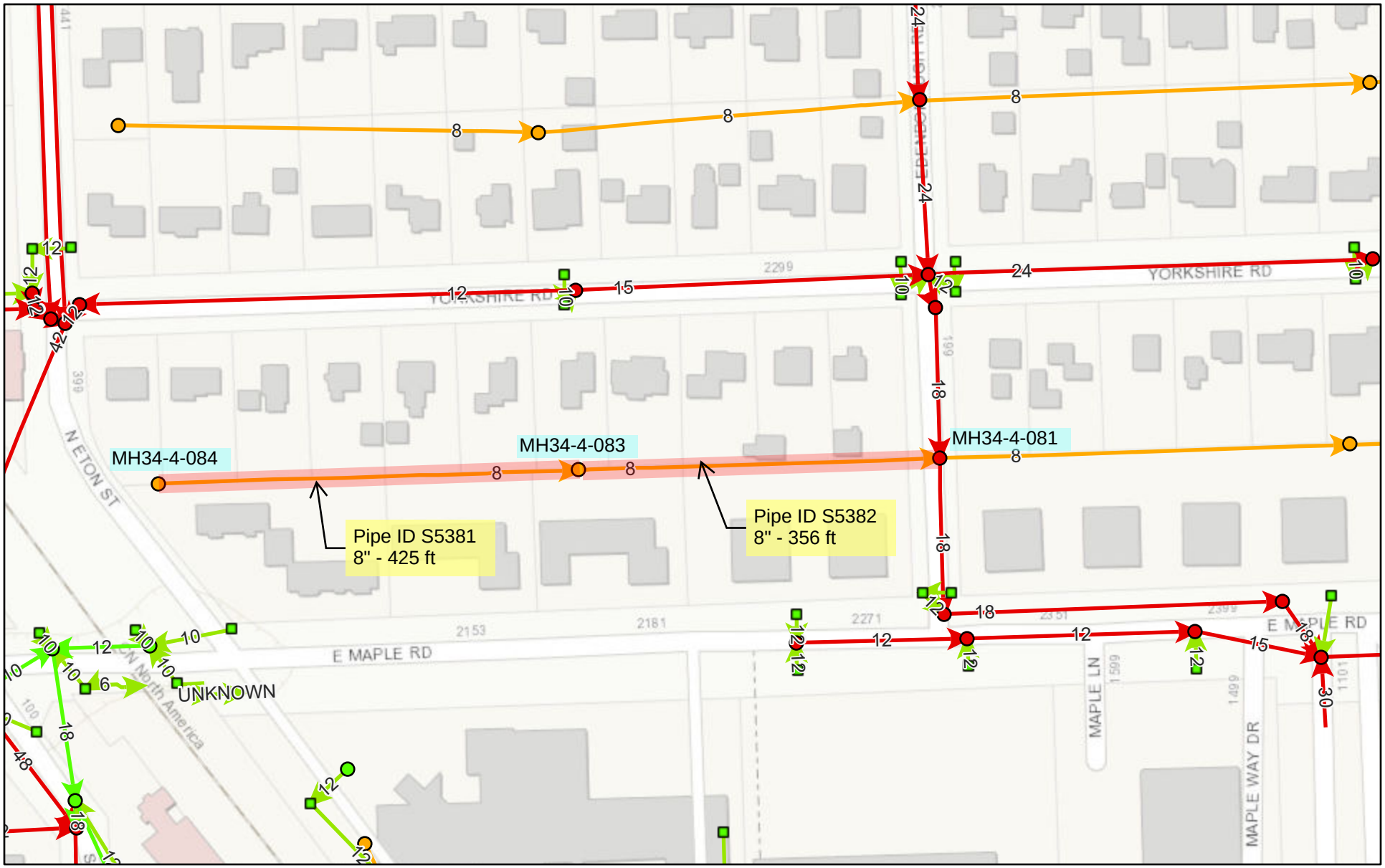
Birmingham-Owned Sewer Inlet
CombinedManhole
Combined
Birmingham-Owned Manhole
Birmingham-Owned Sewer Main
Catch Basin Lead
SanitaryManhole
Storm
StormManhole
Sanitary

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

City of Birmingham

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

Rear Yard North of Maple Sewer System



1/13/2026, 2:50:14 PM

1:2,257

0 0.01 0.03 0.05 mi

0 0.02 0.04 0.09 km

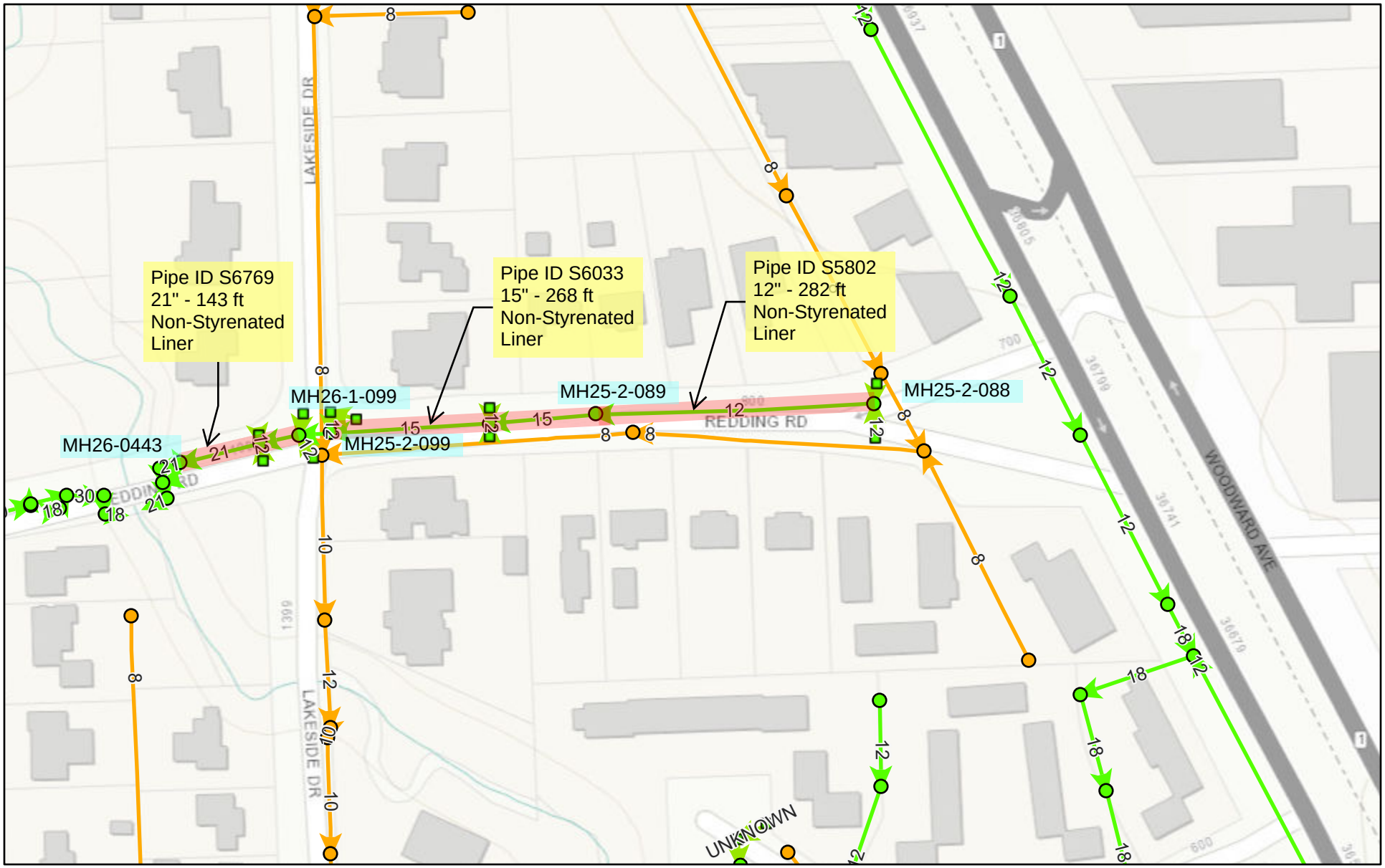
Birmingham-Owned Sewer Inlet
CombinedManhole
Combined
Birmingham-Owned Manhole
Birmingham-Owned Sewer Main
Catch Basin Lead
SanitaryManhole
Storm
StormManhole
Sanitary

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

City of Birmingham

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

Redding Road Sewer System



1/13/2026, 2:57:39 PM

1:2,257

0 0.01 0.03 0.05 mi

0 0.02 0.04 0.09 km

Birmingham-Owned Sewer Inlet

StormManhole

Sanitary

Birmingham-Owned Manhole

Birmingham-Owned Sewer Main

Catch Basin Lead

SanitaryManhole

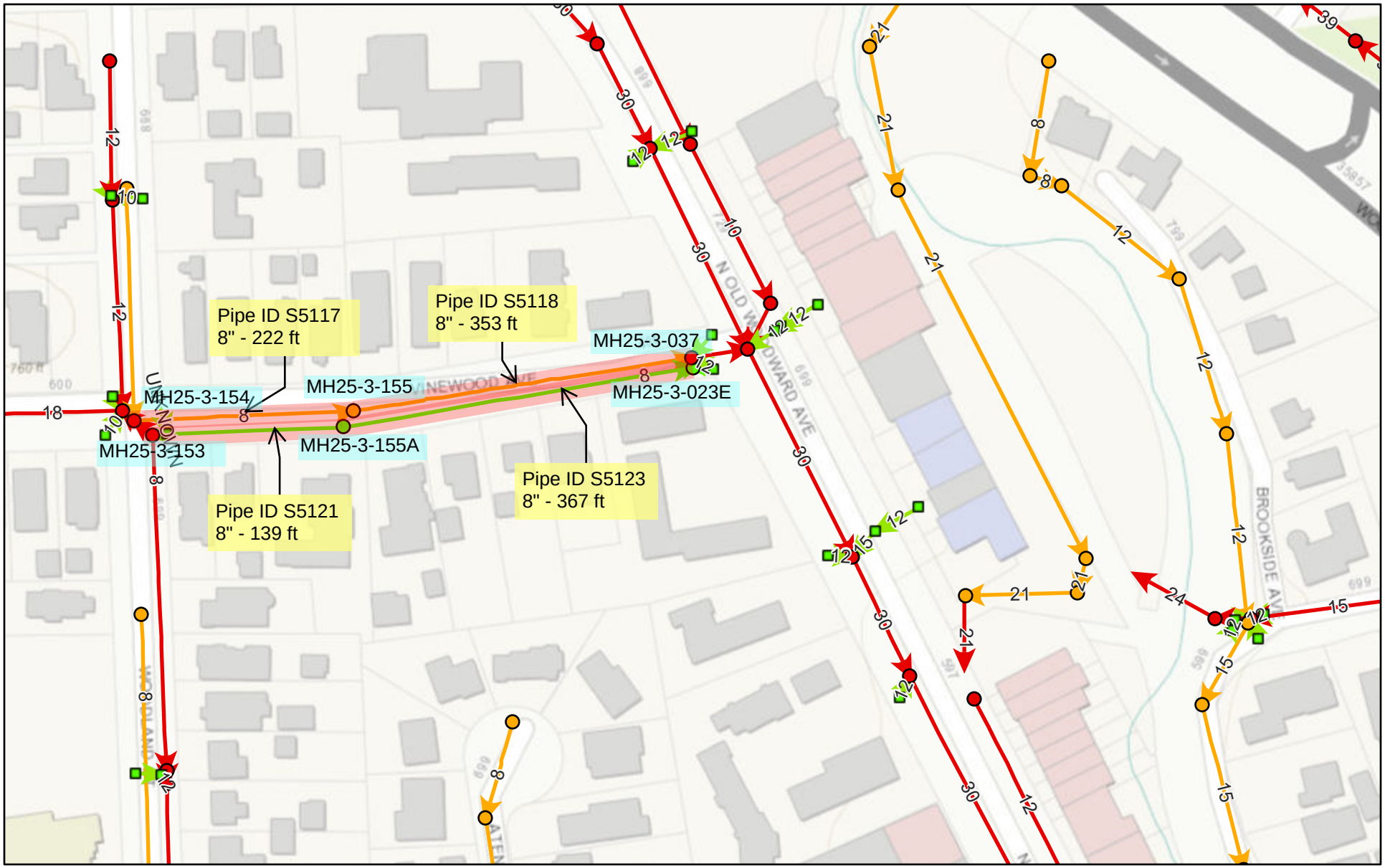
Storm

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

City of Birmingham

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

Vinewood Sewer System



1/13/2026, 2:36:32 PM

1:2,257

0 0.01 0.03 0.05 mi

0 0.02 0.04 0.09 km

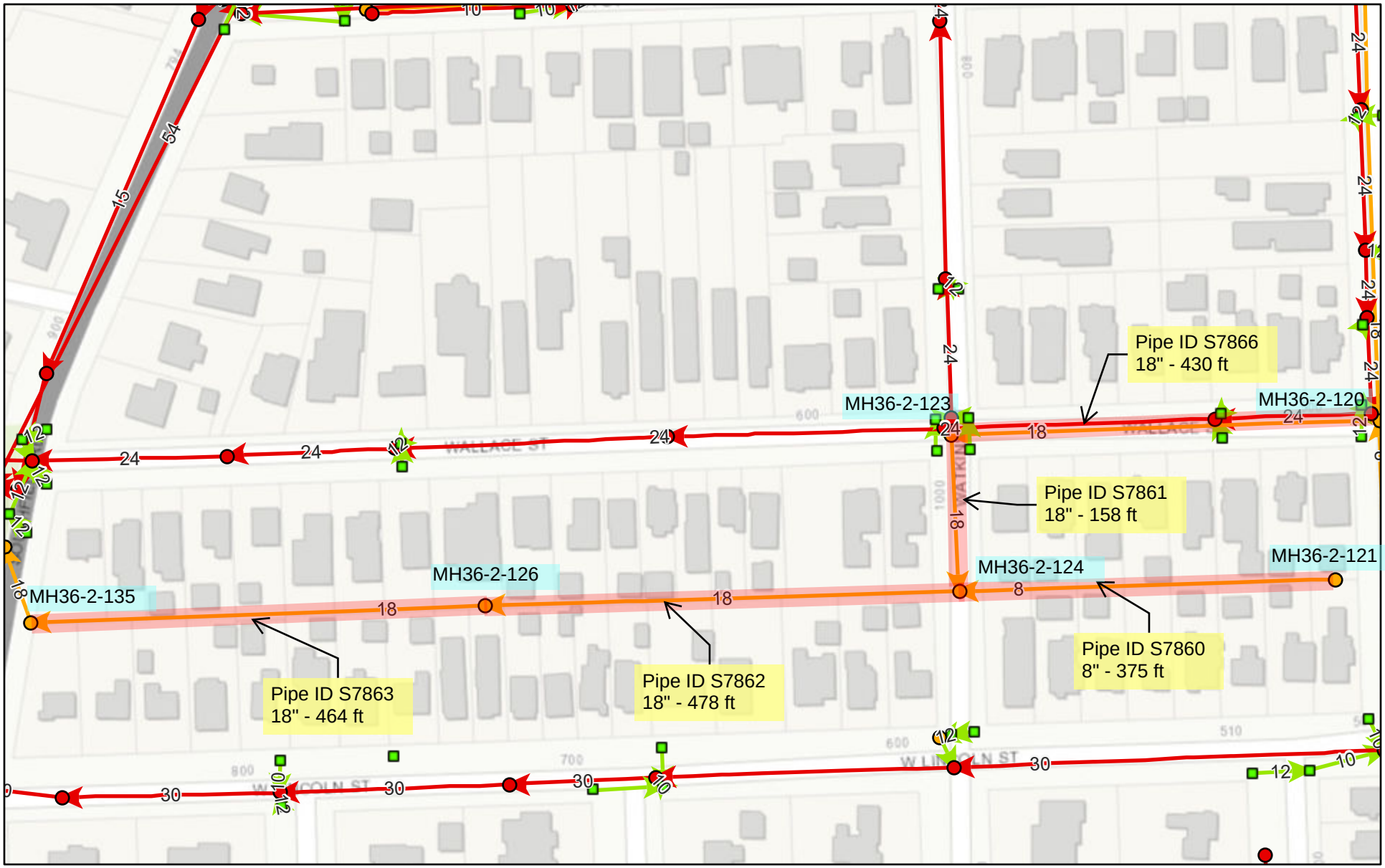
Birmingham-Owned Sewer Inlet
CombinedManhole
Combined
Birmingham-Owned Manhole
Birmingham-Owned Sewer Main
Catch Basin Lead
SanitaryManhole
Storm
StormManhole
Sanitary

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

City of Birmingham

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

Wallace Sewer System



1/13/2026, 3:52:46 PM

1:2,257

0 0.01 0.03 0.05 mi

0 0.02 0.04 0.09 km

Birmingham-Owned Sewer Inlet

CombinedManhole

Combined

Birmingham-Owned Manhole

Birmingham-Owned Sewer Main

Catch Basin Lead

SanitaryManhole

Sanitary

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

City of Birmingham

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

Sewer ID	Type	Dia	Length	Age	Material	Reason	Location	MH Upstream Depth	MH Downstream Depth	CIPP 8"-12"	CIPP 15"-18"	CIPP 21"-27"	Remove Roots	Remove Deposits
S5117	Sanitary	8	222			Vinewood		7.15	7.55	222				
S5118	Sanitary	8	353			Vinewood		7.55	5.50	353				
S5121	Storm	8	139			Vinewood		5.47	6.08	139				
S5123	Storm	8	367			Vinewood		6.47	5.28	367				
S5204	Combined	8	222	1925	Clay	Bonnie Brier		7.10	8.33	222				
S5205	Combined	8	180	1925	Clay	Bonnie Brier		8.61	5.02	180				
S5232	Combined	10	170	UNK	Clay	Oakland Ave		5.39	6.25	170			3	1
S5381	Sanitary	8	425	1948	Clay	Rear Yard Sewer	Rear yard north of E Maple and east of N Eton	6.11	5.70	425				
S5382	Sanitary	8	357	1948	Clay	Rear Yard Sewer	Rear yard north of E Maple and east of N Eton	5.83	6.00	357				
S5802	Storm	12	282	1961	RCP	Redding Project		7.24	5.22	282				
S6033	Storm	15	268	1961	RCP	Redding Project		4.97	3.83		268			
S6216	Combined	12	187	UNK	Clay	Oakland Ave		9.16	11.27	187				
S6217	Sanitary	8	197	1925	Clay	Oakland Ave		6.99	8.61	197				
S6588	Sanitary	8	396	1925	Clay	Ann Street	Rear Yard west of Ann and north of Landon	7.90	7.85	396				
S6769	Storm	21	143	1961	RCP	Redding Project		4.04	12.47			143		
S7021	Combined	10	248	1927	RCP	Arlington/Shirley Project		6.68	7.32	248				
S7022	Combined	12	250	1927	RCP	Arlington/Shirley Project		7.20	6.89	250				
S7023	Combined	12	296	1927	RCP	Arlington/Shirley Project		6.84	10.03	296				
S7024	Combined	18	416	1927	RCP	Arlington/Shirley Project		10.21	8.75		416			
S7025	Combined	12	180	1927	RCP	Arlington/Shirley Project		9.18	9.97	180				
S7028	Combined	10	201	1927	RCP	Arlington/Shirley Project		7.04	6.50	201				
S7183	Combined	18	204	1927	RCP	Arlington/Shirley Project		8.62	8.58		204			
S7173	Combined	15	208	1927	RCP	Arlington/Shirley Project		9.78	5.98		166			
S7175	Combined	12	347	1927	RCP	Arlington/Shirley Project		7.28	7.91	347				
S7176	Combined	12	347	1927	RCP	Arlington/Shirley Project		9.26	7.22	347				
S7177	Combined	10	314	1927	RCP	Arlington/Shirley Project		7.70	9.22	314				
S7178	Combined	24	293	1952	RCP	Arlington/Shirley Project		7.79	5.84			293		
S7179	Combined	18	197	1927	RCP	Arlington/Shirley Project		8.48	8.66		197			
S7180	Combined	18	243	1927	RCP	Arlington/Shirley Project		6.31	8.24		243			
S7860	Sanitary	8	375	1922	Clay	Wallace Street	Rear yard south of Wallace east of Southfield	6.63	8.90	375				
S7861	Sanitary	18	158	1915	Clay	Watkins Street	Watkins south of Wallace	19.48	20.55		158			
S7862	Sanitary	18	478	1915	Clay	Wallace Street	Rear yard south of Wallace east of Southfield	20.56	20.77		478			
S7863	Sanitary	18	464	1915	Clay	Wallace Street	Rear yard south of Wallace east of Southfield	20.75	17.79		464			
S7866	Sanitary	18	430	1915	Clay	Wallace Street	Wallace between Watkins and Stanley	20.05	19.48		430			
										6055	3024	436		

BID TABULATION
CITY OF BIRMINGHAM
2025-2026 SEWER REHABILITATION PROGRAM
CONTRACT #4-26(S)

Bids Due: March 3, 2026

Item	Quantity	Unit	**Pamar Enterprises Inc.** 31604 Pamar Court New Haven, MI 48048 Unit Price	Total Cost	**D.V.M. Utilities, Inc.** 6045 Sims Rd, Suite #2 Sterling Heights, MI 48313 Unit Price	Total Cost	**Inland Waters Pollution Control** 4086 Michigan Avenue Detroit, MI 48210 Unit Price	Total Cost	**Insituform** 580 Goddard Avenue Chesterfield, MO 63005 Unit Price	Total Cost
EDGEWOOD RD. SEWER PAY ITEMS										
1. Mobilization (10% Max)	1	LS	$ 12,000.00	$ 12,000.00	$ 38,000.00	$ 38,000.00	$ 26,000.00	$ 26,000.00	$ 20,577.23	$ 20,577.23
2. Audio-Video Recording of Construction Areas	1	LS	$ 3,960.00	$ 3,960.00	$ 7,500.00	$ 7,500.00	$ 6,512.00	$ 6,512.00	$ 5,730.34	$ 5,730.34
3. Brush Clearing and Grubbing (as-needed)	5	EA	$ 55.00	$ 275.00	$ 850.00	$ 4,250.00	$ 1,016.00	$ 5,080.00	$ 561.80	$ 2,809.00
4. Pre-Lining Cleaning and Televising with PACP Reports, 8 to 12-inch Dia. Sewer	6,055	LFT	$ 6.00	$ 36,330.00	$ 5.00	$ 30,275.00	$ 4.00	$ 24,220.00	$ 3.21	$ 19,436.55
5. Pre-Lining Cleaning and Televising with PACP Reporting, 15 to 18-inch Dia. Sewer	3,024	LFT	$ 7.00	$ 21,168.00	$ 5.75	$ 17,388.00	$ 6.00	$ 18,144.00	$ 3.63	$ 10,977.12
6. Pre-Lining Clearing and Televising with PACP Reporting, 21 to 27-inch Dia. Sewer	436	LFT	$ 10.00	$ 4,360.00	$ 6.50	$ 2,834.00	$ 10.00	$ 4,360.00	$ 3.67	$ 1,600.12
7. Heavy Cleaning, 8 to 12-inch Dia. (as-needed)	20	HR	$ 250.00	$ 5,000.00	$ 380.00	$ 7,600.00	$ 410.00	$ 8,200.00	$ 340.91	$ 6,818.20
8. Heavy Cleaning, 15 to 18-inch Dia. (as-needed)	15	HR	$ 250.00	$ 3,750.00	$ 380.00	$ 5,700.00	$ 410.00	$ 6,150.00	$ 340.91	$ 5,113.65
9. Heavy Cleaning, 21 to 27-inch Dia. (as-needed)	5	HR	$ 250.00	$ 1,250.00	$ 380.00	$ 1,900.00	$ 410.00	$ 2,050.00	$ 340.91	$ 1,704.55
10. Cut Root Intrusion (as-needed)	25	EA	$ 165.00	$ 4,125.00	$ 150.00	$ 3,750.00	$ 63.00	$ 1,575.00	$ 168.54	$ 4,213.50
11. Cut/Grind Mineral Deposit (as-needed)	15	EA	$ 165.00	$ 2,475.00	$ 120.00	$ 1,800.00	$ 78.00	$ 1,170.00	$ 168.54	$ 2,528.10
12. Cut Intruding Tap (as-needed)	12	EA	$ 100.00	$ 1,200.00	$ 180.00	$ 2,160.00	$ 104.00	$ 1,248.00	$ 168.54	$ 2,022.48
13. Temporary Bypass Pumping (as-needed)	1	LS	$ 1,000.00	$ 1,000.00	$ 6,850.00	$ 6,850.00	$ 2,032.00	$ 2,032.00	$ 1,685.39	$ 1,685.39
14. Sewer Lining, CIPP, 8 to 12-inch Dia.	5,773	LFT	$ 36.00	$ 207,828.00	$ 40.00	$ 230,920.00	$ 38.00	$ 219,374.00	$ 41.45	$ 239,290.85
15. Sewer Lining, CIPP, VOC/HAP Free Resin, 12-inch Dia.	282	LFT	$ 49.00	$ 13,818.00	$ 53.00	$ 14,946.00	$ 72.00	$ 20,304.00	$ 68.40	$ 19,288.80
16. Sewer Lining, CIPP, 15 to 18-inch Dia.	2,756	LFT	$ 84.00	$ 231,504.00	$ 72.00	$ 198,432.00	$ 87.00	$ 239,772.00	$ 93.94	$ 258,898.64
17. Sewer Lining, CIPP, VOC/HAP Free Resin, 15-inch Dia.	268	LFT	$ 67.00	$ 17,956.00	$ 89.50	$ 23,986.00	$ 139.00	$ 37,252.00	$ 94.45	$ 25,312.60
18. Sewer Lining, CIPP, 21 to 71-inch Dia.	293	LFT	$ 128.00	$ 37,504.00	$ 116.00	$ 33,988.00	$ 108.00	$ 31,644.00	$ 119.16	$ 34,913.88
19. Sewer Lining, CIPP, VOC/HAP Free Resin, 21-inch Dia.	143	LFT	$ 132.00	$ 18,876.00	$ 175.00	$ 25,025.00	$ 244.00	$ 34,892.00	$ 197.44	$ 28,233.92
20. Internal Sewer Repair Sleeve, 8 to 12-inch Dia., 24-inch Length, as needed	5	EA	$ 2,600.00	$ 13,000.00	$ 4,150.00	$ 20,750.00	$ 3,555.00	$ 17,775.00	$ 3,932.58	$ 19,662.90
21. Internal Sewer Repair Sleeve, 15 to 21-inch Dia., 24-inch Length, as needed	2	EA	$ 4,000.00	$ 8,000.00	$ 4,900.00	$ 9,800.00	$ 4,063.00	$ 8,126.00	$ 4,494.38	$ 8,988.76
22. Internal Sewer Repair Sleeve, 24 to 36-inch Dia., 24-inch Length, as needed	1	EA	$ 4,200.00	$ 4,200.00	$ 5,425.00	$ 5,425.00	$ 6,094.00	$ 6,094.00	$ 6,741.57	$ 6,741.57
23. Sewer Grouting Set Up	6	EA	$ 1,500.00	$ 9,000.00	$ 1,235.00	$ 7,410.00	$ 1,793.00	$ 10,758.00	$ 1,685.39	$ 10,112.34
24. Sewer Joint Grouting, 8 to 12-inch Dia.	5	EA	$ 2,000.00	$ 10,000.00	$ 780.00	$ 3,900.00	$ 2,390.00	$ 11,950.00	$ 2,247.19	$ 11,235.95
25. Sewer Joint Grouting, 15 to 21-inch Dia.	4	EA	$ 2,000.00	$ 8,000.00	$ 1,000.00	$ 4,000.00	$ 2,390.00	$ 9,560.00	$ 2,247.19	$ 8,988.76
26. Sewer Joint Grouting, 24 to 36-inch Dia.	1	EA	$ 2,000.00	$ 2,000.00	$ 1,100.00	$ 1,100.00	$ 2,390.00	$ 2,390.00	$ 2,247.19	$ 2,247.19
27. Reconstruct Manhole Chimney	4	VF	$ 880.00	$ 3,520.00	$ 3,750.00	$ 15,000.00	$ 4,182.00	$ 16,728.00	$ 1,123.60	$ 4,494.40
28. Reset Frame and Cover	4	EA	$ 1,500.00	$ 6,000.00	$ 1,000.00	$ 4,000.00	$ 747.00	$ 2,988.00	$ 702.25	$ 2,809.00
29. Traffic Control	1	LS	$ 1,500.00	$ 1,500.00	$ 11,500.00	$ 11,500.00	$ 4,000.00	$ 4,000.00	$ 11,235.96	$ 11,235.96
30. Site Restoration	1	LS	$ 1,500.00	$ 1,500.00	$ 5,500.00	$ 5,500.00	$ 2,390.00	$ 2,390.00	$ 2,247.19	$ 2,247.19
31. Inspector Crew Days	$650.00	DAY	36	$ 23,400.00	70	$ 45,500.00	41	$ 26,650.00	62	$ 40,300.00
TOTAL BID:				**$ 714,499.00**		**$ 791,189.00**		**$ 809,388.00**		**$ 820,218.94**

Corrected By Engineer*

2025-2026 SEWER REHABILITATION PROGRAM

BIRMINGHAM

A WALKABLE CITY

CONTRACT #4-25(S)

CITY OF BIRMINGHAM

ENGINEERING DEPARTMENT

Contractor's Name: Pamar Enterprises, Inc.

2025-2026 SEWER REHABILITATION PROGRAM
CONTRACT #4-25(S)
INDEX

050	Advertisement	1 Pages
100	Proposal	6 Pages
110	Contract	2 Pages
107	Bryd Anti-Lobbying Amendment Form	2 Pages
115	Iran Sanctions Act Certification	1 Pages
120	Performance Bond	2 Pages
130	Payment Bond	2 Pages
140	Payment Forms	7 Pages
	Request For Partial Payment Request For Final Payment Sworn Statement Work Directive	
301	Supplemental Instructions to Bidders	3 Pages
310	General Instructions to Bidders	4 Pages
400	General Requirements	16 Pages
600	Sewers and Associated Structures	12 Pages
900	Supplemental Specifications	6 Pages
1000	Contract Provision for Non-Federal Entity Contracts Under Federal Awards	1 Page
1005	Disadvantaged Business Enterprise (DBE)/Prime Contractor Good Faith Efforts (GFE)	1 Pages
1010	Davis-Bacon Act	12 Pages
1020	Build America, Buy America	5 Pages
1030	American Iron and Steel	1 Page
2031	Color Audio-Video Route Survey	5 Pages
2141	Temporary Bypass Pumping	11 Pages
2704	Internal Sewer Inspection	12 Pages
2708	Resin Impregnated Flexible Fabric Liner and Cured-in-Place Pipe	20 Pages
2734	Manhole Rehabilitation	4 Pages
2751	Cleaning of Sewer Lines	5 Pages

2766 Packer Injection of Chemical Grout for Sewer Pre-Rehabilitation 14 Pages

SP-1 Special Provision for Site Restoration 3 Pages

SP-2 Special Provision for Spot Liner Repair 1 Page

Appendices:

A: Project Plans 11 Pages

B: CCTV Sewer Inspection Logs 172 Pages

C: Manhole Information within Easement 8 Pages

ADVERTISEMENT

CITY OF BIRMINGHAM, MICHIGAN
2025-2026 SEWER REHABILITATION PROGRAM
CONTRACT # 4-25(S)

Sealed proposals endorsed "2025-2026 Sewer Rehabilitation Program - Contract # 4-25(S)" will be received from contractors by the City of Birmingham, at the office of the City Clerk, located at 151 Martin Street, Birmingham, Michigan, until **2:30 P.M. local time, on Thursday, March 26, 2026.** The proposals will be opened and publicly read aloud at that time. Bids submitted after the exact time specified for receipt will not be considered.

This project includes cleaning and lining of various public sewers in seven areas in the City of Birmingham. Approximate quantities include 3,233-lf. of 8" sewer lining, 933-lft of 10" sewer lining, 1,889-lft of 12" sewer lining, 476-lft of 15" sewer lining, 2,590-lft of 18" sewer lining, 143-lft of 21" sewer lining, 293-lft of 24" sewer lining, minor manhole rehabilitation, plus other work to make a complete project.

Bidders shall review and comply with all Contract Documents, and supplemental information, as defined in the Information For Bidders.

Please note that Prime Contractors bidding on this project must follow, document, and maintain documentation of their Good Faith Efforts (GFE), to ensure that Disadvantaged Business Enterprises (DBEs) have the opportunity to participate in the project by increasing DBE awareness of procurement efforts and outreach. In addition, Labor Standards Provisions for Federally Assisted Projects, including Davis-Bacon Act compliance, must be adhered to. Lastly, applicable materials for this project must meet the "Build America, Buy America" requirements of federally funded projects.

Bidding documents for this project must be obtained electronically through the Michigan Inter-governmental Trade Network (MITN), which may be accessed at https://www.bidnetdirect.com/mitn. Vendors wishing to obtain copies of the bidding documents will need to register through the MITN website. Electronic versions of bidding documents will be posted to MITN starting **Thursday, February 26, 2026**.

The successful bidder shall be required to post bonds, and to comply with the contract requirements of the City Charter. Bids are firm, and no bid may be withdrawn for a period of sixty (60) days after opening of bids.

Procurement for the City of Birmingham will be handled in a manner providing fair opportunity for all businesses. This will be accomplished without abrogation or sacrifice of quality and as determined to be in the best interest of the City of Birmingham. The City reserves the right to reject any and all bid proposals, to waive any irregularity in any of the bid proposals submitted, and to accept any proposal which it shall deem to be the most favorable to the interest of the City.

A certified check or bid bond in the amount of five percent (5%) of the base bid must accompany each bid proposal.

ALEXANDRIA BINGHAM
CITY CLERK

Published in:
MITN

PROPOSAL

2025-2026 SEWER REHABILITATION PROGRAM

CONTRACT # 4-25(S)

TO THE CITY OF BIRMINGHAM, MICHIGAN:

The undersigned, being familiarized with the local conditions affecting the cost of the work and the Contract Documents including all those sections listed in the Index, hereby proposes to perform everything noted herein and to provide and furnish all labor, materials, except as otherwise specified, necessary to construct and complete in a workmanlike manner all of the work required to be performed for the **2025-2026 Sewer Rehabilitation Program, Contract #4-25 (S)** in conformance with the requirements shown or implied in the above contract documents all of which are hereby made a part of this contract at the following unit prices as here stated and further defined in the specifications.

Bidder has examined copies of all Contract Documents and of the following addenda:

Date	Addendum Number
#1	3-17-26
#2	3-19-26

Bidder must write out in words the unit price of each item on the line provided under each pay item.

No.	ITEMS FOR BID	QTY	UNITS	UNIT PRICE	AMOUNT
1.	Mobilization (10% Max)	1	LS	12,000.00	12,000.00
2.	Audio-Video Recording of Construction Areas	1	LS	3,960.00	3,960.00
3.	Brush Clearing and Grubbing (as-needed)	5	EA	55.00	275.00
4.	Pre-Lining Cleaning and Televising with PACP Reporting, 8 to 12-inch Dia. Sewer	6,055	LFT	6.00	36,330.00
5.	Pre-Lining Cleaning and Televising with PACP Reporting, 15 to 18-inch Dia. Sewer	3,024	LFT	7.00	21,168.00
6.	Pre-Lining Cleaning and Televising with PACP Reporting, 21 to 27-inch Dia. Sewer	436	LFT	10.00	4,360.00
7.	Heavy Cleaning, 8 to 12-inch Dia. (as-needed)	20	HR	250.00	5,000.00

ADDENDUM NO. 1

No.	ITEMS FOR BID	QTY	UNITS	UNIT PRICE	AMOUNT
8.	Heavy Cleaning, 15 to 18-inch Dia. (as-needed)	15	HR	250.00	3,750.00
9.	Heavy Cleaning, 21 to 27-inch Dia. (as-needed)	5	HR	250.00	1,250.00
10.	Cut Root Intrusion (as-needed)	25	EA	165.00	4,125.00
11.	Cut/Grind Mineral Deposit (as-needed)	15	EA	165.00	2,475.00
12.	Cut Intruding Tap (as-needed)	12	EA	100.00	1,200.00
13.	Temporary Bypass Pumping (as-needed)	1	LS	1,000.00	1,000.00
14.	Sewer Lining, CIPP, 8 to 12-inch Dia.	5,773	LFT	36.00	207,828.00
15.	Sewer Lining, CIPP, VOC/HAP Free Resin, 12 inch Dia.	282	LFT	49.00	13,818.00
16.	Sewer Lining, CIPP, 15 to 18-inch Dia.	2,756	LFT	84.00	231,504.00
17.	Sewer Lining, CIPP, VOC/HAP Free Resin, 15 inch Dia.	268	LFT	67.00	17,956.00
18.	Sewer Lining, CIPP, 21 to 27-inch Dia.	293	LFT	128.00	37,504.00
19.	Sewer Lining, CIPP, VOC/HAP Free Resin, 21 inch Dia.	143	LFT	132.00	18,876.00
20.	Internal Sewer Repair Sleeve, 8 to 12-inch Dia., 24-inch Length, as needed	5	EA	2,600.00	13,000.00
21.	Internal Sewer Repair Sleeve, 15 to 21-inch Dia., 24-inch Length, as needed	2	EA	4,000.00	8,000.00
22.	Internal Sewer Repair Sleeve, 24 to 36-inch Dia., 24-inch Length, as needed	1	EA	4,200.00	4,200.00
23.	Sewer Grouting Set Up	6	EA	1,500.00	9,000.00
24.	Sewer Joint Grouting, 8 to 12-inch Dia.	5	EA	2,000.00	10,000.00
25.	Sewer Joint Grouting, 15 to 21-inch Dia.	4	EA	2,000.00	8,000.00

ADDENDUM NO. 1

No.	ITEMS FOR BID	QTY	UNITS	UNIT PRICE	AMOUNT
26.	Sewer Joint Grouting, 24 to 36-inch Dia.	1	EA	2,000.00	2,000.00
27.	Reconstruct Manhole Chimney	4	VF	880.00	3,520.00
28.	Reset Frame and Cover	4	EA	1,500.00	6,000.00
29.	Traffic Control	1	LS	1,500.00	1,500.00
30.	Site Restoration	1	LS	1,500.00	1,500.00
31.	Inspector Crew Days	36.0	DAYS	$650.00	23,400.00

TOTAL BID: $ 714,499.00

Accompanying this proposal is a certified check, bid bond or bank draft in the amount of five (5) percent of the total bid, payable to the City of Birmingham, Michigan, which it is agreed will be forfeited to the City of Birmingham if the undersigned fails to enter into a contract in conformity with the form of contract incorporated herein, and furnish bonds and insurance as specified within twenty-one (21) days after the contract is awarded to the undersigned or withdraws this bid within sixty (60) days of the date hereof.

In submitting this bid, it is understood that the right is reserved by the City of Birmingham, Michigan to reject any or all bids.

The undersigned hereby agrees to execute a contract with the City of Birmingham, Michigan according to the forms attached hereto and furnish the required bonds, all within twenty-one (21) days after the award of the contract; and will fully complete all work as stated under TIME OF COMPLETION and LIQUIDATED DAMAGES in Supplemental Instructions to Bidders.

The Bidder will identify the business entity as individuals, or if doing business under assumed name, indicate assumed name, partnership (naming partners) and indicate official capacity of persons executing proposal and bid.

Contractor's Name Pamar Enterprises, Inc.

Street Address 31604 Pamar Court

City New Haven County Macomb

State/Zip Code Michigan, 48048

Email virgil@pamarenterprises.com

ADDENDUM NO. 1

CITY OF BIRMINGHAM
CONTRACT # 4-25(S)

PROPOSAL
100-4

Telephone (586) 749-8593 Fax (586) 749-8839

Date 3-26-26

Signed by

Print Name: Virgil Klebba

Title: Director of Trenchless

If a corporation, give state in which incorporated: Michigan

Witnessed:

Print Name: Susan Mazza, E.A.

Name of Superintendent Dan Ede
Supervision & time sequence according to the General Requirements

Give below at least three (3) references as to ability to do work proposed.

Name Charles Hart Address 555 Hulet Drive, Bloomfield Hills, 48302

Firm Hubbell Roth & Clark Telephone (248) 425-4348

Name Brent Kraft Address 6303 26 Mile Road, Ste 100, Washington Twp, 48094

Firm Giffels Webster Telephone (586) 292-7148

Name Marcus McNamara Address 34000 Plymouth Rd., Livonia, 48150

Firm OHM Advisors Telephone (734) 522-6711

Give below the last five (5) projects worked on, including those currently in progress, in chronological order. The names need not all be different from those listed above:

Project #1: Name of Project: *****See Attached CIPP Projects (2Pgs) & Cleaning & Televising Projects (2Pgs)

Date Started _____ Finished _____

Name _____ Address _____

Firm _____ Telephone _____

Project #2: Name of Project: _____

ADDENDUM NO. 1

Date Started _____ Finished _____

Name _____ Address _____

Firm _____ Telephone _____

Project #3: Name of Project: _____

Date Started _____ Finished _____

Name _____ Address _____

Firm _____ Telephone _____

Project #4: Name of Project: _____

Date Started _____ Finished _____

Name _____ Address _____

Firm _____ Telephone _____

Project #5: Name of Project: _____

Date Started _____ Finished _____

Name _____ Address _____

Firm _____ Telephone _____

Give below all the subcontractors to be used on the project: If additional space is necessary, please use the back of this page. Should the contractor wish to use any subcontractors that are not on this list after award, the contractor shall submit a written request to the Engineer and obtain authorization for same, prior to proceeding. All subcontractors not listed must receive written approval from the City of Birmingham, prior to working on this project.

Name Brad Bores Films, LLC Address PO Box 891, Columbia City, IN 46725

Firm N/A Telephone (260) 600-8172

Type of Work to be Performed: Pre Construction Video

Name Advanced Underground Inspection Address 39101 Webb Dr., Westland, MI 48185

Firm N/A Telephone (734) 721-0081

ADDENDUM NO. 1

Type of Work to be Performed: Grouting

Name _____ Address _____

Firm _____ Telephone _____

Type of Work to be Performed: _____

Name _____ Address _____

Firm _____ Telephone _____

Type of Work to be Performed: _____

Name _____ Address _____

Firm _____ Telephone _____

Type of Work to be Performed: _____

Name _____ Address _____

Firm _____ Telephone _____

Type of Work to be Performed: _____

END OF SECTION

2025-2026 SEWER REHABILITATION PROGRAM- # 4-25(S)

CONTRACT

THIS AGREEMENT made the _____ day of _____, 2026, by and between the CITY OF BIRMINGHAM, Oakland County, Michigan, hereinafter called the "City", and Pamar Enterprises, Inc. of the City of New Haven, County of Macomb, State of Michigan, hereinafter called the "Contractor", relative to Contract No. 4-25(S), otherwise known as: 2025-2026 SEWER REHABILITATION PROGRAM in the amount of $714,499.00 to wit:

1. The documents consisting of RFP, including all exhibits and the General Contract Conditions, and the Bid shall be incorporated herein by reference, shall become a part of this Agreement, and shall be binding upon both parties hereto. In the event that there is a conflict between these documents, this Agreement shall control, then the RFP, and then the Bid.

2. The Contractor shall furnish all labor, materials and appliances necessary, and to all the work as set forth in the Proposal, and in accordance with the plans and specifications, which have been made a part of this agreement in a manner, time and place, as therein set forth.

   a. The Contractor shall provide a Performance Bond, which form is attached hereto and incorporated herein by reference to protect the City, and conditioned upon the faithful performance of the contract in accordance with the plans, specifications and terms hereof.

   b. The Contractor shall provide a Payment Bond which form is attached hereto and incorporated herein by reference for the protection of the claimants as defined in MCL §129.201(6) to supply labor or materials to the principal Contractor or his Subcontractor and the prosecution of the work provided for in this contract.

3. Time is of the essence of this agreement. All of the work to be performed by the Contractor shall be completed on or before the Time of Completion, as set forth in the Supplemental Instructions to Bidders. The Contractor shall pay to the City as liquidated damages, the amount per day as set forth under Liquidated Damages in the Supplemental Instructions to Bidders, for each calendar day after the date specified under Time of Completion that the work to be performed by the Contractor is not completed. Liquidated damages are established because of the difficulty in ascertaining actual damages which the City might sustain, and are not intended as a penalty.

4. The City promises and agrees to pay said Contractor for all labor, materials and appliances supplied, and for all work performed under this agreement at the unit prices provided in the attached Proposals and Specifications.

5. For the faithful performances of the terms of this agreement, said parties respectively bind themselves, their successors, heirs, executors, administrators and assigns.

IN WITNESS WHEREOF, the parties execute this agreement as of the day and year first written above.

CITY OF BIRMINGHAM

By: _____
Mayor

Attest _____
City Clerk

Witnessed _____
Angela Stanley, Project Administrator

Date: _____

By: _____
Brian Olesky, Vice President

Pamar Enterprises, Inc
Contractor

APPROVAL (1.135 City Code)

_____
City Manager as to Substance

_____
City Attorney as to Form

_____
Director of Finance as to Financial Obligation

_____
City Engineer

Melissa Fairbairn / per MC
Assistant City Manager

SECTION 115
IRAN SANCTIONS ACT CERTIFICATION FORM

Pursuant to Michigan Law and the Iran Economic Sanction Act, 2012 PA 517 ("Act"), prior to the City accepting any bid or proposal, or entering into any contract for goods or services with any prospective Vendor, the Vendor must certify that it is not an "Iran Linked Business", as defined by the Act.

By completing this form, the Vendor certifies that it is not an "Iran Linked Business", as defined by the Act and is in full compliance with all provisions of the Act and is legally eligible to submit a bid for consideration by the City.

Brian Olesky — PREPARED BY (Print Name)
3-26-26 — DATE

Vice President — TITLE
3-26-26 — DATE

AUTHORIZED SIGNATURE

brian@pamarenterprises.com — E-MAIL ADDRESS

Pamar Enterprises, Inc. — COMPANY

31604 Pamar Court, New Haven, MI 48048 — ADDRESS
(586) 749-8593 — PHONE

N/A — NAME OF PARENT COMPANY

N/A — ADDRESS
N/A — PHONE

38-2117453 — TAXPAYER I.D.#

SECTION 117
BYRD ANTI-LOBBYING AMENDMENT FORM

Contractors who apply or bid for an award of $100,000 or more shall file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, officer or employee of Congress, or an employee of a Member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient who in turn will forward the certification(s) to the awarding agency.

APPENDIX A, 44 C.F.R. PART 18 – CERTIFICATION REGARDING LOBBYING – REQUIRED FOR CONTRACTS OVER $100,000
Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

The Contractor, Pamar Enterprises, Inc., certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. Chap. 38, Administrative Remedies for False Claims and Statements, apply to this certification and disclosure, if any.

Brian Olesky
NAME (Print)

Vice President
TITLE

AUTHORIZED SIGNATURE

3-26-26
DATE

THE AMERICAN INSTITUTE OF ARCHITECTS

AIA Document A310

Bid Bond

KNOW ALL MEN BY THESE PRESENTS, that we

Pamar Enterprises, Inc.
31604 Pamar Court,New Haven, MI 48048

as Principal, hereinafter called Principal, and

Travelers Casualty and Surety Company of America
One Tower Square,Hartford, CT 06183

a corporation duly organized under the laws of the State of **Connecticut**
as Surety, hereinafter called Surety, are held and firmly bound unto

City of Birmingham
151 Martin Street,Birmingham, MI 48009

as Obligee, hereinafter called Obligee, in the sum of **Five Percent of Accompanying Bid**

Dollars (**5% of Bid**

for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for (Here insert full name, address and description of project)

2025-2026 Sewer Rehabilitation Program Contract #4-25(S)

NOW, THEREFORE, if the Obligee shall accept the bid of the Principal and the Principal shall enter into a Contract with the Obligee in accordance with the terms of such bid, and give such bond or bonds as may be specified in the bidding or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such Contract and give such bond or bonds, if the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith contract with another party to perform the Work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

Signed and sealed this **26th** day of **March**, **2026**.

Pamar Enterprises, Inc.

Susan Mazza
(Witness)
SUSAN MAZZA, E.A.

(Principal) (Seal)
BRIAN OLESKY, (Title) VICE PRESIDENT

Travelers Casualty and Surety Company of America
(Surety) (Seal)

(Witness)

Holly Nichols
(Title)
Holly Nichols, Attorney in Fact

AIA DOCUMENT A310 – BID BOND – AIA © - FEBRUARY 1970 ED – THE AMERICAN INSTITUTE OF ARCHITECTS, 1735 N.Y. AVE., N.W., WASHINGTON, D.C. 20006

TRAVELERS

Travelers Casualty and Surety Company of America
Travelers Casualty and Surety Company
St. Paul Fire and Marine Insurance Company

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company are corporations duly organized under the laws of the State of Connecticut (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint Nicholas Ashburn, Anne M Barick, Robert D Heuer, Paul Hurley, Michael D Lechner, Mark Madden, Richard S McGregor, and Holly Nichols of Rochester Hills, Michigan, their true and lawful Attorney(s)-in-Fact to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business ofguaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed, and their corporate seals to be hereto affixed, this **21st** day of **April**, 2021.

HARTFORD, CONN. HARTFORD, CONN. CORPORATE SEAL

State of Connecticut

By: _____
Robert L. Raney, Senior Vice President

City of Hartford ss.

On this the **21st** day of **April, 2021**, before me personally appeared **Robert L. Raney,** who acknowledged himself to be the Senior Vice President of each of the Companies, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of said Companies by himself as a duly authorized officer.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission expires the **30th** day of **June, 2026**

ANNA P. NOWIK NOTARY PUBLIC

_____
Anna P. Nowik, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of each of the Companies, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

FURTHER RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

FURTHER RESOLVED, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

FURTHER RESOLVED, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, **Kevin E. Hughes**, the undersigned, Assistant Secretary of each of the Companies, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which remains in full force and effect.

Dated this 26th day of March , 2026 .

HARTFORD, CONN. HARTFORD, CONN. CORPORATE SEAL

_____
Kevin E. Hughes, Assistant Secretary

To verify the authenticity of this Power of Attorney, please call us at 1-800-421-3880.
Please refer to the above-named Attorney(s)-in-Fact and the details of the bond to which this Power of Attorney is attached.

2025-2026 SEWER REHABILITATION PROGRAM - CONTRACT #4-25(S)

PERFORMANCE BOND Bond No. 108467661

KNOW ALL MEN BY THESE PRESENTS that we, the undersigned Pamar Enterprises, Inc

31604 Pamar Court, New Haven, MI 48048 as Principal, and

Travelers Casualty and Surety Company of America, One Tower Square, Hartford, CT 06183 as Sureties, are hereby held and firmly bound unto the **CITY OF BIRMINGHAM, MICHIGAN** in the sum of Seven Hundred Fourteen Thousand Four Hundred Ninety Nine and 00/100 Dollars ($ 714,499.00), in lawful money of the United States, for the payment of which we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns this 9 day of April, 2026.

WHEREAS, the above bounded Principal has entered into a certain written contract with the above named City of Birmingham, Michigan dated 13 day of April, 2026 for the construction of .

2025-2026 Sewer Rehabilitation Program Contract #4-25(S)

,

which contract is hereby referred to and made a part hereof as fully and to the same extent as if the same were entirely written herein,

AND THE SAID SURETY, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder of the specifications accompanying the same shall in anywise affects its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract, or to the work or to the specifications.

NOW, THEREFORE, the condition of the above obligation is such that if the Principal shall fully perform the annexed contract according to the terms thereof, or as such terms may be changed or modified by mutual agreement, and shall guarantee all work furnished against all defects and incidental damage to other property for a period of one (1) year following final acceptance of the work, then this obligation shall be void, otherwise the same shall remain in full force and effect.

This Bond is provided in compliance with and subject to the provisions of Act 213 of the Public Acts of Michigan for 1963, as amended by Act 351 of the Public Acts of Michigan for 1972, also known as MCL §129.201 et. seq.

WITNESSED:

Angela Stanley, Project Administrator

Pamar Enterprises, Inc

Brian Olesky, Vice President

Principal

Travelers Casualty and Surety Company of America

Holly Nichols (Attorney-in-Fact)

PAYMENT BOND Bond No. 108467661

KNOW ALL MEN BY THESE PRESENTS, that we Pamar Enterprises, Inc of the 31604 Pamar Court, New Haven, MI 48048 hereinafter called the "Principal" and Travelers Casualty and Surety Company of America, One Tower Square, Hartford, CT 06183 hereinafter called the "Surety", are held and firmly bound unto those persons known as "Claimants", as defined in MCL §129.206(6) supplying labor or materials to the Principal or his subcontractors and the prosecution of the work provided for in a certain Contract by and between the City of Birmingham and the Principal in the sum of Seven Hundred Fourteen Thousand Four Hundred Ninety Nine and 00/100 Dollars ($ 714,499.00), in lawful money of the United States, for the payment whereof, we bid ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally this _____ day of _____, A.D., 2026.

WHEREAS, the above named Principal has entered into a Contract with the CITY OF BIRMINGHAM, MICHIGAN dated the _____ day of _____, A.D., 20____, wherein said principal has covenanted and agreed as follows, to wit:

To furnish all the labor and materials _____
2025-2026 Sewer Rehabilitation Program Contract #4-25(S)

and,

WHEREAS, this Bond is given in compliance with and subject to the provisions of Act No. 123 of the Public Acts of Michigan for 1963, as amended by Act. No. 351 of the Public Acts of Michigan for 1972, also known as MCL §129.201 et seq.

NOW, THEREFORE, the condition of the above obligation is such that if all persons or claimants as defined in Public Act 213 of 1963 supplying labor or materials to the principal contractor or his subcontractors in the prosecution of the work provided for in the contract are paid, the obligation of this Bond shall be void; otherwise, it shall be in full force and effect.

WITNESSED:

Angela Stanley, Project Administrator

Pamar Enterprises, Inc

Brian Olesky, Vice President

Principal

Travelers Casualty and Surety Company of America

Holly Nichols (Attorney-in-Fact)

Surety

TRAVELERS

Travelers Casualty and Surety Company of America
Travelers Casualty and Surety Company
St. Paul Fire and Marine Insurance Company

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company are corporations duly organized under the laws of the State of Connecticut (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint **Nicholas Ashburn, Anne M Barick, Robert D Heuer, Paul Hurley, Michael D Lechner, Mark Madden, Richard S McGregor, and Holly Nichols** of **Rochester Hills, Michigan,** their true and lawful Attorney(s)-in-Fact to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed, and their corporate seals to be hereto affixed, this **21st** day of **April, 2021.**

HARTFORD, CONN. — TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA
HARTFORD, CONN. — TRAVELERS CASUALTY AND SURETY COMPANY
CORPORATE SEAL — THE ST PAUL FIRE AND MARINE INSURANCE COMPANY

State of Connecticut

By: _____
Robert L. Raney, Senior Vice President

City of Hartford ss.

On this the **21st** day of **April, 2021**, before me personally appeared **Robert L. Raney**, who acknowledged himself to be the Senior Vice President of each of the Companies, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of said Companies by himself as a duly authorized officer.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission expires the **30th** day of **June, 2026**

ANNA P NOWIK NOTARY PUBLIC CONNECTICUT

_____
Anna P. Nowik, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of each of the Companies, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

FURTHER RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

FURTHER RESOLVED, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

FURTHER RESOLVED, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, **Kevin E. Hughes**, the undersigned, Assistant Secretary of each of the Companies, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which remains in full force and effect.

Dated this _____ day of _____, _____.

HARTFORD, CONN. — TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA
HARTFORD, CONN. — TRAVELERS CASUALTY AND SURETY COMPANY
CORPORATE SEAL — THE ST PAUL FIRE AND MARINE INSURANCE COMPANY

_____
Kevin E. Hughes, Assistant Secretary

To verify the authenticity of this Power of Attorney, please call us at 1-800-421-3880.
Please refer to the above-named Attorney(s)-in-Fact and the details of the bond to which this Power of Attorney is attached.

To: CITY OF BIRMINGHAM
151 MARTIN
P.O. BOX 3001
BIRMINGHAM, MI 48012-3001

Date Submitted: _____

Date Received: _____

REQUEST FOR PARTIAL PAYMENT

Partial Payment Request # ____

The undersigned (the "Contractor") hereby requests payment for work performed on Contract Name _____ and # _____ for the period beginning _____ and ending _____. Attached is an itemized list of completed quantities delivered to date.

During the above period, did Contractor incur additional costs for labor or materials because the bid package was missing important information? _____ (if yes, you must provide details of the additional costs and the missing information).

During the above period, did Contractor incur additional costs for labor or materials because the bid package contained information that was not true? _____ (if yes, you must provide details of the additional costs and the untrue statements).

During the above period, did Contractor incur additional costs for labor or materials because the site conditions were different from what you expected? _____ (if yes, you must provide details of the additional costs and the site conditions, both what you expected and what you encountered).

During the above period, did Contractor incur additional costs for labor or materials because of any reasons not mentioned above? _____ (if yes, you must provide details of the additional costs and the reasons the same were incurred).

The above does not include additional work through work directives issued by the City of Birmingham as described on the attached or as covered by an agreed basis of payment attached.

_____.

Contractor hereby certifies, represents and warrants that all suppliers, subcontractors and employees have been paid in full for all materials and labor provided on the job during the above period. Contractor certifies, represents and warrants that there have been no change orders issued or requested during the above period, except for the following:

_____
_____
_____.

Contractor certifies, represents and warrants that Contractor will never request payments, other than the request made in this form, for any work performed or materials provided during the above period, except for the following unresolved items: _____
_____
_____.

Attached are the following documents
Further detailing the above.

1. _____
2. _____
3. _____

Contractor:

_____
(Company or Contractor Name)

_____
(Signature of Officer of the Company)

_____
Type or Print Name and Title

CONTRACTOR'S AFFIDAVIT

To: CITY OF BIRMINGHAM
151 MARTIN ST.
P.O. BOX 3001
BIRMINGHAM, MI 48012-3001

Date Submitted_____

Date Received_____

REQUEST FOR FINAL PAYMENT

Payment Request # _____

The undersigned _____
Name of Contractor
hereby represents that on _____ he/she (it) was awarded a contract by
Date
The City of Birmingham hereafter called the Owner to _____, in accordance with the terms and conditions of Contract No. _____, Contract Name _____; and the undersigned further represent that the subject work has now been accomplished and the said contract has now been completed.

The undersigned hereby warrants and certifies that all of his/her (its) indebtedness arising by reason of the said contract has been fully paid or satisfactorily secured; and that all claims from subcontractors and others for labor and material used in accomplishing the said contract, have been fully paid or satisfactorily settled. The undersigned further agrees that if any such claim should hereafter arise, he/she (it) shall assume responsibility for the same immediately upon request to do so by the Owner.

The undersigned, for a valuable consideration, the receipt of which is hereby acknowledged, does further hereby waive, release and relinquish any and all claims or right of lien which the undersigned now has or may hereafter acquire upon the subject premises for labor and material used in accomplishing said project owned by the Owner.

This affidavit is freely and voluntarily given with full knowledge of the facts on this ____ day of _____, 20__.

Company or Contractor Name: _____

Signature of Officer of Company _____

Type or Print Name and Title _____ _____
Name Title

Subscribed and sworn to before me, a Notary Public in and for _____ County, Michigan on this _____ day of _____, 20__.

_____, Notary Public

My commission expires: _____

SWORN STATEMENT

STATE OF MICHIGAN)
) ss:
COUNTY OF OAKLAND)

_____ , being duly sworn, deposes and says that _____ is the Contractor for an improvement to the following described real property situated in the County of Oakland, City of Birmingham, State of Michigan, described as follows:

in accordance with the general requirements of the Contract by and between the CITY OF BIRMINGHAM and _____ the following is a statement of each subcontractor, supplier and laborer for the payment of wages or fringe benefits and withholdings is due but unpaid with whom the (contractor)(subcontractor) has (contracted) (subcontracted) for the performance under the contract with the CITY OF BIRMINGHAM, and that the amounts due to the persons as of the date hereof are correctly and fully set forth opposite their names as follows:

TOTALS

							TOTALS
Amount of Laborer, Fringe Benefits and Withholdings Due but Unpaid							
Amount of Laborer Wages							
Amount Currently Owing							
Amount Already Paid							
Total Contract Price							
Type of Improvement Furnished							
Name of Subcontractor Supplier or Laborer							

The contractor has not procured material from, or subcontracted with, any person other than those set forth above, and owes no money for the improvement other than the sums set forth above.

Deponent further says that he or she makes the foregoing statement as the (contractor)(subcontractor) or as _____ of the (contractor)(subcontractor) for the purpose of representing to the CITY OF BIRMINGHAM that the Payment Bond for labor and materials is free from claims for the possibility of claims except as specifically set forth above.

Deponent further says that he or she is a duly authorized representative of the (contractor)(subcontractor) and has been authorized to give this release of all claims against the City arising under or by virtue of contract _____

_____

dated _____.

_____

Deponent

Subscribed and sworn to before me

this _____ day of _____

20____

_____
Notary Public

_____ County, Michigan

My Commission Expires:

END OF SECTION

WORK DIRECTIVE

From: CITY OF BIRMINGHAM
151 MARTIN
P.O. BOX 3001
BIRMINGHAM, MI 48012-3001

Time:_____ Date:_____

Work Directive No._____

To: Contractor:_____

Name and # of Contract:_____

The following changed condition(s) is recognized by the City of Birmingham for the above referenced Contract. In order to ensure continuation of the progress of the contract this work directive is issued for the following work described below:

_____

_____

_____

_____

_____

The basis for payment will be: _____ Written Quotation from the contractor.

_____Unit Bid Prices _____ Time and Material

_____Other (describe) _____

A written quotation shall include a detailed description of the tasks involved and the expected timetable to be completed along with a firm quotation for cost.

A time and material basis for work shall be supplemented with agreed quantities and prices between the contractor's field representative authorized to act on behalf of the contractor and the city inspector. It also shall be backed up by unit prices for time, material and equipment supplied to the City in a timely manner. Should this information not be readily available, it shall be provided the following day or a basis for payment shall be agreed to in writing within 24 hours of agreeing to a time and material work directive.

Any other basis shall be approved by all parties in writing before starting work. Should a utility cause the delay, names and approval shall be obtained if possible by their agent.

Approved:

_____		_____		_____	
Contractor Supt.	Date	City Inspector	Date	City Engineer	Date

SECTION 301
SUPPLEMENTAL INSTRUCTIONS TO BIDDERS

1.01 TIME OF COMPLETION

A. The Contractor shall have all of the City mainline work on the project substantially completed by **Friday, June 12, 2026.** Substantial completion shall be defined as all sewers lined and functioning, all manhole repairs completed, all damaged lawn areas graded and restored with topsoil, seed, and mulch, and streets re-opened to through traffic.

B. All vegetation establishment necessary must be completed by June 30, 2026.

C. If it becomes necessary for the Contractor's personnel to work overtime in order to complete said work within the above noted time limitations, the Contractor shall perform such overtime work at no additional cost to the Owner.

1.02 LIQUIDATED DAMAGES

A. The Contractor shall pay to the City of Birmingham as liquidated damages, the sum of **five hundred dollars ($500) per day** for each calendar day after the time period specified under "Time of Completion" that the work to be performed by the contractor is not completed. Liquidated damages in this amount shall also apply for each day that the project is not substantially complete beyond the date specified under "Time of Completion", regardless of the actual time work began. Liquidated damages are established to compensate the City and the public, for the costs of the inconvenience caused by the contractor by extending the work beyond the time specified. Liquidated damages are in place of actual damages, which the City of Birmingham might sustain, and are not intended as a penalty.

B. The Contractor shall pay the City of Birmingham as liquidated damages, the sum of **seven-hundred fifty ($750) per day** for each calendar day under "Time of Completion" that the work to be performed by the Contractor is not completed. Completion in this section shall consist of restoring all brick paver areas, satisfactorily installing all vegetation to closely match current conditions, including topsoil, sod, salvaged shrubs, and ground covers. Electrical, sprinkler, and fence repairs shall be waived from this requirement, with the expectation that all electrical and fence repairs shall be addressed no later than Friday, June 12, 2026, and all sprinkler repairs shall be addressed no later than June 12, 2026.

C. For the purpose of determining Liquidated Damages, the Contract Time for work shall be increased proportionally to increases in contract value (if any) for this portion of the work provided that the following conditions are met:

1. Increase in contract value is greater than 10% of the base bid;
2. The parties have not adjusted the Contract Time by other mutually agreeable means such as an executed change order;
3. Adjustments in time on account of unusual weather shall be made in accordance with Section 108.08.D. of the 2020 MDOT Standard Specifications for Construction. The Contractor shall submit a written request for a time extension due to unusual weather conditions, along with supporting documentation, within fourteen (14) days after the last day of the calendar month in which the delay occurred. Failure to notify the City within this time limit shall constitute a waiver of claim for a time extension on account of unusual weather.

1.03 POTENTIAL FOR CHANGE ORDERS

A. The City of Birmingham has additional rear yard sewers located in the area where this work is proposed, which are planned for similar rehabilitation. The size and scope of this particular Contract has been limited by the acquisition of access easements that are currently underway.

Should the City be successful in acquiring needed easements that would then allow the City to proceed with additional lining, and should the Contractor demonstrate a successful ability to perform well on this Contract, the opportunity for a voluntary change order using the unit prices bid under this Contract may be offered to the Contractor during the spring or summer of 2025.

1.04 SCHEDULE SUBMITTAL

A. The Contractor shall submit their preliminary construction schedule within twenty-one (21) days of the award of this Contract, along with the signed contract, and required bonds and insurance certificates.

1.05 QUESTIONS REGARDING THE CONTRACT DOCUMENTS

A. All questions about meaning or intent of Contract Documents shall be submitted to the Engineer in writing. Address written inquiries to:

Melissa Coatta, P.E.
City of Birmingham Engineering Department
P.O. Box 3001
Birmingham, MI 48012

Phone: 248-530-1839
Fax: 248-530-1290
Email: mcoatta@bhamgov.org

B. Replies will be issued by Addenda mailed or delivered to all parties recorded by as having received Contract Documents for Bidding. Questions received less than five (5) days prior to date for opening of Bids will not be answered. Only answers contained in formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect. Any Addendum issued during pre-bid period shall be included in Bid, shall become part of Contract Documents, and shall be acknowledged on Bid Form.

1.06 HOURS OF WORK

A. Typically, work of this nature is allowed six (6) days a week, from 7:00 AM to 7:00 PM, Monday through Saturday, excluding major holidays, such as Memorial Day, July 4th and Labor Day, Thanksgiving, Friday after Thanksgiving, Christmas Eve, Christmas Day.

1.07 CONTRACTOR SUPERVISION

A. The Contractor shall have a competent superintendent or foreman available at all times, authorized to act for the contractor as agent on the work, who thoroughly understands the plans and specifications, and who shall receive instructions from the Engineer. The superintendent or foreman shall be responsible for all subcontractors. The superintendent or foreman shall be designated by name prior to commencement of the work, and shall be available ON SITE for proper management of the project for the duration of the contract, regardless of whether or not the contractor or subcontractors are engaged in activity on the project.

1.08 WORK AREA

A. The Contractor shall be alert to the fact that the work areas on this project are very visible to the public, and that his work operations have a direct impact on a large number of people on a daily basis. The work shall be organized to reduce the number of work days on each street to a minimum. Also, the contractor shall keep his work area as clean and dust-free as practical at all times.

1.09 STATEMENT OF QUANTITIES

A. The quantities indicated in the proposal are the engineer's estimate of quantities required for the project, and bids will be computed, reviewed, analyzed and compared using these quantities. While these quantities have been estimated with as much accuracy as practical beforehand, they should

not be construed as defining, or limiting the amount of work to be performed under this Contract, but rather as information furnished to bidders as an approximate estimation of the work items, and as a basis for comparing bids.

1.10 COORDINATION CLAUSE

A. The following coordination issues are brought to the Contractor's attention for consideration when preparing their bid and planning the construction:

1. We are not aware of any utility work planned on these corridors at this time. However, utility owners, such as Detroit Edison, AT&T, and Consumer's Energy, may be relocating their facilities during construction operations. The Contractor is to cooperate with and help facilitate such operations. All coordination efforts, including modifying the Contractor's work schedule, performing work out of sequence, or other effects on the Contractor's work are incidental to the work of this project, and shall not be paid for separately.
2. The Contractor shall protect all existing infrastructure, materials, and operations of the City of Birmingham.
3. Emergency services must be given immediate passage through the construction site.
4. The Contractor shall be responsible to coordinate with the City of Birmingham Police and Fire Departments regarding road closures connected to execution of work in this Contract.
5. There are other private construction projects that will be in operation during the term of this Contract. The Contractor shall so conduct their operations to cooperate fully with the other contractors, and minimize conflicts to ensure maximum safety and courtesy in the expedient completion of this work.

1.11 CONFORMANCE TO IRAN ECONOMIC SANCTIONS ACT

A. Pursuant to Michigan law, (the Iran Economic Sanctions Act, 2012 PA 517, MCL 129.311 et seq.), before accepting any bid or proposal, or entering into any contract for goods or services with any prospective Contractor, the Contractor must first certify that it is not an "IRAN LINKED BUSINESS", as defined by law.

B. Each Contractor submitting a bid on this project shall include a completed copy of the form contained in Section 410 of these specifications with their bid certifying that they have full knowledge of the requirements and possible penalties under the law MCL 129.311 et seq. that the Contractor is NOT an "IRAN LINKED BUSINESS" as required by MCL 129.311 et seq., and as such that Contractor is legally eligible to submit a bid and be considered for a possible contract to supply goods and/or services to the City of Birmingham.

END OF SECTION

SECTION 310
GENERAL INSTRUCTIONS TO BIDDERS

1.01 CONTRACT PRICE

A. Proposals are solicited on the basis of unit prices and/or lump sum prices which are to be clearly set forth in the Proposal Form. The final contract price on the accepted proposal will be determined by multiplying the number, or fraction thereof, units of work actually performed, or labor, material, or appliances actually supplied by the price designated for such items in the proposal. The total bid figure on the proposal form is merely for purposes of estimating and comparing costs, and under no circumstances on unit price contracts does it constitute or imply the total contract price.

1.02 FORM OF PROPOSAL

A. All proposals must be made in the form attached hereto. Additional copies of this proposal form for the bidder's files may be obtained on request at the City Engineering Department.

B. All prices stated in the proposals must be plainly written in figures.

C. All information called for on the proposal must be furnished to enable a fair comparison of the bids.

D. The place of residence of each bidder, or the official address in the case of a firm or company, with county and state, must be given with the signature.

E. Each proposal must be enclosed in a sealed envelope addressed to the City Clerk of the City of Birmingham, and endorsed upon the outside with the name of the project, as it appears in the advertisement for bids.

1.03 CONFORMITY TO PLANS AND SPECIFICATIONS

A. Proposals must be made in full conformity to all the conditions, as set forth in the plans and specifications for the work now on file in the office of the City Engineer.

1.04 AGENCY

A. Anyone signing a proposal as agent of another or others must submit with the proposal, legal evidence of his authority to do so.

1.05 LEGAL STATUS OF BIDDER

A. The legal status of the bidder, that is, as a corporation, a partnership or an individual, must be stated in the proposal. A corporation bidder must name the state in which its articles of incorporation are held, and must give title of the official having authority under the bylaws to sign contracts. A partnership bidder must give the full names and addresses of all partners.

1.06 CERTIFIED CHECK, BIDDER'S BOND OR BANK DRAFT

A. Each proposal must be accompanied by a certified check, bidder's bond or bank draft in an amount not less than five (5) percent of the total price, drawn to the order of the City of Birmingham, as a guarantee of good faith on the part of the bidder and subject to the conditions stipulated in the proposal form.

B. No proposal shall be withdrawn for a period of sixty (60) days after the date set for the opening of bids.

C. A single check, bond or draft may serve to cover two (2) or more alternative proposals when such alternative proposals are submitted by the same bidder.

D. The bid deposit of all except the three (3) lowest bidders will be returned within three (3) weeks after the opening of bids. The bid deposit of the three (3) lowest bidders will be returned within two (2) weeks after the contract has been executed by both parties.

1.07 OBLIGATION TO EXECUTE CONTRACT

A. The bidder whose proposal is accepted will be required to execute the contract, and to furnish sureties hereafter specified, within twenty-one (21) days after receiving notice of such acceptance; and in case of his refusal or failure to do so, he shall be considered to have abandoned all his rights and interest in the award, and his bid deposit may be declared to be forfeited to the City, as liquidated damages and not a penalty, and the contract may be awarded to another.

1.08 BONDS

A. The successful bidder will be required to furnish two (2) bonds, each on the forms provided as follows:

1. A Performance Bond in an amount not less than 100% of the contract price in favor of the City of Birmingham, conditioned upon the faithful performance of the contract, and completion on or before the date specified.

2. A Payment Bond for labor or material running to the claimants, which is defined in MCL §129.206 as those persons supplying labor or materials to the principal contractor or subcontractors in the prosecution of the work provided for in this contract in an amount not less than 100% of the contract price for the protection of those persons supplying labor, materials or both.

B. The cost of all bond premiums is incidental to the other work on this project and shall be included in the Contractor's bid price(s) for the work. No additional or separate payment shall be made to the Contractor for providing the required bonds.

1.09 INDEMNITY

A. The Contractor shall indemnify the City of Birmingham in accordance with the INDEMNITY section set forth in the General Requirements.

1.10 INSURANCE

A. The Contractor shall not commence work under this contract until he has obtained the insurance required under this paragraph. All coverages shall be with insurance companies licensed and admitted to do business in the State of Michigan. All coverages shall be with insurance carriers acceptable to the City of Birmingham. The cost of all insurance premiums is incidental to the other work on this project and shall be included in the Contractor's bid price(s) for the work. No additional or separate payment shall be made to the Contractor for providing the required insurance coverage.

1. **Workers' Compensation Insurance:** The Contractor shall procure and maintain during the life of this contract, Workers' Compensation Insurance, including Employers Liability Coverage, in accordance with all applicable statutes of the State of Michigan.

2. **Commercial General Liability Insurance:** The Contractor shall procure and maintain during the life of this contract, Commercial General Liability Insurance on an "Occurrence Basis" with limits of liability not less than $3,000,000 per occurrence combined single limit, Personal Injury, Bodily Injury and Property Damage. Coverage shall include the following extensions: (A) Contractual Liability; (B) Products and Completed Operations; (C) Independent

Contractors Coverage; (D) Broad Form General Liability Extensions or equivalent; (E) Deletion of all Explosion, Collapse and Underground (XCU) Exclusions, if applicable.

3. **Motor Vehicle Liability:** The Contractor shall procure and maintain during the life of this contract Motor Vehicle Liability Insurance, including all applicable no-fault coverages, with limits of liability of not less than $3,000,000 per occurrence combined single limit Bodily Injury and Property Damage. Coverage shall include all owned vehicles, all non-owned vehicles, and all hired vehicles.

4. **Additional Insured:** Commercial General Liability and Motor Vehicle Liability Insurance, as described above, shall include an endorsement starting the following shall be Additional Insureds. The City of Birmingham, including all elected and appointed officials, all employees and volunteers, all boards, commissions and/or authorities and board members, including employees and volunteers thereof. This coverage shall be primary to any coverage that may be available to the additional insured, whether any other available coverage be primary, contributing or excess.

5. **Pollution Liability Insurance:** CONTRACTOR shall procure and maintain during the life of this Agreement Pollution Liability Insurance, with limits of liability of not less than $1,000,000, per occurrence preferred, but claims made accepted.

6. **Cancellation Notice:** Workers' Compensation Insurance, Commercial General Liability Insurance and Motor Vehicle Liability Insurance, as described above, shall include an endorsement stating the following: "Thirty (30) days Advance Written Notice of Cancellation or Non-Renewal shall be sent to the Finance Department, City of Birmingham, P.O. Box 3001, 151 Martin Street, Birmingham, Michigan 48012.

7. **Owners Contractors Protective Liability:** The Contractor shall procure and maintain during the life of this contract, an Owners Contractors Protective Liability Policy with limits of liability not less than $3,000,000 per occurrence, combined single limit, Personal Injury, Bodily Injury and Property Damage. The City of Birmingham shall be "Name Insured" on said coverage. Thirty (30) days Notice of Cancellation shall apply to this policy.

B. Proof of Insurance Coverage: The Contractor shall provide the City of Birmingham at the time the contracts are returned for execution, Certificates of Insurance and/or policies, acceptable to the City of Birmingham, as listed below:

1. Two (2) copies of Certificate of Insurance for Workers' Compensation;
2. Two (2) copies of Certificate of Insurance for Commercial General Liability;
3. Two (2) copies of Certificate of Insurance for Vehicle Liability Insurance;
4. Original policy, or original binder pending issuance of policy, for Owners Contractors Protective Liability Insurance;
5. If so requested, Certified Copies of all policies mentioned above will be furnished.

C. Coverage Expiration: If any of the above coverages expire during the term of this contract, the Contractor shall deliver renewal certificates and/or policies to the City of Birmingham at least ten (10) days prior to the expiration date.

D. Maintaining Insurance: The CONTRACTOR also agrees to provide all insurance coverage as specified. Upon failure of the CONTRACTOR to obtain or maintain such insurance coverage for the term of the agreement, the City of Birmingham may, at its option, purchase such coverage from

the contract amount. In obtaining such coverage, the City of Birmingham shall have no obligation to procure the most cost-effective coverage but may contract with any insurer for such coverage.

1.11 EXAMINATION OF SITE

A. It is expected that each bidder will make a personal examination of the entire site of the proposed work, and of its surroundings. It will be assumed that each bidder, before offering his proposal, has obtained firsthand information concerning any probable interference and the available facilities for transporting, handling and storing of construction equipment and materials, and concerning other conditions which may affect his work.

1.12 LEGAL CONDITIONS

A. Bidders are notified that they should acquaint themselves with the various provisions in the laws of the State of Michigan, and in the ordinances and regulations of the City of Birmingham and Oakland County, with respect to the carrying on of public improvements.

1.13 BIDDER'S ABILITY

A. It is the intention of the City to award the contract for this job to a contractor whose construction skill and financial resources are fully equal to the task of prosecuting the work in a satisfactory manner, and of bringing it to completion within the time limit specified. With this end in view, the Form of Proposal calls for at least three (3) references concerning his ability to do this particular class of work, and a reference list of the last five (5) projects, including those not completed or currently being performed. The mere ability to offer bonds will not be taken as sufficient evidence of responsibility on the part of the bidder. If the contract is awarded to a foreign company, a certificate of authority to do business in this state must accompany executed contract.

1.14 PAYMENTS

A. Partial payments will be made monthly to the Contractor during the satisfactory progress of the working accordance with the Payments section of the General Requirements.

1.15 RIGHT TO ACCEPT, REJECT AND TO WAIVE DEFECTS

A. The City reserves the right to accept any proposal, to reject any or all proposals, and to waive any defect or irregularity in any proposal, if it appears advantageous to the City to do so.

B. In particular, any alterations, erasure or interlineation in the Specifications which are made a part, specifically, of these instruments, or of the Form of Proposal, shall render the accompanying proposal irregular and subject to rejection by the City. In case any explanation, additions or alterations are to be offered, they shall be indicated on separate sheets attached to the proposal form and referred to therein.

C. Proposals which are clearly unbalanced, will also be considered as irregular, and will be subject to instant rejection by the City.

END OF SECTION

SECTION 400
GENERAL REQUIREMENTS

1.01 DEFINITION OF TERMS

A. The intent and meaning of words and expressions, or pronouns used in their stead, occurring in these specifications or in other contract documents, shall be interpreted as described under Section 101.03 Definitions of Terms of the Current Standard Specifications for Construction adopted by the Michigan Department of and Transportation, with the following additions or exceptions:

1. City - The corporation of the City of Birmingham, Michigan
2. Commission - The Commission of the City of Birmingham, Michigan, and any other board, body, official or officials to which or to whom the powers belonging to the said Commission shall, by virtue of any act or acts, hereafter passed or be held to appertain.
3. Engineer - The person holding the position or acting in the capacity of City Engineer of the City of Birmingham, Michigan, acting either directly or through his properly authorized agents, such agents acting within the scope of the particular duties entrusted to them.
4. Directed, required, permitted, etc. - Whenever in the specifications the words "as directed", "as required", "as permitted", or words of like effect are used, it shall be understood that the direction, requirements or permission of the Engineer is intended; similarly the words "approved", "acceptable", "satisfactory", or words of like import shall mean approved by, or acceptable, or satisfactory to the Engineer.

1.02 INTENT OF THE PLANS, SPECIFICATIONS AND CONTRACT

A. The intent of the plans, specifications and contract is to provide for the completion of the work in substantial compliance with the details as shown thereon, and as described herein. The Contractor shall furnish all labor, materials, equipment, tools, transportation and necessary supplies, and shall perform all operations required to complete the work in accordance with the specifications, and the lines, grades and cross sections provided for on the plans, or by authorization.

1.03 EXTRA WORK

A. No extra work shall be started, or extra material furnished, until such extra work or furnishing of extra material is authorized in writing by the Engineer.

B. The price for such extra work or material must be approved by the Engineer. Said price may be a unit price, a lump sum price, or if the Engineer so elects, the work shall be done on a force account basis, which will be paid for in the following manner:

1. For all labor, teams and foremen in direct charge of the specific work, the Contractor shall receive the actual rate of wage paid for each and every hour that said labor, teams and foremen are actually engaged in such work, plus 20% of the sum thereof.
2. For materials and supplies, the Contractor will receive the actual cost of such materials delivered on the work, including freight charges, as shown by original receipted bills, plus 15% of the sum thereof.
3. For any machinery and equipment owned or rented by the Contractor, which it may be deemed necessary or desirable to use on extra work, the Contractor will be paid at the actual charge-out rate, if reasonable, for his own equipment, or at the actual rental price paid, if reasonable,

for rented equipment for each and every hour that such equipment is used on the work, to which sum 15% will be added.

4. Bond premium, workmen's compensation insurance, personal injury public liability and property damage public liability insurance, unemployment compensation, and Federal Social Security will be paid for at actual cost, to which sum 15% will be added. The Contractor shall furnish satisfactory evidence of the rate or rates paid for such insurance.

5. The compensation as herein provided shall be accepted by the Contractor as payment in full for extra work done by force account, and the said percentages shall cover profit, superintendence, general expense, overhead, and the use of small tools and equipment for which no rental is allowed.

1.04 ALTERATION IN CHARACTER OF WORK

A. Should the Contractor encounter, or the Engineer encounter, during the progress of the work, sub-surface and/or latent conditions at the site materially differing from those shown on the plans or indicated in the specifications, the Engineer's attention shall be called immediately to such conditions before they are disturbed. The Engineer shall thereupon investigate the conditions, and if he finds that they materially differ from those shown on the plans and indicated in the specifications, he shall at once make such changes in the plans and/or specifications, as he may find necessary.

1.05 COORDINATION OF SPECIFICATIONS AND PLANS

A. In case of discrepancy, written figures shall govern over numerals, figured dimensions shall govern over scaled dimensions, plans shall govern over standards specifications, supplemental specifications shall govern over standard specifications and plans, and special provisions shall govern over supplemental specifications.

B. The Contractor shall not take advantage of any apparent error or omission in the plans or specifications, but the Engineer shall be permitted to make such corrections and interpretations as may be deemed necessary for the fulfillment of the intent of the plans and specifications.

1.06 AUTHORITY OF ENGINEER

A. The Engineer shall decide all questions which may arise as to the quality and acceptability of materials furnished and work performed, and as to the manner of performance and rate of progress of the work; all questions which may arise as to the interpretation of the plans and specifications; and all questions as to the satisfactory and acceptable fulfillment of the terms of the contract by the Contractor.

1.07 INSPECTION

A. Inspectors may be appointed and directed to inspect all materials used, and all work done. The inspection may extend to all parts of the work, and to the preparation or manufacture of the materials for use in the work. The Inspectors will not be authorized to revoke, alter, enlarge or relax any of the provisions of these specifications, nor to change the plans in particular. The Inspector on the work will inform the Engineer as to the progress of the work, the manner in which it is being done, and the quality of the materials being used. He will also call to the attention of the Contractor any failure to follow the plans and specifications that he may observe. In case of any dispute arising between the Contractor and the Inspector as to the materials furnished, or the manner of performing the work, the Inspector shall have the authority to reject materials or suspend the work until the question at issue can be referred to and be decided by the Engineer. In no instance

shall any action or omission on the part of the Inspector relieve the Contractor of the responsibility of completing the work in accordance with the plans and specifications.

B. The Engineer and his duly authorized Inspector, shall at all times have the right to enter the premises upon which the work under this contract is being done, and to inspect said work and to ascertain whether or not the construction is carried out in accordance with the terms of the contract or specifications; and the Contractor shall render all necessary assistance and provide all reasonable facilities and give ample time for such inspection.

1.08 SUPERVISION

A. The Contractor shall give his personal supervision to the faithful prosecution of the work. In case of his absence, he shall have a competent superintendent or foreman on the work site who shall follow, without delay, all instructions of the Engineer or his assistants in the prosecution and completion of the work, and every part thereof in conformity with this contract. He shall also have full authority to supply material and labor immediately.

B. The Contractor's supervisor shall be responsible to act on behalf of the Contractor. This includes being present or available at all times, making decisions on behalf of the Contractor and Subcontractor, scheduling, monitoring work progress on a continued basis, communicating with City representatives, etc. His name shall be submitted prior to the start of work, with all appropriate ways of contacting him. He shall remain the responsible Contractor's representative throughout completion of the project, including any subcontract work associated with this contract. If it is necessary to replace this person, it shall have the approval of the Engineer.

1.09 TIME AND SEQUENCE OF WORK

A. The Contractor shall have control over the sequence of order of execution of the several parts of the work to be done under this contract, and over the methods of accomplishing the required results, except as some particular sequence or method may be distinctly demanded by these specifications and plans, or by the express provisions of the contract.

B. The Engineer may, however, make such reasonable requirements as may in his judgment be necessary for the proper and effective protection of work partially or wholly completed, and to these requirements the Contractor shall strictly conform.

C. The Contractor shall submit a written work plan prior to starting construction. This shall include a written schedule, critical path or equal, to focus in on the date required for completion. This schedule must be updated periodically (not to exceed two (2) weeks) if it becomes necessary to modify the plan. This does not relieve the Contractor of the responsibility to complete the contract according to contractual stipulations. Any modification to the time schedule must obtain prior written approval from the Engineer.

D. Once the Contractor has mobilized, the Contractor must execute the contract in a continuous, expeditious manner, and may not suspend prosecution of work without written permission of the Engineer.

1.10 RELATION TO OTHER CONTRACTORS

A. The Contractor shall so conduct his operations as not to interfere with or injure the work of other Contractors employed by the City on adjoining or related work, and he shall promptly make good any injury or damage which may be done to such work by him.

B. Should a contract for adjoining work be awarded to another Contractor, and should the work on one of these contracts interfere with that of the other, the Engineer shall decide which Contractor

shall cease work for the time being, and which shall continue, or whether the work of both contracts shall continue at the same time and in what manner. In case territory of one contract should be the necessary means of access to another contract, the Engineer shall have power to grant reasonable privileges with respect to the transportation or movement of men, equipment or materials, as he may adjudge to be necessary or expedient, and in the best interest of the City. Any decision which the Engineer may make as to method and time of conducting work or the use of the territory shall not be made the basis of any claim for damage, but an extension of time may be claimed if justified by the circumstances, the same as in the case of other delays caused by the acts of the City. Any difference of opinion or conflict of interest which may arise between the Contractor and other Contractors or workmen of the City in regard to adjoining work, shall be determined and adjusted by the Engineer.

1.11 CONSTRUCTION STAKES

A. The location, alignment, elevation and grade of the work will be determined by the Engineer, who will set such stakes as are necessary to properly mark these elements. The Contractor shall assume full responsibility for detail dimensions and elevations measured from the lines, grades and elevations so established.

B. The Engineer may require the Contractor, at the Contractor's expense, to provide such masts, scaffolds, batterboards, straightedges, templates or other devices as may be necessary to facilitate laying out, inspecting and constructing the work.

C. The Contractor shall exercise proper care in the preservation of all stakes set for his use, or for the use of the Engineer, and if such stakes are injured, lost or removed by the Contractor's operations, the cost of resetting may be charged to the Contractor. The Department will be responsible for the accuracy of lines, slopes and grades established by the City, except that the Contractor shall not take advantage of any obvious errors or omissions.

1.12 SOIL CONDITIONS

A. The Contractor shall make his own determination of the soil conditions and he shall complete the work in whatever materials, and under whatever conditions he may encounter or create, without extra cost of the City.

1.13 MATERIALS FURNISHED BY THE CITY

A. When specified, the City of Birmingham may furnish materials at no cost to the Contractor. All other materials necessary to complete the project shall be furnished by the Contractor.

B. Materials to be furnished by the City will be at the Department of Public Works Yard at Eton Road and Holland Avenue. The Department of Public Works will require the Contractor to provide a written authorization from the Engineer before releasing any materials. The Contractor shall load and transport all such materials from the Department of Public Works Yard to the construction site, at his own expense.

C. The City may, at its discretion, furnish to the Contractor, any materials, supplies or transportation required for extra work, and the Contractor shall not be entitled to any allowance or percentage on account of materials, supplies or transportation so furnished.

1.14 STORED MATERIAL

A. Materials and equipment distributed, stored or placed upon or near the site of the work shall be at all times so disposed as not to interfere with work being prosecuted by the City, or by other Contractors in the City employ, or with street drainage, fire hydrants, or with access thereto, and

not to hinder any more than may be necessary the ordinary pedestrian or vehicular traffic of the streets. Such material shall be stored in such a manner as to facilitate inspection.

1.15 REJECTED MATERIAL

A. If any materials used in the work, brought upon the ground, or selected for use in the work shall be condemned by the Engineer on account of bad or improper workmanship, or as being unsuitable or not in conformity with the specifications, the Contractor shall forthwith remove from the work or its vicinity, without delay, all such rejected or condemned material of whatever kind. Upon failure to do so within forty-eight (48) hours after having been so directed by the Engineer, the condemned material may be removed by the City and the cost of said removal deducted from any money that is then due, or that may thereafter become due to the Contractor. No payment shall be made until such materials, work or workmanship has been removed and proper materials and workmanship substituted therefor.

1.16 WATER SUPPLY

A. Water for construction purposes may be taken from the City mains, at no charge, subject to the rules of the City Water Department. Special approval of the Engineer must be obtained prior to the opening of any fire hydrant.

B. The Contractor shall provide for his employees an adequate supply of drinking water taken from the City mains.

1.17 SANITARY REGULATIONS

A. Necessary convenience, properly secluded from public observation, shall be constructed where needed for the use of laborers on the work. Such conveniences shall be located, constructed and maintained, subject to the approval of the Engineer and the collections therein shall be removed at such times, and to such places as he shall direct. The Contractor shall obey and enforce such sanitary regulations as may be prescribed by the County Health Department.

1.18 PERMITS AND LICENSES

A. The Contractor shall procure all permits and licenses and pay all charges and fees necessary and incident to the due and lawful prosecution of the work. Unless otherwise stated in these contract documents, there will be no charge for any permits required by the City of Birmingham.

1.19 LAWS AND ORDINANCES

A. The Contractor shall keep himself fully informed of all local ordinances and regulations, state and national laws in any manner affecting the work herein specified. He shall at all times observe and comply with, and shall cause all his agents and employees to observe and comply with, said ordinances, laws and regulations, and shall protect and indemnify the City and its duly authorized officers and agents against any claim or liability arising from or based on the violation of any such laws, ordinances, regulations, etc.

B. The Contractor shall obey and abide by all the laws of the State of Michigan and of the Federal Government relating to the employment of labor on public work and all Charter provisions and ordinances of the City of Birmingham regulating or in respect to public improvements.

C. The Contractor and his Subcontractors shall not discriminate against any employee or applicant for employment, to be employed in the performance of this contract, with respect to hire, tenure, terms, conditions or privileges of employment, because of sex, race, color, religion, national origin or ancestry. Breach of this covenant may be regarded as a material breach of the contract.

1.20 PROPERTY AND SURVEY MONUMENTS

A. Before any monuments or stakes marking the boundaries of property along or near the work are removed or disturbed, the Contractor shall notify the Engineer in sufficient time so that they can be properly located and reset.

B. All precautions shall be taken to avoid disturbance of permanent survey monuments of any City, County or State authority, and when any of these are disturbed or destroyed, the Contractor shall restore them to the satisfaction of such authority and shall pay all costs incurred by such authority in connection therewith.

1.21 BUILDING AND OTHER STRUCTURES ENCOUNTERED

A. Full responsibility shall be assumed by the Contractor for the protection of all buildings and other structures, public or private, including tracks, pavements, driveways, curbs, poles, signs, hydrants, underground pipes and conduits and other structures of every sort that may be encountered in or adjacent to the work.

B. Wherever settlement or lateral movement of structures might occur, adequate underpinning or other means of support shall be installed. Where necessary, such support shall be installed in advance of construction.

1.22 PROTECTION TO TREES AND SHRUBBERY

A. The Contractor shall take all prudent and feasible measures that will reduce or eliminate the impacts of development and construction on City owned trees. Trees or shrubbery shall be surrounded by protective cushioning, posts or fencing before construction work begins, if, in the judgment of the Staff Arborist, such precautions are necessary. Further detailed information is included in the supplemental specifications section of the contract if applicable.

1.23 DUST CONTROL

A. All Contractors working on projects that require removal of the paved surface during construction shall provide dust control as directed by the Engineer, at no additional cost to the City. When weather conditions are such that dusty conditions can be created, the Contractor shall be prepared to take action. When dry conditions are declared by the Engineer, the Contractor shall have a water truck and calcium chloride on site at all times, to be applied as needed. The Contractor shall be pro-active with respect to applying dust control measures as needed.

1.24 PROTECTION AND RESTORATION OF PROPERTY

A. The Contractor shall restore, at his own expense, any and all public or private property damaged or injured in consequences of any act or omission on his part, or on the part of his employees or agents, to a condition similar and equal to that existing before such damage or injury was done. If the Contractor neglects to repair or make restoration, the Engineer may, after forty-eight (48) hours written notice to the Contractor, proceed to make such repairs or restoration, and will deduct the cost thereof from any monies that are or may become due the Contractor.

1.25 RESPONSIBILITY FOR DAMAGE TO WORK

A. The Contractor shall protect his work and materials from damage, due to the nature of the work, the action of the elements, the carelessness of other contractors, or from any cause whatever, until the completion and acceptance of the work. Should any damage occur, he shall repair or replace it at his own expense, and complete the work to the satisfaction of the Engineer.

1.26 INDEMNITY

A. To the fullest extent permitted by law, the CONTRACTOR and any entity or person for whom the CONTRACTOR is legally liable, agrees to be responsible for any liability, defend, pay on behalf of, indemnify, and hold harmless the CITY OF BIRMINGHAM, its elected and appointed officials, employees and volunteers and any others working on behalf of the CITY OF BIRMINGHAM against, any and all claims demands, suites, or loss, including all costs and reasonable attorney fees connected therewith, and for any damages which may be asserted, claimed or recovered against or from and the CITY OF BIRMINGHAM, its elected and appointed officials, employees, volunteers or others working on behalf of the CITY OF BIRMINGHAM, by reason of personal injury, including bodily injury and death and/or property damage, including loss of use thereof, which arises out of or is in any way connected or associated with this Agreement. Such responsibility shall not be construed as liability for damage caused by or resulting from the sole act or omission of its elected or appointed officials, employees, volunteers or other working on behalf of the CITY OF BIRMINGHAM.

1.27 INSURANCE

A. The Contractor shall comply with the INSURANCE requirements set forth in the General Instructions to Bidders.

1.28 PUBLIC TRAVEL

A. The Contractor shall at no additional compensation make suitable and adequate provisions, unless otherwise authorized by the Engineer, for the safe and free passage of persons and vehicles by, over or under the work while it is in progress.

B. The Contractor shall obtain permission from the Engineering Department to close or block any street. The Contractor shall notify the Engineering Department at least four (4) hours before closing or blocking any street.

1.29 PUBLIC SAFETY

A. The Contractor shall furnish, erect and maintain a good and sufficient fence, railing or barrier around all exposed portions of his work, to effectively prevent any accident in consequences of his operations and to protect the work. Such fences, railings and barriers shall be illuminated from sunset to sunrise by suitable and sufficient lights, flares or torches, in such a manner as to make them clearly visible to approaching pedestrians and/or traffic.

B. When equipment and materials are located within the construction site, or within any public right-of-way, the public shall be safe-guarded by suitable and sufficient signs, lights, barricades or other means furnished and maintained by the Contractor.

C. If any portion of the work is not properly barricaded, signed or lighted by one-half (1/2) hour after sunset, the necessary barricades, signs and lights may be placed by the City and all costs to the City for such work will be charged to the Contractor. The furnishing, erection and maintenance of barricades, signs and lights by the City will not relieve the Contractor of his responsibility for the protection of traffic and the work.

D. The Contractor shall provide such traffic regulators and watchmen as are necessary to insure safe and convenient travel by the public and to protect the work.

E. Barricades, signs and lights shall be erected in accordance with the provisions of the Michigan Manual of Uniform Traffic Control Devices.

1.30 MAINTAINING SERVICE TO DRAIN, WATER MAINS, ETC.

A. The Contractor shall maintain in continuous and effective service all drains, sewers, watercourses and water mains touched during the progress of the work. If it should become necessary to temporarily divert or obstruct the flow of any watercourse or drain, written consent must first be obtained from the Engineer, and then the Contractor shall assume full responsibility for the consequences.

1.31 NOTIFICATION OF UTILITIES

A. The Contractor shall notify all utilities of his intention to excavate or otherwise cause any underground disturbance, by calling MISS DIG at least three (3) full working days before commencing such excavating or disturbances.

B. The rights are reserved to both the City and to the owners of public utilities or franchises to enter upon the work for the purpose of making repairs to their installations and making changes in their installations necessitated by the work.

1.32 SUBLETTING OR ASSIGNING

A. The Contractor shall perform without subletting, at least twenty-five (25) percent of the work provided for in this contract, computed on the basis of cost.

B. The subletting of any portion of the contract work shall be subject to approval by the Engineer, but such approval shall not relieve the Contractor of responsibility for the work of such Subcontractors who likewise shall be bound by all pertinent provisions of these specifications. Before any work is sublet, the Contractor shall satisfy the Engineer that the proposed Subcontractor is suitably equipped and experienced in that kind of work, and that he has proper financial resources to enable him to carry it out.

C. No assignment by the Contractor of any principal construction contract or any part thereof, or of the funds to be received thereunder by the Contractor will be recognized unless such assignment has had the approval of the Engineer, and the Surety has been given due notice of such assignment in writing.

D. No assignment will receive approval unless the instrument of assignment contains a clause to the effect that it is agreed that the funds to be paid the assignee under the assignment are subject to a prior lien for services rendered or materials supplied for the performance of the work called for in said contract in favor of all persons, firms or corporations rendering such services or supplying such materials.

1.33 DISCHARGE OF EMPLOYEES

A. The Contractor shall employ only competent, skillful persons to do the work. Whenever the Engineer shall notify the Contractor in writing that, in his opinion, any employee on the work is incompetent, impertinent, disobedient, unfaithful, disorderly or otherwise unsatisfactory, that employee shall be discharged from the work and shall not again be employed on it except with the written consent of the Engineer.

1.34 PROSECUTION OF WORK

A. The Contractor shall begin work in accordance with the detailed progress schedule after execution of the Contract by the City. He shall prosecute the work in the order given in the progress schedule, with force and equipment adequate to complete the major items, portions, or sections within the time limit therein fixed for completion. In case of failure to proceed with the work as rapidly as is provided in the progress schedule, or if it appears at any time that such work is not being prosecuted

in such manner as to insure its completion within the time specified, the Engineer shall have the right to require the Contractor to furnish and place in operation such additional force and equipment as the Engineer shall deem necessary to bring the work up to the progress schedule; with or without notice to the Surety, place such working force and equipment on the work and charge the Contractor the cost of the labor and such rental and depreciation rates for the plant and equipment as in his judgment is reasonable, and for such time as the plant and equipment are in service.

1.35 EXTENSION OF TIME

A. If the Contractor is obstructed or delayed in the prosecution or completion of the work by reason of the neglect, delay or default of any other Contractor having a contract with the City for adjoining or contiguous work; by reason of any damage that may happen thereto by the unusual action of the elements; by reason of the abandonment of the work by the employees in a general strike; the part of the City in doing work or furnishing material, the

B. Contractor shall have no claim of damages for any such cause or delay. He shall, however, be entitled to such extension of the time specified for the completion of the work as the Engineer shall determine to be just and proper, provided however, that such claim for such extension of time is made by the Contractor in writing to the Engineer within one (1) week from the time when any such cause for delay occurs.

1.36 SUNDAY AND HOLIDAY WORK

A. No work shall be done on Sundays, or upon any days celebrated as holidays by the City of Birmingham, except in case of emergency, or to protect work from damage or injury. All Sunday or holiday work must have prior written approval of the Engineer.

1.37 NIGHT WORK

A. No work shall be carried on from 7:00 p.m. to 7:00 a.m., except in case of emergency, or to protect from damage or injury work that has already been done. All night work must have the prior written approval of the Engineer. This provision does not apply to work covered under the provision entitled "shutting off water".

1.38 MEASUREMENT OF QUANTITIES

A. Quantities of work completed under the contract will be measured by the Engineer according to United States standard measures. When material is measured by weight in tons, the unit shall be the ton of two thousand (2000) pounds.

B. All longitudinal measurements for area of base courses, surface courses and pavements will be made along the actual surface of the roadway. For all transverse measurements for area of base courses, surface courses and pavement, the dimensions used in calculating the pay area shall be the neat dimensions provided in the plans or by authorization.

C. Structures will be measured according to neat lines provided on the plans or by authorization.

D. All materials which are specified for measurement by the cubic yard "Loose Measure" will be measured at the location where used on the project under construction, unless otherwise provided.

1.39 CLEANING UP

A. Upon completion of the actual work of construction, the Contractor shall clean up and leave in a neat condition all the premises which he has occupied during the construction period.

B. Before the time of the final estimate, the Contractor shall remove from the premises, debris, rubbish and all unused materials, together with all tools and equipment, or shall deposit them at such points and in such a manner as the Engineer may require.

C. Before leaving the grounds, the Contractor shall replace and put in good repair all fences, telephone poles and lines, roadways and other property that may have been damaged by him in the progress of the work.

1.40 ENVIRONMENTAL PROTECTION

A. Contractor shall at all times be responsible to insure that no chemicals, pollutants or other harmful or hazardous materials are spilled, discharged or otherwise released into the environment or onto City property, rights-of-way or into the storm or sanitary systems . Should such a release occur, Contractor shall immediately take action to extract the contaminants and prevent further exposure and damage. Contractor shall immediately contact the City and all other required governmental agencies to assess and determine the necessary and appropriate remediation activities. Contractor shall be responsible for all costs and damages stemming from the release including, but not limited to, the cost to remove and dispose of the contaminant, repair/replace/restore the affected areas, and all costs incurred by the City or governmental agency in response.

1.41 UNNOTICED DEFECTS

A. Any defective work or material that may be discovered by the Engineer before the final acceptance of the work, or before final payment has been made, shall be removed and replaced by work and material which conform to the specifications. Failure to neglect on the part of the Engineer to condemn or reject bad or inferior work or materials shall not be construed to imply acceptance of such work or materials.

1.42 FINAL INSPECTION

A. As soon as practicable, after the completion of all the work covered by the Contract, the Engineer shall make the final inspection of the work. If the work is found to comply with all the terms of the Contract plans and specifications, the Engineer shall accept the completed work with reasonable promptness. If the work is not acceptable to the Engineer at the time of such inspection, he shall advise the Contractor as to the particular defects to be remedied before final acceptance.

B. If within a period of ten (10) days after such notification the Contractor has not take steps to speedily complete the work as outlined by the Engineer, the Engineer may, without further notice to the Contractor and without in any way impairing the Contractor, make such arrangements as he may deem necessary to have the work completed in a satisfactory manner. The cost of so completing the work may be deducted from any monies due, or which may become due the Contractor.

C. Use by the City or public of all or any part of the work before acceptance shall not be construed as acceptance of the part used.

1.43 PAYMENTS

A. Partial payments will be made monthly on the basis of the value of work completed during the estimated period, less the percentages retained as specified herein, provided the work is progressing in accordance with the progress schedule, provided the contract provisions are being fulfilled, and provided the time of completion has not elapsed.

B. The Contractor shall be responsible to submit requests for partial payments in writing by completing the Request for Partial Payment form supplied in the contract and/or by the City with

the attached appropriate quantities as measured or estimated by the Superintendent. Final payment shall be made by an officer of the company submitting final quantities to the Engineer based upon the value of the work performed and materials completed in accordance with the contract. Prior to final payment, and as a condition thereto, the Contractor shall furnish the City with a duly executed, notarized, "Contractor's Affidavit", stating that all bills and claims have been satisfied, except as stated therein, and a release of all claims against the City arising under and by virtue of this Contract.

C. If the Contractor fails to submit a request for a payment, as specified, the Engineer may at his (her) discretion prepare a Contractor's Estimate for such payment.

D. When submitting a request for partial or final payment, the Contractor shall complete the appropriate forms as included in Section 140 of the Contract. When requesting a partial payment, the Contractor shall submit the "Request for Partial Payment" form and the "Sworn Statement" form. When requesting final payment, the Contractor shall complete the "Request for Final Payment" form and the "Sworn Statement" form.

E. When the Contractor determines that work will need to be completed outside of the specified pay items, the "Work Directive" form shall be submitted to the Engineer and approved prior to said work commencing.

F. Except as hereinafter provided, the City will retain ten (10) percent from the partial payments of the amount earned up to fifty (50) percent of the Contract price. After fifty (50) percent of the Contract work is in place, the City will not hold additional retainage, unless the Engineer determines that the Contractor is not making satisfactory progress. If the Engineer determines the Contractor is not making satisfactory progress, the City may retain up to ten (10) percent of the value of the work over fifty (50) percent of the Contract price.

G. After final acceptance of the Contract work by the Engineer, he shall process a final estimate for the total amount due the Contractor, less the total amount of all previous payments. Except as hereinafter provided, the total amount due the Contractor shall include interest earned on retained amounts from partial payments.

H. Prior to final payment, and as a condition thereto, the Contractor shall furnish the City with a duly executed, notarized, affidavit or certificate, stating that all bills and claims have been satisfied, except as stated therein, and a release of all claims against the City arising under and by virtue of this Contract.

I. In case evidence exists that all bills with respect to the work have not been paid in full, the Engineer may retain out of any amounts due the Contractor, sufficient sums to cover all such unpaid bills.

J. Except as hereinafter provided, and at the City's option, a dispute regarding the percent retained from partial payments or regarding payment of interest on retained amounts, shall be settled in accordance with the provisions of Act 524 of the Public Acts of Michigan for 1980.

K. For a Contract having a dollar value of less than $30,000.00, or a Contract having three (3) months or less between the date of the Contractor and the Contract Time of Completion:

1. The City will retain ten (10) percent of the amount earned from partial payments.
2. The City will not pay interest on amounts retained from partial payments.
3. The provision to settle disputes in accordance with Act 524 will not apply.

1.44 SETTLEMENT OF DISPUTES

A. Any controversy of claim arising out of or relating to this Agreement, or the breach thereof, shall be settled either by commencement of a suite in Oakland County Circuit Court, the 48th District Court or by arbitration. If both parties elect to have the dispute resolved by arbitration, it shall be settled pursuant to Chapter 50 of the Revised Judicature Act for the State of Michigan and administered by the American Arbitration Association with one arbitrator being used, or three arbitrators in the event any party's claim exceeds $1,000,000. Each party shall bear its own costs and expenses and an equal share of the arbitrator's and administrative fees of arbitration. Such arbitration shall qualify as statutory arbitration pursuant to MCL§600.5001 et. seq., and the Oakland County Circuit Court or any court having jurisdiction shall render judgment upon the award of the arbitrator made pursuant to this Agreement. The laws of the State of Michigan shall govern this Agreement, and the arbitration shall take place in Oakland County, Michigan. In the event that the parties elect not to have the matter in dispute arbitrated, any dispute between the parties may be resolved by the filing of a suite in the Oakland County Circuit Court or the 48th District Court.

1.45 MAINTENANCE AND GUARANTY

A. The Contractor shall guarantee all the work furnished under this Contract against all defects in workmanship and materials, and incidental damage to other property, for a period of one (1) year following the date of the final acceptance of the work by the City. The Performance Bond shall fully cover all guarantees contained in this article.

1.46 CONFLICT OF INTEREST

A. The Contractor shall not directly or indirectly employ or otherwise use a City official of the City of Birmingham in conjunction with this contract. If subsequent to entering into the Contract a City official, a spouse, child or parent shall become directly or indirectly interested in the contract, the City shall have the right to terminate the contract without further liability if the disqualification has not been removed within thirty (30) days after the City has given notification of the disqualifying interest.

1.47 INSPECTOR CREW DAYS

A. It shall be the responsibility of the bidder to extend as a bid item in his proposal, when called for, the number of inspection crew days he requires for the completion of the project, times the unit price for inspection. The basis of computing crew days shall be as follows:

Total Hours Worked	Crew Days Charged
When an Inspector reports to the project and the Contractor decides not to work, or does not appear to work, weather permitting.	- One-half (1/2) crew day
Under four (4) hours	- One-half (1/2) crew day
Four (4) hours or more	- One (1) crew day
Over Eight (8) hours or more	- Three eights (3/8) crew day for each two hour or part thereof

B. The above hours are only for the usual working days of Monday through Friday.

C. All Saturday work shall multiply the number of crew days by a factor of 1.5. All Sunday work shall multiply the number of crew days by a factor of 2.0.

D. All holiday work shall multiply the number of crew days by a factor of 2.0. Holiday work shall include all legal holidays, and any other days when the Municipal Building of the City of Birmingham is officially closed.

E. The amount bid shall be included in comparative evaluation of the bids. OMISSION OF THIS ITEM, WHEN CALLED FOR, SHALL BE CAUSE FOR REJECTION OF THE BID.

F. The City of Birmingham will bill the Contractor three hundred sixty ($360) dollars per day for each day they require inspection according to the Engineer. The bill must be paid monthly to the City of Birmingham Treasurer. A thirty (30) day grace period will be provided in which to pay the inspection bill, after which a 1% per month late fee will be assessed. All inspection bills must be paid prior to issuance of final payment.

G. In the event that the number of crew days required is less than the amount bid, the excess shall be paid to the Contractor at the end of the project. If the number of days required is more than the amount bid, the pay item shall remain as the amount bid, and all days used shall be due to the City prior to final payment.

H. If the quantity of work under the Contract varies from that stated in the Proposal, the number of "crew days" allowed under the bid item shall be increased or decreased in proportion to changes in the total value of work under the Contract. This revision in the number of crew days shall be agreed upon at the time the Contract quantities are revised.

I. The Contractor shall give the City Engineer at least twenty-four (24) hours notice, exclusive of Saturdays, Sundays or holidays, when the project requires an increase or decrease in the number of Inspectors. Failure to observe this requirement will either necessitate the charging of one-half (1/2) crew day if the Inspector appears on the project, or the halting of all additional work until an Inspector is available. Unless the Inspector is notified in advance, crew days will be charged when an Inspector appears on a project and the Contractor decides not to work.

J. A separate crew day shall be charged for each and every Inspector or Engineer employed on a project for inspection purposes.

K. The number of Inspectors or Engineers required for the complete inspection of any project shall be as determined by the City Engineer.

L. One (1) Inspector or Engineer shall be assigned to each construction crew or each operation listed below:

1. General
    a. Material Testing (not the operations done by a testing laboratory).
    b. Checking barricades and lighting.
    c. Checking maintenance of traffic.
    d. Emergency conditions, as determined by the Engineer.
    e. Measuring quantities when said measurements are taken during one of the operations included within this list.
2. Clean-Up and Complaints
    a. Replacement of driveways, sidewalks, pavement, etc.
    b. Checking restoration and answering complaints.

3. Water Mains and Appurtenances
    a. Excavation.
    b. Laying of Mains.
    c. Installing Valves and Hydrants.
    d. Tunneling, Jacking or Boring of Water Mains.
    e. Backfilling of Trenches.
    f. Restoration of Existing Conditions.
    g. Cleanup.
    h. Pressure Testing.
    i. Cleansing and Disinfecting.
    j. Checking final installation for conformance to specifications prior to releasing for connections to be made.
    k. The same Inspector may inspect the installation of hydrants, thrust blocks, gate wells, etc., in the proximity of the pipe laying operations, provided the Contractor cooperates to the extent that no portion of the work is covered prior to inspection.
4. Concrete Pavement
    a. Excavation and Preparation of the Site.
    b. Mucking and Filling Ditches.
    c. Pavement Removal.
    d. Subgrade Preparation and Fine Grading.
    e. Adjusting and Reconstructing Existing Structures.
    f. Sub-Base Construction.
    g. Checking Form Alignment and Grade.
    h. Placing of Concrete.
    i. Constructing Compression Cylinders.
    j. Finishing of Concrete.
    k. Placing of Cold Weather Protection.
    l. Sawing and Sealing.
    m. Finish Grading.
    n. Coring Finished Pavement (One (1) crew day will be charged for each twelve (12) cores taken).
    o. Adjusting Existing Driveways and Sidewalks.
    p. Seeding and Mulching.
    q. Restoration.
    r. Site Clean-Up.

s. Checking final pavement prior to final acceptance for conformance to specifications.

5. Sanitary, Combined, and Storm Sewers, and Appurtenances
   a. Excavation and Preparation of the Site.
   b. Checking Sewer Pipe.
   c. Installing Pipe Bed.
   d. Laying Pipe.
   e. Installing House Leads.
   f. Tunneling, Jacking or Boring of Sewer.
      i. Mining Operation:
      ii. Placement of Concrete:
         -One (1) Inspector in Tunnel.
         -One (1) Inspector Top Side.
   b. Constructing Manholes, Catch Basins, Inlets.
   c. Backfilling.
   d. Restoration.
   e. Infiltration or Ex-Filtration Tests.
   f. Site Clean-Up.
   g. Final checking of sewers prior to releasing for connections to be made or placing in service.
   h. The same Inspector may inspect the installation of manholes, catch basins, inlets, etc., in the proximity of the pipe laying operation, provided the Contractor cooperates to the extent that no portion of the work is covered prior to inspection.

2. Reinforced Concrete Structures
   a. Excavation for Structure.
   b. Sheeting.
   c. Checking Forms and Resteel.
   d. Placing of Concrete.
   e. Backfilling Around Structures.
   f. Checking Installation of Equipment.

3. Asphalt Paving and Pavement Resurfacing
   a. Excavation.
   b. Preparation of Subgrade.
   c. Construction of Base.
   d. Preparation of Existing Pavement.

e. Priming Base Course.

f. Construction of Bituminous Concrete Pavement or Surface.

g. Checking of Material.

h. Checking of Asphalt Plants.

i. Checking of Final Pavement for Conformance to Specifications.

j. Restoration.

k. Site Clean-Up.

B. Inspection rates for crew days will be charged as follows:

1. Through 4 Hours = $325.00

2. Over 4 Hours to 8 Hours = $650.00

3. Over 8 Hours = $243.75 for each two hours or part thereof

4. Saturdays

a. Through 4 Hours = $487.50

b. Over 4 Hours = $243.75 for each two hours or part hereof

C. No payment on inspector crew days shall occur while the project is in progress. Upon final evaluation and inspection approval inspector crew days will be calculated and paid along with the final payment of the project to the contractor.

END OF SECTION

SECTION 600
SEWERS AND RELATED STRUCTURES

PART 1. GENERAL

1.01 SUMMARY

A. This work shall include the furnishing of all labor, materials and construction equipment necessary for the construction of sewers of the size and character shown on the drawings and specified herein including the furnishing and installing of the pipe and bedding and necessary testing. This work shall include the provision of all labor, materials, equipment, and supervision required, including excavation, bedding, backfill, testing and sterilization and other incidental work necessary for a complete system.

B. The work of this section shall also consist of the furnishing and construction of manholes and catch basins including inlets as detailed on the Drawings and at the locations shown on the Drawings. Concrete, excavation and backfill shall be as specified in this section and other sections of the specifications. Manholes and catch basins shall be complete with frames, inlets, etc., to meet new or existing pavement surfaces, sidewalks, or grades and shall be included in the work under this section of the Contract.

C. Contractor shall check the entire length of route for acceptability of site conditions, up to and including soil conditions, to perform this work prior to bidding and again prior to mobilizing on the site to perform the various work items.

1.02 REFERENCES

A. Performance and material requirements shall meet specific Reference Standards as referred to hereinafter under individual items.

B. Unless otherwise specified, all materials shall also conform to the latest edition of STANDARD SPECIFICATIONS FOR CONSTRUCTION, adopted by the Michigan Department of Transportation.

1.03 CERTIFICATION AND INSPECTION

A. All pipe and fittings delivered to the job shall be accompanied by certification papers showing that the pipe and fittings have been tested in accordance with the applicable Specifications for this project. All pipe and fittings will be inspected upon delivery to the jobsite. No cracked, broken or damaged pipe will be allowed in this work.

B. Each piece of pipe and each fitting shall have its weight and class designation conspicuously painted or cast on it. All other pipe materials shall have the class designation painted thereon. Where required, other designation marks shall be painted on the pipe or fittings to indicate correct location in the pipe line in conformity to a detailed layout plan.

1.04 SHOP DRAWINGS AND GUARANTEES

A. Contractor shall furnish shop drawings and guarantees of the items to be furnished under this section of the Contract. Design details of joints and joint restraint shall be submitted to the Engineer for consideration and approval before ordering any pipe.

PART 2. MATERIALS

2.01 SEWER PIPE

A. All sewer pipe supplied and installed on this project shall be of the sizes and types called for on the drawings.

1. Reinforced Concrete Sewer Pipe (RCSP): ASTM C 76, Class as designated on the drawings or special design conforming to ASTM C655;

2. ABS Solid Plastic Pipe: ASTM D-2751, SDR 23.5;

3. PVC Schedule 40 Sewer Pipe: ASTM D1785 "Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120";

4. Polyvinyl Chloride Pipe (PVC) - ASTM D-2241, SDR 26. PVC compounds to meet ASTM D-1784.

B. Precast Concrete Pipe shall meet the requirements of ASTM C76.

2.02 SEWER POINT REPAIR MATERIALS

A. The materials acceptable for use in making a point repair are listed below:

1. Sewer Pipe - The following types of sewer pipe may be used as replacement pipe for a point repair. They shall conform to the appropriate American Society for Testing Materials (ASTM) Specification as listed below and any other ASTM or other applicable specification:

a. PVC Schedule 40 Sewer Pipe for 10" and smaller only.
b. ASTM C76 Class IV Concrete Sewer Pipe for 12" diameter and larger.
c. Approved Equal

2. Sewer Connections and Appurtenances

a. Service Connection - Any service connection replaced during a point repair shall conform to the pipe manufacturer's recommendations and specifications and applicable ASTM Specifications, for the service connection and for installation of such. The material of the connection shall be similar to the sewer pipe it will be connected to.

2.03 PIPE BEDDING

A. All sewer six (6) inches in diameter and larger laid on this project shall be installed in conformance with the bedding requirements established on the cross-section on the plan. The gradation requirements for the crushed stone chips shall be according to the following:

1. Crushed stone chips shall be made from crushing sound limestone, dolomite ledge rock, or other materials as approved by the Engineer. Material shall be hard, tough, and durable. The crushing process shall produce material of which 85% to 100% of the particles shall have at least one machine fractured face. Crushed pea gravel will be acceptable if it meets this criteria:

a. For sewer pipe 18" in diameter or less, crushed stone chips meeting the gradation requirements of the following table may be used:

GRADATION REQUIREMENTS FOR 3/8" CRUSHED STONE CHIPS
(18" DIAMETER PIPER OR SMALLER)

Sieve Size	Percentage Passing by Weight
½"	100%
3/8"	90 - 100%
No. 8	0 - 15%
No. 30	0 - 3%

For purposes of this specification, MDOT Aggregate Mix No. 29A, using crushed limestone, will meet the requirements of this specification.

b. For pipe larger than 18" in diameter, crushed stone chip bedding meeting the requirements of the following table may be used:

GRADUATION REQUIREMENTS FOR 3/4" CRUSHED STONE CHIPS (LARGER THAN 18" DIAMETER)

Sieve Size	Percentage Passing by Weight
1"	100%
3/4"	90 - 100%
3/8"	20 - 55%
No. 4	0 - 10%
No. 8	0 - 5%

For purposes of this specification, MDOT Aggregate Mix No. 17A, using crushed limestone, will meet the requirements of this specification.

2.04 STRUCTURES

A. Unless otherwise noted on the drawings or in supplemental specifications, precast manhole sections shall be used for all new sewer structures, including manholes, catch basins, and inlets. All concrete shall be 4,000 pounds per square inch, as determined by core test or cylinders. All precast sections shall bear the stamp of an approved testing laboratory as having been tested and delivered from tested stock of the manufacturer, at the expense of the Contractor. Precast reinforced manhole sections shall meet the requirements of current A.S.T.M. C-478.

B. The top section shall be an eccentric cone with one straight side (with manhole steps installed in straight side at the factory). The top section shall be set at an elevation to provide for three (3) courses of brick between the top face and the manhole frame when set to grade. All precast manholes shall be standard tongue and groove using mastic joint materials equal to DeWitt No. 10. All interior joints shall be pointed with mortar and all visible leaks must be stopped.

C. Manhole frames and covers shall be cast iron. Bolt down frames shall be bolted down with four (4) cadmium coated 5/8" diameter threaded studs with 3/4" x 2" x 1/16" flat washers and hex headnuts and four (4) 3/4" x 2" x 1/16" neoprene flat washers. The frames and covers shall be East Jordan Iron Works Model 1040C (2-hole vented) with water tight solid gasket cover and labeled "City of Birmingham Sewer".

D. Cast iron manhole steps shall be castings meeting the requirements of A.S.T.M. Specifications for "Gray Iron Castings," A48, Class No. 35B. The steps shall be approximately 10" x 10" x 3". Steps in precast manhole sections shall be cast in place at the plant.

E. All manholes shall have channeled bottoms. For sewers 12" diameter or less, the channel shall be 3/4 depth of pipe. For sewers larger than 12" diameter, the channel shall be a minimum of 9" deep.

2.05 GRANULAR BACKFILL

A. Contractor shall install compacted sand backfill meeting MDOT Class II specifications, compacted to 95% maximum modified proctor density in the locations required per MDOT Standard Detail R-83-B, or where called for on the plans.

PART 3. EXECUTION

3.01 MEASUREMENT AND PAYMENT

A. Where called for in the proposal, the compensation to the Contractor for the sewer installation of the diameter specified will be paid for at the contract unit price per lineal foot measured in place along the center of the pipe. The contract unit price for this work shall be payment in full for furnishing the materials including wyes and all necessary excavation, sheeting or bracing, draining, laying, jointing, bedding, backfilling, disposal of surplus materials, testing, and restoration, and all other work incidental to the construction of the sewer. Final measurements for sewer will be total lineal feet from center to center of standard manholes or center of manholes to face of tunnel sewers where connection only is made thereto.

B. Junction chambers, gate chambers, and other special structures will not be included in measurements of the sewer. Sewer measurements at these structures will end and begin respectively at inside wall of outlet and inlet end respectively, unless otherwise indicated on the plans.

C. Unless specified otherwise, manholes and drainage structures will be paid for at the contract unit price each, which price shall be payment in full for furnishing the materials, including the required fittings, frames, and full grates, steps, and for all labor, equipment and tools, all necessary excavation, backfilling, disposal of surplus material, and all work incidental to the completed structures.

3.02 PIPE DELIVERY

A. A test certificate from an independent testing laboratory showing strength of pipe when tested in accordance with the applicable A.S.T.M. Standards shall be submitted to the Engineer before pipe is delivered to the job site. One certificate shall be furnished for each size of pipe. The Engineer may require additional tests of pipe stored at the plant or delivered to the job, should he have reason to believe that inferior pipe is being delivered on the job. The cost of each test shall be borne by the Contractor. The pipe supplier shall also furnish a certificate stating that all pipe supplied was manufactured from substantially the same material and in the same manner as pipe tested and all pipe delivered to site shall have the test stamp of the testing laboratory making such tests.

B. The pipe shall be distributed at the site by the Contractor as required, and care shall be exercised to prevent injury to the pipe in handling. Proper tools and implements, for safely handling the pipe and other materials, shall be provided by the contractor.

C. Pipe must be protected from falling, either from truck to ground or into the trench, and when distributed along the line or stored near a road, must be kept clear of passing vehicles.

D. The Contractor shall place the pipe so as to cause the least amount of interference to abutting property owners and traffic using the street. Barricades and lighting shall be provided at intersections and other locations where the pipe will interfere with pedestrian or vehicular traffic.

E. All damage caused by storage of the pipe on the construction site shall be repaired by the Contractor, including but not limited to sidewalks, driveways, lawns, and shrubbery. No pipe shall be allowed to be stored longer than three days prior to beginning construction on the section of sewer.

F. All materials will be inspected before placing in the trench, and if defective, marked "REJECTED" and removed from the site by the Contractor. All damaged materials shall be replaced by the Contractor at no additional cost to the City.

3.03 EXISTING STRUCTURES AND UTILITIES

A. Underground structures and utilities are shown on the construction drawings as an aid to the contractor, but the owner does not guarantee their location or that other underground structures or utility services on the plans, and it shall be the Contractor's responsibility to locate them. The City will, whenever possible, and when requested by the Contractor, stake the location of sewer and water services at the street right-of-way line.

B. In crossing over or under underground utilities, the Contractor shall use all possible care in protecting the utilities and to maintain their free unobstructed continuous use. The contractor will be required without additional compensation to repair, replace or rebuild any such improvement injured or damaged by him, and shall be responsible to the department, companies, individuals or corporation controlling such improvements.

C. All underground utilities shall be supported on a foundation of sand or sand-gravel thoroughly compacted by mechanical tamping in order to prevent future settlement and possible failure of the utility. Under sewers and sewer services "cement reinforced sand backfill" rather than "sand or sand gravel" shall be used. Gas mains and gas services shall be supported in accordance with the requirements of the Consumers Power Company.

3.04 MAINTAINING FLOW

A. All combined sewers will likely have continuous dry weather flows, all of which shall be diverted in a safe manner so as to cause no inconvenience to the public. Special care must be taken to ensure that no part of the work is built under water, and the work must remain dry until all concrete and/or mortar has set up.

3.05 EXCAVATION

A. Excavation shall be open cut from the surface. All work shall be done to true line and grade. The Contractor shall remove all obstructions or encumbrances (except those which are specifically noted to be preserved) which may be in the proposed line of the sewer, the cost of doing such work shall be included in the contract unit price per lineal foot for laying sewer.

B. Trenches shall not be excavated for a distance greater than fifty (50) feet in advance of completed sewer without the permission of the Engineer.

C. Excavated material permitted to be used for backfill may be deposited along the line of work where space permits provided it does not cause damage to trees, shrubs, fences, etc., nor cause excessive inconvenience to public travel and adjoining property owners, nor endanger the bank of

the trench by imposing too great a load thereon. All material in excess of the quantity permitted for backfilling and all materials unsuitable for backfilling shall be hauled away by the Contractor at his expense in an expeditious manner.

D. Excavation shall be of sufficient widths and depths to provide adequate room for the construction and installation of the work to the lines, grades, and dimensions called for on the drawings, except the width of a trench from the invert to a height twelve inches above the top of the sewer barrel shall not be greater than as follows:

Pipe Size	Maximum Trench Width
12" or less	30"
15" to 36"	O.D. + 12"
42" or greater	O.D. + 24"

E. If the trench width as specified above is exceeded, the Contractor shall install, at his own expense, concrete cradling or other approved bedding, to support the additional backfill load. In case the bottom of the trench is unsuitable as a foundation, it shall be further excavated and prepared. If the unsuitable condition of the foundation is caused by factors beyond the Contractor's control, the additional excavation and preparation will be paid for as extra work.

F. Where, through the Contractor's construction procedure, or because of poor existing ground conditions, it is impossible to maintain alignment and grade properly, the Contractor shall, at his own expense, excavate below grade and replace with large size aggregate or slag in order to insure the pipe, when laid, will maintain correct alignment and grade.

G. If the trench at any point along the line will be opened nearer than six (6) feet to the face of the trunk of an existing tree, and in the opinion of the Engineer the excavation would be injurious to the tree, he may require the Contractor to tunnel under the tree.

H. Selected excavated material may be used for backfilling under trees and it shall be thoroughly tamped to completely fill the excavated space between the pipe and excavation by means of mechanical tampers.

I. Where the trench must be cut through concrete or asphalt pavement, driveways, or sidewalk, particular care shall be taken not to unnecessarily damage adjoining areas. All cuts through existing concrete or asphalt pavement, sidewalks or driveways are to be resurfaced with like materials. Pavement breaking by the use of a drop weight is prohibited.

J. Excavation shall be sheeted and braced as necessary to ensure complete working safety and to protect adjoining structures or conduits. If at any time the Engineer has reason to believe that the sheeting or bracing installed by the Contractor is insufficient, he may require that an additional amount shall be placed, but such requirement or failure to make such requirements shall not relieve the Contractor from his liability.

K. No extra compensation shall be paid the Contractor for sheeting or bracing left in place, unless ordered left in place by the Engineer and then only a fair salvage value for the material left in place shall be paid. The Contractor shall receive no extra compensation for sheeting or bracing left in place in tunnels.

3.06 TUNNELING

A. Tunneling under pavements or streets will not be allowed without the approval of the Engineer in writing, or unless noted on plans or in the Specifications. Where tunneling is permitted, there

shall be a minimum clear space of not less than six (6) inches between the outside of the pipe in the tunnel and the face of the excavation or the sheeting or bracing that is nearest the pipe.

B. All space outside the finished sewer wall shall be completely filled with 1:2 cement-sand grout applied under pressure.

C. Facilities for ventilation and lighting shall be supplied as necessary for reasonable working conditions and for inspection.

D. Any excess trench excavation made below the pipe shall be refilled with crushed stone, sand, or concrete as directed by the Engineer. Under all conditions, sewer pipe shall have a firm bearing which will insure permanent grade and alignment and proper support against crushing load.

E. Upon completion of the construction work in tunnel, the sheeting and bracing, if any, shall be left in place and all the remaining space between the outside of the pipe and the excavation shall be filled with cement reinforced sand backfill and thoroughly compacted.

F. When boring under pavement, the pit must be a minimum of ten (10) feet away from the pavement edge, unless previously approved by the Engineer.

3.07 LAYING PIPE

A. Unless otherwise allowed under specific specifications for a particular type of sewer or unless permitted by the Engineer, construction shall begin at the outlet end of sewer and proceed upgrade.

B. All pipe shall be laid true to line and grade and the ends of the pipe shall abut against each other with the bell end facing the direction of laying. Each pipe as laid shall be checked by the Contractor with line and a grade pole or a laser beam to insure that this result is obtained.

C. Alignment of laser beams shall be checked with sufficient frequency to assure compliance with plans.

D. Each pipe shall be inspected for defects prior to being lowered into the trench and inside of pipe and outside of spigot shall be cleaned of any dirt or foreign matter.

E. Proper support and bedding of all pipe through the full length of the barrel shall be made by constructing bedding as required and detailed on the plans. Special care shall be observed to avoid load on bells of bell and spigot pipe. Each pipe shall be pushed firmly against pipe previously placed and carefully aligned.

F. Mechanical means, consisting of a cable placed inside the pipe with a suitable winch, jack, or come-along for pulling the pipe home and holding the pipe in position, shall be used where the manual means will not result in pushing and holding the pipe in position.

G. Work executed during the winter shall receive exceptional attention to avoid excessive backfill load on pipe. If sides of trench are frozen, the amount of selected material tamped above the pipe shall be increased to at least two feet. No frozen backfill material shall be used.

H. At manholes the pipe shall be placed on a concrete cradle from the manhole to the point where the sewer trench does not exceed the specified width and shall be done in accordance with the City of Birmingham "Underground Structures and Water Main Standards".

3.08 JOINTS

A. All sewer joints shall be sealed with flexible, watertight, rubber type gaskets; pre-cast die molded bituminous material as used on slip seal pipe; or an approved equal. Before placing the pipe in position in the trench adjusted to grade, the joint compound on both ends of the pipe shall be

painted with suitable solvent or lubricant material. The spigot or tongue ends of the pipe to be laid shall be inserted and shoved home against the base of the socket last laid. Throughout this operation every effort shall be taken to prevent sand or gravel from entering the joint or pipe.

B. Joint material shall be applied to the pipe on the day the pipe is placed in the trench. Joint material shall be stored in closed containers when unattended.

C. Concrete pipe 36" and larger shall have all joints inside cement pointed, with cement mortar compound of one (1) part cement and two (2) parts of sand. Mastic compound or any foreign material within 3/4" below inside finish of pipe shall be thoroughly removed before cement grout is applied.

3.09 MANHOLES, DRAINAGE STRUCTURES

A. Manholes and drainage structures shall be constructed of the type and in accordance with the details shown on the plans and at the locations shown on the plans. All necessary steps, frames, and covers shall be furnished and installed. Covers shall be set at the required final elevation so that no subsequent adjustment shall be necessary.

B. Excavation shall be carried to the depth required to permit the construction of the required base and bottom of excavation shall be trimmed to a uniform horizontal bed. The excavation shall be sufficiently wide to allow for shoring, bracing, or form work, should any or all be necessary, and to allow for accessibility in plastering the exterior of brick masonry. The excavated section shall be completely de-watered before any concrete is placed thereon.

C. Concrete shall be Grade A 3,000 pounds per square inch compressive strength, minimum content 1.375 barrels per cubic yard.

D. Brick shall be made of clay or shale or concrete brick and shall be whole, thoroughly and evenly burned, of close and uniform texture, free from cracks and warps, with even faces and uniform texture, and uniform in shape and size. Brick shall show a minimum average compressive strength of 2,000 pounds per square inch and average absorption of water in twenty-four (24) hours of not more than 22 percent of dry weight.

E. The brick shall be laid radially in courses in a full bed of mortar with interior joint not more than 1/4" in width. Whole bricks only shall be used except to effect closure and to fill in the outside portion of the radial joints. Each seventh course shall be laid in "stretchers," the intervening courses shall be composed of "headers". Below a depth of thirteen (13) feet, walls of brick manholes shall be laid in alternative stretcher and header courses.

F. When completed, manholes and drainage structures shall have sand or gravel placed uniformly around the structure in one foot lifts, and compacted in place. No backfill shall be placed around manholes or structures for twenty-four (24) hours, if an outside plaster coat has been applied.

G. Manholes and Structures shall not be placed under conditions which may be expedited to result in defective work. If the soil at the established grade is not sufficiently stable to properly support structures, the Contractor, at his own expense, shall excavate up to 24" below grade and refill the trench to the proper grade with compacted crushed stone chips. If stable support cannot be established in this manner, the work shall be discontinued until plans for change in construction have been submitted by the Contractor to the Engineer for approval and approval has been granted.

3.10 SERVICE CONNECTIONS

A. Service connections shall be made to sewers with "wyes" manufactured on the sewer pipe. Breaking holes in the pipe will not be allowed without specific authorization of the Engineer.

3.11 SHEETING AND BRACING

A. Where necessary in order to construct the work called for by the contract, to insure the safety of the men, or to protect other things of value, the Contractor shall adequately sheet or brace all open excavation or tunnels. The Contractor shall install additional sheeting or bracing as directed by the Engineer, but such order, or failure to give such order, shall not release the Contractor from his liability for damage to person or property under this contract.

B. All sheeting, shoring and bracing, unless left in place as ordered by the Engineer, shall be removed from open trench work progressively with the backfilling operations in order to prevent slides from the sides of the trench. All sheeting left in place shall be cut off five (5) feet below ground line.

3.12 PUMPING, BAILING AND DRAINING

A. The Contractor shall provide and maintain adequate pumping and drainage facilities for removal and disposal of waste from trenches or other excavation.

B. Where the work is in ground containing an excessive amount of water, the Contractor shall provide, install, maintain, and operate suitable well points, connecting manifolds, and reliable pumping equipment to operate same to insure proper construction of the work.

C. In no case shall water be allowed to rise in or about the pipe before the joint has become thoroughly set. No walking on or over the pipes after they are laid, except as may be necessary in tamping the earth in refilling, will be permitted until they are covered with earth to a depth of twelve (12) inches.

D. Drainage or discharge lines shall be connected to adjacent public storm sewers or extended to nearby watercourses wherever possible. In any event, all pumping and drainage shall be done without damage to any highway or other property, public or private, and without interference with the rights of the public or private property owners.

E. The Contractor shall receive no extra compensation for providing, maintaining, or operating any de-watering or drainage facilities.

3.13 BACKFILLING

A. It is the intent of these specifications that all of the excavation be backfilled with thoroughly consolidated, suitable material in such a manner that the alignment and grade of the construction work in the excavation be not disturbed and that the subsequent settlement of the surface over the excavation and adjacent thereto be avoided as far as possible.

B. Insofar as practicable, without interfering with the progress of the work, the Contractor shall keep streets, driveways and sidewalks open to safe use by the public.

C. All trenches and excavations under existing pavement, proposed pavement, existing roadways, driveways or sidewalk shall be backfilled with sand or gravel and thoroughly compacted by mechanical tamping or vibrating. Where the existing roadway or driveway is gravel surfaced, the top eight (8) inches of the backfill shall be road gravel. The Contractor will not be required to replace any oil treatment or seal coat, however, he shall maintain the top of the trench in a dust free manner until completion of the project. No additional payment will be allowed for the sand or gravel backfill, the cost of which shall be included in the unit price bid for the installation of the pipe and structures.

D. Backfill shall not be placed against any portion of a structure until it (structure) has passed inspection.

E. Where the trench or excavation is located in the parkway between the roadway and the street line or in unimproved streets, excavated material may be used in completing the backfill. Care shall be taken in placing this backfill to make sure that all boulders, pieces of concrete and such other material that might damage the pipe or structure, or prevent consolidation are not allowed to remain in the backfill material and it shall be compacted by tamping, jetting, or by use of compacting equipment.

F. If a bulldozer or other machine is used to place the backfill material, no material shall be pushed or dropped into the trench, but shall be placed on the sloping ends of the completed backfill and allowed to roll in place to the bottom of the trench.

3.14 EMERGENCY REPAIR

A. When the Contractor is not actively performing work on a particular construction site, but where delayed construction operations, testing and/or surface restoration work yet remains to be completed to meet the requirements of the Specifications, situations may arise of an emergency nature as a result of such uncompleted work which may affect directly or indirectly public and/or private property or which may ultimately, either directly or indirectly, affect the health, safety, and welfare of individuals or the general public. While these situations can readily develop as emergencies, the Engineer shall direct field related operations and require immediate efforts by the Contractor to remedy the deficiency in a method of his choosing because of his expertise in the field, time being of the essence. The correction of the emergency which may arise when no construction activity exists on the construction site shall be handled in the following manner.

1. The Engineer shall inspect the site, take any necessary photographs and/or prepare any necessary sketches of conditions at the site to determine that the situation constitutes an emergency.

2. The Engineer then has three (3) alternate sources of manpower and equipment to be selected to remedy the emergency situation in the following order:

   a. The Contractor under contract with the Owner to perform all work on the site location in question.
   b. The City's Department of Public Services (DPS).
   c. An independent contractor designated by the Engineer.

B. Since the nature and extent of most unfinished work on a particular construction site is well known by both the Engineer's authorized agent and the Contractor at the time of declaring an "emergency situation" as set forth herein before the Contractor, under contract to the Owner for the particular project, the Contractor would be the first party notified and would be expected to respond immediately with necessary labor and equipment to remedy the problem.

C. If a reasonable time to respond to the emergency notification is not evident, in the best judgment of the Engineer, then the Contractor shall be judged to have waived his rights to physically correct the problem, but not to his obligations to pay for such physical correction or damages resulting therefrom. The Engineer shall then contact the City's DPS for their assistance in correcting the "emergency situation". Where existing commitments by the DPS prohibits their immediate response to the request of the Engineer, the Engineer shall finally direct that corrective measures be performed by the independent contractor noted above to perform such work when so directed.

D. Since the cost for all remedial work undertaken by the Contractor on this project shall be borne by the Contractor and it is necessary to engage the assistance of the DPS or an independent contractor,

then all costs incurred shall be deducted from monies due and payable to the Contractor on the particular project as set forth on any ensuing regular job estimates.

E. Typical costs which will be deducted from the contractor monies due would be as follows:

1. Payroll wages, benefits, and taxes.
2. Material bills.
3. Equipment rental (Detroit area rates) and mobilization costs.
4. 15% profit and overhead for independent contractor.
5. Inspection costs.

3.15 POINT REPAIRS TO SEWER LINES

A. It is the intent of the specifications to provide a basis by which a contractor can successfully and completely make a point repair to a sanitary sewer line. This basis shall cover all aspects of a point repair including methods, materials, and payment for work.

B. A point repair to a sanitary sewer line shall be defined as a repair made at a specified location on a sanitary sewer line.

C. A point repair shall be classified by the inside diameter of the pipe and the length of pipe replaced.

D. Methods:

1. The method by which a repair shall include all supervision, labor, equipment and materials necessary to perform and successfully complete the following items:

a. Excavating a trench deep enough to uncover a sanitary sewer line, wide enough to work in, and long enough to uncover up to twenty (20) linear feet of sewer pipe while providing protection of adjacent utilities, pavements, etc.
b. Remove any landscaping fences, asphalt, concrete, base material, storm sewer, etc., that interferes with the repair made at each specified point, and for the replacement of said landscaping, fences, asphalt, concrete, base materials, storm sewer, etc., in the same or better condition as found. Any such item not replaced in the same or better condition as found, as determined by the Engineer, shall be redone at the Contractor's expense.
c. De-water any trench where excess water accumulates and installation, as required, of compacted sand backfill under paved area.
d. Replace and reshape the bottom of the trench so that the grade of the pipe replaced will match that required for the existing sewer line. Any material replaced in the bottom of the trench shall be compacted so as to prevent sags in the sewer line due to settlement of the trench material.
e. Repair and replace up to twenty (20) feet of the existing sewer pipe with the properly sized pipe the same as existing, as needed.
f. Repair and replace any house service lateral encountered within the required twenty (20) linear feet of uncovered pipe with properly sized service, as specified and with enough sewer pipe to reconnect to the service line where it was severed.
g. Tie all new laid sewer pipe to existing sewer pipe, main sewer lines and service lines, so that no possible source of infiltration/inflow (a leak in the line) may be created.
h. Any sewer pipe broken by the Contractor, outside of the required twenty (20) linear feet of pipe, shall be replaced or repaired at the Contractor's expense. All such

occurrences shall be pointed out by the Contractor to the Engineer when they happen. The materials to use for making the tie-in shall be properly sized.

i. Backfill the open excavation so that the ground elevation will most nearly match the elevation before excavation.

E. Bypass Pumping:

1. On all sewer lines in which a point repair is to be made, the normal flow of sewage shall be re-routed by bypass pumping.
2. In any instance during CIPP lining where the flow is too heavy to properly line, the normal flow of sewage shall be re-routed by bypass pumping.

END OF SECTION

SECTION 900
SUPPLEMENTAL SPECIFICATIONS

PART 1. GENERAL

1.01 SCOPE

A. The Supplemental Specifications apply particularly to this Contract. If there are parts of these Specifications, which differ from other sections of these Specifications, the Supplemental Specifications shall control. The 2020 M.D.O.T. Standard Specifications for Construction shall apply for all work items within this contract, except as modified in this Contract Document.

B. The work covered by this Contract shall consist of those items listed in the proposal, plus other incidental items as required to complete the project. The Contractor shall, for the amount of money earned, based on unit prices stated in the Contract Documents, furnish and provide all labor, tools, equipment and materials, and do all work required in preparation, removing and replacing existing pavement, and other work related to the project. All of the items of work are to be done in accordance with the plans and Contract Documents of which these Specifications are a part.

1.02 MATERIALS

A. All materials shall be new and of the grades specified, and shall be the best of their respective kinds for the uses intended. The terms "approved" and "or approved equal" mean that the Engineer must be consulted and his approval given before the material in question is purchased or installed in the work. The approval of any material by the Engineer does not mean the acceptance of the material actually furnished if it should be found defective or inadequate for the purpose intended.

B. Special brands or grades of material or devices specified or shown on the drawings are named for the purpose of establishing a standard of quality and character desired. Other materials of equality and adaptability for the purpose for which they are intended may be substituted, but shall have the approval of the Engineer as to the equality and adaptability before being incorporated in the work.

C. The Contractor shall order or arrange for materials well in advance of their expected use in the work, as far as practicable, in order to allow time for inspection, etc., and thus avoid unnecessary delays which may otherwise occur.

D. Unless otherwise specified, all materials shall conform to the latest edition of STANDARD SPECIFICATIONS FOR CONSTRUCTION, adopted by the Michigan Department of Transportation.

1.03 SITE ACCESS AND USE OF PREMISES BY CONTRACTOR

A. The sewers included in this Contract are located in the rear yards of private properties under a current existing easement.

B. All areas disturbed by the Contractor in the execution of the work shall be restored in kind, to equal or better condition as existed before the disturbance occurred. Pay items have been established to provide compensation for restoration activities that are related to completion of the sewer rehabilitation. The Contractor is encouraged to take all reasonable precautions and effort to minimize disturbance on private property. Restoration of disturbed areas deemed as excessive by the City will not be paid for under the Contract.

C. Storage of materials and equipment on private property is prohibited.

1.04 RESTORATION

A. The Contractor shall take all necessary precaution to maintain the condition of all non-work related items within the right-of-way, as well as on private properties used to access sewers. Any incidental damage caused by the Contractor, or their employees or subcontractors, to existing items not noted for removal, including but not limited to any lawn areas, landscape features, homes, sidewalks, and drive approaches, shall be repaired or replaced to the satisfaction of the Engineer at no additional cost to the owner.

1.05 LAWN SPRINKLERS

A. In General, the Contractor shall take all necessary precaution to maintain all irrigation and any irrigation items removed or damaged shall be replaced in kind. The Contractor shall take precautions not to damage private sprinkler systems, and shall repair any sprinkler damage that occurs during construction. This work shall be incidental to the Landscaping Restoration Allowance. Please refer to additional details below relative to charging work to this pay item.

B. If a lawn sprinkler line is damaged, the Contractor shall sufficiently plug or cap the line to prevent the sprinkler line from discharging when the system is activated, and shall make the permanent repair in a timely manner.

1.06 EXAMINATION

A. Contractor shall verify the existing conditions on all of the streets to be included in this project prior to submitting a bid.

PART 2. PAY ITEMS

2.01 MOBILIZATION

A. A lump sum unit price has been provided in the proposal for "Mobilization". This pay item shall be made with the first pay estimate after the work has been started for compensation to the Contractor for initial project start-up costs including material orders, equipment transportation to each site, demobilizations and remobilizations, etc. Additional mobilizations to the site will not be paid for the Contractor to remobilize to the site regardless of the staging or sequence of construction preferred by the Contractor.

2.02 AUDIO-VIDEO RECORDING OF CONSTRUCTION AREAS

A. This bid item shall be paid for at the Contract Unit Price per lump sum basis. The Work required by this item shall be completed in accordance with Section 02031 for "Color Audio-Video Route Survey". The project area is defined in the Drawings. 100% payment will be made after the ENGINEER has reviewed the audio-video documentation for completeness.

2.03 BRUSH CLEARING AND GRUBBING (AS NEEDED)

A. There may be occasions wherein existing vegetation is in conflict with the work needed to access and work from an existing manhole. Each "event" where brush or lower vegetation is in conflict will be paid according to these pay items.

B. Once the Contractor has identified the need to complete work according to these pay items, they will be asked to take pictures of the existing conditions for the record, and not proceeding with removals until it has been reviewed on site and approved by the Engineer. The Engineer will seek to keep removals and vegetation damage to a minimum, while still allowing the Contractor to proceed with the work as proposed.

C. Work on trees smaller than 6 inch caliper (as measured 4 feet above the surrounding grade) shall be included in the Brush Clearing & Grubbing pay item.

D. Brush Clearing and Grubbing (each) will be paid for at the Contract Unit Price for each location that requires this work. This item limit and quantity will be used in agreement with the Owner's representative after review in the field.

E. These items shall include all costs associated with establishing access from the public street to the manholes or point repair locations on private property to complete the needed work, in addition to clearing vegetation, shrubs and small trees.

2.04 PRE-LINING CLEANING & TELEVISING W/ PACP REPORTING, __-INCH DIA. SEWER

A. The contract unit price for this item shall be paid per linear foot and include all labor, supervision, tools, permits, shop drawing submittals, equipment, operation, and any incidental items, and all other work as noted in the Bid Documents and as specified herein to allow the CONTRACTOR to properly prepare the existing sewer diameters as shown in the Drawings for lining. All work shall be done in accordance with specification Sections 02704 and 02751 included herein. Unless otherwise paid for separately, all additional work needed to complete the sewer preparation shall be included in the unit price bid for "Clean and Pre-Televise with PACP Reporting, __-inch Dia. Sanitary".

2.05 HEAVY CLEANING, __-INCH DIA. (AS-NEEDED)

A. The contract unit price for this item shall be paid per linear foot and include all labor, supervision, tools, permits, shop drawing submittals, equipment, operation, and any incidental items, and all other work as noted in the Bid Documents and as specified herein to allow the CONTRACTOR to properly clean the existing sewer in preparation for the cured in place liner. Should the sewer line have too much debris or blockage to allow a camera to pass through after the original three passes are made, additional cleaning may be required in order to properly prepare the sewer for CIPP lining.

B. This work shall commence only upon the approval and direction of the Owner and/or the Owner's Representative/Engineer and the Contractor will be paid to remove any blockages under the pay item "Heavy Sewer Cleaning, __-inch Diameter", as described in specification Sections 02704 and 02751 included herein.

2.06 CUT ROOT INTRUSION (AS-NEEDED)

A. The contract unit price for this item shall be paid per each item and include all labor, tools, equipment, operation, and any incidental items, and all other work as noted in the Bid Documents and as specified herein to allow the CONTRACTOR to properly cut large roots in the sewer in order to line the existing pipe. All work shall be done in accordance with specification 02708 included herein.

2.07 CUT/GRIND MINERAL DEPOSIT (AS-NEEDED)

A. The contract unit price for this item shall be paid per each item and include all labor, tools, equipment, operation, and any incidental items, and all other work as noted in the Bid Documents and as specified herein to allow the CONTRACTOR to properly remove large minerals and deposits in order to line the existing sewer. All work shall be done in accordance with specification 02708 included herein.

2.08 CUT INTRUDING TAP (AS-NEEDED)

A. The contract unit price for this item shall be paid per each item and include all labor, tools, equipment, operation, and any incidental items, and all other work as noted in the Bid Documents and as specified herein to allow the CONTRACTOR to properly cut and/or grind a protruding sewer tap in order to line the existing sewer. All work shall be done in accordance with specification 02708 included herein.

2.09 TEMPORARY BYPASS PUMPING (AS-NEEDED)

A. The contract unit price for this item and maintenance of flow activities, if necessary during the project, shall be paid for at the unit price bid for "Temporary Bypass Pumping (as-needed)". The contract bid price shall include all submittal of bypass pumping equipment, project work plan coordination, mobilization/traffic control/safety coordination efforts, fall protection, temporary sewer plugs of proper size, pumps that meet redundancy requirements, suction and discharge pipes, power to operate all equipment, de-mobilization of all equipment, cleanup, and all additional items described in Section 2141 as incidental to the work.

2.10 SEWER LINING, CIPP, __-INCH DIA.

A. The contract unit price for this item shall be paid per linear foot and include all labor, supervision, tools, permits, shop drawing submittals, equipment, operation, and any incidental items, and all other work as noted in the Bid Documents and as specified herein to allow the CONTRACTOR to properly line the existing sewer diameters as shown in the Drawings with a cured in place liner. All work shall be done in accordance with specification Sections 02704 and 02708 included herein. Unless otherwise paid for separately, all additional work needed to complete the sewer lining and post-liner installation televising shall be included in the unit price bid for "Sewer Lining, CIPP, and Post-Televise, __-inch Dia. Sanitary".

2.11 SEWER LINING, CIPP, VOC/HAP FREE RESIN, __-INCH DIA.

A. Sewer CIPP Lining VOC/HAP Free Resin shall be paid for at the contract bid price per linear foot for actual linear footage of cured-in-place pipe installed in the field, complete in place, for the size of pipe installed using a resin that's free of styrene or other volatile organic compounds or an Owner approved alternative to styrene-free resin systems that reduce styrene exposure and mitigate emissions and odors. Measurement shall be from center of structure to center of structure.

B. Any additives, resin modifications, installation methods, or other changes in work necessary to reduce odors shall be indicated in the Styrene Odor Control Plan and shall be included in the contract bid price per linear foot for "Sewer Lining, CIPP, VOC/HAP Free Resin, __-inch Dia.".

2.12 INTERNAL SEWER REPAIR SLEEVE, __-INCH DIA., 24-INCH LENGTH, AS-NEEDED

A. Refer to Special Provisions Internal Sewer Spot Liner. The bid unit price for "Internal Sewer Repair Sleeve, __-inch Dia., 24-inch Length, as-needed" is defined as a cast-in-place pipe liner that does not exceed the full length of a sewer segment (manhole to manhole). The bid unit price shall include all costs for closed circuit camera inspection, identifying all active house/lateral leads; the liner materials and installation of the liner; reconnection of active house/lateral leads; and restoration of any disturbed lawn, landscape and/or pavement areas, as required.

2.13 SEWER GROUTING SET UP

A. The contract unit price for this item shall be paid per each and include all labor, supervision, tools, permits, shop drawing submittals, testing, equipment, operation, and any incidental items, and all other work as noted in the Bid Documents and as specified herein to allow the CONTRACTOR

to properly prepare the grouting set up. All work shall be done in accordance with specification 02765 included herein. One set up will be paid for each sewer needing grouting, regardless of the number of joints needing grouting on the sewer.

2.14 SEWER JOINT GROUTING, __-INCH DIA.

A. The contract unit price for this item shall be paid per each and include all labor, supervision, tools, permits, shop drawing submittals, testing, equipment, operation, and any incidental items, and all other work as noted in the Bid Documents and as specified herein to allow the CONTRACTOR to properly prepare and repair joints with active infiltration and pipe defects with a chemical grout. All work shall be done in accordance with specification 02765 included herein. Unless otherwise paid for separately, all additional work needed to complete the sewer lining shall be included in the cost of "Chemical Grout Joints". All payment will be made after completion of grout repairs for laterals, joints and pipe defects. Final approval by the OWNER and/or ENGINEER is required prior to issuing final payment.

2.15 RECONSTRUCT MANHOLE CHIMNEY

A. Reconstruction will be paid for by the vertical foot, to raise buried manholes prior to lining work. Adjustments to meet the final pavement grade shall be included in the cost for Reconstruct Manhole Chimney.

B. All structure reconstructs shall be paid according to the pay item RECONSTRUCT MANHOLE CHIMNEY regardless of the diameter of the structure being reconstructed.

2.16 RESET FRAME AND COVER

A. Following reconstructing the manhole chimney, final adjustments to resetting the frame and cover shall be included in the cost for RESET FRAME AND COVER.

2.17 TRAFFIC CONTROL

A. It is anticipated that the Contractor will keep local streets open to traffic whenever possible. If a manhole being worked in is off to one side of the street, the Contractor shall provide CONSTRUCTION AHEAD and YIELD signs if it is necessary to close the road down to one lane. If these roads need to be closed because the manhole is too close to the center, then the Contractor shall provide a Type III barricade at each end of the block, with an R11-4 sign (ROAD CLOSED TO THROUGH TRAFFIC).

B. Prior to closing any of the streets on this project to through traffic, the Contractor shall supply cones, barriers, and warning signs in accordance with the MMUTCD. Road closure signage shall not be erected more than two work days in advance of planned closing, and erection of signing shall not begin until approved by the Engineer.

C. When a Contractor has to perform work that will obstruct a private driveway, the Contractor shall make an effort to notify the homeowner or occupants at least 24 hours in advance so that vehicles can be relocated, if necessary. The Contractor will be asked to not park vehicles in driveways unless needed to complete some type of the work in a backyard, such that the vehicle is needed within a certain range. All vehicles that are just being parked in the area shall remain on the adjacent public streets.

2.18 SITE RESTORATION

A. It is the intent of the Engineer to apply set bid unit prices to all item of work wherever possible. However, it is acknowledged that some work may require payment for work that is outside of the provisions of the pay items. Such work will include:

1. Sprinkler system repairs.
2. Underground electrical system (simple landscaping electrical system) repairs.
3. Fence repairs for fencing materials outside of the norm, which requires extra expense or expertise to repair.
4. Unique landscaping materials such as shrubbery, mulch, or decorative items that must be replaced.
5. Surrounding manhole grade.

B. Payment under this pay item shall only apply when additional work was required as a result of having to complete restoration work that is not normally associated with the pay items as presented in the plans and specifications. The Contractor and the City shall agree to the time spent on a daily basis that will apply under this provision. In addition, the Contractor shall submit a written statement for each such incident, documenting all labor and equipment charges on an hourly basis used, as well as any materials used, to be paid for under this provision.

2.19 INSPECTOR CREW DAYS

A. The "Inspector Crew Days" provision as stated in the "General Requirements" section of the Contract shall be modified as noted below:

1. The number of crew days for each pay period will be added as a pay item (up to the amount bid as a maximum) and the actual number of days used will be deducted from the overall total amount due with each pay estimate. If the total amount bid has not been used at the end of the contract, the bid amount will be paid on the final estimate.
2. If additional work other than what is noted herein is necessary to complete the project, the City will consider adjusting the inspector crew days number upon request. The adjustment shall be based upon the percentage increase in the total value of the project over what was originally bid.

END OF SECTION

SECTION 1000
CONTRACT PROVISIONS FOR NON-FEDERAL ENTITY CONTRACT UNDER FEDERAL AWARDS

PART 1. GENERAL

1.01 SUMMARY

A. In addition to other prevision required by the Federal agency or non-Federal entity, all contract made by the non-Federal entity under the Federal award must contain provisions covering the following, as applicable.

1.02 CONTRACT PROVISIONS

A. Contracts for more than the simplified acquisition threshold, which is the inflation adjusted amount determined by the Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council (Councils) as authorized by 41 U.S.C. 1908, must address administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as appropriate. See Section 400-General Requirements for additional information.

B. All contracts in excess of $10,000 must address termination for cause and for convenience by the non-Federal entity including the manner by which it will be effected and the basis for settlement. See Section 400-General Requirements, 1.44 Settlement of Disputes for additional information.

C. Equal Employment Opportunity. All contracts that meet the definition of "federally assisted construction contract" in 41 CFR Part 60-1.3 must include the equal opportunity clause provided under 41 CFR 60-1.4(b), in accordance with Executive Order 11246, "Equal Employment Opportunity" (30 FR 12319, 12935, 3 CFR Part, 1964-1965 Comp., p. 339), as amended by Executive Order 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and implementing regulations at 41 CFR part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor. See Section 400-General Requirements, 1.19 Law and Ordinance for additional information.

D. Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708). Where applicable, all contracts awarded by the non-Federal entity in excess of $100,000 that involve the employment of mechanics or laborers must include a provision for compliance with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5). Under 40 U.S.C. 3702 of the Act, each contractor must be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

E. Rights to Inventions Made Under a Contract or Agreement. If the Federal award meets the definition of "funding agreement" under 37 CFR § 401.2 (a) and the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, development, or research work under that "funding agreement," the recipient or subrecipient must comply with the

requirements of 37 CFR Part 401, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," and any implementing regulations issued by the awarding agency.

F. Clean Air Act (42 U.S.C. 7401-7671q.) and the Federal Water Pollution Control Act (33 U.S.C. 1251-1387), as amended—Contracts and subgrants of amounts in excess of $150,000 must contain a provision that requires the non-Federal award to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

G. Debarment and Suspension (Executive Orders 12549 and 12689)—A contract award (see 2 CFR 180.220) must not be made to parties listed on the governmentwide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (3 CFR part 1986 Comp., p. 189) and 12689 (3 CFR part 1989 Comp., p. 235), "Debarment and Suspension." SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.

END OF SECTION

SECTION 1005
DISADVANTAGED BUSINESS ENTERPRISE (DBE)
PRIME CONTRACTOR GOOD FAITH EFFORT

PART 1. GENERAL

1.01 SUMMARY

A. This Contract requires compliance with the Prime Contractor Good Faith Effort requirements.

B. The Contractor is required to make the following good faith effort whenever procuring construction, equipment, service and supplies under an Environmental Protection Agency financial assistance agreement.

C. If the prime contractor awards subcontracts, require the prime contractor to:

1. A recipient must require its prime contractor to pay its subcontractor for satisfactory performance no more than 30 days from the prime contractor's receipt of payment from the recipient.

2. A recipient must be notified in writing by its prime contractor prior to any termination of a DBE subcontractor for convenience by the prime contractor.

3. If a DBE subcontractor fails to complete work under the subcontract for any reason, the recipient must require the prime contractor to employ the six good faith efforts described in § 33.301 if soliciting a replacement subcontractor.

4. A recipient must require its prime contractor to employ the six good faith efforts described in § 33.301 even if the prime contractor has achieved its fair share objectives under subpart D of this part.

5. A recipient must require its prime contractor to provide EPA Form 6100-2—DBE Program Subcontractor Participation Form to all of its DBE subcontractors. EPA Form 6100-2 gives a DBE subcontractor the opportunity to describe the work the DBE subcontractor received from the prime contractor, how much the DBE subcontractor was paid and any other concerns the DBE subcontractor might have, for example reasons why the DBE subcontractor believes it was terminated by the prime contractor. DBE subcontractors may send completed copies of EPA Form 6100-2 directly to the appropriate EPA DBE Coordinator.

6. A recipient must require its prime contractor to have its DBE subcontractors complete EPA Form 6100-3—DBE Program Subcontractor Performance Form. A recipient must then require its prime contractor to include all completed forms as part of the prime contractor's bid or proposal package.

7. A recipient must require its prime contractor to complete and submit EPA Form 6100-4—DBE Program Subcontractor Utilization Form as part of the prime contractor's bid or proposal package.

8. (h) Copies of EPA Form 6100-2—DBE Program Subcontractor Participation Form, EPA Form 6100-3—DBE Program Subcontractor Performance Form and EPA Form 6100-4—DBE Program Subcontractor Utilization Form may be obtained from EPA OSDBU's Home Page on the Internet or directly from EPA OSDBU.

    a. A recipient must ensure that each procurement contract it awards contains the term and condition specified in the appendix concerning compliance with the requirements of this part. A recipient must also ensure that this term and condition is included in each

procurement contract awarded by an entity receiving an identified loan under a financial assistance agreement to capitalize a revolving loan fund.

END OF SECTION

SECTION 1010

DAVIS-BACON WAGE REQUIREMENTS

PART 1 GENERAL

1.1 SUMMARY

A. This Contract requires compliance with the Davis-Bacon and Related Acts, including prevailing wages prescribed by a Labor Wage decision by the U.S. Department of Labor. This contract requires the Contractor to post all required Davis-Bacon posters, produce certified payrolls, and all other requirements Davis-Bacon and Related Acts.

B. This Section is intended to be a summary of the laws and regulations of the Davis-Bacon and Related Acts. The Contractor is responsible for interpreting and complying with the rules and requirements of the current laws pertaining to the Davis Bacon Act, Codes, Statutes, Executive Orders, and other policies.

C. Products Furnished [OR] Supplied but Not Installed under This Section
1. None

D. Products Installed but Not Furnished [OR] Supplied under This Section
1. None.

E. Related Requirements
1. None.

1.2 PRICE AND PAYMENT PROCEDURES

A. If no separate bid-item under the Bid Form is provided by the Owner, all costs for the work described in this section shall be factored into the other contract bid prices.

B. No allowance or extra consideration on behalf of the Contractor will subsequently be allowed by reason of error or oversight on the part of the Contractor.

C. The Owner may withhold payment to the Contractor for insufficient amounts to satisfy liabilities of the Contractor for unpaid wages, and for liquidated damages for overtime violations under the Contract Work Hours and Safety Standards Act (CWHSSA).

1.3 REFERENCES

A. Abbreviations and Acronyms Definitions
1. ARRA – American Recovery and Reinvestment Act of 2009
2. CWHSSA – Contract Work Hours and Safety Standards Act.
3. DBA – Davis Bacon Act of 1931
4. DBRA - The Davis-Bacon and Related Acts
5. WHD – Wage and Hour Division – United States Department of Labor

B. Definitions

1. Prevailing Wage: The wage rate for various classes of laborers and mechanics as determined by the U.S. Department of Labor for a specific locality.

C. Reference Standards
1. Davis-Bacon Act, P.L. 71-798
2. Davis-Bacon Act, 40 U.S.C. 3141-3148
   a. 29 CFR Part 1 – Procedures for Predetermination of Wage Rates
   b. 29 CFR Part 3 – Requirements for Public Work financed by Loans and Grants
   c. 29 CFR Part 5 – Labor Standards Provisions for Federally assisted Contracts
   d. 29 CFR Part 6 – Rules of Practice
   e. 29 CFR Part 7 – Practice before the Administrative Review Board.
3. Fair Labor Standards Act of 1938, as amended. 29 U.S.C. 201
4. McNamara-O'Hara Service Contract Ace of 1965, as amended. 41 U.S.C. 351
5. Contract Work Hours and Safety Standards Act, as amended. 40 U.S.C. 3701
6. Walsh-Healey Public Contracts Act, 41 U.S.C. 35.
7. Executive Order 13658 – Establishing a Minimum Wage for Contractors: Annual Update
8. Executive Order 14026 – Increasing the Minimum Wage for Federal Contractors
9. Executive Order 13706 – Establishing Paid Sick Leave for Federal Contractors
10. Executive Order 14236 – Additional Rescissions of Harmful Executive Orders and Actions

1.4 ADMINISTRATIVE REQUIREMENTS

A. This Contract requires compliance with the Davis-Bacon Act and adherence to the current U.S. Department of Labor Wage Decision. Attention is called to the fact that not less than the minimum salaries and wages as set forth in the Contract Documents (see Wage Decision included herein) must be paid on this project. The Wage Decision, including modifications, must be posted by the Contractor on the job site. The "Contracting Agency" or "Contracting Officer" for Davis-Bacon Wage Decision posters on jobsites is the loan applicant/bond issuer. A copy of the Labor Standards Provisions for Federally Assisted Projects is included and is hereby a part of this contract.
1. Contractors on projects subject to DBRA labor standards may also be subject to additional prevailing wage and overtime pay requirements under State (and local) laws. Overtime pay requirements under CWHSSA and the Fair Labor Standards Act may apply.
2. The Copeland "Anti-Kickback" Act prohibits the Contractor from inducing an employee to give up any part of the compensation to which they are entitled and requires the Contractor to submit a weekly statement of the wages paid to each worker performing DBRA-covered work.

B. The Contractor is required to pay at least the prevailing wage listed in the Wage Determination by paying each laborer and mechanic the applicable prevailing wage entirely as cash wages or by a combination of cash wages and employer-provided bona fide fringe benefits. Prevailing wages, including fringe benefits, must be paid for all hours worked on the site of the work.
1. Apprentices may be paid less than the rates listed in the Wage Determination only when they are individually registered in an apprenticeship program registered

with the Department of Labor or with a state apprenticeship agency recognized by the Department, and the terms of the apprenticeship program are met.

C. Non-Compliance of the Davis-Bacon and Related Acts:

1. The Owner reserves the right to terminate the Contract for violations of the Davis-Bacon labor standards by the Contractor. The Contractor is responsible for any liability costs for any resulting investigation, fines, or penalty costs to the United States Department of Labor, and potential Debarment damages
2. Non-compliance may result in withholdings of payment(s), contract termination, or debarment from federal or federally-assisted contract(s). The Contractor shall be prepared for investigations related to compliance with wage requirements, including the United States Department of Labor.
3. Non-compliance includes the following:
   a. Misclassification of laborers and mechanics.
   b. Failure to pay full prevailing wage, including fringe benefits, for all hours worked (including overtime hours).
   c. Incomplete or inaccurate recordkeeping, such as not counting all hours worked or not recording hours worked in each classification by an individual who worked in two or more classifications during a day.
   d. Failure to maintain a copy of the bona fide apprenticeship program and individual registration documents for apprentices.
   e. Failure to submit certified payrolls weekly.
   f. Failure to post the Davis- Bacon poster and applicable wage determination at the work site.

D. Online training is available from the WHD to assist all federal, state and local contracting agencies with information on federal rules concerning prevailing wages and other labor law requirements. The training modules, presented by WHD staff and its federal agency partners, provide contracting officials with information on the process of obtaining wage determinations; adding classifications to wage determinations (conformances); compliance principles, and enforcement process under both the Davis-Bacon Act (DBA) and the McNamara Service Contract Act (SCA).

1.5 SUBMITTALS

A. Weekly certified payroll reports containing wage and fringe information in accordance with the Contract's Wage Determination.

B. All other document compliance with the Davis Bacon Act, employee classifications, and other additional documentation required by the United States Department of Labor.

1.6 CLOSEOUT SUBMITTALS

A. Photographic Image of the posted Davis-Bacon Wage Determination (including the entire table of classifications and wage information) on the Project Site in a prominent and accessible place where they can be easily seen by all workers.

B. Photographic Image of the posted Davis-Bacon Poster (WH-1321) on the Project Site in a prominent and accessible place where they can be easily seen by all workers.

1.7 MAINTENANCE MATERIAL SUBMITTALS

A. Not Used.

1.8 QUALITY ASSURANCE

A. Not Used.

1.9 DELIVERY, STORAGE, AND HANDLING

A. Not Used.

1.10 FIELD [OR] SITE CONDITIONS

A. Not Used.

1.11 WARRANTY [OR] BOND

A. Not Used.

PART 2 PRODUCTS

A. Not Used.

PART 3 EXECUTION

A. Not Used.

END OF SECTION

ATTACHMENTS:

(1) DAVIS-BACON POSTER WH-1321

(2) WAGE DETERMINATION

WORKER RIGHTS

UNDER THE DAVIS-BACON ACT

FOR LABORERS AND MECHANICS WORKING ON FEDERAL OR FEDERALLY ASSISTED CONSTRUCTION PROJECTS

The law requires employers to display this poster where employees can readily see it.

PREVAILING WAGES You must be paid not less than the wage rate listed in the Davis-Bacon Wage Decision posted with this Notice for the work you perform.

OVERTIME You must be paid not less than one and one-half times your basic rate of pay for all hours worked over 40 in a work week. There are few exceptions.

ENFORCEMENT Contract payments can be withheld to ensure workers receive wages and overtime pay due, and liquidated damages may apply if overtime pay requirements are not met. Davis-Bacon contract clauses allow contract termination and debarment of contractors from future federal contracts for three years. A contractor who falsifies certified payroll records or induces wage kickbacks may be subject to civil or criminal prosecution, fines and/or imprisonment.

APPRENTICES Apprentice rates apply only to apprentices properly registered under approved Federal or State apprenticeship programs.

RETALIATION The law prohibits discharging or otherwise retaliating against workers for filing a complaint, cooperating in an investigation, or testifying in a proceeding under the Davis-Bacon and Related Acts.

PROPER PAY If you do not receive proper pay, or require further information on the applicable wages, contact the Contracting Officer listed below.

or contact the U.S. Department of Labor's Wage and Hour Division

WHD WAGE AND HOUR DIVISION
UNITED STATES DEPARTMENT OF LABOR

1-866-487-9243
TTY: 1-877-889-5627
www.dol.gov/whd

BIRMINGHAM
A WALKABLE CITY

ADDENDUM NO. 2
REQUEST FOR PROPOSALS
2025-2026 SEWER REHABILITATION PROGRAM

March 19, 2026

The following is a summary of the scope of work changes incorporated into the project as Addendum #2:

Specifications:

1. Davis-Bacon Wage Requirements (1010)
    a. The entire section has been re-issued to include the wage determination.

Sincerely,

Melissa A. Coatta, P.E.
City Engineer

151 Martin Street • P.O. Box 3001 • Birmingham, MI 48012-3001
(248) 530-1800 • Fax (248) 530-1080 • www.bhamgov.org

BIRMINGHAM
A WALKABLE CITY

ADDENDUM NO. 1
REQUEST FOR PROPOSALS
2025-2026 SEWER REHABILITATION PROGRAM

March 17, 2026

In response to inquiries on the above Request for Proposal, the following clarifications are provided to assist with the preparation of proposals:

1. The anticipated Notice to Proceed date, or approximate time frame for issuance following award?
   Response: The contract is expected to be awarded at the April 13, 2026, City Commission Meeting.
2. Whether the City intends the contract duration to run strictly from NTP to June 12, 2026, or if a specific number of calendar days for construction will be established at award
   Response: The contract direction is to run strictly from the NTP to June 12, 2026.
3. The specifications require submission of a Styrene Odor Control Plan with the bid proposal. Please confirm whether this document is required as part of the bid package or may be submitted after award as part of the project work plan.
   Response: The submission of a Styrene Order Control Plan is required as part of the bid package.
4. Please confirm that steam cure is prohibited in all liners greater than 12 inches.
   Response: Steam cure is prohibited in liners greater than 12 inches.
5. Please confirm whether any recent CCTV inspection reports or structural condition assessments are available for the sewer segments included in this project?
   Response: Any recent CCTV inspection reports are included in Appendix B: CCTV Sewer Inspection Logs
6. Will the city provide water and disposal
   Response: The City will provide water and disposal.
7. Can they check the quantities on the bid tab. For 21" to 27" I am showing 293LF per the lining table and for 21" VOC/HAP Free resin I'm showing 143LF per the lining table.
   Response: See attached Addendum specification under 100 – Proposal for Sewer Lining, CIPP 21 to 27-inch Dia. At 293 LFT, and sewer Lining, CIPP, VOCHAP Resin, 21 inch Dia. at 143 LFT.
8. Can Thermoform PVC Liner be used as an alternate lining technology to the CIPP specified?
   Response: Thermoform can not be used since it does not meet the ASTM Standards as referenced in the project specifications.
9. Can Envirocure be used for non-styrenated liner installations?
   Response: Envirocure could be used for non-styrenated liner since it meets the ASTM Standards as referenced in the project specifications.
10. Is the BABA certification letter required to be submitted with the bid?
    Response: The BABA certificate can be submitted after the award.

151 Martin Street • P.O. Box 3001 • Birmingham, MI 48012-3001
(248) 530-1800 • Fax (248) 530-1080 • www.bhamgov.org

11. Are qualifications for Cleaning of Sewer Lines (2751-3) required to be submitted with the bid?
Response: Yes. It could be listed under the proposal when giving the last five projects worked on, or in a separate list/document.

The following is a summary of the scope of work changes incorporated into the project as Addendum #1:

Specifications:

12. Proposal:
    a. No. 18 - Sewer Lining, CIPP, 21 to 27-inch Dia. quantity has been changed to 293 LFT.
    b. No. 19 - Sewer Lining, CIPP, VOC/HAP Free Resin, 21 inch Dia. quantity has been changed to 143 LFT.

Sincerely,

Melissa A. Coatta, P.E.
City Engineer

SECTION 1020

BUILD AMERICA BUY AMERICA

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Summary of Build America Buy America Material Requirements.
   2. Documentation procedures and compliance.

B. The Build America, Buy America Act (BABA), a part of the Infrastructure Investment and Jobs Act (Public Law 117-58), requires that grant recipients use products that are produced in the United States for infrastructure projects, including construction, alteration, maintenance, or repair

C. BABA requires all of the iron, steel, manufactured products, and construction materials used in the project are produced in the United States, unless a waiver is approved.

D. All guidance developed for compliance with BABA requirements is issued by the U.S. Office of Management and Budget (OMB), M-22-08, and by 2 CFR Part 184. Section 70914(c) of Public Law 117-58 sets forth exemptions determined by the U.S. Environmental Protection Agency (EPA) that may waive BABA requirements. Waivers may be obtained for products or materials that cannot meet these requirements, including a Public Interest Waiver (De Minimis Costs), Nonavailability Waiver, or Unreasonable Cost Waiver.

E. This section is intended to summarize the current federal laws and regulations. It does not relieve the Contractor from complying with any other applicable rules, laws, regulations, or requirements defined by BABA or otherwise.

F. Products Furnished or Supplied but Not Installed under This Section
   1. None

G. Products Installed but Not Furnished or Supplied under This Section
   1. None.

H. Related Requirements
   1. None.

1.2 PRICE AND PAYMENT PROCEDURES

A. All costs for the work described in this Section shall be factored into the other Contract bid prices. No separate pay item is provided.

1.3 REFERENCES

A. Abbreviations and Acronyms
   1. EPA – Environmental Protection Agency
   2. BABBA / BABA - Build America, Buy America Act

B. Definitions
   1. Domestic Material - As defined in the applicable regulations, materials and products that are produced in the United States.
   2. Manufactured Goods - End products produced and manufactured in the United States.

C. Reference Standards / Laws (enforcing agency)
   1. Infrastructure Investment and Jobs Act – Public Law 117-58
   2. Build America, Buy America Act – Public Law 117-58
   3. 49 U.S.C. CHAPTER 21 – Buy America Buy America requirements for transit programs, originally enacted in Section 9002 of the Moving Ahead for Progress in the 21st Century Act - MAP-21

1.4 ADMINISTRATIVE REQUIREMENTS

A. The Contractor shall comply with all applicable provisions of BABA as outlined in the federal funding agreement, and produce the required documentation for material sources and origin.

B. The Contractor must verify all materials and products used in the project are produced in the United States, unless exceptions as outlined in approved waivers are received.

C. Prepare Manufacturer's Certification Letter(s) or Waiver(s)
   1. The Manufacturer of each ach Construction Material or Product shall provide a certification letter documenting that the item or product is produced and manufactured in the United States of America in accordance with P.L. 117-58.
   2. The EPA may issue a waiver for products that cannot meet the requirements.
   3. Waivers issued by the EPA in accordance of Public Law 117-58 apply to projects receiving credit assistance similarly to projects receiving assistance under the Clean Water and Drinking Water State Revolving Fund programs.

1.5 SUBMITTALS

A. For any Materials proposed on the project that cannot meet the federal requirements listed, provide the following applicable documentation prior to procurement:
   1. Public Interest Waivers (De Minimis Costs)
   2. Nonavailability Waivers
   3. Unreasonable Cost Waivers

B. Certification Letters for each material documenting the material origin of source.

1.6 CLOSEOUT SUBMITTALS

A. NOT USED.

1.7 MAINTENANCE MATERIAL SUBMITTALS

A. NOT USED.

1.8 QUALITY ASSURANCE

A. NOT USED.

1.9 DELIVERY, STORAGE, AND HANDLING

A. NOT USED.

1.10 FIELD OR SITE CONDITIONS

A. NOT USED.

1.11 WARRANTY OR BOND

A. NOT USED.

PART 2 PRODUCTS

A. NOT USED.

PART 3 EXECUTION

A. Comply with all federal material requirements applicable to Public Law 117-58 of the 2011 Infrastructure Investment and Jobs Act, which includes the requirement that all iron and steel products used in the project must be produced in the United States ("American Iron and Steel Requirement"), unless one of the following conditions is met:
   1. the Owner has requested and obtained a waiver from the funding agency, or
   2. A federal agency (EGLE, EPA) has advised the Owner in writing that the BABA Requirement is not applicable to the project.

B. Construction Materials and Products (refer to OMB guidance for specific product category provisions)
   1. All iron and steel utilized in an infrastructure project must be manufactured in the United States, encompassing all phases from the initial melting process to the application of coatings.
   2. Non-ferrous metals
   3. Plastic and polymer products (polyvinyl chloride, polymers in fiber optic cables)
   4. Glass
   5. Fiber Optic Cable
   6. Lumber
   7. Engineered Wood Products
   8. Drywall

C. For questions on material requirements and provisions, refer to the OMB published guidance for BABA Requirements.

D. Provide to the Owner the Manufacturer's Certifications for each construction material item documenting that all manufacturing processes occurred in the United States, meeting all of the provisions of PL 117-58 and supplemental Guidance. Where a Manufacturer's Certification cannot be provided, produce a Waiver in accordance with current EPA Guidance containing the information necessary to support a waiver of the requirements. A sample Certification Letter is provided herein for reference only

END OF SECTION

The following information is provided as a sample letter of certification for BABA compliance or Manufactured Products. Documentation must be provided on company letterhead.

Date

Company Name

Company Address

City, State Zip

Subject: Build America, Buy America Act Certification

Project XXXXXXXXXX (must state the water/wastewater system name, location, and/or project/ contract title, that is specific and recognizable enough to easily associate it with this particular project)

I, (company representative), certify that the manufactured product(s) shipped/provided to the subject project is/are in full compliance with the Build America, Buy America Act requirement as mandated in the Infrastructure Investment and Jobs Act (IIJA) Pub. L. No. 117-58, §§ 70901-52 and in EPA's State Revolving Fund Programs (if applicable). This/these product(s) meet(s) the 55 percent component cost test, where the cost of components that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components; and final manufacturing occurred in the United States.

Items, Products and/or Materials and relevant Product Service Code (PSC) and North American Industry Classification System (NAICS) code:

1. Xxxx
2. Xxxx
3. Xxxx

Final product manufacturing process(es) took place at the following location(s): (City and State)

1. Xxxx
2. Xxxx
3. Xxxx

If any of the above compliance statements change, we will immediately notify the subject project prime contractor.

Signature of company representative

Printed name of company representative

Professional title of company representative

Email address

Phone number

END OF SAMPLE

SECTION 1030
AMERCIAN IRON AND STEEL

PART 1. GENERAL

1.01 SUMMARY

A. This Contract requires compliance with the American Iron and Steel requirements.

B. The Contractor acknowledges to and for the benefit of the City of Birmingham (Owner) and the Environmental Protection Agency (Funding Authority) that it understands the goods and services under this Agreement are being funded with federal monies and have statutory requirements commonly known as "American Iron and Steel;" that requires all of the iron and steel products used in the project to be produced in the United States ("American Iron and Steel Requirement") including iron and steel products provided by the Contactor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Owner and the Funding Authority that:

1. The Contractor has reviewed and understands the American Iron and Steel Requirement
2. All of the iron and steel products used in the project will be and/or have been produced in the United States in a manner that complies with the American Iron and Steel Requirement, unless a waiver of the requirement is approved, and
3. The Contractor will provide any further verified information, certification or assurance of compliance with this section, or information necessary to support a waiver of the American Iron and Steel Requirement, as may be requested by the Owner or the Funding Authority.

C. Notwithstanding any other provision of this Agreement, any failure to comply with this section by the Contractor shall permit the Owner or Funding Authority to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney's fees) incurred by the Owner or Funding Authority resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the Funding Authority or any damages owed to the Funding Authority by the Owner). If the Contractor has no direct contractual privity with the Funding Authority, as a lender or awardee to the Owner for the funding of its project, the Owner and the Contractor agree that the Funding Authority is a third-party beneficiary and neither this section (nor any other provision of this Agreement necessary to give this section force or effect) shall be amended or waived without the prior written consent of the Funding Authority.

END OF SECTION

SECTION 02031

COLOR AUDIO-VIDEO ROUTE SURVEY

PART 1 GENERAL:

1.1 SUMMARY

A. This Section shall include all work, materials, labor, and equipment necessary to provide a record of the existing conditions of the construction area prior to the start of construction using photographic methods.

B. The Contractor is required to subcontract services to a professional photographer or electrographer actively engaged in color-audio-video recordings of projects similar to the work included under this Contract.

C. Related Requirements
1. None

1.2 MEASUREMENT AND PAYMENT

A. Audio-Video Recording of Construction Areas.....LS
Media documentation of construction areas shall be paid for at the contract bid price per lump sum for the actual recordings and documentation of project areas described herein.

The following work items shall be included in the contract bid price per lump sum, unless otherwise described:
1. Electronic Recording of construction areas
2. Media including video, still-images, and sound.
3. Electronic Storage devices, labels, and transmittal descriptions.
4. All additional items described herein as incidental to the work.

1.3 REFERENCES

A. Abbreviations and Acronyms
1. CIA – Construction Influence Area

B. Definitions
1. Construction Influence Area (CIA) - The project and the area surrounding the project, as shown on the plans which has been determined by the Municipality to define the limits of responsibility for construction work.
2. Project Limits - The boundaries of the area in which the items under contract are being placed.

C. Reference Standards
1. None

1.4 SUBMITTALS

A. Recordings of construction areas defined in the CIA prior to the start of construction.

1.5 QUALITY ASSURANCE

A. The photographic and video recordings shall be done by a commercial photographic studio that regularly engages in the business of taking commercial photographs, videos, and other still-media.

1.6 ADMINISTRATIVE REQUIREMENTS

A. Not Used.

1.7 CLOSEOUT SUBMITTALS

A. Submit one electronic storage device containing the media described in this section. The record of contents must be furnished one week prior to the start of construction.
   1. All recording must be made using digital equipment such as portable USB 2.0 or 3.0 memory devices or full color audio-video DVD discs. One complete copy of the digital device provided and written records shall be provided to the Owner prior to start of construction.
   2. A record of the contents of each DVD disc shall be supplied by a sheet identifying each segment in the DVD disc by location, disc number, disc time, starting point, traveling direction and ending point.
   3. An electronic shared drive is acceptable.

1.8 FIELD OR SITE CONDITIONS

A. The Owner shall have the authority to designate areas for which coverage may be added or omitted and this shall be considered as incidental to the Contract.

1.9 WARRANTY

A. None.

PART 2 PRODUCTS:

2.1 MATERIALS

A. Digital audio-video discs (DVD) shall be Sony, Panasonic, J.V.C or equal on DVD discs, or portable storage device with USB. If DVD is used, they must be suitable for recording and play-back on computer DVD ROM players and conventional DVD players utilizing DVD R format.

B. Portable memory devices must be USB. 2.0 standard or USB 3.0 with backward 2.0 compatibility.

2.2 EQUIPMENT

A. Videographer shall have the equipment and experience necessary to produce a digital color-audio recording of the prescribed quality specified herein.

B. Digital audio-video discs must be originally recorded with minimum horizontal resolution of 480 lines. Reprocessed DVD discs will not be acceptable.

PART 3 EXECUTION:

3.1 EXAMINATION

A. Not Used.

3.2 PREPARATION

A. Not Used.

3.3 COLOR AUDIO-VIDEO ROUTE SURVEY

A. The recording shall be done prior to placement of materials or equipment on the construction area

B. Complete coverage shall include all surface features located within the public right-of-way, easement areas and adjacent private properties up to building line when such properties lie within the zone of influence of construction and will be supported by appropriate audio descriptions made simultaneously with video coverage. Such coverage shall include but not be limited to all existing driveways, sidewalks, curbs, ditches, roadways, landscaping, trees, culverts, mail boxes, headwalls, and retaining walls, or buildings located within such zone of influence.

C. Coverage shall include the entire project area impacted by construction and any portions of streets to be used by the Contractor as access roads and/or haul roads.

D. When conventional wheeled vehicles are used, the distance from the camera lens to the ground shall not be less than twelve (12) feet to insure proper perspective.

E. In some instances, audio-video coverage will be required in areas not accessible by conventional wheeled vehicles. Such coverage shall be obtained by walking or special conveyance approved by the Owner.

F. Buildings shall be identified by street number, when visible, in such a manner that structures of the proposed system can be located by reference. In all instances, however, locations shall be identified by audio or visual means at intervals not-to-exceed 100 lineal feet in the general direction of travel.

G. Reference Markers

1. To preclude the possibility of tampering or editing in any manner, all video recordings, must, by electronic means, display continuously and simultaneously generated transparent digital information to include the date and time of recording, as well as the corresponding engineering stationing numbers. The date information will contain the month, day and year; for example 10/5/96 and be placed directly below the time information. The time information shall consist of hours, minutes and seconds, separated by colons. For example

10:53:18. This transparent information will appear on the extreme upper left-hand third of the screen.

2. The engineering stationing numbers must be continuous, accurate and correspond to the project stationing and must include the standard engineering symbols. For example 14+84. This transparent information will appear on the extreme area covered, direction of travel, viewing side, etc.
3. Below the engineering station, periodic transparent alpha/numeric information will appear. This information will consist of the name of the project, name of area covered, direction of travel, viewing side, etc.

3.4 FIELD QUALITY CONTROL

A. The rate of speed in the general direction of travel of the conveyance used during recording shall not exceed 30 feet/minute. Panning rates and zoom-in, zoom-out rates shall be controlled sufficiently such that stop-action during play-back will produce clarity of detail in the object viewed.

B. All recording shall be done during times of good visibility. No recording shall be done during periods of visible precipitation, or when more than 10% of the ground area is covered with snow or standing water, unless otherwise authorized by the Owner.

3.5 NON-CONFORMING WORK

A. Any recorded coverage not acceptable to the Owner shall be rerecorded at no additional charge.

3.6 CLOSEOUT ACTIVITIES

A. All digital recordings and written records shall become the property of the Owner. The firm performing this work shall also provide one complete copy of all DVD discs and written records to the Engineer.

END OF SECTION

SECTION 02141

TEMPORARY BYPASS PUMPING

PART 1 GENERAL:

1.1 SUMMARY

A. This Section shall include all work, materials, labor, equipment, power generation, and maintenance to implement a temporary pumping system for the purpose of diverting existing sanitary sewer flow originating at the designated work location to an alternative location for the duration of the project.

B. The design, installation, and operation of the temporary pumping system shall be the Contractor's responsibility. The equipment used for temporary bypass pumping must be selected and sized properly in order to operate efficiently and prevent potential environmental damage and disruption to the public.

C. The Contractor may retain services of a professional company that specializes in the design, procurement, rental, and/or operation of temporary bypass pumping systems. Any subcontractor or vendor must meet all subcontracting requirements of the contract.

D. All materials and products required to construct the temporary bypass pumping system are for temporary use only for the intended project and shall be removed offsite and retained by the Contractor, or returned to the rental vendor by the Contractor.

E. The design of the temporary pumping system, including parameters such as piping size, flow rates, total dynamic pressure head, duration, and other factors listed herein, may influence the configuration of the setup required:
   1. Short-Term Setup – Operations that require short or non-continuous durations using portable materials and equipment intended for daily setup and decommissioning. Short term setups include bypassing sewers typically 24-inches or less in diameter, or as directed by the Engineer, and typically include the following equipment:
      a. Integrated Pump, Generator, and Controls mounted on trailer.
      b. Flexible Hoses with quick-connect fittings.
      c. Inflatable plugs.
      d. Traffic control
      e. Handling and use of large diameter pipe.
      f. Stationary Pumps and Power Generation

F. Related Requirements
   1. Section 02704 – Internal Sewer Inspection
   2. Section 02751 – Cleaning of Sewer Lines
   3. Section 02708 – Resin Impregnated Flexible Fabric Liner and Cured-in-Place Pipe

1.2 MEASUREMENT AND PAYMENT

Bypass Pumping or any other maintenance of flow activities, if necessary during the project, shall be paid for at the unit price bid for **"Temporary Bypass Pumping (as-needed)".** The following work items shall be included in the contract bid price:

1. Administrative Requirements:
   a. Submittal of Bypass Pumping Equipment in coordination with any Project Work Plan (PWP).
   b. Coordination with other project activities including mobilization, traffic control, and safety requirements.
   c. Demonstration of Operation prior to start of work.
2. Fall protection at all Manhole Openings.
3. Temporary sewer plugs of the proper size, multiple plugs if required.
4. Pumps that meet all redundancy requirements.
5. Suction and Discharge piping.
6. Power to operate all equipment.
7. De-mobilization of all equipment and surface clean-up.
8. All additional items described herein as incidental to the work.

1.3 REFERENCES

A. Abbreviations and Acronyms
   1. ASTM – American Society for Testing and Materials
   2. CSE – Confined Space Entry / Entrance
   3. EGLE – State of Michigan Department of Environment, Great Lakes, and Energy.
   4. MIOSHA – Michigan Occupational Safety and Health Administration
   5. NASSCO – National Association of Sewer Service Companies

B. Reference Standards
   1. OHSA
      a. OSHA Standard No. 1910.146 – "Occupational Safety and Health Standards – Permit Required Confined Spaces"
   2. NASSCO
      a. Specification Guideline for Temporary Bypass Pumping

1.4 SUBMITTALS

A. Bypass Pumping Project Work Plan (PWP) Document:
   1. The design, installation, and operation of the temporary pumping system shall meet the requirements of all codes and regulatory agencies having jurisdiction. Prior to beginning any work, the Contractor is required to prepare and submit a Project Work Plan (PWP) with the following information:
      a. Short-Term Bypass Setup:
         1) Sketch or Design drawing of a typical bypass arrangement for small diameter sewers applicable to the project.
         2) Shop Drawing information on equipment and materials
            a) Trailer Mounted pumps
            b) Power generators or power source
            c) Flexible hoses and associated fittings

3) Mitigations for crossings at driveways, sidewalks and other obstacles

4) Bypass Setup Design Sheet:
   a) Written document provided by the Contractor, a subcontracting bypass pumping provider, or a Consulting Engineer signed and stamped by a Professional Engineer in the State of Michigan:
      (1) Selected Pump Information, Pump Quantity, Pump Curves, and Power Requirements
      (2) Contact Information with Personnel operating and managing the bypass pumping system.
      (3) Acceptable upstream surcharge depths in the tributary sewer system.
      (4) Selected Power Source and fuel supply information
      (5) Calculations giving flow capacity provided by each pump given the systems Total Dynamic Head (TDH), including the calculations that are used to derive the system TDH. This data should also include the calculations determining what the Net Positive Suction Head available is in comparison to the Net Positive Suction Head required by each pump.
      (6) Odor Control Methods
      (7) Noise Mitigation
      (8) Procedure for recovering lost equipment in the sewer.
      (9) Emergency information for adverse weather and flooding.
      (10) Emergency information for accidents or failures.

5) Shop Drawings for all equipment, including pumps, valves, piping, generators, and other equipment utilized for each setup.

B. Safety Plan
   1. Contractor's Access and Confined Space Procedures
   2. Emergency Information
   3. Cleanup Procedures and Washout Information
   4. Mitigations for trip and fall hazards.

C. Sample Inspection and Maintenance Log for Bypass Pumping System.

1.5 QUALITY ASSURANCE

A. Use only materials that are suitable for sewer piping systems

B. Visually inspect all pipe, fitting, and equipment delivered to the project site for compliance with the specifications and physical condition. Any defective materials shall be removed from the project site.

C. Perform leakage and pressure tests on discharge piping before operation. Should any liquid or solid matter from the piping be spilled, discharged, leaked, or deposited into the open environment immediately clean up and disinfect the affected area. The Owner shall be notified of the spill.

D. At a minimum, inspect the temporary bypass pumping at the beginning and end of each shift. A designated operator shall be present at all times the bypass system is operating. Maintenance of the temporary bypass system shall be continuous at all times.

E. Keep and maintain spare parts for pumps and piping on site.

F. Maintain adequate hoisting equipment and accessories on site.

G. Superintendent or Bypass Pump Operator shall provide daily a maintenance and inspection log.

1.6 ADMINISTRATIVE REQUIREMENTS

A. Access
1. Obtain access rights from private property owners when access across private property is necessary to reach manholes due to easement congestion which limits equipment travel within existing easements, unless provided by Owner.
2. Maintain access and coordinate with all public and private services that may access construction area including, but not limited to:
   a. U.S. Postal Mail Carriers
   b. Private Mail Delivery Services (United Parcel Service, FedEx, DHL)
   c. Municipal and Civil Services (Police, Fire, Emergency Management Services)
   d. Local Rubbish, recycling, and Refuse Haulers

B. Safety Information
1. Workspace is subject to hazardous and/or combustible materials commonly associated with sewer pipes.
2. Contractor is solely responsible for site safety and safety of its personnel and equipment throughout the project.
3. Comply with applicable requirements of OSHA, specifically Standard No. 1910.146 – "Occupational Safety and Health Standards – Permit Required Confined Spaces"
4. Provide all required safety barricades, scaffolding, fall hazard warnings, and personal protection gear.

C. Contractor's Presence at the work-site
1. No Equipment is allowed to remain in a sewer pipe during the following conditions:
   a. After reinstating flow to the sewer by removing the bypass pumping system.
   b. While the Contractor is not actively working (for short-term/daily temporary bypass pumping setups).

D. Design Information

1. Design information may be provided on the contract drawings, including known sewer flow rates, existing manhole depths, surcharge levels, and other considerations.
2. The Contractor is responsible for verifying all information provided. The Contractor is responsible to obtain any necessary information if not provided or known.
3. No cost allowances shall be made for conditions found during the progress of the work due to the Contractor's failure to verify such conditions.

E. Operational Conditions
1. The Owner has the right to postpone temporary bypass pumping activities for any reason, including sewer system flows, forecast of wet weather, and coordination with projects by others.
2. No additional costs or claims will be accepted for the postponement of any temporary bypass pumping by the Owner.
3. The Contractor is responsible for all damages and cleanup costs associated with sewer backups in result bypass pumping, including all sump-pump connections to sanitary or combined sewer systems.

1.7 SPARE PARTS

A. Provide the following spare parts to be available should the operation of the bypass pumping system fail or be interrupted:
1. One (1) backup Pump minimum
2. Spare hose clamps
3. Spare suction and discharge piping
4. Sewer Plugs of varying sizes
5. Valves (where required)
6. Power Generators (where required)
7. Fuel (supply up to 24 hours of operation)

1.8 DELIVERY, STORAGE, AND HANDLING

A. Transport, deliver, handle, and store all bypass pumping equipment to the job-site using proper hoisting, rigging, and material handling practices.

B. Follow all Manufacturer's instructions for field storage requirements, including equipment sensitive to sunlight or extreme temperatures.

C. All equipment shall be stored at a designated storage yard or project site in a neat, organized manner. At no time shall equipment be stored in driveways, private facilities, environmentally sensitive areas (wetlands, waterways) or directly on top of existing utility manhole covers.

PART 2 PRODUCTS:

2.1 MATERIALS

A. Suction and Discharge Piping and fittings

1. The contractor shall determine the appropriate pipe type and material dependent on the size required for the fluid flow and pressure requirements of the bypass pumping system. A separate specification for the following pipe materials may be provided in the contact book:
   a. Polyethylene Pipe
      1) ASTM F 714 Polyethylene SDR-DR Outside Diameter Control
      2) ASTM D 1248
   b. High Density Polyethylene Pipe (HDPE)
      1) ASTM D3350 / D3035 / AWWA C906 (4-inch through 63 inch)
      2) DIPS DR 17 (Pressure Class 130 psi) for the nominal diameter required.
      3) Assembled and fused in accordance with ASTM D 2657.
      4) Threaded or solvent weld joints are not permitted.
   c. Steel Pipe with Quick-Disconnect Coupling System
      1) High tensile strength.
      2) Hot-dipped galvanized with abrasion resistance.
      3) Withstand minimum pressure of 50 psi.
   d. Flexible and Composite Hoses, Associated Coupling and Connectors
      1) Abrasion resistant.
      2) Suitable for intended sewer use.
      3) Rated for external and internal loads anticipated for traffic loading.
      4) Rated for pressure anticipated with bypass pumping design.
      5) Lay-flat configuration.
2. All pipe, both new and previously used shall be homogeneous throughout, free of visible cracks, discoloration, pitting, varying wall thickness, holes, foreign material, blisters, or other pipe defects.
3. All discharge ends shall have a 90-degree elbow fitting on the end directing flow into the channel or pipe inside the discharge manhole.
4. Pipe Materials not permitted for temporary bypass setup:
   a. Aluminum or Plastic Pipe designed for irrigation use
   b. Solvent weld PVC pipe
   c. Concrete Pipe
   d. All pipe not rated for pressure.

2.2 EQUIPMENT

A. Pumping Equipment
1. Capable of handling solids up to 3-inches for dry weather flow.
2. Feature fully automatic self-priming units that do not require the use of foot-valves or vacuum pumps in the priming system.
3. Pumps shall allow dry running for long periods of time to accommodate the cyclical nature of effluent flows.
4. Permanent backup pumping capacity is required for dry weather flow rates.
5. Available standby equipment of adequate capacity is required and should be ready for immediate operation and use in the event of wet weather, an emergency or a breakdown.
   a. The system shall be designed with back up pumping equipment installed and ready for immediate use in the event that the primary system should fail.

b. Provide one pump on standby equal to the largest pump in the system as designed for wet weather flow.

6. Contractor may elect to use trailer-mounted portable pumps or stationary pumps depending on the bypass pumping duration and size required.

B. Valves and Fittings
1. Determine according to the flow calculations, pump sizes previously determined, and system operating pressures.

C. Power Generation
1. Electric or diesel power generators are permitted.
2. All diesel engines must be Tier 3 or newer.
3. Maximum noise level of 70 decibels (dB(A)) or a maximum of 10 decibels above ambient noise levels, whichever less.
4. Sound attenuation is required for all residential areas.

D. Monitoring and Controls
1. Provide controls for start/stop for each pump. On portable pump and motor combinations, the pump controls should be an integral part of the engine control panel.
2. For large diameter sewers (typically 27 inch or greater), provide automatic level transducers to maintain the proper surcharge levels.

E. Pipe Plugs
1. Inflatable Pipe Plugs
a. Inflatable line bladders shall be designed for sewer use.
b. Determine size according to the existing sewer line to be plugged and manhole configuration.
c. Provide all required accessories as required (rupture disks, poly-line hoses, inflation mechanisms)
2. Mechanical Pipe Plugs
a. All mechanical bolt tightening pipe plugs shall have the appropriate bolting mechanism for expected pressure.

2.3 SYSTEMS

A. Pump and Haul Bypass System
1. Permitted Use:
a. Isolating flow originating from Lateral sewers connected directly to Manholes
b. Sewers with low-flow conditions
c. Connected sewers designated as abandoned (contributing low-flow from infiltration or leaks)
2. Use a well-maintained combination vacuum machine designed for sewer use.
3. Requirements for the handling, hauling, disposal, and all associated costs and fees of hazardous waste materials; non-hazardous waste materials; are to be included in the unit prices as bid.

PART 3 EXECUTION:

3.1 EXAMINATION

A. Identify access points to the pipeline to be bypassed.
   1. Coordinate with traffic control requirements and other barricade needs.
   2. Determine the clear space available in the manhole
   3. Measure or verify manhole depths
   4. Identify any restrictions present at the worksite.
   5. Coordinate activities where temporary trenches are needed for discharge piping.

B. Coordinate all work with sewer operation personnel and local weather forecasts and conditions. Bypass pumping during wet weather conditions is prohibited.
   1. Any previously installed sewer plug(s) shall be pulled within two (2) to four (4) hours of the start of a wet weather event or earlier based on the intensity of the storm unless otherwise directed by the Owner.

C. The Contractor shall notify the Owner and Engineer during the following conditions:
   1. Three (3) working days prior to the start of any temporary bypass pumping activities at the beginning of the project.
   2. Daily notifications prior to the start of any temporary bypass pumping activities for daily set-ups.

3.2 PREPARATION

A. Test all bypass pumping equipment for proper operation prior to delivery to the project work site.

B. Conduct pressure and leak testing at one-and-a-half (1.5x) the maximum pressure the system will experience for a period of two (2) hours.

C. Remove any manhole frames, covers, cones, and steps as required to provide clear access to perform the bypass pumping work.

D. Clean any sediment, sludge, bricks, rubble, and debris from the pump intake area prior to the installation of the bypass pumps.

3.3 INSTALLATION

A. Furnish all materials, labor, equipment, power generation, and transportation to implement a temporary bypass system for the purpose of diverting the exiting sanitary sewer flow around the work area for the duration of the project.

B. Provide the necessary power generation for the equipment. The Contractor may elect to provide temporary electrical service, board switches, etc. as required by local electrical agency and NEC current edition to provide temporary bypass pumping.
   1. An automatic float system shall be provided for the operation of the pumps.

C. Assemble all bypass pumping piping, equipment, and appurtenances.

1. Perform modifications to crossings at roadways, driveways, sidewalk, and other obstacles in accordance with the contract drawings. Where not specified, the contractor may provide the following methods to maintain access:
   a. Temporary trench with temporary pavement or steel plate covering
   b. Ramps or lay-flat hose configurations
   c. Barricades and Signs (in accordance with any approved Project Work Plan or Traffic Control Plans)

D. Install all required pipe plugs based on the Manufacturer's Instructions.

E. Weirs, where required, shall be mounted using methods that so not cause structural damage to the sewers or manholes.

F. Limit noise levels to 70 decibels or a maximum of 10 decibels above ambient noise levels, whichever is less.
   1. Check ambient noise levels in and around the area (day and night) prior to instituting bypass pumping operations to provide baseline ambient noise levels.
   2. Utilize sound attenuation, screening or noise absorption materials on or around equipment causing these decibel levels to be exceeded, if these levels cannot be met.

G. Decommissioning Sewer Plugs:
   1. For short-term setups, temporary sewer plugs must be deflated and unrestricted flow resumed at the end of each work period at a time agreed to by the Owner.
   2. Deflate the plugs in a slow manner to re-establish flow conditions in a manner that does not cause surge or major turbulence downstream.
   3. Temporary sewer plugs are prohibited from being stored within the sewer system while deflated and must be removed from the sewers and manholes.

H. Decommissioning Temporary Bypass Pumping System:
   1. Re-establish flow in the sewer and ensure proper operation
   2. Remove all bypass pumping equipment from the site.
      a. No equipment or materials can be abandoned or buried in-place.
   3. Restore all disturbed areas and structures to pre-construction condition, at minimum, or in accordance with the contract drawings.
   4. Restore all pavement in accordance with the right-of-way requirements or where indicated on the contract drawings.

3.4 FIELD QUALITY CONTROL

A. Testing
   1. Leakage and pressure testing shall be performed using clean water prior to actual operation.
   2. Test the bypass pumping system to 1.5 times the system operating pressure, or 5 psi below the maximum HDPE pipe rated pressure, whichever is lower. The test pressure must hold for a minimum of 2 hours.

B. Monitoring

1. Monitor the operation of the bypass pumping system to ensure there are no leaks or operational concerns. Inspections shall occur at the start of operation, every two (2) hours until flow is re-established in the sewer.
2. Monitor surcharge levels in the sewer to prevent backups in the system. Manholes upstream of the bypassing location shall be periodically checked for debris accumulation.

3.5 NON-CONFORMING WORK

A. The following conditions related to the temporary bypass pumping system shall be non-conforming, and the Contractor shall cease all work until the pumping system is repaired or replaced, and proper working order is established:
   1. Failures of pump(s), power generators, and/or other equipment.
   2. Overflow or flow backup resulting in basement backups or spills in the open environment.
   3. Pipe Plug failures (plug detachment or significant leaks in the pipe wall)
   4. Noise measured above the specified amount.
   5. Inadequate power supply or fuel supply.

3.6 ADJUSTING

A. Where operational adjustments to pumping capacities, controllers, monitoring controls, and other equipment are required, adjust the equipment as required to ensure all equipment is operating optimally and efficiently.

3.7 CLEANING

A. Clean debris that collects in piping and appurtenances regularly and properly dispose of such debris material.

B. During cold weather, suction and discharge piping subject to freezing temperatures should be cleaned and pumped out to prevent freezing fluids inside the pipe.

3.8 MAINTENANCE

A. Protect discharge piping throughout the duration of the temporary bypass.

B. Repair or replace any sections of pipe or equipment immediately where leaking or damaged.

C. Do not allow the sewage depths in the local system to increase to levels that create the risk of basement back-ups or spilling of wastewater into the environment. The contractor is responsible for all cleanup costs associated with the following:
   1. Sewer backups while assembling the bypass system, operating the system, and decommissioning the system.
   2. Sewer backups in result of sump pumps connected to sanitary or combined sewer systems.

D. Do not allow the system to overflow or directly pump, or by any other means discharge sanitary sewage to any land, street, storm drain, or water course.

1. Should maximum surcharge levels be exceeded, the Contractor shall cease work and restore gravity flow through the removal of any temporary sewer plugs.
   a. Suspension of temporary bypass pumping and restoration of gravity flow due to interruption or failure in the bypass pumping system and/or operations (including power failure w/o required backup) shall be at no additional cost to the Owner.
   b. Contractor shall bear all responsibility for any required additional cleaning efforts and any loss of work product and/or materials.
2. Immediately notify the Owner should a sanitary sewer overflow (SSO) occur and take the necessary action to clean up and disinfect the spillage to the satisfaction of the Owner and EGLE.
   a. If sewage is spilled onto public or private property, the Contractor shall wash down, clean up, and disinfect the spillage to the satisfaction of the property owner and/or other governmental agency.

E. Whenever directed by the Owner, the Contractor shall cease work and restore gravity flow through the removal of any temporary sewer plugs.

END OF SECTION

SECTION 02704
INTERNAL SEWER INSPECTION

PART 1 GENERAL

1.1 SUMMARY

A. It is the intent of these specifications to provide a basis for which a sewer line can be internally inspected by a Closed Circuit Television (CCTV) camera. The inspection shall include providing the Owner with digital videos, images, and reports that include condition and other descriptive data related to the sewer. This basis shall include all aspects of televising including method, equipment, and payment for work.

B. This Section shall include all supervision, labor, equipment, materials, traffic control, temporary plugging and/or bypassing of flow, disposal of debris, required cleaning, video media, still pictures and any applicable electrical service necessary to successfully complete the inspection and assessment of the designated lines, as well as the required reporting and deliverables which includes the Contractor providing the Owner with applicable recommendations for corrective actions.

C. The Contractor shall provide and furnish all required skilled and unskilled labor, materials, fuel, machinery, tools, so that the contract and all work required to be done under the contract can and will be carried on continuously and expeditiously to completion, in all respects to the satisfaction of the Owner.

D. The sewer lines for which televising is required are shown in these Contract Documents.

E. Related Sections:
   1. Section 02751 – Cleaning of Sewer Lines

1.2 MEASUREMENT AND PAYMENT

A. **Pre-Lining Cleaning and Televising with PACP Reporting, __-inch Dia. Sewer, Linear Foot**

   1. The Owner shall pay for television inspection of the sewer lines at the unit price bid per linear foot of each size pipe. Measurement of the actual number of feet inspected shall be made from the inside wall of the first manhole to the inside wall of the second manhole.

   2. The per foot cost of television inspection will be paid for the actual footages televised between the manholes involved.

      a. Measurement of the actual number of feet inspected shall be made from the inside wall of the manhole to the point where the survey was abandoned from each direction.

      b. Reverse setups will not entitle the Contractor to additional payment.

      c. Final payment will not be made until such time as all deliverables are provided for each televised pipe segment.

1.3 REFERENCES

A. Abbreviations and Acronyms
1. NASSCO - National Association of Sewer Service Contractors
2. PACP - Pipeline Assessment and Certification Program
3. MACP - Manhole Assessment and Certification Program
4. LACP - Lateral Assessment and Certification Program

B. Definitions

1. Reverse Setups - a situation that arises when the television camera cannot pass through the manhole section, making it necessary to reverse the positions of the television equipment and enter the sewer from the opposite direction

1.4 QUALIFICATIONS

A. The Contractor or Subcontractor performing the work shall be a company with experience performing internal sewer inspections and shall have a minimum experience of three other projects of at least 50,000 feet within the last five years that included surveying, processing, and interpretation of data associated with CCTV inspections.

B. The work shall be performed under the supervision of personnel trained and certified in the use of NASSCO's PACP for the inspection of sewer mains, LACP for the inspection of laterals, and MACP for the inspection of manholes.

1.5 SUBMITTALS

A. Prior to initiation of work, the Contractor shall submit for Owner review and approval the following:

1. Data sheets for proposed CCTV equipment, description of proposed electronic storage device (hard drive, etc.) and proposed electronic file formats.

2. Description of proposed software for recording inspection logs along with a sample of a typical log and samples of all required reports as described in this Section.

3. Proposed sequence and schedule, and sample resident/business notification letter.

4. Contact information for Contractor's staff including mobile phone and email, and emergency contact information.

1.6 QUALITY ASSURANCE

A. After completion of one week of Internal Sewer Inspection (or alternative period as approved by the Owner), the Contractor shall provide the Owner with a sample of the required deliverables for the work completed for review and approval of format.

1.7 REPORTING

A. The Contractor shall record any and all defects such as radial and linear cracks no matter how minor, dips, blockages, or obstructions, pipe joint conditions, infiltration and calcite

buildup, lateral connections (including reporting active, inactive, or abandoned), root infiltration, deterioration of pipe material surface, penetrating utilities, etc. The Contractor shall record the characteristics and defects observed using the NASSCO PACP/MACP/LACP Inspection Report format and coding for each sewer segment, and provide a shape file with the information in the correct location. All pipes, manholes, laterals and other structures shall be identified using the Owner's naming convention. The operator's NASSCO certification number shall be recorded on the Report.

B. All manhole and pipe assets shall be referenced using the supplied Owner identification numbers ("Owner Asset/Pipe ID #"). Reports generated using a Contractor–generated numbering system will not be accepted. The Pipe ID (not the Manhole ID) shall be used as the Pipe Segment Reference (PSR). A shape file will be provided to the contractor with the Pipe and Manhole IDs.

C. Location of defects shall be given as a distance from the starting point and location around the pipe (i.e., 2 o'clock)

D. The Contractor shall provide the following reports for each inspected segment that include all descriptions in NASSCO format of all defects found as part of the survey, all NASSCO header information, and identify the asset using the Owner's identification system:

1. Graphic Reports, including:
   a. Linear sketch of the inspected manhole or pipe/lateral segment showing defect locations
   b. List of the individual defects
   c. Defect "grade" assigned using the NASSCO PACP/MACP/LACP Condition Grading System guidelines.
2. Tabular Reports, including:
   a. List of the individual defects
   b. A defect "grade" using the NASSCO PACP/MACP/LACP Condition Grading System guidelines
   c. NASSCO segment scores, including
      1) Overall Pipe Rating (Structural, Maintenance, and Overall)
      2) Pipe Rating Index (Structural, Maintenance, and Overall), and
      3) Quick Scores (Structural, Maintenance and Overall.)
3. Defects by Inspection Report
   a. Generated at completion of the project, or at intermediate milestones as required by the Owner
   b. Includes;
      1) A tabular list of all segments inspected to date,
      2) The surveyed length for each segment,
      3) A count of defects encountered for each segment,
      4) Quick rating scores and,
      5) The overall pipe rating index

E. Submit Samples of Contractor Reports for Owner approval prior to starting project.

F. Provide Final Reports in accordance with Required Deliverables.

1.8 REQUIRED DELIVERABLES

A. The contractor shall deliver an editable database compliant with Pipeline Assessment Certification Program (PACP) Exchange Database standards, set forth by the National Association of Sewer Service Companies Organization (NASSCO), survey details, observations, and shape files for all pipes surveyed. All reports submitted to the Owner by the Contractor must follow the most recent standards set forth by NASSCO, and the database provided by the contractor will be comprehensive with NASSCO's database. Contractor must have their database validated through NASSCO prior to the project start date.

B. The Contractor shall deliver to the Owner one copy each of the Graphic Report and Tabular Report for each segment inspected, and one copy of the Defects by Inspection Report that summarizes all segments inspected during the project. All reports shall also be provided in Adobe PDF format. Both reports for each sewer segment shall be a single PDF file with the GIS pipe ID or up-steam and down-stream manhole IDs included in the file name.

C. The Contractor shall submit preliminary copies of the Graphic Report, Tabular Report, and NASSCO Exchange Database for areas completed for review as the project progresses.

D. The Contractor shall deliver to the Owner digital copies of all video recordings, still photos, and other media for the segments inspected. The files shall be accessible using commonly-installed software, or a viewer may be provided instead.

E. All electronic records and digital files shall be provided to the Owner on a suitable data storage device (CD, DVD, hard drive, etc.) The devices shall be labelled to correspond with the hard copy inspection reports. Labels shall be permanent with complete project information.

F. The Owner reserves the right to reject any or all televising and recording of sewer segments due to poor quality or clarity of defects. If necessary, the Contractor shall re-inspect those segments as determined by the Owner at no additional cost to the Owner.

G. All video recordings, still images and reports shall become property of the Owner without restriction for copying, re-use or publication

1.9 ACCEPTANCE

A. A daily log of work accomplished shall be duly recorded and acknowledged by the Owner and the Contractor's superintendent.

B. All inspection recordings and reports will be reviewed by the Owner. The Owner shall have the authority to reject all or any portion of recordings not conforming to Specifications. These areas shall be re-inspected at no additional charge.

1.10 SAMPLE REPORTS

A. Samples of the required reporting are located at the end of this Section.

PART 2 PRODUCTS

2.1 INSPECTION EQUIPMENT

A. General:

1. Provide equipment as required for the proposed work to perform inspections of sewer mains, manholes and/or laterals. Laterals shall be inspected from mainline to property line or cleanout located in streets, street rights-of-way, and off road easements.
2. Equipment shall include but not be limited to portable CCTV equipment, vehicles capable of transporting TV equipment and accessing remote easements, cleaning equipment, and any additional equipment and supplies required to allow for communication between personnel and to maintain a safe working environment.
3. The Contractor shall have on site fans and/or blowers necessary to remove any fog or steam that may be present, during or caused by the inspection of the piping system. All cost incurred in the use of fans or blowers shall be considered incidental to this project. No inspection of pipe shall proceed while fog is present.
4. Necessary playback equipment shall be readily accessible in the field for Owner to perform periodic review of the inspection work.

B. Sewer Main CCTV:

1. All equipment used for televising sewer lines shall be of the highest quality and shall have high performance capabilities. It shall be operative in 100 percent humidity conditions and shall be specifically designed for the proposed work.
2. The CCTV camera shall be of the remotely operated pan and tilt type. The rotating camera and lighthead configuration shall provide 240 degrees of pan and tilt angle measuring centerline to centerline and minimum 65-degree lens viewing angle.
3. The camera shall be color and shall provide a minimum of 460 lines of horizontal resolution and 400 lines of vertical resolution.
4. The color camera shall be equipped with the necessary circuitry to allow for either automatic or remote adjustment of the optical focus and iris from the power control unit at the viewing station.
5. Mounting: Cameras may be mounted on conventional camera skids, floating skids or rafts, or maybe handheld and carried manually through larger diameter sewers.
6. Lighting: Suitable to allow clear picture of entire inner pipe wall extending at least 10 feet in front, including black High Density Polyethylene (HDPE) pipe.
7. Image: Capable of self-righting itself.
8. Features: Equipment shall have a display feature capable of showing following information.
    a. Project name.
    b. Contractor's name.
    c. Date and time of inspection.
    d. Inside pipe diameter and type.
    e. Manhole identification (upstream manhole to downstream manhole).
    f. On-going footage counters accurate within 0.2 foot.
9. Operator narration capability: Follow NASSCO standards.
10. Recording of a single section of sewer onto two different media storage devices will not be acceptable. Each sewer segment shall be documented in a continuous video.

C. Lateral CCTV:
1. Shall conform to sewer main CCTV, except as modified herein and also be able to inspect laterals as small as 3-inches diameter for a distance of up to 70 feet from sewer mainline.
2. Launched from within mainline sewer: Unit shall be mounted on tread tractor that moves through sewers and positions inspection camera launcher opposite lateral line connection.
3. Launched from within cleanout: Unit shall be able to travel to mainline sewer.
4. Shall be of the self-leveling type.
5. Display shall include lateral address.

D. Manhole CCTV.
1. Color Video Camera:
a. Shall conform to sewer main CCTV, except as modified herein and also be specifically designed and constructed for this application.
b. Capable of capturing both video and high resolution stills.
c. High-resolution, pan and tilt or rotating head (manually performed or motor operated) with wide viewing angle lens and either automatic or remote focus and iris control.
d. Lighting: Suitable for use with digital color inspection cameras and manhole and structure sizes as identified in contract.
e. Operative in 100 percent humidity conditions.

E. Software:
1. Software for logging condition and feature coding shall conform to current NASSCO standards:
a. Sewer Mains: Follow PACP
b. Laterals: Follow LACP
c. Manholes: Follow MACP
2. The software shall offer all coding compliant with PACP standards and validate each entry before it can be saved.
3. The footage reading from the camera equipment shall be automatically entered into the survey log and shall directly correspond to the noted defect location throughout the pipe graphic and tabular reports generated.
4. Software shall be compatible with Microsoft Windows operating system and shall be capable of importing and exporting data to and from the standard PACP database.
5. Recorded audio-video files shall be in a format viewable by commonly available software, either directly or via export. Any additional software required viewing files in their native format shall be provided at no additional cost with the deliverables.

PART 3 EXECUTION

3.1 GENERAL

A. The Contractor shall be responsible for securing the site and protection of the Owner's personnel and public. Any necessary traffic control shall be in accordance with the current Michigan Manual of Uniform Traffic Control Devices.

B. All inspection and recording of sewer features and condition shall be in accordance with NASSCO standards.

C. Unless otherwise noted, a sewer line shall be repaired or rehabilitated as specified in these Contract Documents prior to insertion of the television camera.

D. Maintain sewer isolation by temporary plugging or bypass pumping, as required by the Contract Documents. Contractor shall conduct operations to prevent backups and sewer overflows, and coordinate all activities with Owner. Should bypass pumping be required, the Contractor shall have personnel witnessing the pumping continuously during operations to assure that the capacity of bypass pumping equipment is sufficient.

E. For sewers impacted by wet weather, including storm sewers, combined sewers and sewers with significant inflow and/or infiltration, work shall be coordinated with weather forecasts. No work shall be scheduled within 24 hours before or after an anticipated precipitation event.

F. The Contractor shall notify affected residents/businesses one day prior to starting cleaning and sewer inspection with a "Resident Notification Letter" informing the residents/businesses of the Contractor's activities and to provide contact information for the Contractor and Owner. The Contractor shall submit the letter for Owner review and approval prior to notification.

G. The Owner shall have the authority to designate areas for which coverage may be added or omitted.

1.11 INSPECTION PREPARATION

A. The Contractor shall be responsible for having the necessary camera skids, floats, and rafts available to allow for inspection in a manner acceptable to the Owner under live flow conditions. The following general criteria shall be followed:

1. No inspections shall be performed where flow depths exceed 50% of pipe diameter without prior approval of the Owner.
2. The maximum flow depth for remote inspection work is 33% of the pipe diameter. The Contractor may be required to perform inspections during off-peak hours (night inspections) if specifically requested by the Owner to achieve this maximum flow standard.
3. No maximum flow depth has been established for manual (walk-through) inspections since depths in excess of one-third pipe will probably make such inspection methods unsafe.
4. Pipes 60 inches in diameter and larger, and having flow depths of less than 20% of the pipe diameter, shall be manually inspected unless the Contractor provides the owner with reasons for deeming manual inspections to be impractical or unsafe.

1.12 INSPECTION METHOD FOR SEWER MAIN LINES

A. All recording of the piping system shall be a continuous record from structure to structure. The camera shall be positioned at the center of the sewer pipe. All inspection shall be completed during times of dry weather flow, and the camera shall record in the same

direction as the flow. Inspection against the flow especially during high flow conditions must be approved by the Owner.

B. The rate of speed shall be adjusted to produce a clear, concise record of the piping system and shall not exceed 30 feet per minute for conventional CCTV cameras. Travel shall stop for minimum of 10 seconds to record lateral connections, mainline connections, defects, features, and other observations. Advanced Digital Video Survey (DVS) inspection camera systems with high digital image recording resolution and lighting characteristics will be allowed to record at faster rates subject to Owner review and approval of images.

C. The camera pan/tilt and zoom-in/zoom-out rates shall be controlled sufficient such that during playback all angles or magnifications may be viewed clearly. Lighting shall be sufficient to ensure true color and minimal glare/reflective distortions.

D. Manual winches, power winches, TV cable, and powered rewinds or other devices that do not obstruct the camera view or interfere with proper documentation of the sewer conditions shall be used to move the camera through the sewer line.

E. If there is interference in the sewer line that will not allow the CCTV equipment to pass, then it shall be backed out of the line and an attempt shall be made to inspect the line from the manhole at the other end. If the entire length of the sewer line cannot be televised because of two or more obstructions, then the Owner shall be notified to determine how to proceed.

1.13 INSPECTION METHOD FOR LARGER DIAMETER SEWER MAIN LINES ("WALKABLE")

A. Manual inspections will be required in lines where conditions will allow the Contractor's inspection crew to safely walk through the sewer, and shall conform to the requirements for sewer main lines except as otherwise modified herein.

B. Manual pipe inspections (walk-through inspections) shall be conducted in such a manner as to transmit the video signal to an above-ground viewing room to permit the Owner to watch the inspection work live on a color monitor in the viewing facility.

C. Direct voice communication between the Owner, the in-pipe inspection personnel, and the recording technician in the above-ground unit shall be maintained at all times during the manual inspection work. Video recording equipment shall also be located above ground in the inspection truck and accurate, continuous footage readings shall be superimposed on the video recording of permanent record.

D. The Contractor shall conform to all regulations and requirements for confined space entry, and shall prepare and submit a health and safety plan to the Owner prior to initiation of any work.

E. The Contractor shall provide for coordination of flow control.

1.14 INSPECTION METHOD FOR LATERALS

A. Follow sewer main line procedure above, modified as follows:

1. Verify accessible cleanout exists near limits of inspection prior to performing internal inspection. Notify Owner if no cleanout is available.
2. Isolate section inspected by bypassing flow or turning off property water. Prevent backflow into laterals.

1.15 INSPECTION METHOD FOR MANHOLES

A. Obtain still photos of exterior of manhole and surrounding area, and include manhole identification in photo. This may be done by placement of a whiteboard in the photo or post-editing of image to include the data.

B. Interior manhole inspection
1. Start at manhole rim in line with largest diameter outgoing pipe.
2. Rotate camera clockwise until 360 degree panorama is complete. Provide still photos of noted defects and features following MACP. Lower camera two to three vertical feet and repeat procedure until bench invert is reached.
3. Record vertical location of all defects and features and position in manhole. All photos and report logs shall include the manhole structure ID and location within manhole.

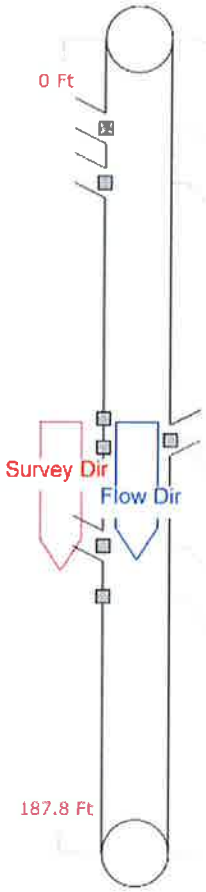
1.16 CLEANUP

A. The Contractor shall be responsible to clean up any debris or spills during each day of work and restore conditions to existing as soon as possible.

B. The Contractor shall be responsible for the disposal of personal protection equipment used during the work.

Pipe Graphic Report Owner Asset ID#

Setup XXX	**Surveyor** XXX	**Certificate #** XXX		**System Owner** OWNER NAME	
Drainage		**Survey Customer** OWNER NAME			
P/O #		**Date** YYYY/MM/DD	**Time** HH:MM	**Street** STREET NAME	
City LOCATION		**Further location details** CAMERA IS HEADING SOUTH			
Up ID #XXX		**Rim to invert**	**Grade to invert**	**Rim to grade**	**Ft**
Down ID #XXX		**Rim to Invert**	**Grade to Invert**	**Rim to grade**	**Ft**
Use Sanitary/Combined/Storm		**Direction** Downstream	**Flow control** Not Controlled	**Media No** XXX	
Shape Circular		**Height** 18 **Width**	**ins** **Preclean** J	**Date Cleaned** YYYY/MM/DD	
Material Vitrified Clay Pipe		**Joint length**	**Total length** **Ft**	**Length Surveyed** 187.80	
Lining		**Year laid**	**Year rehabilitated**	**Weather** Dry	
Purpose Capital Improvement Program Assessment			**Cat**		
Additional info			Structural O & M Constructional Miscellaneous Hydralic		
Location Light Highway					
Project PROJECT NAME				**Work Order**	
Northing		**Easting**		**Elevation**	
Coordinate System				**GPS Accuracy**	



0.0 Ft	Start of Survey Manhole [C-039] Water Level 0%
20.6 Ft	Crack Multiple 02 to 04 o'clock ST: 3 Tap Break-in 6.000 02 o'clock [WEST]
33.2 Ft	Tap Break-in 6.000 02 o'clock [WEST]
87.6 Ft	Roots Fine Joint 05 to 07 o'clock OM: 1 [S01]
92.6 Ft	Tap Factory 6.000 09 o'clock [EAST]
94.3 Ft	Fracture Circumferential 05 to 07 o'clock ST: 2
117.0 Ft	Tap Break-in 6.000 03 o'clock [WEST]
128.7 Ft	Roots Fine Joint 05 to 07 o'clock OM: 1 [F01]
187.8 Ft	Manhole [C-040] End of Survey

Tabular Report Owner Asset ID#

Setup XXX	**Surveyor** XXX		**Certificate #** XXX	**System Owner** OWNER NAME	
Drainage		**Survey Customer** OWNER NAME			
P/O #		**Date** YYYY/MM/DD **Time** 17:10		**Street** STREET NAME	
City LOCATION		**Further location details** CAMERA IS HEADING SOUTH			
Up ID #XXX		**Rim to invert**	**Grade to invert**	**Rim to grade**	Ft
Down ID #XXX		**Rim to invert**	**Grade to invert**	**Rim to grade**	Ft
Use Sanitary/Combined/Storm		**Direction** Down	**Flow control** Not Controlled	**Media No** XXX	
Shape Circular		**Height** 18 **Width**	**ins** **Preclean** J	**Date Cleaned** YYYY/MM/DD	
Material Vitrified Clay Pipe		**Joint length**	**Total length**	**Length Surveyed** 187.8	
Lining		**Year laid**	**Year rehabilitated**	**Weather** Dry	
Purpose Capital Improvement Program Assessment		**Cat**		**Pressure**	
Additional info			Structural O & M Constructional Miscellaneous Hydralic		
Location Light Highway					
Project PROJECT NAME				**Work Order**	
Northing		**Easting**		**Elevation**	
Coordinate System				**GPS Accuracy**	

Count	Video	CD	Code		Grade	In1	In2	%	Jnt	Fr	To	Im	Ref	Remarks
0.0			ST	Start of Survey										
0.0			AMH	Manhole										C-039
0.0			MWL	Water Level				0						
20.6			CM	Crack Multiple	3					02	04			
20.6			TB	Tap Break-in		6.000				02				WEST
33.2			TB	Tap Break-in		6.000				02				WEST
87.6		S01	RFJ	Roots Fine Joint	1				J	05	07			
92.6			TF	Tap Factory		6.000				09				EAST
94.3			FC	Fracture Circumferential	2					05	07			
117.0			TB	Tap Break-in		6.000				03				WEST
128.7		F01	RFJ	Roots Fine Joint	1				J	05	07			
187.8			AMH	Manhole										C-040
187.8			FH	End of Survey										

187.8 Ft **Total Length Surveyed**

Scores						
	Structural:	**Pipe Rating** 5	**Pipe Ratings Index** 2.5	**Quick Rating** 3121		
	O&M:	**Pipe Rating** 8	**Pipe Ratings Index** 1.6	**Quick Rating** 1500		
	Overall:	**Pipe Rating** 13	**Pipe Ratings Index** 1.9	**Quick Rating** 3121		

Contractor Logo/Name, Address and Contact Information

Project: XXX **Owner: XXX** **System: XXX**
Project Start Date: YYYY/MM/DD **Date of Report: XXX**
Project End Date: YYYY/MM/DD
Total Number of Setups: XXX **Total lft scheduled: XXX** **Total lft completed: XXX**

CCTV Defects by Inspection Report

Location						Structural			O&M			Misc		NASSCO Scoring					
Setup #	Owner Pipe ID#	From MH	To MH	Diameter, Inches	Surveyed Length, ft	Sags	Cracks	Fractures	Deposits Attached	Roots	Tap Break In Obtruding	Material change	Survey Abandoned	Structural Quick Rating	Maintenance Quick Rating	Overall Quick Rating	Structural Pipe Rating Index	Maintenace Pipe Rating Index	Overall Pipe Rating Index
1	C040P	C039	C040	18	187.8		1	1		8		1		3121	1500	3121	2.5	1.6	1.9
2	C041P	C040	C041	10	40.0				2		4			0000	2600	2600	0.0	2.0	2.0
3	C042P	C041	C042	10	63.5			1						4100	0000	4100	4.0	0.0	4.0
4	C043P	C042	C043	10	64.7								1						
5	C044P	C043	C044	10	80.2	1		1						4121	0000	4121	3.0	0.0	3.0

Contractor Logo/Name Contact Information

END OF SECTION

SECTION 2708

RESIN IMPREGNATED FLEXIBLE FABRIC LINER AND CURED-IN-PLACE PIPE (GRAVITY FLOW)

PART 1 GENERAL:

1.1 SUMMARY

A. This Section shall include all work, materials, labor, and equipment necessary to provide for rehabilitating gravity flow sewer pipelines by the installation of a resin-impregnated flexible tube that will cure into a hard impermeable cured-in-place pipe (CIPP) that shall extend from end to end in a continuous, tight-fitting, watertight pipe-within-a-pipe.

C. Related Requirements
1. Section 02704 – Internal Sewer Inspection
2. Section 02751 – Cleaning of Sewer Lines

1.2 MEASUREMENT AND PAYMENT

A. **Cut Root Intrusion (as-needed).....Ea**
Cut Root Intrusion shall be paid for at the contract bid price for the full removal of each root intrusion at a distinct location (joint, lateral connection, crack) that could not be sufficiently removed following standard cleaning and heavy cleaning methods, and where use of a mechanical or robotic cutter or grinder is necessary to complete the removal. Payment for the removal of the root intrusion shall also include the cost of removing the remnants of the protruding sewer lead and cleaning the affected area.

B. **Cut/Grind Mineral Deposit (as-needed).....Ea**
Cut/grind Mineral Deposit shall be paid for at the contract bid price for the full removal of each mineral deposit at a distinct location (joint, lateral connection, crack) that could not be sufficiently removed following standard cleaning and heavy cleaning methods, and where use of a mechanical or robotic cutter or grinder is necessary to complete the removal. Payment for the removal of the mineral deposit shall also include the cost of removing the remnants of the protruding sewer lead and cleaning the affected area.

C. **Cut Intruding Tap (as-needed).....Ea**
Cut Intruding Tap shall be paid for at the contract bid price for the full removal of each service lead excessively protruding more than one inch into the pipe, regardless of the amount of cutting/grinding necessary for removal. Payment for the removal of the protruding sewer leads shall also include the cost of removing the remnants of the protruding sewer lead and cleaning the affected area. Separate pay items have been established for the various types of sewer lead materials that are anticipated to be encountered.

D. **Sewer Lining, CIPP, ___-inch Dia. .....Linear Foot**
Sewer Lining shall be paid for at the contract bid price per linear foot for actual linear footage of cured-in-place pipe installed in the field, complete in place using the RIFI method, for the size of pipe installed. Measurement shall be from center of structure to center of structure. Payment for the cured-in-place pipe shall also include the cost of

sealing the pipe in the manholes, reworking the manhole inverts and benches, and all required testing.

E. **Sewer Lining, CIPP, VOC/HAP Free Resin, __-inch Dia. .....Foot**
At specific locations identified ont the plans, Sewer CIPP VOC/HAP Free Resin Lining shall be paid for at the contract bid price per linear foot for actual linear footage of cured-in-place pipe installed in the field, complete in place, for the size of pipe installed using a resin that's free of styrene or other volatile organic compounds or an Owner approved alternative to styrene-free resin systems that reduce styrene exposure and mitigate emissions and odors. Measurement shall be from center of structure to center of structure.

D. The following work items shall be included in the contract bid price per linear foot for **Sewer Lining, CIPP, ___-inch Dia.**, or, **Sewer Lining, CIPP, VOC/HAP Free Resin, __-inch Dia** unless otherwise described and provided for in the Proposal:

1. Design of required liner thickness for each sewer segment, and necessary submittals
2. Pre-installation cleaning of sewer lines and debris disposal
3. Identification of existing live taps
4. Traffic Control
5. Styrene Odor Control Plan (if applicable)
6. Bypassing of flow
7. Installing clean-outs on laterals in areas of high groundwater, and bypassing flow from the clean-outs when necessary
8. Cured-in-place (CIPP) sewer pipe installation, including required testing
9. Air Testing (sampling and measuring of styrene odors if applicable)
10. Removal of line obstructions
11. Proper disposal of cure water
12. Sampling and testing of cured-in-place pipe
13. Post installation T.V. inspection with PACP coding
14. Clean-up
15. Reinstate Lateral Connection
16. All additional items described herein as incidental to the work.

E. Any additives, resin modifications, installation methods, or other changes in work necessary to reduce styrene odors shall be indicated in the Styrene Odor Control Plan and shall be included in the contract bid price per linear foot for **Sewer Lining, CIPP, ___-inch Dia.** whether part of operations as initially planned or in response to styrene presence threshold being exceeded or complaints from odors.

1.2 REFERENCES

D. Abbreviations and Acronyms

1. CIPP – Cured-in-Place Pipe
2. ITCP – Inspector Training Certification Program
3. PACP – Pipeline Assessment and Certification Program (most current version)
4. RIFI – Resin-Impregnated Fabric Inversion Liner

E. Reference Standards

1. ASTM D 790 – Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials

2. ASTM D 5813 – Standard Specification for Cured-in-Place Thermosetting Resin Sewer Piping Systems
3. ASTM F 1216 – Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube
4. ASTM F 1743 - Standard Practice for Rehabilitation of Existing Pipelines and Conduits by Pulled-in-Place Installation of Cured-in-Place Thermosetting Resin Pipe
5. ASTM F 2019 – Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Pulled in Place Installation of Glass Reinforced Plastic (GRP) Cured-in-Place Thermosetting Resin Pipe (CIPP)
6. ASTM F 2994 – Standard Practice for Utilization of Mobile, Automated Cured-In-Place Pipe (CIPP) Impregnation Systems
7. All work shall comply with the reference standards unless specifically stated otherwise in the Specification.
8. References to standards which are made part hereof shall be latest edition thereof.

1.3 ADMINISTRATIVE REQUIREMENTS

D. Access
1. Determine locations of appropriate access points (manholes) for cured-in-place pipe installation.
2. Obtain access rights from private property owners when access across private property is necessary to reach access manholes due to easement congestion which limits equipment travel within existing easements, unless provided by Owner.

E. Coordination
1. Provide adequate notification of work to private property owners that are connected to the sewer being lined whose building laterals will be out of service during the cured-in-place pipe installation, curing, and restoration processes.
2. Notification shall;
   a. Be in writing via door hanger, door flier, or U.S. Mail given 24 hours but no more than 48 hours in advance of service loss (excluding weekends and holidays)
   b. Clearly state purpose of the work.
   c. Advise all affected customers against water usage until the sewer line is placed back in service.
   d. Clearly state the potential consequences of using wastewater generating facilities during the time the building sewer service will be out of service.
   e. Include a 24-hour contact telephone number for questions regarding the work.
3. Limit service outage for any property served by the sewer to no more than 24 hours.

F. Prepare a Styrene Odor Control Plan to minimize project specific styrene odors at the project site and surrounding areas.
1. Submit with Bid Proposal
2. Styrene odor control plan will be used to evaluate the qualifications of the bidder.
3. This requirement is not applicable to non VOC/HAP resin products.

G. Collect and dispose of cure water to an Owner approved location when lining sewers that discharge to open waterways.

H. Restore all property in the project work area to a condition equal to or better than existing following completion of construction.

I. Final acceptance of each line segment is contingent on completion and acceptance of sample testing and receipt and approval of post-installation T.V. inspection.

1.4 PROJECT WORK PLAN

D. Prepare a Project Work Plan (PWP) in advance of the pre-construction meeting which clearly defines the CIPP product delivery in conformance with the requirements of the Contract Documents. The PWP shall at minimum contain:

1. Detailed installation plan describing all work necessary and appropriate for a complete CIPP installation.
2. Installation method, sequencing and schedule.
3. Schedule of Submittals.
4. Bypass pumping plan.
5. Traffic control plan
6. Engineering design calculations to for each length of cured-in-place pipe to be installed including the thickness of each proposed CIPP.
7. Detailed public notification plan.
8. Project contact list and defined responsibilities.
9. Proposed procedures for product sampling and testing.
10. Sample field documentation forms, reports, and logs.
11. Outline of specific repair or replacement procedures for potential defects that may occur in the installed CIPP.

E. Compensation for all work required for the preparation of the PWP shall be included in the cost of the project.

1.5 SUBMITTALS

A. Provide all submittals in a timely manner, considering a reasonable review time, and possible resubmittals for corrections if found to not be compliant with these Specifications. Completion of submittal reviews, and review of resubmittals, shall not be a basis for any delay claims.

B. CIPP Liner Design

1. Provide preliminary design of CIPP liner with bid
2. Provide secondary design of CIPP liner if necessary after pre-lining inspection
3. Furnish certified design calculations stamped by a registered professional engineer prior to liner manufacture.

C. Liner Tube data

1. Manufacturer
2. Description of product components
3. Technical data sheets
4. Certified information from manufacturer of the liner tube's nominal void volume.

D. Liner Tube Coating

1. Material safety data sheets (MSDS)
2. Technical data sheets

3. Recommended repair (patching) procedure, if applicable
4. Design thickness

E. Raw Resin data
1. Manufacturers of all formulated resin components: resin, catalysts, fillers, additives, and monomers.
2. Description and percentage utilization of each component for the resin formulation proposed.
3. Technical data sheets for all formulated resin components
4. MSDS for all formulated resin components

F. Site Samples
1. Provide flexural and tensile testing reports of CIPP samples from the last three (3) projects in which testing was completed.
2. Provide copies of design thickness calculations for the cured-in-place pipe from the flexural and tensile testing reports.

G. Manufacturers' shipping, storage and handling recommendations for all components of the CIPP system.

H. Proposed tube wet-out and cure method, including:
1. A complete description of the proposed wet-out procedure for the proposed technology.
2. When epoxy resins are utilized, manufacturer's certification of compliance with ASTM F2994
3. CIPP manufacturer's recommended installation and cure method - for each diameter and thickness of the CIPP to be installed.

I. Licensed Testing Company to perform third-party flexural properties testing on representative samples collected from the installed CIPP.

J. Personnel Certifications
1. Documentation of PACP certified personnel assigned to pre- and post-inspection televising of pipelines
2. Documentation of ITCP certified personnel assigned to project.

K. Styrene Odor Control Plan (not applicable to non VOC/HAP resin products)
1. Method to continually monitor styrene resin odors in the project area during the liner installation, inversion, and curing process
2. Method to contain styrene resin odors from the liner container truck.
3. Method to contain styrene odors during CIPP liner installation and curing.
4. Method to contain styrene resin odors from inversion water discharging after CIPP curing completion.
5. Name of the equipment for sampling and measuring styrene odors.
6. Sample Resident Notification Letter, addressing the issue of styrene odors and providing educational information on how to avoid the odors and what to do if the odors are present in a home/business/school.
7. Procedures for notifying schools, hospitals, and businesses impacted.
8. Procedures for work progress should maximum permissible styrene odor levels be exceeded.

1.2 QUALITY ASSURANCE

A. The Contractor shall carry out his operations in strict accordance with all OSHA and manufacturer's safety requirements. Particular attention is drawn to those safety requirements involving working with scaffolding and entering confined spaces.

B. Products used in the Work identified herein shall be produced by manufacturers regularly engaged in the manufacture of cured-in-place liners for municipal water systems and with a history of successful production acceptable to the Owner.

C. Verification of Pipeline Inside Diameter

1. Prior to manufacture of the CIPP, the Contractor is responsible for verifying the inside diameter of the pipeline to be rehabilitated to assure a tight-fitting cured-in-place pipe is installed.
2. Sections of liner with visual defects, continuous or intermittent inward folding, or overlapping of excess liner material will be rejected, refer to "Section 3.13 – Non-Conforming Work" for acceptance criteria.
3. Provide a liner with a transition section in cases where the internal diameter of the pipe changes significantly.

D. Styrene Odor Control Monitoring (not applicable to non VOC/HAP resin products)

1. Read and record styrene levels every one (1) hour with a Drager Tube or approved equal.
2. Measure styrene levels a maximum of 10 feet away from the inversion manhole while liner is being inverted and cured.
3. Notify Owner and implement procedures for work progress should styrene level readings exceed 50 ppm or resident complaints of excessive styrene odors are filed.

E. Minimum Qualifications

1. The installing Contractor shall be licensed by the CIPP lining system Manufacturer and shall have successful experience in the installation of CIPP lining systems in municipal wastewater systems.
   a. Provide a copy of the license/agreement or letter from the CIPP Manufacturer that certifies the use and installation of the CIPP lining system by the Contractor.
   b. The Contractor shall be familiar with the specified requirements and methods needed for proper performance of the liner system in accordance with the Work specified herein.
2. Contractor's Field Supervisor Foreman: Minimum five (5) years of continuous experience as a foreman/superintendent for a CIPP installation crew
3. Minimum CIPP installations of the proposed method by the Contractor in the past five (5) years:

Pipe Diameter Range	**Required Performance (inch-miles)**
Up to 18-inch	1,000
18-inch to 36-inch*	200
36-inch and larger*	50

(* if in Contract)

4. All CCTV work shall be performed under the supervision of personnel trained and certified in the use of NASSCO's PACP for the inspection of sewer mains.

PART 2 PRODUCTS:

2.1 CIPP MATERIALS

A. Liner tube

1. Shall consist of one or more layers of flexible needled felt or an equivalent absorbent non-woven or woven felt fabric, felt/fiberglass or fiberglass that when installed will tightly fit the internal circumference of the existing conduit.
2. Meet the requirements of ASTM F1216, ASTM F1743, ASTM D5813, ASTM F2019 or ASTM F2994 whichever is compatible with the CIPP system proposed.
3. Capable of absorbing and carrying resins
4. Constructed to withstand installation pressures and curing temperatures
5. Have sufficient strength to bridge missing pipe segments
6. Have the ability to stretch to fit irregular pipe sections, negotiate minor bends, and dimple at any service or branch connection.
7. Uniform in thickness and, when subjected to installation pressures, will meet or exceed the designed finish wall thickness in accordance with ASTM F1216, Section 8.6.
8. Mark liner tube for distance at regular intervals along its length, not to exceed 5 feet, and include the CIPP Manufacturers name or identifying symbol (brand).

B. Thermosetting Resin System

1. Corrosion resistant unsaturated, isophthalic polyester or vinyl ester thermoset resin and catalyst system or epoxy resin and hardener that is compatible to the installation process and when properly cured within the tube composite meets the requirements of ASTM F 1216, ASTM F 1743 or ASTM F 2019, the physical properties herein, and those, which are to be utilized in the design of the CIPP for this project.
2. The resin shall produce CIPP which will comply with or exceed the structural and chemical resistance requirements of this specification.
3. Formulate the resin system for the subject project;
   a. Viscosity shall be conducive to its being saturated into the void space of the tube's matrix,
   b. Thixotropy shall be adjusted to minimize its migration during the tube installation process.
4. The pot life of the catalyzed resin system should be such that it provides a reasonable timeframe for the tube to be installed.
5. If necessary, add a dye (pigment), approved by the CIPP manufacturer, to the catalyst or resin to allow visual verification that the liner tube has been thoroughly wet-out.
6. Resins that are expired are not permissible; ensure the resin system to be used is within the resin manufacturer's recommended shelf life.

C. Corrosion Resistance

1. Furnish a corrosion resistant, unsaturated, isophthalic polyester or vinyl ester thermoset resin and catalyst system, or epoxy and hardener compatible with the process that provides cured physical strengths specified herein.
2. The installed CIPP shall have a long term (50 years) corrosion resistance to typical chemicals found in domestic sewage.

D. Chemical Resistance
1. Provide in accordance with the requirements of ASTM F1216, Appendix X2.
   a. Testing for chemical resistance shall be at the Owner's request.
   b. Costs for chemical resistance testing to be borne by the Owner.
2. The pipe within-a-pipe, when cured, shall be chemically resistant to withstand internal exposure to sewage gases containing hydrogen sulfide, carbon monoxide and dioxide, methane gas, dilute sulfuric acid, and external exposure to soil bacteria and chemical attack which may be due to materials in the surrounding ground or sewage within.
3. The finished CIPP shall be fabricated from materials which, when cured, will be chemically resistant to withstand internal exposure to domestic sewage.

E. The color of the interior liner surface shall be light reflective and pre-approved by the Owner, to allow for adequate post installation inspection by closed circuit television.

F. Styrene Chemicals
1. Use minimal styrene chemicals for the CIPP resin to minimize styrene odors in residential homes and business office.
2. The maximum level of released styrene shall not exceed 50 ppm.
3. Where specified for use on the Plans, or as directed by the Owner, provide vinyl ester resin free of styrene, VOC's and HAP's, or epoxy resin.

2.2 PHYSICAL STRENGTH

A. The CIPP system shall conform to the minimum initial structural standards, as listed below.

	Standard	Minimum Required
Flexural Strength	ASTM D 790	4,500 psi
Flexural Modulus of Elasticity	ASTM D 790	250,000 psi

Note: Samples from the project shall be taken and tested in accordance with Section 8 of ASTM F 1216 using either method. See Section 3.8, "Site Quality Control" of this Specification.

2.3 DESIGN

A. Provide measurement verification of the inside diameter of each pipeline to be rehabilitated signed by the installer of the CIPP with the design calculations.

B. Design CIPP wall thickness in accordance with Appendix X1, of ASTM F 1216 using the **fully deteriorated** pipe condition.

C. Design for a minimum fifty (50) year service life under continuous loading conditions.

D. Design such that the net inside diameter of the rehabilitated sewer is as large and smooth as possible.

E. Furnish design calculations **for each run of pipe to be lined** (i.e. manhole to manhole) based on site-specific parameters (diameter, depth, ovality, etc.) and soil modulus and groundwater table levels to be reviewed by the Engineer.

1. All calculations shall be signed and sealed by a Registered Professional Engineer.
2. Multiple runs of the same diameter pipe may be included under a single design calculation if the remaining site-specific parameters do not exceed the parameters assumed in the calculation.
   a. Include site-specific parameters of each run included in the single design calculation.

F. Minimum CIPP liner thickness, unless otherwise specified, shall be determined utilizing design procedures outlined in ASTM F1216, Appendix X1, mechanical properties provided by the CIPP Manufacturer, and the following project specific design assumptions:

1. Existing sewer is fully deteriorated
2. Existing sewer is considered to have 2% ovality in circumference at a minimum
3. CIPP is subjected to a full soil load of 120 lbs/cft at a minimum
4. CIPP is subjected to traffic loads as calculated by AASHTO HS-20-44 Highway Loading over a flexible pavement for sewer segment subject to vehicular traffic.
5. Use 700 psi for modulus of soil reaction for pipe zone backfill at a minimum
6. Use a groundwater elevation at five feet below existing surface elevation or two feet above the top of pipe, at a minimum, whichever yields a higher groundwater loading condition.
7. All calculations shall be signed and sealed by a Registered Professional Engineer in the State of Michigan.

G. Submit price proposal for the length and size of pipeline specified assuming the finished liner is continuous over the entire length of the liner insertion run between manholes.

H. Should pre-lining inspection reveal the sewers to be in substantially different conditions than those in the design considerations, the Contractor shall submit a "secondary design" to request such changes in CIPP wall thickness, supporting such request with revised design computations signed and sealed by a Registered Professional Engineer.

1. Submit secondary design only upon authorization from the Owner.
2. Determine costs to perform a secondary design and install a liner that differs from what was proposed during the bidding process in accordance with the contracting requirements of the Owner, prior to completing the work.

PART 3 EXECUTION:

3.1 PRE-INSTALLATION

A. The following procedures shall be adhered to unless otherwise approved by the Owner's representative.

B. Pre-Installation Cleaning of Sewer Lines

1. Remove all internal debris out of the sewer line that would prevent proper installation of the CIPP.
2. Refer to Section 02751 for the minimum requirements for cleaning of sewer lines
   a. Deliverables specified are not required.

C. Pre-Installation Inspection of Pipelines
1. Inspect pipeline to determine the location of any conditions which may prevent proper installation of the fabric lining into the pipelines, and it shall be noted so that these conditions can be corrected.
2. Refer to Section 02704 for the minimum requirements for inspection of pipelines
   a. Deliverables specified are not required for the pre-inversion inspection

D. Locate Service Connections
1. Record location of all service connections.
2. Determine capped and unused services with Owner.
3. Establish service connections to reinstate
   a. All service connections are to be reinstated unless otherwise directed by the Owner.
   b. Coordinate with the Owner any service connections that are not to be reconnected.
   c. Record plan for all service connections
4. Refer to sample Service Connection Documentation Form that follows this Section.

E. Bypassing Sewage
1. Provide for the bypass pumping of sewage around the section or sections of pipe being installed.
   a. Bypass shall be made by plugging the line at an existing upstream manhole and pumping the flow into a downstream manhole or alternate system.
   b. The pump and bypass lines shall be of adequate capacity and size to handle all the anticipated flow.
   c. If pumping into alternate system, review system capacity to determine if it has adequate capacity to handle the additional flow.
2. Provide for the bypass pumping of sewage and groundwater from service laterals connected to section of cured-in-place pipe being installed.
   a. Required in areas where groundwater elevations at time of construction are above the adjoining footing drain elevations.
   b. Install PVC clean-out using hydro-excavation equipment, or other means as approved by the Owner.
3. The Contractor shall take adequate precautions to assure that no backup of sewage into basement drains occurs during installation.
   a. Monitoring of the surcharge levels during pumping operations is required 24 hours per day, 7 days per week.
   b. The Contractor shall be fully responsible for any damages resulting from their operations.
4. All costs associated for the bypass pumping of sewage around the section or sections of CIPP being installed shall be included in the unit price bid for **Sewer Lining, CIPP, __-inch Dia.** unless separate pay items are included in the Proposal for the work described.

F. Line Obstructions

1. Clear line obstructions such as solids, dropped joints, protruding service connections or collapsed pipe that will compromise the proper installation of the CIPP lining.
2. Remove service leads excessively protruding into the pipe more than 5% of the pipe's internal diameter.
   a. Use a remote saw cutter or similar method, subject to the approval of the Engineer.
3. If inspection reveals an obstruction that cannot be removed by remote internal type equipment, then the Contractor shall make a point repair excavation to uncover and remove or repair the obstruction. Such excavation shall be approved in writing by the Owner prior to the commencement of the work and shall be considered as a separate pay item.

G. Owner's Review of Pre-Lining CCTV Videos
1. Submit pre-installation inspection videos and reports of sewers to be lined a minimum one (1) week prior to planned lining.
2. No sewers are to be lined until the Owner has authorized the Contractor to proceed with the CIPP installation.

H. Contractor's Review of Pre-Lining CCTV Videos
1. Review the pre-installation inspection videos and reports of sewers to be lined.
2. Determine if the condition of the host pipe is acceptable to receive the CIPP installation.
3. Submit a "secondary design" should the pre-installation inspection reveal the sewers to be in substantially different conditions than those in the design considerations
4. Install pre-liner, per manufacturer's recommendation, where the host pipe material is not compatible with the proposed CIPP product; include this work in "secondary design" submittal.

I. Prior to any lining, the Contractor shall certify to have a minimum of two (2) complete working systems for reconnecting services available for use on this project.

3.2 RESIN IMPREGNATION

A. Designate a location where the uncured resin in the original containers and the unimpregnated tube will be vacuum impregnated prior to installation.
1. Impregnation to be performed in a regulated, quality controlled facility in accordance with local ordinances.
2. Allow the Owner to inspect the materials and "wet out" procedure.
3. Utilize a resin and catalyst system compatible with requirement of this method.

B. Document the volume of resin placed in each tube and the volume of resin indicated by the tube's manufacturer for a complete filling of the void space.
1. Call to the attention of the Owner/Engineer any tube failing to accept the full amount of resin per the tube manufacturer's specifications prior to installation to allow for a visual inspection.
2. Tube's failing to accept at least 95% of the prescribed resin amount shall be reviewed by the manufacturer and certified to the Owner/Engineer of its acceptability for use prior to its installation.

C. Prepare a "Wet Out Report" for each liner
   1. CIPP systems conforming to ASTM F2994 shall provide wet out reports to the Owner for each installation in digital format.
   2. Record wet out quantities on the "Wet Out Report".
   3. Submit to the Owner or Owner's representative with each liner delivery.
   4. Refer to a sample "Wet Out Report" that follows this Section.

3.3 INSTALLATION OF CIPP (INVERSION METHOD)

A. Pressurized air liner inflation/steam is prohibited in sewers greater than 12 inches in diameter, unless otherwise indicated.

B. Provide manufacturer calculated minimum pressure required to hold the tube tight against the existing conduit and maximum allowable pressure so as to not damage the tube.

C. Install resin-impregnated tube in accordance with ASTM F 1216.
   1. Maintain pressures between manufacturer minimum and maximum allowable pressures until the installation is complete.

D. Take suitable precautions to eliminate hazards to personnel in the proximity of the construction when pressurized air is being used.

3.4 INSTALLATION OF CIPP (PULLED-IN-PLACE METHOD)

A. Pressurized air liner inflation/steam or UV curing is prohibited in sewers greater than 12 inches in diameter, unless otherwise indicated.

B. Provide manufacturer calculated minimum pressure (height of water column) required to hold the tube tight against the existing conduit and maximum allowable axial and longitudinal tensile stresses so as not to overstress the felt fiber.

C. Perforate the outer impermeable membrane of the resin-impregnated tube prior to pulling the tube in place.
   1. Install perforations using a perforating roller device, after fabric tube impregnation.
   2. Perforate the tube at the point of manufacture.
   3. Perforations shall be made on both sides of the lay-flat fabric tube covering the full circumference with a spacing no less than 1.5 inches apart and slits a minimum of 0.25 inches long.

D. Install resin-impregnated tube in accordance with ASTM F 1743 or ASTM F 2019.
   1. Utilize a power winch to pull the wet-out fabric tube in place.
      a. Provide a measurement device on the winch or cable to monitor the pulling force.
      b. Measure the overall elongation of the fabric tube after pull-in completion.
   2. Pressurize the resin impregnated tube using the hydrostatic head calibration hose inversion method.
   3. Alternative methods of resin impregnated tube installation require Owner approval prior to use.
   4. Utilize a lubricant during installation of the resin impregnated tube.

E. Take suitable precautions to eliminate hazards to personnel in the proximity of the construction when pressurized air is being used.

3.5 CURING (NON-U/V APPLICATIONS)

A. Required Curing Parameters (for both steam and heated water)
1. Provide the temperature required to affect a cure of the resin as recommended by the resin manufacturer.
2. Provide manufacturer estimated maximum and minimum pressures required to hold the flexible tube tight against the existing conduit during the curing process.

B. Cure the CIPP in accordance with ASTM F 1216 and ASTM F 1743.
1. Fit the heat source with suitable monitors to gauge the temperature of the incoming and outgoing water supply.
2. Place an additional gauge within the impregnated tube and also at the pipe invert at the remote manhole to determine the in place liner temperature during cure.
3. Comply with recommendations from resin manufacturer for water temperature in the line during the cure period.

C. Prepare a CIPP "Curing Report" for each CIPP installation.
1. Log actual temperature readings at various time increments as noted in the "Curing Report" during the curing process.
2. Submit to the Owner/Engineer upon request.
3. Refer to a sample "Curing Report" that follows this Section.

3.6 COOL-DOWN

A. Cool the new CIPP in accordance with ASTM F 1216 and ASTM F 1743.

B. Take care in the release of the static head or air pressure so as not to develop a vacuum that could damage the newly installed CIPP.

3.7 SEALING CIPP

A. Seal the manhole walls, at all manhole inverts in accordance with CIPP system manufacturer's recommendations.

B. Assure completed liner terminations are free of rough edges with smooth transition into the receiving structure.

C. Seal shall be of a resin mixture compatible with the installed liner system.

3.8 SERVICE CONNECTIONS

A. After the cured-in-place pipe has been installed, reconnect existing active house lead connections.
1. Cut a relief hole through the liner at each opening to relieve any water that has accumulated in the leads during the lining process.
2. Complete reconnections without excavation, and in the case of non-man entry pipes, from the interior of the pipeline by means of a television camera and a

cutting device that re-establishes the service connection to 100% of its original capacity.

a. Remove pipe fragments or liner fragments which may obstruct flow or snag debris.
b. Correct overcut openings with a repair patch of a resin mixture compatible with the liner system and of sufficient size to completely cover the overcut.
c. Brush the full circumference of all completed service connections to eliminate rough or jagged edges of the liner.

3. Record status and condition of each service connection.
4. Refer to sample Service Connection Documentation Form that follows this Section.

B. All leads to be reinstated shall be reconnected within 24 hours.

1. No lead shall remain out of service for more than 24 hours.
2. If a lead problem occurs where a lead will remain out of service, the Contractor will provide emergency service at his cost.
3. If sewage and groundwater flows in the lead start to back-up and risk basement flooding, the Contractor will provide emergency service at his cost.
4. Obviously inactive services do not need to be reinstated. Determination of an inactive service requires the approval by the Engineer.

C. Remove coupons of pipe material resulting from service tap cutting

1. Collect at the next manhole downstream of pipe rehabilitation operation prior to leaving site.
2. Coupons are prohibited from passing through the sewer collection system.

3.9 FINISH

A. The finished cured-in-place pipe shall be continuous over the entire length of an inversion run and be as free as commercially practicable from visual defects such as foreign inclusions, dry spots, pinholes and delamination.

B. Restore to existing condition all excavations required for proper inspection of CIPP. or repair of leads. Site restoration for the pipeline rehabilitation work is considered included in the cost of construction unless otherwise indicated under separate pay items listed in the Proposal.

C. Due to the concern for longitudinal shrinkage in CIPP installations, the owner reserves the right to re-inspect the cured-in-place pipe following installation to determine if openings cut for service connections remains properly aligned. The event that service connection openings shift from original location, the contractor shall be responsible for all costs associated with corrective measures for re-alignment and repair of lead openings.

3.10 FIELD QUALITY CONTROL

A. Testing of the installed cured-in-pace pipe shall be required by the Contractor using an approved, licensed third-party testing company. The test specimens for short term flexural properties shall be prepared per ASTM F1216 Section 8, ASTM F1743 Section 8 or ASTM F2019 Section 7.

B. Gravity pipe leakage testing in accordance with ASTM F1216, Section 8.2.
   1. If pipe segment is greater than 36-inch in diameter or contains service laterals, gauge the water tightness of the CIPP under a positive head during the curing process.

C. Site Samples
   1. Provide short-term flexural testing of the installed CIPP in accordance with ASTM F1216, ASTM F1743, or ASTM F2019.
   2. Submit testing reports to the Owner within fourteen (14) days of CIPP installation.
   3. Collect enough additional liner specimens for delamination testing should post-installation inspection determine it is necessary.

D. Styrene Odor Control Monitoring (not applicable to non VOC/HAP resin products)
   1. Submit record of styrene level measurements to the Owner's Representative at the end of each working day.
   2. If a styrene odor complaint is received, Contractor shall mobilize device to the site of the complaint and measure styrene levels every 15 minutes for a minimum of one hour at no additional cost to the Owner.
   3. Read and record styrene levels every hour.
   4. Measure styrene levels a maximum of ten feet away from the inversion manhole while the liner is being inverted and cured.
   5. Implement mitigation procedures should styrene level readings exceed 50 ppm or if complaints of odors are received, including addition of styrene odor reduction agent compatible with the resin being used.

3.11 POST-INSTALLATION

A. Post-Installation Inspection of Pipelines
   1. Thoroughly clean the newly installed cured-in-place pipe, removing all debris and build-up that may have accumulated during construction.
   2. Refer to Section 02704 for the minimum requirements for inspection of pipelines
      a. Measurement and Payment article does not apply.
      b. Provide the Owner all required deliverables within ten (10) calendar days of the CIPP installation.
   3. All costs associated with post inspection of pipelines shall be included in the unit price bid for **Sewer Lining, CIPP, __-inch Dia.**.

3.12 NON-CONFORMING WORK

A. Non-conforming work is any work outside of the acceptable tolerances for the item of work identified within these specifications that is considered to affect the performance and/or future maintenance of the new CIPP.

B. The finished CIPP shall be continuous over the entire length of the liner and be free from visual defects such as foreign inclusions, dry spots, pinholes, and delamination.
   1. Any visual defects shall be repaired at the Installation Contractor's expense in a manner mutually agreed upon by the Owner and the Installation Contractor.
   2. Delamination testing in accordance with ASTM F 1216 may be required by the Owner at the expense of the Contractor should post-installation inspection reveal visual defects. Contractor is responsible for having extra test specimens available for testing.

C. Sections of continuous inward folding or overlapping of excess liner material (commonly referred to as "fins") of greater than three (3) times the pipe diameter will be reviewed with the Contractor and owner for non-conformity.

1. Sections protruding greater than 10% of the inside diameter of the host pipe will be repaired by mechanical means.
2. Continuous sections extending greater than 25% of the length of the pipe will be repaired by mechanical means.
3. Continuous sections protruding greater than 10% of the inside diameter of the host pipe and extending greater than 25% of the length of the pipe will be rejected and the entire length of the CIPP installed shall be replaced.
4. Repairs and replacements needed to remedy sections of continuous inward folding or overlapping of excess liner material shall be completed at no cost to the Owner.

D. If movement of the cured-in-place pipe has occurred such that the house lead is partially closed, the contractor shall excavate and reconnect the house lead by use of an approved saddle at no cost to the Owner.

E. Removal and replacement of out of tolerance CIPP installations, reconnection of blocked service lines, and all equipment, labor, and materials for excavations, backfill and surface restoration to complete the work shall be performed at no cost to the Owner.

3.13 WARRANTY

A. Warranty the installed product for a period of one (1) year.

B. If the owner finds evidence of a reversal of curvature, shortening of the ends or constriction of house leads, the contractor shall return and restore service and end seals promptly, as part of warranty work.

C. During the warranty period, repair any defects which will affect the integrity or strength of the cured-in-place pipe in a manner mutually agreed by the Owner and the Contractor.

D. The cost of cured-in-place pipe repairs during the warranty period shall be borne by the Contractor.

CIPP Quality Control/Quality Assurance Form

Example Service Connection Documentation Form

Contract:_____Contract No: _____Location: Street/RW: _____ MH ___ to MH _____ Size _____ Length _ _____
Contractor: _____ _____Installer: _____ Inspector _____
Report No: _____ Weather: _____ Temp: _____
Other Work: By-pass Pumping:_____ Cleaning: _____ Point Repairs: _____CCTV: _____ Traffic Control: _____
INSPECTOR: Verify and document the condition of all service connections reinstated by the contractor.

Service Location	Type Defect	Repair Req'd	Comments	Defect Location	Type Defect	Repair Req'd	Comments
46.5	Leaking between CIPP & host pipe	Yes	Grout required				
78.9	Overcut Connection	Yes	Install Connection Hat				

Owners Representative: _____ Signature: _____ Date: _____
Contractors Representative: _____ _____Signature: _____ Date: _____
Comments:_____:_____

Wet Out Report

Wet Out Request

Date _____
Project No. _____
Basin No. _____
Install No. _____
MH No.'s _____

Diameter, In _____
Thickness,mm _____
Measured Length, ft _____
Wet Out Length, ft _____
Dry Length, ft _____
Total Length, ft _____

Liner No. _____ Liner Dia. ____ Liner Thickness _____

Resin Type _____ Lot No. _____

Wet Out Lgth _____ ft X _____ Lbs/Ft = _____ Total lbs of Resin

Roller Gap Setting (T2+2mm) _____ mm

Totals

Total Resin Used _____ Lbs
Total Perkadox Used _____ Lbs
Total Trig KSM Used _____ Lbs

Total Styrene Used _____ Lbs
Total Acetone Used _____ Lbs

Liner Footage

0		350		700		1050	
50		400		750		1100	
100		450		800		1150	
150		500		850		1200	
200		550		900		1250	
250		600		950		1300	
300		650		1000		1350	

Wet Out Time

Prep _____ Hrs
Mixing & Filling _____ Hrs
Conveyer _____ Hrs
Clean Up _____ Hrs

Total Hours to Wet Out _____ Hrs

Supervisor: _____ (Signature)
Date: _____

Crew: _____

Maintain complete and accurate records of every step of the curing process and record all thermocouple temperatures from the start of the process to complete cool down of the liner

WATER CURING LOG

NOTE: Continue to log pressure and temperature every 15 minutes through warm up, full water temperature and cool-down phase.

Date: _____ Job Name: _____
Sec. No.: _____

Job No.: _____ Diameter: _____
Length: _____ Thickness: _____
Boiler #: _____ Operator _____
From MH# _____ To MH# _____ _____
Direction of water flow: Upstream: _____
Downstream: _____

WEATHER	
Normal	
Hot	
Rain	
Cold	
Snow	

THERMOCOUPLES									
TIME/15 min Interval	BOILER PRESSURE	TUBE PRESSURE	TUBE TEMPERATURE	THERMO #1	THERMO #2				
WARM UP									
EXOTHERM									
COOL DOWN									

Reviewed By: _____ Date: _____

CIPP Quality Control/Quality Assurance Form

Example Odor Documentation Form

Contract:_____Contract No: _____ Location: Street/RW _____

Contractor: _____ _____Installer: _____ Inspector _____

Report No: _____ Weather: _____ Temp: _____

Other Work: By-pass Pumping:_____Cleaning: _____ Point Repairs: _____CCTV: _____ Traffic Control: _____

Inspector: Ensure that informational literature is distributed to affected properties and/or make arrangements to have measurements of the styrene concentrations, using the applicable Detector Tube testing device, taken by a testing laboratory. Document all readings taken.

MH-MH	Pipe Size (in)	Pipe Length (ft)	Quality Control Specified	Performance Standard	Acceptable Quality	Quality Assurance Performed	Inspection Yes	Inspection No	Comments

Owners Representative: _____ Signature: _____Date: _____

Contractors Representative: _____ _____Signature: _____ _____Date: _____

Comments: _____

Note: Insert all Quality Control References included in the specifications

END OF SECTION

SECTION 2734
MANHOLE REHABILITATION

PART 1 – GENERAL

1.01 SUMMARY OF WORK

A. It is the intent of these specifications to provide for the rehabilitation of sanitary sewer manholes, including type of repair, methods of repair, materials, and equipment. Manhole Rehabilitation includes the following types of work:
   1. Seal Joints with Mortar
   2. Reconstruct Chimney
   3. Repair Bench
   4. Seal Leaks with Hydrophobic Grout
   5. Reset Frame and Cover
   6. Remove and Replace Cover

B. The location of the manholes included in the Project are shown on the Plan Sheets, as well as the type of rehabilitation work required for each manhole.

C. Photographs of the manhole conditions taken as part of the previously completed manhole inspection are available storage or shared drive upon request.

D. Manholes are located in a variety of settings including roadways, lawns, front and rear yards, shoulders, sidewalks and driveways. For manholes not located in pavement, the Contractor shall use low impact methods for accessing manholes. The Contractor shall provide all traffic control measures and flagmen in order to complete the work in a safe manner, for both motorists and pedestrians.

E. The Work Location sheets are schematics to provide general location information. Parcel, sewer and easement data represented on the Work Location sheets are based on various data collection methods and may not graphically represent exact location.

F. Sewers are mostly located within in rear yard areas with some in the road right-of-way. Contractor shall access rear yards through easements whenever possible. Easements may not exist at all locations. The City of Birmingham will assist in gaining access to manholes without easements or those with restricted easements. Low impact methods shall be used for accessing manholes and any damage cause to private property due to manhole access shall be the responsibility of the Contractor.

PART 2 - PRODUCTS

2.01 MASONRY UNITS

A. Concrete brick shall conform to the requirements of ASTM C-55-75, Grade N-1 and concrete block shall conform to the requirements of ASTM C139-73 with the following exceptions.

B. All concrete masonry brick or block shall have a minimum compressive strength of 5,500 psi at 28 days. The proportion of cement in the concrete mixture used to make brick or block shall be not less than 564 lb/c.yd. of concrete. The mixture shall contain 6% (± 1-1/2%) entrained air. The maximum water adsorption shall not exceed 5 lbs/cft.

C. Block Shape - The blocks shall be solid curved blocks with the inside and outside surfaces curved to the required radii. The blocks shall have tongue and groove or other approved type of joint at the ends so that the units interlock to form a strong, rigid structure. Curved blocks shall have the inside and outside surfaces parallel.

D. Block Size - The nominal dimensions of the block shall be 18 inches maximum for length, 8" maximum for depth, and 6" maximum for width (thickness). The length shall be measured along the chord on the convex face of the block. The tolerances of ASTM C 139-73 shall apply. Where the specified wall thickness on the standard plans is 12 inches, a multiple block wall of two 6 inch wide blocks is permitted. All blocks in one structure shall be of the same height dimension. The blocks shall be designed for length so that only full length or half length blocks are required to lay the circular wall of any one course. Blocks intended for use in the cones or tops of manholes or other structures shall have such shape as maybe required to form the structure as shown on the plans with inside and outside joints not to exceed 1/4 inch in thickness.

2.02 MORTAR

A. Mortar for joints located within the manhole barrel or any application that is not required for adequate preparation of the internal chimney seal shall conform to the requirements of ASTM C-270 Type M with the exception that it shall be composed of 3 parts sand and one part a mixture of 50% Portland cement Type 1A and 50% masonry cement and shall have a minimum entrained air content of 12%. Use of mortar for manhole reconstruction shall be limited to within one hour after the water is added to the dry mix.

B. Mortar required for adequate preparation of the internal chimney seal shall be in accordance with the sealant manufacture.

2.03 MANHOLE FRAMES AND COVERS

A. Replacement frames and covers shall be cast iron. Bolt down frames shall be bolted down with four (4) cadmium coated 5/8" diameter threaded studs with 3/4" x 2" x 1/16" flat washers and hex headnuts and four (4) 3/4" x 2" x 1/16" neoprene flat washers. The frames and covers shall be East Jordan Iron Works Model 1040C (2-hole vented) with water tight solid gasket cover and labeled "City of Birmingham Sewer".

2.04 GRADE RINGS

A. Concrete grade rings shall have a minimum compressive strength of 4,000 psi at 28 days. Concrete grade rings shall be reinforced and shall be in conformance with ASTM C-478.

2.05 EXTERNAL SEALANT

A. The exterior of the frame/chimney section shall be sealed per detail on Sewer Standard Details sheet.

2.06 HYDROPHOBIC GROUT

A. Active leaks within the manhole shall be sealed by using a hydrophobic polyurethane grout. The following materials shall be used or approved equal. However, external sealant used shall be chemically compatible with all other products utilized and installed according to manufacturer's recommendations.
1. Aqua Seal by Sealing Systems, Inc.
2. Seal Guard II

PART 3 – EXECUTION

3.01 GENERAL

A. It shall be the responsibility of the Contractor, at no additional cost to the Owner, to replace any portion of the manhole which was damaged during excavation and removal of cover, frame and chimney.

B. During reconstruction, Contractor shall take precautions to keep dirt, brick, water, tools, and any other deleterious materials out of the existing structure. Any materials that are dropped into the structures shall be promptly removed at no additional cost to the Owner.

C. Any private property, landscaping, etc., damaged by Contractor, shall be replaced at no additional cost to the Owner.

3.02 REMOVE & REPLACE COVER

A. Contractor shall verify the dimensions and condition of the existing frame to ensure that a new cover can be properly installed. Provide new frame is damaged or non-compatible with new cover.

B. For the manholes scheduled to receive a new cover, the Contractor shall remove and dispose of the existing cover and shall clean the manhole frame removing all debris and dirt from the frame.

C. The Contractor shall replace the cover with the appropriate manufactured cover in accordance with Section 2.03.

3.03 RESET FRAME & COVER

A. In order to remove the frame, the Contractor shall excavate around the manhole a minimum of 6" below the frame. For manholes located near concrete, asphalt, brick, or any other non-vegetative setting, the surrounding non-vegetative materials shall be removed by using saw cuts and replaced with in kind materials.

B. The existing frame shall be removed and cleaned of any loose debris or dirt. Remove existing mortar from top of chimney. Care shall be taken not to damage the chimney structure.

C. Reset the existing frame in a complete bed of mortar.

3.04 SEAL LEAKS WITH HYDROPHOBIC GROUT

A. Installation shall be completed only by a manufacturer authorized contractor having demonstrated requisite skill and training to properly apply their product.

B. The leaks shall be sealed in accordance with manufacturer's instructions.

C. The basis for payment under this item is for EACH manhole where the grout is being applied, not for each leak within a single manhole.

3.05 SEAL JOINTS WITH MORTAR

A. The Contractor shall repair deteriorated manhole joints by cleaning away any loose material and debris within the joint and applying mortar along on the entire joint.

B. The basis for payment under this item will be at the HOURLY rate bid for the crew performing the mortar joint repairs in the manhole.

3.06 RECONSTRUCT CHIMNEY

A. Excavate around the manhole a maximum of 6 inches below the lowest course of brick or block being replaced. For manholes located near concrete, asphalt, brick, or any other non-vegetative setting, the surrounding non-vegetative materials shall be removed by using saw cuts and replaced with in kind materials.

B. Remove existing mortar from the course of brick or block being left in place. Care shall be taken not to damage the structure to remain.

C. This pay item also applies to manholes that are required to be adjusted to a higher or lower elevation. Work associated with resetting the casting or installing a new casting will be paid for separately, as provided for in the Proposal.

D. Surrounding areas should be restored to existing conditions.

3.08 REPAIR BENCH

A. The Contractor shall repair deteriorated manhole benches by cleaning debris from the manhole bottom and removing any loose or damaged concrete.

B. Reconstruct benches to create a flow channel by placing and forming grade "A" concrete in accordance with the manhole details on the Sewer Standard Details sheet.

END OF SECTION

SECTION 2751
CLEANING OF SEWER LINES

PART 1 GENERAL

1.1 SUMMARY

A. It is the intent of these specifications to provide a basis by which a sanitary sewer line can be cleaned of all excess debris so that internal sewer inspections or other work can be carried out. This basis shall include methods, equipment, and payment of work. Cleaning of sewer lines shall be accomplished by trapping and collecting all sand, debris, and grease at the next manhole, upstream or downstream of the line being cleaned, and removal and proper disposal of said materials in accordance with applicable State and Local laws governing the disposal of such materials. Cleanup operations shall consist of cleaning all debris out of the manholes and off the ground around the manhole and should include removal and proper disposal of said materials.

B. The Contractor shall provide and furnish all required skilled and unskilled labor, materials, fuel, machinery, tools, so that the contract and all work required to be done under the contract can and will be carried on continuously and expeditiously to completion, in all respects to the satisfaction of the Owner.

C. The sewer lines for which cleaning are required are shown or identified in these Contract Documents or as directed by the Owner.

D. Related Sections:
1. Section 02704 - Internal Sewer Inspection
2. Section 02708 – Resin Impregnated Flexible Fabric Liner and Cured-in-Place Pipe

1.2 MEASUREMENT AND PAYMENT

A. Payment for cleaning of a sanitary sewer line shall include all supervision, labor, equipment, water, electrical bills, disposal of debris, cleanup and any other applicable item and shall be included to the rehabilitation and repair items as described in the Specifications herein.

B. **Pre-Lining Cleaning and Televising with PACP Reporting, __-inch Dia. Sewer, Linear Foot**

1. The Owner shall pay for a "three-pass" cleaning of sewer pipelines utilizing high pressure jetting equipment, brushes and swabs to allow for passage of the CCTV; removing small amounts of loose debris such as gravel, sand, small rocks, grease and other deleterious materials within the sewer line; and removal of root intrusions and mineral deposits. **"Pre-Lining Cleaning and Televising with PACP Reporting, __-inch Dia. Sewer, LF"** will be paid for at the contact unit price per foot measured from inside of manhole to inside of manhole.

C. **Heavy Cleaning, __-inch Dia. (as-needed) .....Linear Foot**

1. Should the sewer line have too much debris or blockage to allow a camera to pass through after the original three passes are made additional cleaning may be required. This work shall commence only upon the approval and direction of the Owner and/or the Owner's Representative/Engineer and will be defined as **"Heavy Cleaning, __-inch Dia. (as-needed), LF"**

2. The Owner shall pay for an additional "three-pass" cleaning of sewer pipelines utilizing high pressure jetting equipment, and mechanical cleaners such as bucket machines, scrapers, cutters and augers to allow for passage of the CCTV; removing obstructions and medium to large amounts of debris such as gravel, sand, rocks, grease and other deleterious materials within the sewer line; removal of mineral deposits in accordance with the cleaning standards detailed in Article 1.2.D and removal of all attached, or encrusted and hard compacted deposits; and removal of roots, root balls. **"Heavy Cleaning, __-inch Dia. (as-needed)"** will be paid for at the contact unit price per foot measured from inside of manhole to inside of manhole, regardless of sewer size.

D. Cleaning Types (deposits and debris)

1. Incidental Cleaning of "Loose" Deposits and Debris (prior to cleaning)
   a. Up to 12" diameter sewer - 25% of sewer height
   b. 13" to 24" diameter sewer - 15% of sewer height
   c. Over 24" diameter sewer - 10% of sewer height
2. Heavy Cleaning of "Attached/Compacted" Deposits and Debris (prior to cleaning)
   a. Up to 12" diameter sewer – over 25% of sewer height
   b. 13" to 24" diameter sewer - over 15% of sewer height
   c. Over 24" diameter sewer - over 10% of sewer height
3. Heavy Cleaning of "Attached/Compacted" Deposits and Debris (following three (3) passes with jetting equipment)
   a. Up to 15" diameter sewer – over 20% of sewer height
   b. 16" to 36" diameter sewer - over 15% of sewer height
   c. Over 36" diameter sewer - over 10% of sewer height

B. Refer to Section 02708 for other provisions related to cleaning the sewers to prepare the pipe for the sewer lining operation. Other pay items have been established for clearing the line of obstructions that are not removed after completion of work described in this Section.

1.3 REFERENCES

A. Abbreviations and Acronyms
1. NASSCO – National Association of Sewer Service Companies
2. PACP - Pipeline Assessment and Certification Program
3. CCTV – Closed Circuit Televising

B. Definitions
1. Three-Pass Cleaning –Flushing of a sewer with a maximum of (3) passes utilizing high pressure jetting system

C. NAASCO Reference Standards

1. In accordance with NASSCO standards, heavy cleaning may require a step cleaning approach usually by accessing the downstream manhole and cleaning from downstream to upstream. Step cleaning is a systematic and efficient method of cleaning pipe with medium to large amounts of debris. Small sections or lengths of the sewer segment (steps or passes) are cleaned in each pull of the cleaning nozzle. This prevents build-up of debris downstream in the pipe and at the manhole. This also prevents the nozzle from becoming stuck in a large build-up of debris.
2. It is common practice to follow the cleaning nozzle with visual inspection from upstream to downstream to verify that the cleaning process is effective and that the pipe is cleaned per NASSCO standards for accurate PACP coding. However, at times it may be necessary to clean a pipe from the upstream manhole to the downstream manhole (reverse set-up). The reasoning for a reverse set-up is based on the conditions, the access/location and the amount and type of debris in the pipe. Heavy cleaning may require specialized nozzles depending on the amount of debris, the type of deposit, the type of debris or obstruction and the debris location.

1.4 QUALIFICATIONS

A. The Contractor performing the work shall be a company specializing in performing cleaning sanitary sewers and shall have a minimum experience of at least three other projects of similar size and scope within the last five years that include cleaning operations as outlined herein.

1.5 SUBMITTALS

A. Prior to initiation of work, the Contractor shall submit for Owner review and approval the following:
   1. Listing of and data sheets for equipment to be used for proposed cleaning work.
   2. Proposed water source for cleaning and proposed disposal site for solids cleaned from sewer.

1.6 REQUIRED DELIVERABLES

A. All data pertinent to the line cleaned shall be duly recorded on an adequate cleaning log form as supplied by the Contractor. This form shall be turned over to and remain in the possession of the Engineer after a section of the line has been completed.

B. Landfill disposal logs for all debris.

1.7 ACCEPTANCE

A. A daily log of work accomplished shall be duly recorded and acknowledged by the Owner or Owner's representative and the Contractor's superintendent.

B. All inspection recordings and reports will be reviewed by the Owner. The Owner shall have the authority to reject all or any portion of recordings not conforming to Specifications. These areas shall be re-cleaned at no additional charge.

PART 2 PRODUCTS

2.1 EQUIPMENT

A. All equipment used for cleaning operations, any method, shall be equipment specifically designed for the type of work specified. Self-contained cleaning units shall be used for the work unless otherwise approved by the Owner.

PART 3 EXECUTION

3.1 GENERAL

A. The Contractor shall be responsible for securing the site and protection of the Owner's personnel and public. Any necessary traffic control shall be in accordance with the current Michigan Manual of Uniform Traffic Control Devices.

B. The contractor shall notify the residents/businesses one day prior to starting cleaning with a "Resident Notification Letter" informing the residents/businesses of the Contractor's cleaning activities and to provide contact information for the Contractor and Owner. The Contractor shall submit the letter for Owner review and approval prior to notification. This letter should include contact information for residents to call should clean pressures cause toilet overflows or drain backups.

C. The Contractor shall clean in the direction of flow unless approval is received prior to reverse flow cleaning by the Owner. The liquid filtrate may be drained back into the downstream manhole and shall be disposed of in accordance with all regulations. The Contractor is responsible for providing all required water.

D. Protection During Cleaning Operations - Satisfactory precautions shall be taken to protect the sewer lines from damage that might be inflicted by the improper use of cleaning equipment. Whenever hydraulically propelled cleaning tools, which depend upon water pressure to provide their cleaning force, or any tools which retard the flow of water in the sewer line are used, precautions shall be taken to insure that the water does not cause damage or flooding to public or private property being served by the manhole section involved. The Contractor shall reduce the pressures at the direction of the Owner, or if notified by a resident that such problems are occurring. By reducing pressure, additional cleaning time or passes through are needed and shall be done at no additional cost to the Owner.

3.2 METHODS

A. The methods of cleaning a sanitary or combined sewer line which are acceptable for use are outlined below. Approval from the Owner for the method chosen shall be obtained prior to any cleaning work.

B. Bucket Machine Method - This method shall consist of:

1. Rodding the sewer line with a power-driven continuous steel rod of sufficient length and gauge and with the proper cleaning heads or augers, so as to loosen all solid materials. It shall also provide a means to thread a cable for the power winch.
2. Removal of all solids, materials and other debris by means of a clam-shell type bucket and/or other appliances dragged through the sewer line with power winches of suitable size and horsepower.
3. Brushing of the sewer line with a brush large enough to assure that the line has been cleaned sufficiently. This brush shall be mechanically driven, with the power mechanism properly sized.
4. All electrical drops required by the Contractor shall be arranged for by the Contractor.

C. Hydraulic Cleaning Method - This method shall consist of cleaning and flushing of the sewer line by means of water pumped into the line at a high velocity. This shall be accomplished using between 800 pounds per square inch (P.S.I.) and 1000 P.S.I. of pressure at the pump connected by a high pressure hose to deliver water to a self-propelled nozzle to do the necessary cleaning and flushing. As many passes as necessary shall be made to sufficiently clean the sewer line.

3.3 DISPOSAL OF DEBRIS AND CLEANUP

A. After removal of debris out of a manhole, the Contractor shall dispose of debris at a Type II landfill. The Owner will sign the manifest for the debris as the Generator and shall be provided with copies of the landfill invoices after delivery. Any testing required for proper disposal shall be at the Contractor's expense and included in the unit prices bid for sewer cleaning. If the testing indicates the debris is not acceptable for disposal at a Type II landfill, and disposal at a Type III landfill, or other specialized disposal facility is required, the Owner will negotiate a change order for the additional costs for the required disposal. Clean up operations shall consist of cleaning all debris out of the manhole and off the ground around the manhole. At no time shall the Contractor push the debris downstream in the sewer system.

3.4 CLEANUP

A. The Contractor shall be responsible to clean up any debris or spills during each day of work and restore conditions to existing conditions as soon as possible.

END OF SECTION

SECTION 02766

PACKER INJECTION OF CHEMICAL GROUT FOR SEWER PRE-REHABILITATION

PART 1 GENERAL:

1.1 SUMMARY

A. This Section shall include all work, materials, labor, and equipment necessary to provide for pre-rehabilitation of gravity flow sewer pipelines by the chemical grout injection of certain defects using expandable packer injection equipment. This practice of grouting is intended to provide preliminary leak control only prior to applying a structural lining to the pipe. This type of grouting does not provide soil stabilization or primary leak control.

B. This specification is intended to cover the work required to seal leaks defined in the National Association of Sewer Service Companies (NASSCO) Pipeline Assessment Certification Program (PACP) as Infiltration Weeper (IW), Infiltration Dripper (ID), Infiltration Runner (IR), Infiltration Gusher (IG) observations from within the mainline sewer pipe in order to seal out groundwater until rehabilitation or the installation of a protective lining can be completed. The application applies to specific defects in the pipe and requires the use of closed-circuit television system for operation.

C. Chemical injection grouting includes the required pressure testing of sewer pipe joints, tap connections, and lateral joints by hydraulically applying a positive pressure to the joints and monitoring the pressure in the void. The test medium is air.

D. Related Requirements
1. Section 02141 – Temporary Bypass Pumping
2. Section 02704 – Internal Sewer Inspection
3. Section 02751 – Cleaning of Sewer Lines
4. Section 02708 – Resin Impregnated Flexible Fabric Liner and Cured-in-Place Pipe

1.2 MEASUREMENT AND PAYMENT

A. Where separate Bid Items are not provided, all costs for the work described in this section is considered incidental to Cured-in-place Pipe and shall be factored into the other contract bid prices.

B. **Sewer Grouting Set Up.....EA**
Preparation for each sewer segment to receive grouting work shall be paid for per each set up required, as directed by Owner and Engineer. The following work items shall be included in the contract bid price:
1. Identification of active leaks at joint.
2. Removal of roots, debris build up, or deposits prior to grouting.
3. Grouting Set Up and Clean-up

C. **Sewer Joint Grouting, ___-inch Dia. .....EA**
Grouting of each sewer segment joint that was identified with active infiltration to receive grouting work shall be paid for per each joint grouted, as directed by Owner and Engineer. The following work items shall be included in the contract bid price:
1. Identification of active leaks at joint.
2. Clean-up and removal of all residual or unused Grout.
3. Documentation of Work on the Daily Grouting Report
4. Grouting Video (if required by Owner)

1.3 REFERENCES

A. Abbreviations and Acronyms
1. ASTM – American Society for Testing and Materials
2. ICGA – Infiltration Control Grouting Association
3. NASSCO – National Association of Sewer Service Companies
4. NASSCO Common Abbreviations:
   a. MLJ – Main Line Joint
   b. LTC – Lateral Tap Connection
   c. AST – Cured In Place Pipe Annular Space Tap
   d. LCM – Lateral Connected to Manhole
   e. ODC – Outside Drop Connection
   f. LACO – Lateral Accessed from Cleanout
   g. LFD – Longitudinal Fracture Defect
5. PACP – Pipeline Assessment and Certification Program
6. MACP – Manhole Assessment and Certification Program
7. LACP – Lateral Assessment and Certification Program
8. OHSA – Occupational Health and Safety Administration

B. Reference Standards
1. ASTM
   a. ASTM F 1417 – Standard Practice for Installation Acceptance of Plastic Non-Pressure Sewer Lines Using Low-Pressure Air
   b. ASTM F 2304 Standard Practice for Rehabilitation of Sewers Using Chemical Grouting
   c. ASTM F 2414 Standard Practice for Sealing Sewer Manholes Using Chemical Grouting
   d. ASTM F 2454 Standard Practice for Sealing Lateral Connections and Lines from the Mainline Sewer System by the Lateral Packer Method, Using Chemical Grouting
   e. ASTM F 3058- Standard Practice for Preliminary Field Testing of Thermoplastic Pipe Joints for Gravity Flow (Non-Pressure) Sewer Lines
2. OSHA
   a. Standard No. 1910.146 – "Occupational Safety and Health Standards – Permit Required Confined Spaces"
3. NASSCO
   a. Specification Guideline for Pipeline Packer Injection Pre-Rehabilitation Grouting

1.4 SUBMITTALS

A. Chemical Grout Material
   1. Manufacturer's Product Brochure or Information Sheet
   2. Technical data sheet:
      a. Grout Mixing Ratio
      b. Procedure for Adjusting Grout Gel Time for preparation and temperature changes
      c. Chart Graph showing curves for Gel-Time versus Temperature
      d. Instructions for mixing
      e. Information for Product Additives
   3. Material Safety Data Sheet

B. Chemical Grout Additive(s)
   1. Manufacturer's Product Brochure or Information Sheet
   2. Technical data sheet:
      a. Instructions for mixing
      b. Handling instructions
      c. Information on intended use
   3. Material Safety Data Sheet

C. Equipment Plan
   1. Proposed Grouting Equipment Information
      a. Proposed Mixing Equipment or System for the chemical grouting work such as ports, mixing tanks, pressure gauges, monitoring
      b. Grouting System Procedures for mixing, testing, and handling
      c. Equipment Setup Layout and Size required for staging
      d. Documentation of Pressure Gauge Calibration

D. Safety Plan
   1. Contractor's Access and Confined Space Procedures
   2. Emergency Information
   3. Cleanup Procedures and Washout Information
   4. Mitigations for trip and fall hazards.

E. Sample Document for Grouting Report Form for Sewer Segment
   1. Grout Report used by the Contractor showing the following data for each item tested, grouted, or attempt information
      a. Pipeline Identification Number
      b. Upstream / Downstream Structure Access Identification Number
      c. Station of each Grout Item
      d. Size of Pipe
      e. Date and Time
      f. Summary of Daily Temperature and Weather
      g. For each Item Pressure Tested and/or Grouted:
         1) End Seal Pipe-Packer Contact Pressure and Seal Pressure measured
         2) Test Pressure achieved and duration of test for each item passing air test
         3) In-Site Pump Rate for Packer
         4) Gel Time(s) from cup testing

5) Quantity of Grout used to Seal each item Grouted
6) Step Grouting performed with pump on/off cycle times if applicable
7) Post-Grout Pressure Test results
8) Any re-grouting or retesting information performed

h. Daily Summary of Total Grout Quantity Used
i. Index name of Video Recording of Grouting Operation

1.5 QUALITY ASSURANCE

A. The Contractor shall be a qualified and trained applicator for rehabilitative grouting, leak sealing, and chemical injection products, certified by the Manufacturer.

B. Operations shall be in accordance with all OSHA and manufacturer's safety requirements. Particular attention is drawn to those safety requirements involving working with scaffolding and entering confined spaces.

C. All pipeline inspection work shall be performed under the supervision of personnel trained and certified in the use of NASSCO's PACP for the inspection of manhole structures.

D. Products used in the Work identified herein shall be produced by manufacturers regularly engaged in the manufacture of sewer maintenance and leak sealing for municipal collection systems and with a history of successful production acceptable to the Owner.

1.6 ADMINISTRATIVE REQUIREMENTS

A. Safety Information
1. Workspace is subject to hazardous and/or combustible materials commonly associated with sewer pipes.
2. Contractor is solely responsible for site safety and safety of its personnel and equipment throughout the project.
3. Comply with applicable requirements of OSHA, specifically Standard No. 1910.146 – "Occupational Safety and Health Standards – Permit Required Confined Spaces"
4. Provide all required safety barricades, scaffolding, fall hazard warnings, and personal protection gear.

B. Contractor's Presence at the work-site
1. No Equipment is allowed to remain in a sewer pipe during the following conditions:
a. After reinstating flow to the sewer by removing the bypass pumping system
b. While the contractor is not actively working

C. Water Use from Municipal Hydrants
1. The municipal authority over the water distribution system in the project site area may elect to provide water.
2. Follow all special provisions for Water Usage and obtaining hydrant permits.
3. At no time shall the Contractor operate any valve or hydrant. Contact the Owner to coordinate with hydrant operations for water usage.

1.7 CLOSEOUT SUBMITTALS

A. Post-grouting Internal Sewer Inspection Video with PACP Reporting for each sewer segment

B. Grout Report for each Sewer Segment

C. Video Recording of Grouting Operations (if required by Owner)

1.8 DELIVERY, STORAGE, AND HANDLING

A. All Chemical Grout Materials are required to be delivered to the job-site in unopen, original containers from the Manufacturer.

B. Follow all Manufacturer's instructions for field storage requirements for open containers. Packing of component materials must meet all field storage requirements provided by the Manufacturer.

C. Follow the Manufacturer's instructions for on-site storage conditions. Storage must be performed in the Manufacturer's original container.

PART 2 PRODUCTS:

2.1 MATERIALS

A. Chemical Grout
1. General Properties:
   a. While being injected, the grout must be able to react/perform in the presence of water (groundwater).
   b. Material must have the ability to increase grout mix viscosity, density, and gel strength by increased concentration of constituents or through the use of appropriate additives.
   c. The cured grout must withstand submergence in water without degradation and shall not be biodegradable.
   d. The resultant grout formation must be homogeneous and prevent the passage of water (infiltration) through the pipe joint/cracks, and lift holes.
   e. The cured grout should be chemically stable and resistant to organics found in sewage.
   f. Residual Grout must be removeable from the sewer line
   g. Grout cannot interfere with the receiving Sewage Treatment Plant operations or Pumping Stations downstream of the grouting location.
2. Performance Properties:
   a. Contain minimum 10% base material by weight in the total grout mix
   b. Ability to tolerate some dilution and react in moving water during injection
   c. Contain a viscosity between 1-3 centipoise that can be modified with approved additives
   d. Contain a controllable reaction time between 10 seconds to 2 minutes

e. Reacts to produce a homogeneous, chemically stable, non-biodegradable film or flexible gel that stabilizes with the soil.
f. Contain ability to modify density and gel strength by the use of approved additives.

3. All products used must be of the same Chemical Grout System (grouts, additives, modifiers) and cannot be mixed or changed with different manufacturers.
4. Pre-Approved Products:
   a. Acrylamide Grout:
      1) Avanti International:
         a) AV-100 Chemical Grout with AV-101 Catalyst T+ and AV 102 Catalyst AP
         b) AV-118 Duriflex
      2) USL America Prime Resins
         a) PR10L ACLM
      3) American Chemical Grout Company
         a) Acrylamide MBA PreMix (with Catalyst A, B, C)
   b. Acrylate Grout:
      1) Avanti International:
         a) AV-150 Acrylate Gel
         b) AV-160 SuperGel
      2) GCP Applied Technologies
         a) DE NEEF AC-400 with SP-200 and TE-300
   c. Or Equal

2.2 EQUIPMENT

A. Packer Requirements
1. Consist of a remotely operated television camera capable of pan and tilt, testing, and grouting devices (referred to as a packer)
2. Fitted with a void pressure sensor, either a transducer or gauge, mounted on the packer. The packer should not have a check valve between the void space and the pressure sensor.
3. Provide all hoses, pumping systems, guide rollers, and hose protection accessories
4. Pressure-Requirements:
   a. For Void Gauge, the maximum top range 15 PSI and must be readable on CCTV Camera or on-screen
   b. Packer element pressure gauges with a range of 0 to 60 PSI.

B. Packer Types:
1. Packer for Lateral Tap Connection and CIPP Annular Space Tap Connections
   a. Fitted with an inflatable mainline end seals and a pressure element
   b. Fitted with an inflatable lateral grouting sock or plug that creates a void area extending beyond the tap or drop connection, sized for internal diameter of the pipe.
   c. Provide interchangeable parts and fittings to allow for differing site conditions, such as different lengths and plugs.
   d. One (1) backup packer and set of parts.
2. Packer for Lateral Connected to Manholes, Laterals Accessed from Cleanouts, Outside Drop Connections, and Longitudinal Fractures Defects
   a. Fitted for flexible push-pull type of packer.

b. The Packer shall be sized for the diameter of the lateral connection diameter and joint spacing.
c. Provide air pressure testing.
d. Provide interchangeable parts and fittings to allow for differing site conditions, such as different lengths and plugs
e. One (1) backup packer and set of parts.

C. Grout Preparation System
1. Provide grout preparation system suitable for the chemical grout being used. At minimum, preparation tanks should one tank for chemical and additive mixing, and one tank for oxidizing chemicals only.
2. Provide grout mixers, pumps, hoses, manifolds capable of properly mixing and pumping grout.
a. Pumps shall be capable of a minimum pressure of 250 psi.
3. Grout Mixing System should be designed so that proportions and quantity of grouting materials can be regulated in accordance with the type and size of the leak being sealed

D. Grout Monitoring Equipment
1. Provide a Grout control panel with gauges for monitoring packer element pressure. Provide calibrated flowmeters and data loggers to monitor, track and record flow and volume of grout being installed.
2. Provide new pressure gauges to monitor grouting pressure.
a. Gauges shall have a sensitivity range that will accurately identify pressures to be used during the grouting program.

2.3 ACCESSORIES

A. Chemical Grout Additives
1. Gel Time Modifier – Gel Time extending agents may be used in accordance with the chemical grout manufacturer's instructions. All modifiers should be compatible and approved with the Chemical Grout Manufacturer.
a. Gel time modifiers (Potassium Ferricyanide)
2. Grout Additives – Additives may be used in accordance with the chemical grout's manufacturer's instructions, based on varying site conditions including temperature, humidity, and application. All additives should be compatible and approved with the Chemical Grout Manufacturer.
a. Gel Strengthening Agents (Latex)
b. Freezing Point Reducers (Ethylene Glycols)
c. Bulking Agents (Cellulose, Diatomaceous Earth)
d. Root Growth Inhibitor (Dichlobenil)

3. Tracer Dye
a. Compatible with selected chemical grout product.
b. Shall not contain trace metals.
c. Mix dye in the proper tank instructed by the Manufacturer of the Grouting System.
d. May be used in grout tanks for visual confirmation only.

PART 3 EXECUTION:

3.1 EXAMINATION

A. Identify access points to the Pipeline to receive entry and prepare for examination, cleaning and grouting work items.
   1. Coordinate with traffic control.
   2. Distance from grouting plant to the grout port shall not exceed 650 feet.
   3. Stage grouting operations from the closest existing manhole or access point.

B. Coordinate all work with temporary bypass pumping operations.

C. Identify any conditions that differ from the Drawings and specifications provided and notify the Owner.
   1. Sewer Defects classified by PACP Suitable for grouting by packer injection
      a. Pin-Holes or surface imperfections causing leaks
      b. Cracks
      c. Leaks at joints
      d. Leaks in Lateral Tap Connections
   2. Sewer Defects classified by PACP **not** suitable for pressure testing and grouting by packer injection:
      a. Hinge Fractures
      b. Spiral Fractures
      c. Multiple Fractures
      d. Broken Pipe (including loose or protruding pieces of pipe wall)
      e. Partially Collapsed Pipe
      f. Any section of pipe scheduled for replacement
      g. Any section of pipe with structural damage that would be made worse by the packer pressure test.
      h. Defects in existing cured-in-place pipe linings

D. Coordinate notifications to users for any sewer requiring bypass pumping or connected laterals requiring flow restrictions prior to the start of work.

3.2 PREPARATION

A. Cleaning of Sewer Lines
   1. Comply with Section 02751 Cleaning of Sewer Lines
   2. Remove all internal debris out of the sewer line which may prevent proper working conditions for grout injection.
   3. Remove all roots that may interfere with the grouting operation.
   4. All costs associated with cleaning of sewer lines and debris disposal shall be included in the cost of the project unless a separate pay item is included in the Proposal for the specific work item described.

B. Inspection of Pipelines
   1. Comply with Section 02704 – Internal Sewer Inspection
   2. Inspect pipeline to determine the location of any flaws that would preclude the grouting of the pipe or any conditions that may prevent proper working conditions for grout injection.
   3. Confirm mainline sewer diameter or size.

4. For lateral tap connection grouting, determine the inflatable sock length used to extend up into the lateral connection pipe from the main line sewer.
5. Determine the packer size and type(s) to be used.
6. Maintain the pre-installation inspection videos for later reference by the Owner.
7. All costs associated with pre-installation inspection of pipelines shall be included in the cost of the project unless separate pay items are included in the Proposal for the specific work item described.

C. Grout Materials

1. Follow manufacturer's recommendations for mixing and safety handling procedures.
2. Add any required additives or extending agents where appropriate. Additives may only be added to non-grout tank on the mixing equipment tank.
   a. Do not allow dry powers of sodium persulfate to come in contact with triethanolamine prior to mixing. This contact may cause an exothermic reaction that may lead to fire.
3. Monitor grout mixing ratios until proper consistency and mixing time is achieved.
4. Adjust the gel time based on the manufacturer's requirements to compensate for variations in temperature and humidity, and time required to pass the Grouting System of tanks and hoses.
5. Water may be added to extend gel time if the base grout tank material exceeds 20% by weight for solution grouts.
6. Calculate Gel times provided by the Manufacturer. Where not provided, the following gel time formula may be used. The Packer/Pipe void is defined as the volume between the inflated packer and the inside pipe wall when the packer is inflated per manufacturer recommendations:

$$Gel\ Time = \left(\frac{\left(\frac{Volume\ of\ Pipe}{Packer\ Void\ Space\ (gal)}\right)}{Pumping\ Rate\ (gpm)}\right)\left(\frac{60\ sec}{1\ min}\right) + 20\ \text{sec}(+/-5sec)$$

Example: An 8" pipe with a packer void space of 0.3 gallons and a 3 gpm pumping rate would provide

$$Gel\ Time = \left(\frac{.3(gal)}{3(gpm)}\right)\left(\frac{60sec}{1min}\right) + 20sec = 26\text{sec}(+/-5sec)$$

3.3 CONTROL TESTS

A. Demonstrate the acceptable performance of packers by conducting and documenting packer tests.

B. Packer Test

1. Prior to the start of work, demonstrate a performance test of the packer equipment with the Owner or Owner's Representative for use on Main Line Joints and Lateral Tap Connections.
   a. For pipelines less than or equal to 18 inches in diameter, provide test cylinder equipped with a void release valve to exercise a controlled release of pressurized air to test the packer under sound and leaking conditions

b. Provide a local gauge with a range of 0 to 30 PSI connected to the packer test control equipment to measure the pressure in the packer void space.
c. Inflate the packer with the release valve sealed until it contacts the pipe.
d. Record the packer-pipe contact pressure.
e. Inflate the packer to 15 PSI greater than the recorded pressure from the previous step. The void pressure should be 10 psi.
f. The equipment shall generate a test hold for a period of 60 seconds with a pressure drop of 1 PSI or less. If pressure holds, release to simulate a small leak. Allow 20 seconds to elapse, and seal the release and confirm the pressure drop has occurred on the local gauge. The pressure reading should be within 1 PSI of the reading in the control panel.

2. If air testing on equipment cannot be performed successfully, repair or modify equipment and repeat tests until a satisfactory result is achieved.
3. Packer equipment should hold a 10 PSI test pressure for a period of 30 seconds and a pressure drop of 1 PSI in all sewer pipe.
4. A satisfactory in-situ air pressure test may not be able to be completed on existing sewer with wall loss sue to corrosion or other defects

C. Pump Test

1. Prior to the start of work, perform a pump test in the presence of the Owner or Owners representative to determine if the material ratios and the pump rates from the grout component tanks are in accordance with the Grouting Plan and manufacturer's recommended standards.
   a. Where not specified, the pump test shall pass the following test:
      1) Pump test grout for an uninterrupted period of 5 minutes
      2) Pump test should achieve a minimum 3 gallons per minute and deliver 9 gallons within 3 minutes.
2. Use separate containers to capture the discharge from each of the grout component hoses to simulate the actual volumes of each component through the interconnect hoses, hose reel and length of grout hose and confirm accuracy of the grout pump totalizer.

D. In-Situ Pumping Capacity Test

1. Perform an in-situ pumping capacity test after successful completion of pump test.
2. Mobilize and insert the packer into the sewer pipe on the first applicable sewer defect.
3. Record the in-situ pumping rate delivered.
4. Modify the grout gel time as appropriate.
5. Check the in-situ pumping rate each time the packer is reconnected to the hoses.

E. Grout Gel Time Test

1. Perform and record a grout gel test in order to determine the grout mixture gel time.
   a. Mix for a minimum of 1 minute
   b. Release any entrained air from the grout tanks 5 minutes before collecting grout sample
   c. Gel-Time Test Frequency:
      1) Test each day prior to grouting
      2) Test when a different gel time is required
      3) Test for each batch of grout mixed.

4) Test when Mixing Tanks have temperature changes of more than 5 degrees F.

2. Record the following:
   a. Grout tank solution temperature
   b. Catalyst tank solution temperature
   c. Ambient air temperature in truck
   d. Gel time of the sample

3.4 PRESSURE TESTING PROCEDURES

A. Joint testing pressure shall be equal to 0.5 PSI per vertical foot of pipe depth plus 3 PSI, not to exceed 12 PSI.

B. If the void pressure gauge does not appear to be accurately working, complete testing using a panel gauge. Allow for an increase by 5 PSI in test pressure and increase in test time by 5 seconds in order to overcome the check valves and regulators in the grouting plumbing system. Do not perform any additional work until the void pressure gauge is working properly.

C. Position the packer within the pipe to straddle the item to be tested. Expand the inflatable bladder against the pipe with sufficient inflation pressure to contain the air within the void without leakage past the expanded ends.
   1. Pressure Restrictions:
      a. Vitrified Clay Pipe (Structurally Sound): 15 PSI maximum
      b. Vitrified Clay Pipe (with defects): 8 PSI maximum

D. Record the end seal pipe packer contact pressure and seal pressure used.

E. Individually test each of the following items above the specified pressure and retest after the grouting sequence.
   1. Mainline Sewer Joint
   2. Lateral Accessed from Cleanout
   3. Outside Drop Connection
   4. Lateral Connected to Manhole

F. Test joints on Laterals connected to Manholes at a distance directed up the lateral or to a cleanout, whichever comes first. Distance for Lateral Packer bladder is indicated on the project drawings.

G. Do not test joints with visible longitudinal, spiral, or multiple fractures or cracks or where the packer cannot be seated because of a tap connection. Record information on the Grout Report.

H. After successful post-grouting pressure test, deflate the packer with the void pressure meter continuing to display pressure. If void pressure does not drop to +/- 1 PSI, clean the test equipment of residual grout material or make necessary repairs or adjustments for an accurate pressure reading.

3.5 PRESSURE TESTING PROCEDURES FOR LATERAL TAP CONNECTIONS

A. Joint testing pressure shall be equal to 0.5 PSI per vertical foot of pipe depth plus 3 PSI. Test pressure may not be lower than 6 PSI and not greater than 10 PSI.

B. If the void pressure gauge does not appear to be accurately working, complete testing using a panel gauge. Allow for an increase by 5 PSI in test pressure and increase in test time by 5 seconds in order to overcome the check valves and regulators in the grouting plumbing system. Do not perform any additional work until the void pressure gauge is working properly.

C. Position the packer within the pipe to straddle the opening of the lateral tap connection using Closed Circuit Television Cameras. Expand the inflatable bladder against the pipe with sufficient inflation pressure to contain the air within the void without leakage past the expanded ends.
   1. Pressure Restrictions:
      a. Vitrified Clay Pipe (Structurally Sound): 15 PSI maximum
      b. Vitrified Clay Pipe (with defects): 8 PSI maximum
   2. Capped Connections:
      a. Mainline Packer can be used for pressure test on capped connections within two (2) from the main sewer.

D. Invert the lateral bladder from the main packer assembly in order to isolate the lateral connection and the portion of the lateral to be tested. Record the end seal pipe packer contact pressure and seal pressure used.

E. Individually test each lateral tap connection to the specified pressure and retest after the grouting sequence.

F. After successful post-grouting pressure test, deflate the packer with the void pressure meter continuing to display pressure. If void pressure does not drop to +/- 1 PSI, clean the test equipment of residual grout material or make necessary repairs or adjustments for an accurate pressure reading.

3.6 CHEMICAL GROUT PACKER INJECTION

A. Position packer over joints or defects by means of Closed-Circuit Television Camera in the sewer. For each grouting defect operation, record exact location and volume of grout placed. Record the ambient temperature, grout tank temperature, gel set test time, and packer inflation pressure.
   1. Pressure Restrictions:
      a. Vitrified Clay Pipe (Structurally Sound): 15 PSI maximum
      b. Vitrified Clay Pipe (with defects): 8 PSI maximum

B. Inject chemical grout to the following sewer defect features where specified that fail the pressure test, and are visibly leaking:
   1. Mainline Joints
   2. Lateral Tap Connections
   3. Joints on Laterals Connected to Manholes
   4. Joints on Laterals Accessed from Cleanouts

5. Joints separated less than 1-inch or any angular or offset joint, visibly leaking joints, and joints with visible defects.
6. Circumferential cracks and fractures.
7. Longitudinal Fracture Defects

C. Test and Grout manhole outside drop connection joints using a push packer that is appropriately sized for the diameter and length of the outside drop connection. The test shall include as much of the outside drop connection from the main to the manhole as practical.

D. After successful post-grouting pressure test, deflate the packer with the void pressure meter continuing to display pressure. If void pressure does not drop to +/- 1 PSI, clean the test equipment of residual grout material or make necessary repairs or adjustments for an accurate pressure reading.

E. Remove excess grout, defined as any amount of grout not solidified that could cause a blockage. Flush excess grout with cleaning water using a jetting device. Vacuum out excess grout and flushing liquids from downstream access point.

F. Prepare a Grout Report for each sewer segment (manhole to manhole)
1. Pipeline Identification Number
2. Upstream / Downstream Structure Access Identification Number
3. Station or each Grout Item
4. Size of Pipe
5. Date and Time
6. Summary of Daily Temperature and Weather
7. End Seal Pipe-Packer Contact Pressure and Seal Pressure measured
8. Test Pressure achieved and duration of test for each item passing air test
9. In-Site Pump Rate for Packer
10. Gel Time(s) from cup testing
11. Quantity of Grout used to Seal each item Grouted
12. Daily Summary of Total Grout Quantity Used
13. Step Grouting performed with pump on/off cycle times if applicable
14. Post-Grout Pressure Test results
15. Any re-grouting or retesting information performed
16. Index name of Video Recording of Grouting Operation

3.7 FIELD QUALITY CONTROL

A. Monitor the grout component tanks to make sure that proper rations are being pumped. Discard unequal levels of mixed materials and repeat the pump test. Where required, check equipment for proper operation.

B. Follow all Manufacturer's procedures for Gel-Time adjustments.

3.8 NON-CONFORMING WORK

A. Any sewer feature found to leak after grouting injection or air-pressure testing is required to be re-grouted and tested, prior to the installation of a protective liner.

B. All residual grout that hardens in locations not intended shall be cleaned and removed from the sewer.

3.9 CLOSEOUT ACTIVITIES

A. Upon acceptance of the Work, reinstate the project area affected by the Work to a condition equal to or better than existing.

B. Post-Installation Inspection of Pipelines
   1. Inspect pipeline to document the post-installation condition of the pipeline.
   2. Submit post-installation inspection videos to the Owner for review.
      a. The Owner reserves the right to reject any or all televising and recording of sewer segments due to poor quality or clarity of flaws.
      b. If necessary the Contractor shall re-inspect those segments as determined by the Owner at no additional cost to the Owner.
   3. All costs associated with post-installation inspection of pipelines shall be included in the cost of the project unless separate pay items are included in the Proposal for the specific work item described.

C. Submit Grouting Report(s) to the Owner and Engineer.

END OF SECTION

SPECIAL PROVISION
FOR
SITE RESTORATION

Description

This work shall include final restoration of disturbed areas to match existing conditions, subsequent to paving and restoration preparation completed for the CONTRACT # 4-25 (S) 2025-2026 SEWER REHABILITATION PROGRAM.

Materials

Seed shall meet the requirements of Seeding Mixture, THM or Seeding Mixture, THV as specified in Table 917-2: Seed Mixtures in the 2020 Michigan Department of Transportation Standard Specifications for Construction.

Mulch Blanket shall meet the requirements of Single-Net Straw Erosion Control Blanket as specified in the Special Provision for Rolled Erosion Control Products

Mulch shall be free of growth or germination inhibiting ingredients and shall meet the following requirements; shredded hardwood mulch shall consist of the dark brown, triple-shredded bark from hardwood trees such as maples and oaks which has been mixed and screened to a maximum four (4) inch particle size and provide a uniform texture free from sawdust, foreign materials, and any artificially introduced chemical compounds that would be detrimental to plant or animal life.

Construction Methods

Final site restoration shall not commence until all the proposed work has been completed.

Contractor shall acknowledge that his operations may take place on freshly paved surfaces and shall accommodate these conditions by use of proper equipment and machinery so as to not damage finished products. Contractor shall be responsible for any damages to finished products.

Attend walkthrough with Project Engineer to confirm type and limits of work.

Furnish and install topsoil in areas prepared for restoration to a minimum depth to meet required lines, grades, and elevations after light rolling and natural settlement. Place approximately ½ of total amount of topsoil required. Add specified soil amendments (if needed), mix thoroughly into upper 4" of subsoil, and then place remainder of topsoil.

Limit topsoil installation and preparation to areas which will be planted promptly thereafter.

Seed areas as indicated on the plans or as directed during the walkthrough. Install Mulch Blanket atop seeded areas.

Plant trees, plants, and shrubs shall be installed to match existing conditions.

Replace existing plantings and landscape materials removed prior to construction. Coordinate with property owner if possible, prior to planting and replacement and receive sign-off that the items have been replaced and arranged appropriately.

SPECIAL PROVISION
FOR
SITE RESTORATION

HRC 10/24/23

If an area washes out after the seeding and mulching has been completed and accepted by the Engineer and is the result of a storm, the contractor will be required to make the required corrections to prevent future washouts and replace the topsoil, fertilizer, seed and mulch blanket. This replacement will not be paid for as extra work.

Provide four (4) inches of mulch in areas as indicated on the plans or as directed during the walkthrough. Mulch shall be thoroughly soaked after installation.

Maintenance, Inspection and Final Acceptance

Water newly installed seed in accordance with MDOT 2020 Standard Specifications for Construction Section 816 under the item "Water Sodding/Seeding".

Inspection and final acceptance is required prior to application for final payment.

Measurement and Payment

The completed work as detailed above shall be recognized as **"Site Restoration"** and will be paid for at the bid unit price per lump sum, which includes all work indicated in this Special Provision.

Pay Item	**Pay Unit**
Site Restoration	LS

Payment for **"Site Restoration"** shall be payment in full for all costs associated with these specific restoration elements including furnishing all materials, installing and preparing topsoil to the tolerances indicated, installing seed, to the rate, workmanship, and limits indicated, and maintaining restoration items.

All equipment, material and labor costs shall be included in the unit bid price for **Site Restoration, LS.**

Payment for these items will be at the following rate:

1) Contractor to receive 50% payment once all items are placed
2) Contractor will receive the remaining 50% when the grass areas are growing in with 90% coverage equivalent to Class A sod. And all the requirements of Water Sodding/Seeding have been met. All work will be paid for at the contract unit price.
3) Contractor will not be paid for redoing any items beyond the quantities required to complete the final site restoration for the original placement. Additional quantities to ensure growth to comply with germination and coverage shall not be considered for payment.
4) Payment will only be in the amount of the unit price bid for the original restoration and no additional compensation will be paid, regardless of how many repairs, overseeding,

placement of additional topsoil, fertilizer, mulch, or watering it takes the Contractor to achieve the necessary coverage for grass growth at the specified application rates.

5) "Water Sodding/Seeding" usage has been estimated at 3.5 gal/syd; two (2) times per week for six (6) weeks after placement for seeded areas. Should the Contractor feel additional watering is necessary to ensure growth to comply with the germination and coverage requirements, it shall be done so at the Contractor's expense. The Owner reserves the right to extend required watering durations up to two weeks should restoration be installed between July 1 and September 1.

The following items will not be measured and paid for separately but shall be included in the respective bid items under **"Site Restoration"**.

Topsoil Surface, Furn, 3 inch, Special
Seeding, Mixture THM
Mulch Blanket, Special
Mulching, Special
Soil Amendments
Fertilizer, Chemical Nutrient, CL A
Water Sodding/Seeding

CITY OF BIRMINGHAM
CONTRACT # 4-25 (S)
2025-2026 SEWER REHABILITATION PROGRAM

SPECIAL PROVISION FOR
INTERNAL SEWER SPOT LINER AND REPAIR SLEEVE

Description

The work covered by this Special Provision includes furnishing and installing spot liners to repair holes in the pipe, broken pipe segments or at certain offset joints.

Materials

Spot liners shall consist of a sectional sewer point repair system, utilizing resin/fabric liner systems or mechanically-seated stainless steel sleeve systems as follows:

A. Resin/fabric liner system shall consist of ambient-cured epoxy or silicate resin and fiberglass-reinforced felt liner; such as Spot Liner by Pipe Patch by Source One Environmental, Perma-Patch by Perma-Liner Industries, or approved equal.

B. Stainless steel sleeves shall consist of expandable, self-locking, 316 stainless steel sleeve with integrated external polyurethane grout sleeve or vulcanized EPDM rubber gasket; such as Sewer Sealer or Grouting Sleeve by Link-Pipe, Quick Lock by Pipeline Renewal Technologies, or approved equal.

Construction

Construction for spot liners shall be in accordance with the manufacturer's installation instructions for the particular system being used. Contractor shall verify and monitor placement of spot liner with CCTV camera to ensure proper placement.

Installation of repair sleeve shall not commence until Owner or Engineer's review and approval.

Measurement and Payment

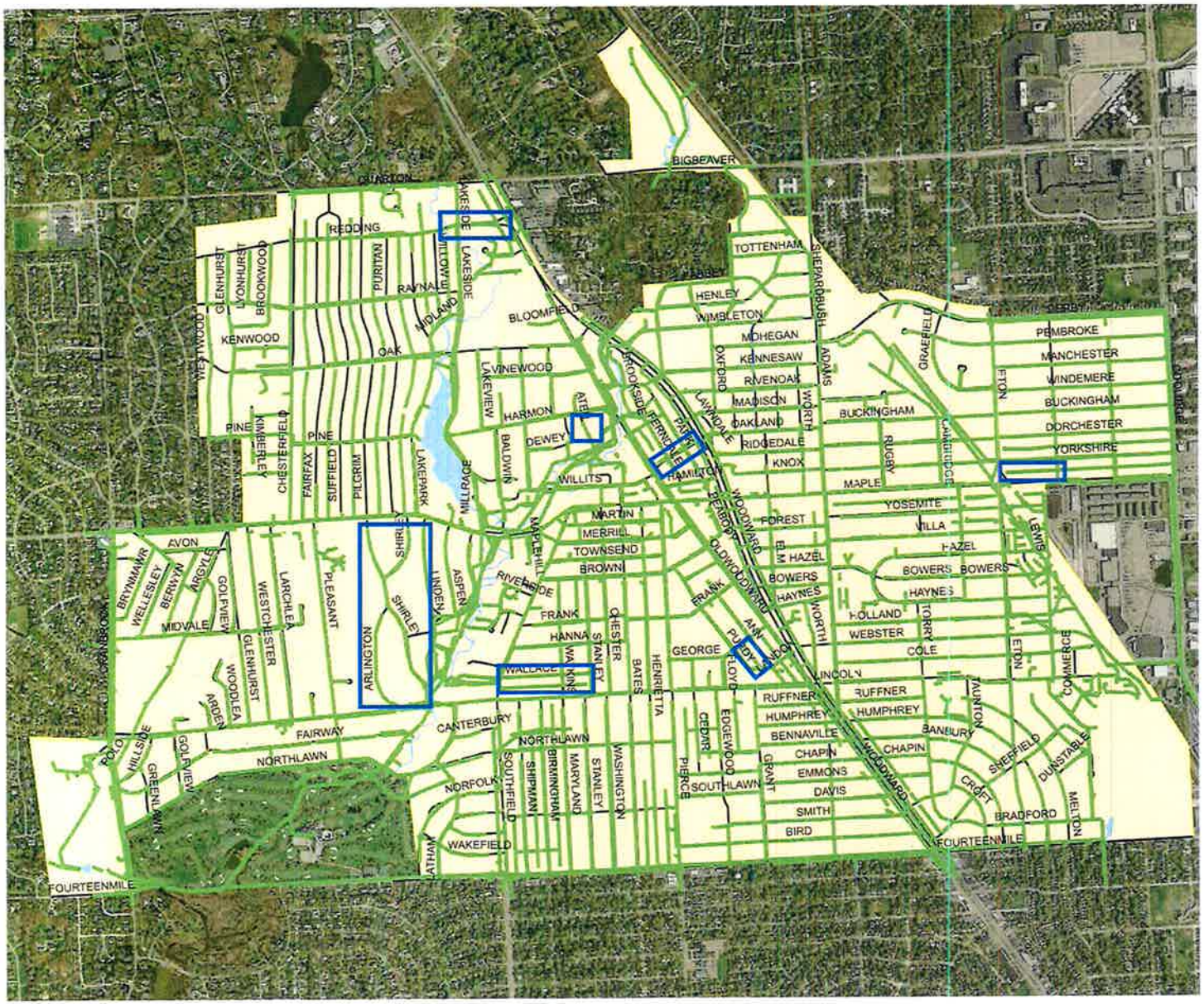
The completed work as measured shall be paid for at the contract unit price for the following contract items (pay items):

Pay Item	Pay Unit
Internal Sewer Repair Sleeve, ___-inch Dia., 24-inch Length, as needed	Each

Payment for **Internal Sewer Repair Sleeve, __-inch Dia., 24-inch Length, as needed** shall include all labor, equipment, and materials required to complete the work described including post installation CCTV inspection. Measurement will be on a each basis for the 24-inch length of the spot liner as installed.

APPENDIX A

PROJECT PLANS



BIRMINGHAM
A WALKABLE CITY

Combined Sewer System Critical Rehabilitation Program

Legend

- City Limits
- City Roads
- Sewer Main
- Project Areas

N

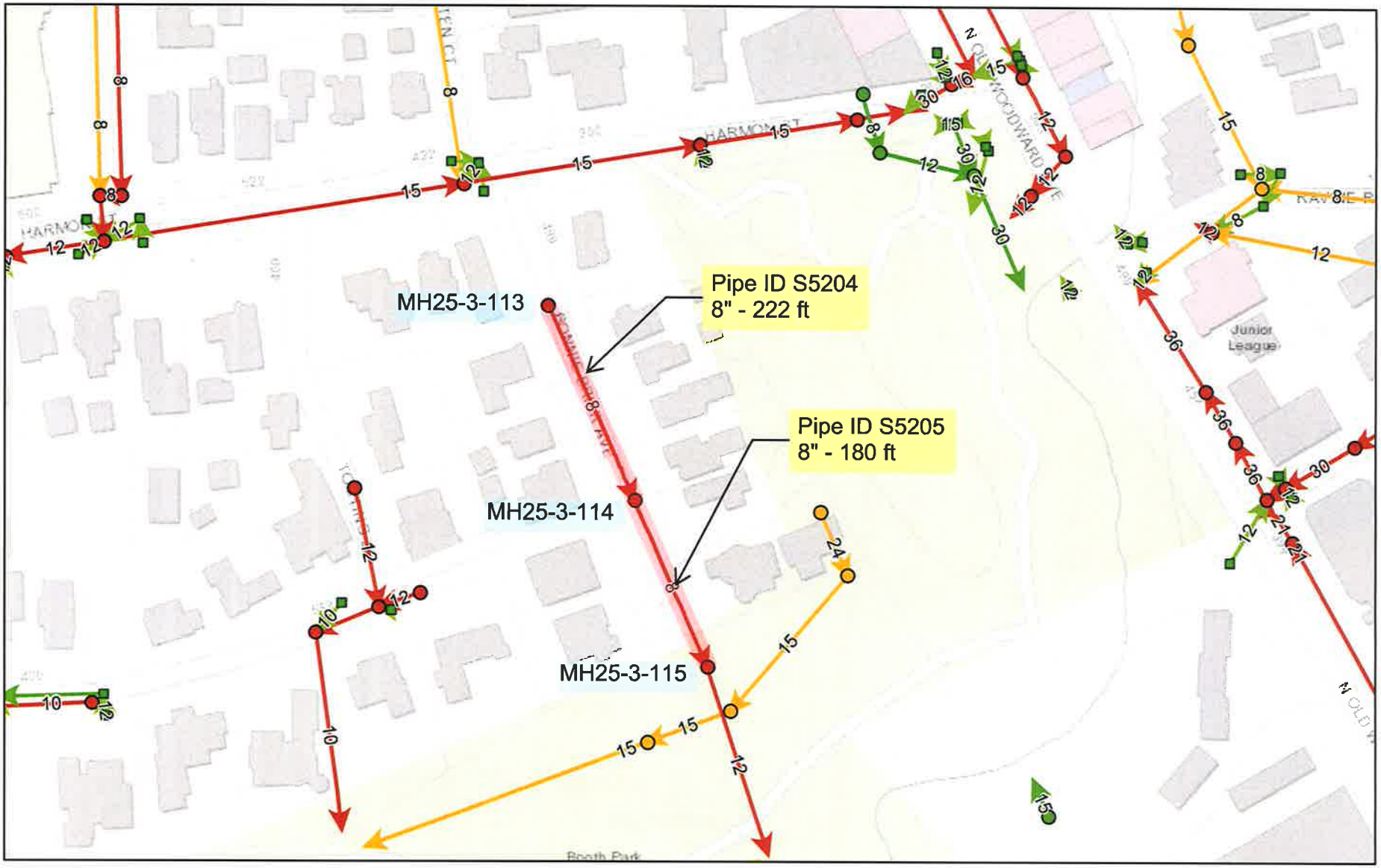
0 1,000 2,000 4,000 Feet

Disclaimer: The information provided by this program has been compiled from recorded deeds, plats, taxmaps, surveys and other public records and data. It is not a legally recorded map or survey.

The data provided hereon may be inaccurate or out of date and any person or entity who relies on said information for any purpose whatsoever does so solely at his or her own risk.

Data Sources: Oakland County GIS Utility, City of Birmingham

Bonnie Brier Sewer System



1/13/2026, 2:40:19 PM

Birmingham-Owned Sewer Inlet
CombinedManhole
Combined
Birmingham-Owned Manhole
Birmingham-Owned Sewer Main
Catch Basin Lead
SanitaryManhole
Storm
StormManhole
Sanitary

1:2,257

0 0.01 0.03 0.05 mi

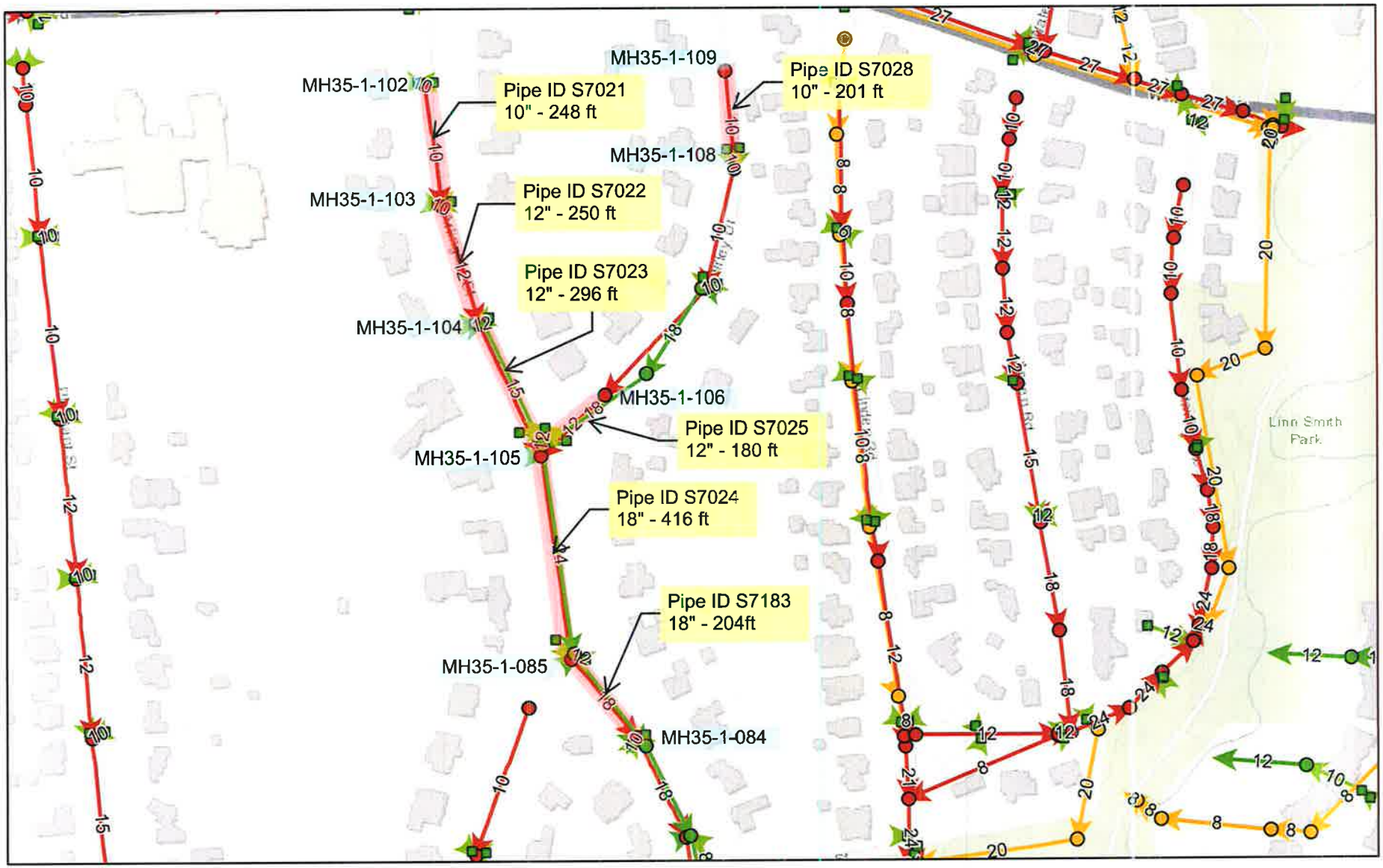
0 0.02 0.04 0.09 km

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

City of Birmingham

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA |

North Arlington Shirley Sewer System



1/13/2026, 3:23:20 PM

Birmingham-Owned Sewer Inlet
Birmingham-Owned Manhole
SanitaryManhole
StormManhole
CombinedManhole
Birmingham-Owned Sewer Main
Storm
Sanitary
Combined
Catch Basin Lead

1:4,514

0 0.03 0.06 0.11 mi

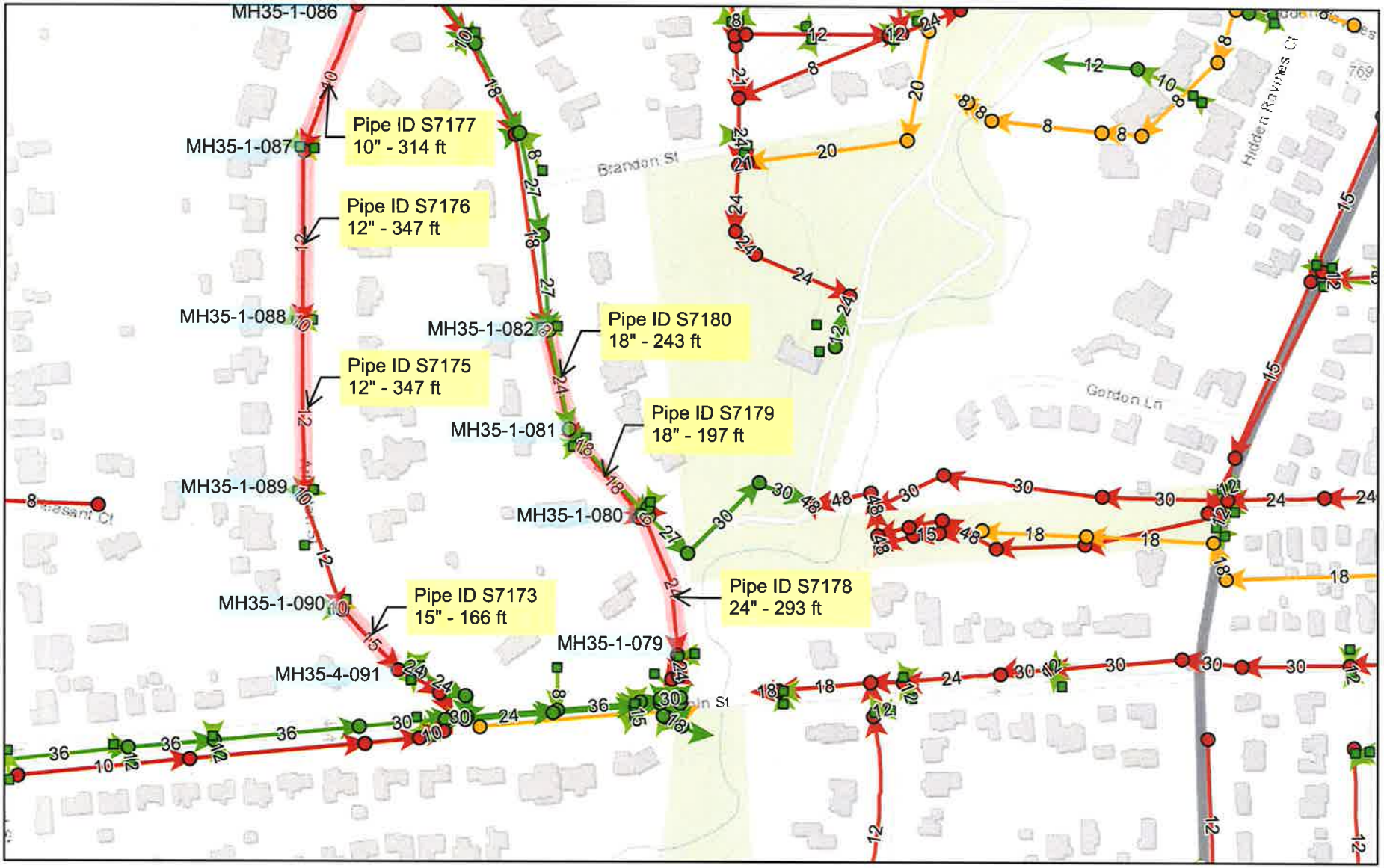
0 0.04 0.09 0.18 km

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

City of Birmingham

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

South Arlington Shirley Sewer System



1/13/2026, 3:21:38 PM

- Birmingham-Owned Sewer Inlet
- Birmingham-Owned Manhole
- SanitaryManhole
- StormManhole
- CombinedManhole
- Birmingham-Owned Sewer Main
- Storm
- Sanitary
- Combined
- Catch Basin Lead

1:4,514

0 0.03 0.06 0.11 mi

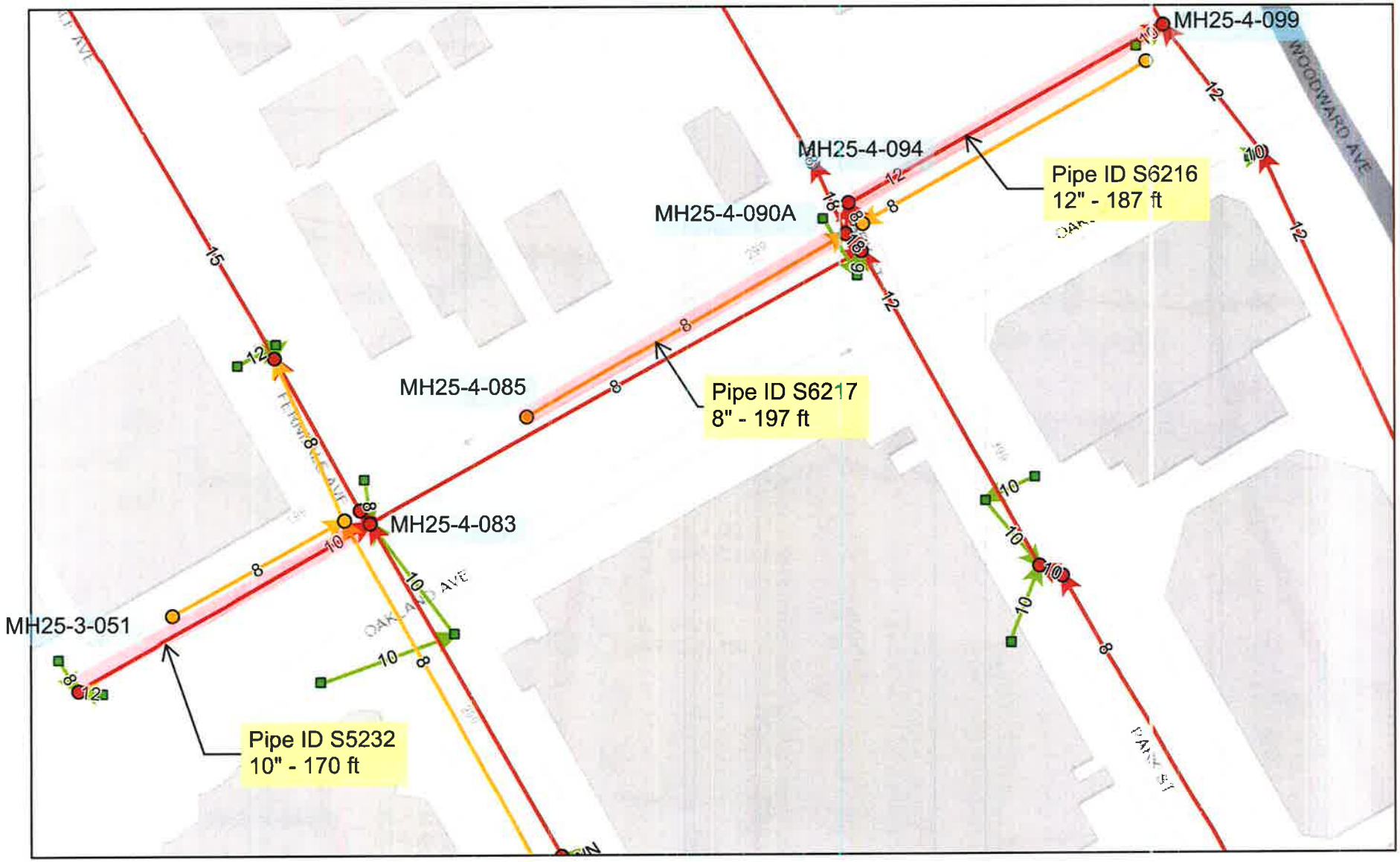
0 0.04 0.09 0.18 km

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

City of Birmingham

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA |

Oakland Sewer System



1/13/2026, 2:43:57 PM

1:1,128

0 0.01 0.01 0.02 mi

0 0.01 0.02 0.04 km

Birmingham-Owned Sewer Inlet

CombinedManhole

Combined

Birmingham-Owned Manhole

Birmingham-Owned Sewer Main

Catch Basin Lead

SanitaryManhole

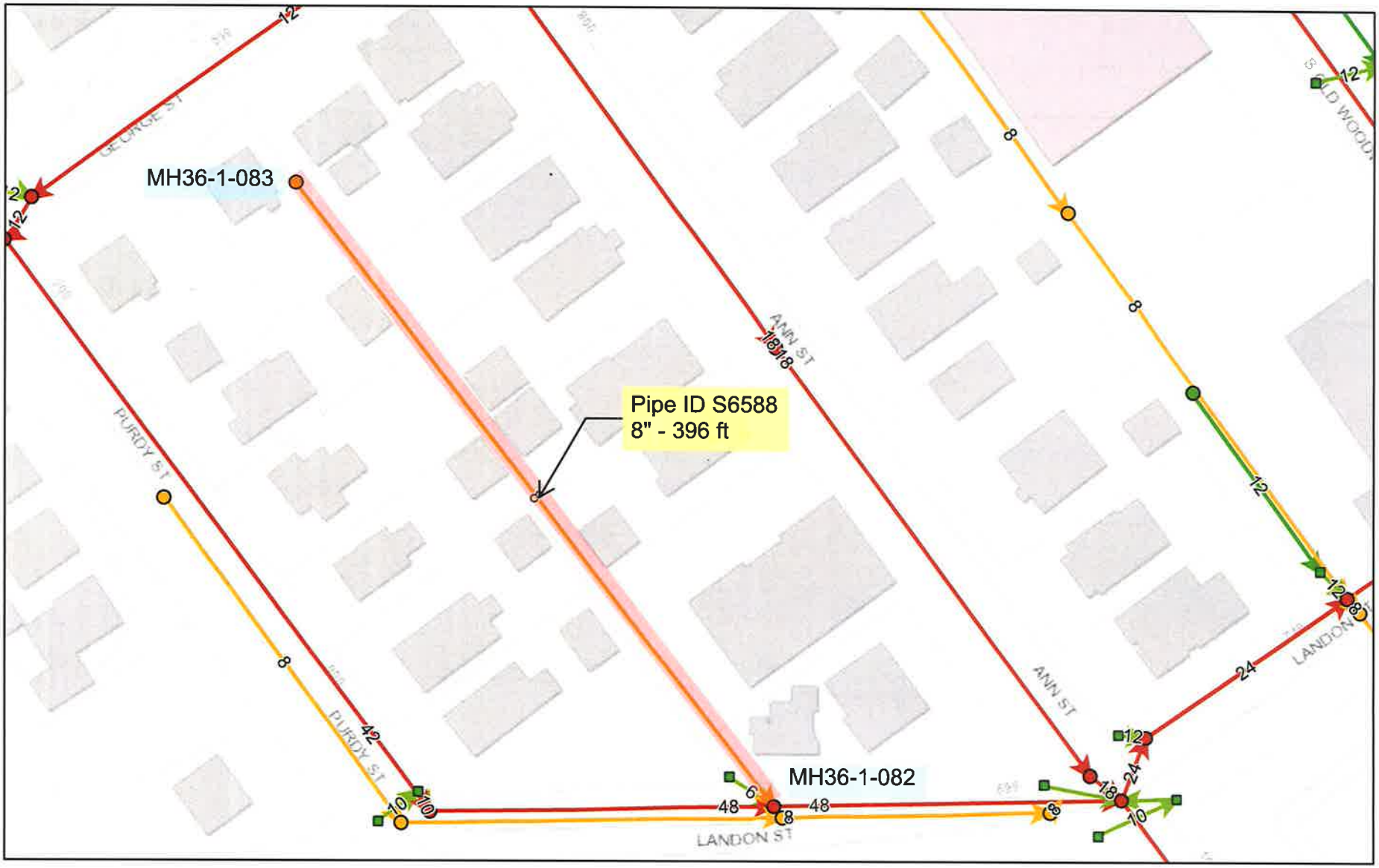
Sanitary

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

City of Birmingham

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

Rear Yard Ann Sewer System



1/13/2026, 3:02:26 PM

Birmingham-Owned Sewer Inlet
Birmingham-Owned Manhole
SanitaryManhole
StormManhole
CombinedManhole
Birmingham-Owned Sewer Main
Storm
Sanitary
Combined
Catch Basin Lead

1:1,128

0 0.01 0.01 0.02 mi

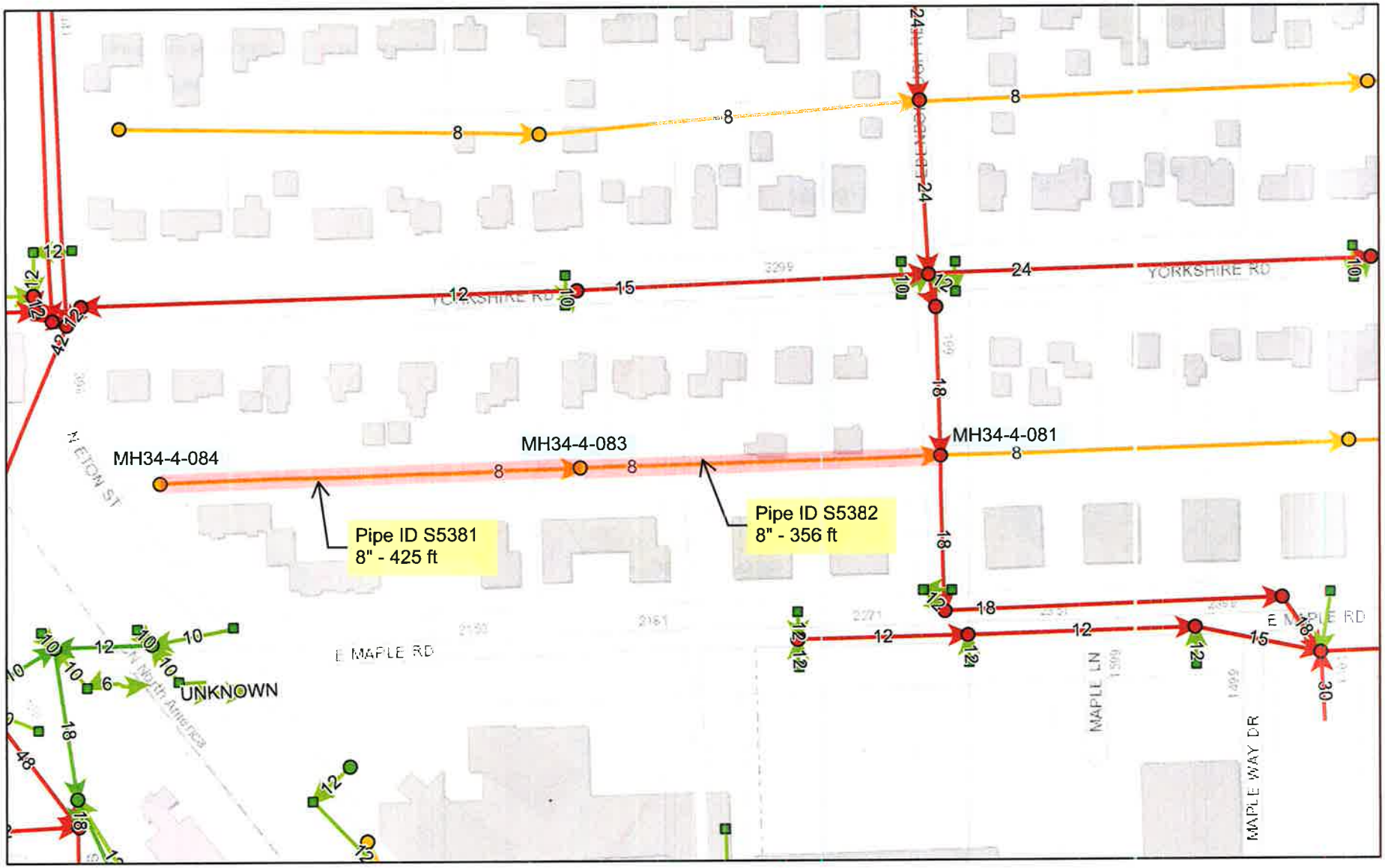
0 0.01 0.02 0.04 km

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

City of Birmingham

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA |

Rear Yard North of Maple Sewer System



1/13/2026, 2 50:14 PM

Birmingham-Owned Sewer Inlet
Birmingham-Owned Manhole
SanitaryManhole
StormManhole
CombinedManhole
Birmingham-Owned Sewer Main
Storm
Sanitary
Combined
Catch Basin Lead

1:2,257

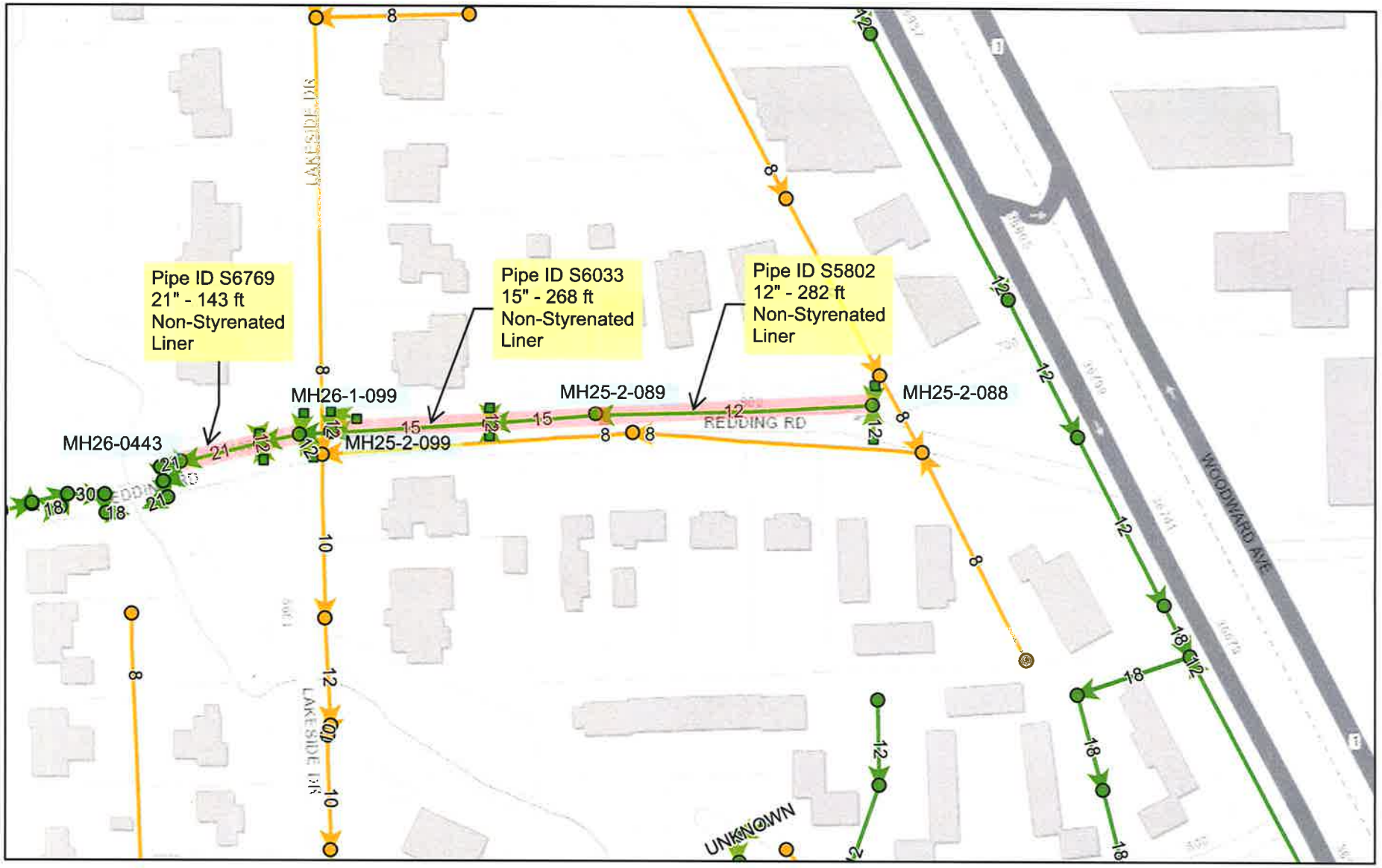
0 0.01 0.03 0.05 mi
0 0.02 0.04 0.09 km

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

City of Birmingham

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

Redding Road Sewer System



1/13/2026, 2:57:39 PM

1:2,257

0 0.01 0.03 0.05 mi

0 0.02 0.04 0.09 km

Birmingham-Owned Sewer Inlet

StormManhole

Sanitary

Birmingham-Owned Manhole

Birmingham-Owned Sewer Main

Catch Basin Lead

SanitaryManhole

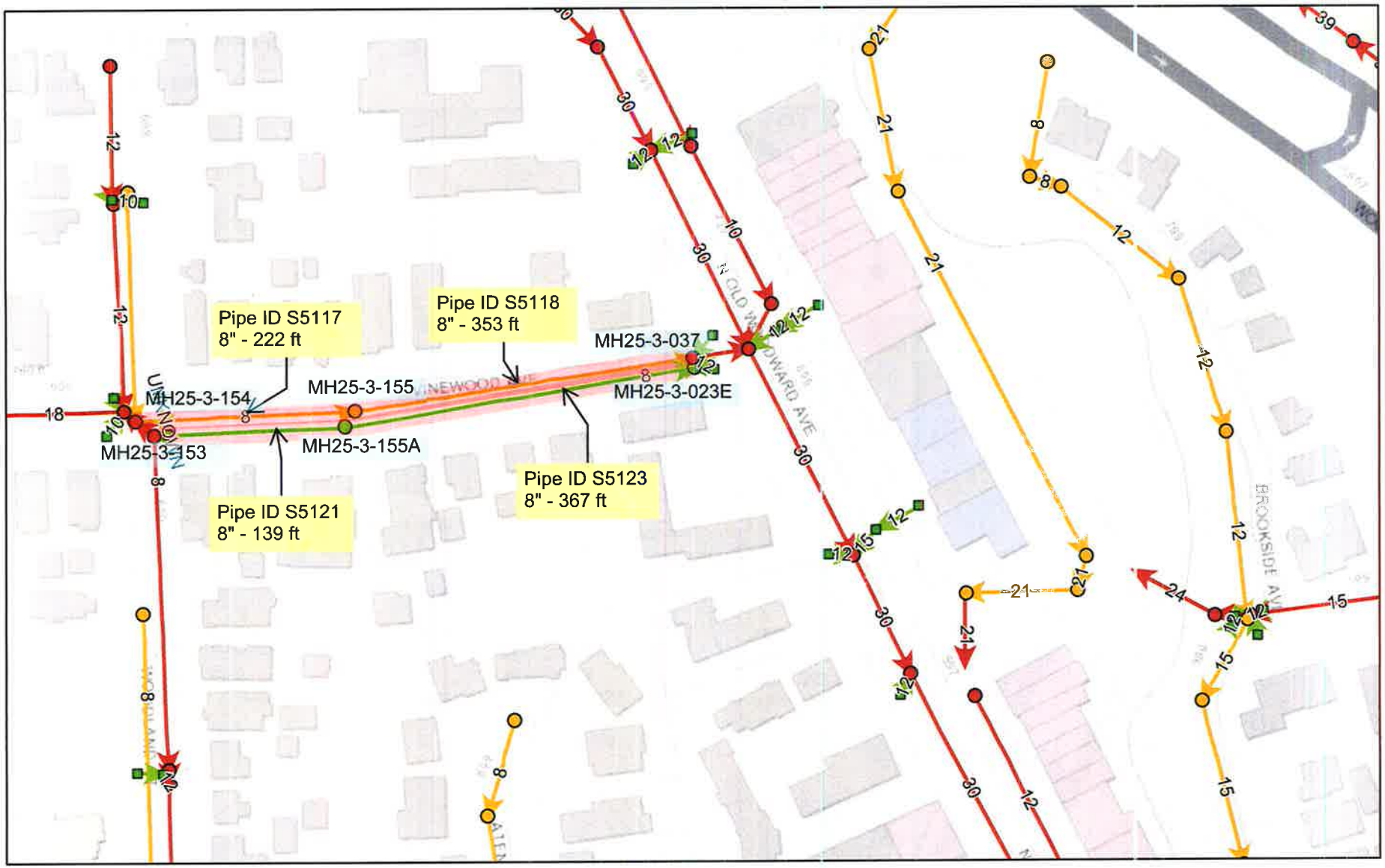
Storm

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

City of Birmingham

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA |

Vinewood Sewer System



1/13/2026, 2:36:32 PM

1:2,257

0 0.01 0.03 0.05 mi

0 0.02 0.04 0.09 km

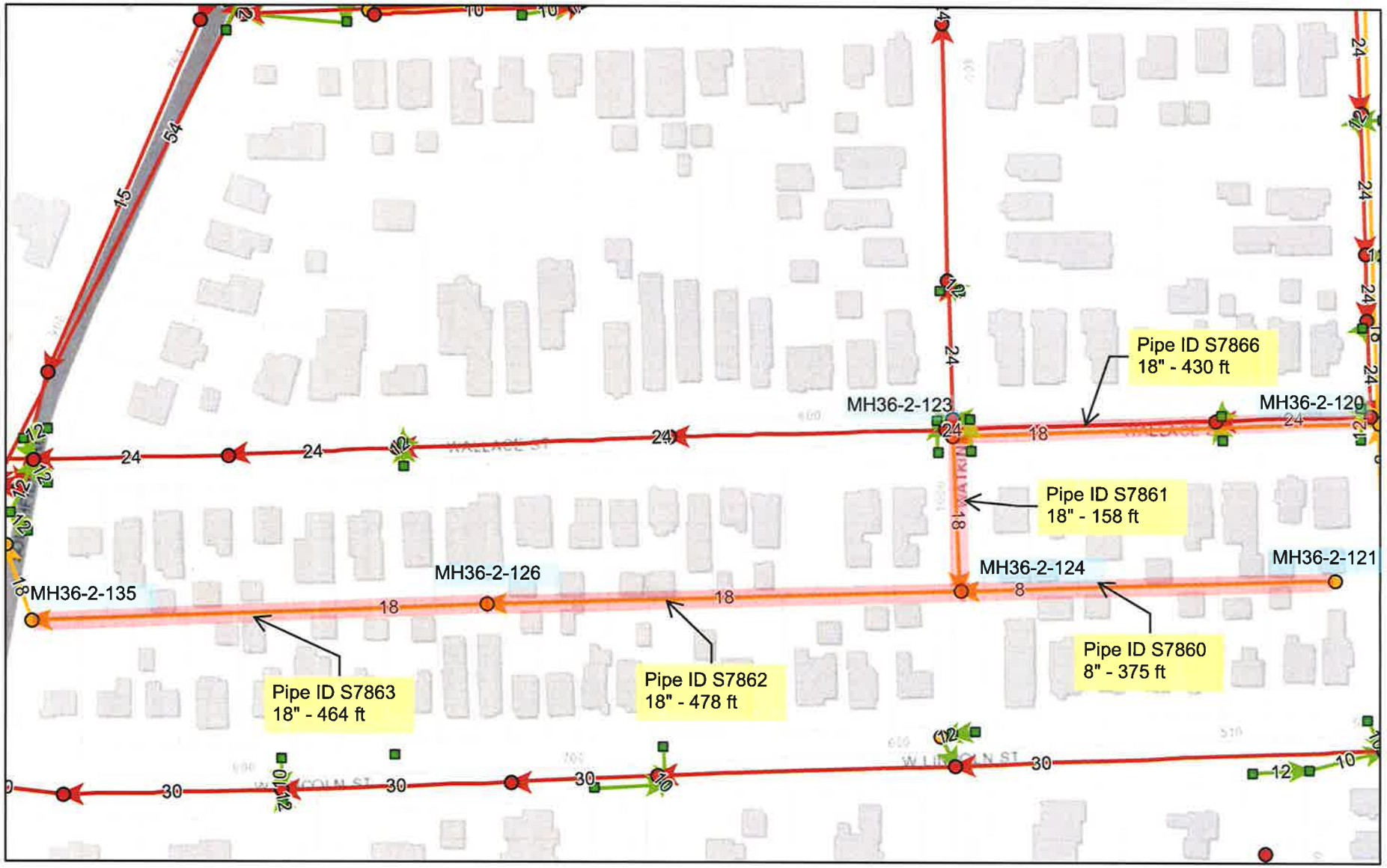
Birmingham-Owned Sewer Inlet
Birmingham-Owned Manhole
SanitaryManhole
StormManhole
CombinedManhole
Birmingham-Owned Sewer Main
Storm
Sanitary
Combined
Catch Basin Lead

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

City of Birmingham

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

Wallace Sewer System



1/13/2026, 3:52:46 PM

1:2,257

0 0.01 0.03 0.05 mi

0 0.02 0.04 0.09 km

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

Birmingham-Owned Sewer Inlet

CombinedManhole

Combined

Birmingham-Owned Manhole

Birmingham-Owned Sewer Main

Catch Basin Lead

SanitaryManhole

Sanitary

City of Birmingham

Oakland County, Michigan, SEMCOG, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA |

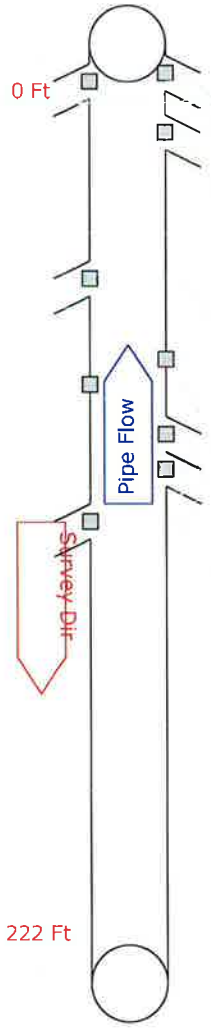
Sewer ID	Type	Dia	Length	Age	Material	Reason	Location	MH Upstream Depth	MH Downstream Depth	CIPP 8"-12"	CIPP 15"-18"	CIPP 21"-27"	Remove Roots	Remove Deposits
S5117	Sanitary	8	222			Vinewood		7.15	7.55	222				
S5118	Sanitary	8	353			Vinewood		7.55	5.50	353				
S5121	Storm	8	139			Vinewood		5.47	6.08	139				
S5123	Storm	8	367			Vinewood		6.47	5.28	367				
S5204	Combined	8	222	1925	Clay	Bonnie Brier		7.10	8.33	222				
S5205	Combined	8	180	1925	Clay	Bonnie Brier		8.61	5.02	180				
S5232	Combined	10	170	UNK	Clay	Oakland Ave		5.39	6.25	170			3	1
S5381	Sanitary	8	425	1948	Clay	Rear Yard Sewer	Rear yard north of E Maple and east of N Eton	6.11	5.70	425				
S5382	Sanitary	8	357	1948	Clay	Rear Yard Sewer	Rear yard north of E Maple and east of N Eton	5.83	6.00	357				
S5802	Storm	12	282	1961	RCP	Redding Project		7.24	5.22	282				
S6033	Storm	15	268	1961	RCP	Redding Project		4.97	3.83		268			
S6216	Combined	12	187	UNK	Clay	Oakland Ave		9.16	11.27	187				
S6217	Sanitary	8	197	1925	Clay	Oakland Ave		6.99	8.61	197				
S6588	Sanitary	8	396	1925	Clay	Ann Street	Rear Yard west of Ann and north of Landon	7.90	7.85	396				
S6769	Storm	21	143	1961	RCP	Redding Project		4.04	12.47			143		
S7021	Combined	10	248	1927	RCP	Arlington/Shirley Project		6.68	7.32	248				
S7022	Combined	12	250	1927	RCP	Arlington/Shirley Project		7.20	6.89	250				
S7023	Combined	12	296	1927	RCP	Arlington/Shirley Project		6.84	10.03	296				
S7024	Combined	18	416	1927	RCP	Arlington/Shirley Project		10.21	8.75		416			
S7025	Combined	12	180	1927	RCP	Arlington/Shirley Project		9.18	9.97	180				
S7028	Combined	10	201	1927	RCP	Arlington/Shirley Project		7.04	6.50	201				
S7183	Combined	18	204	1927	RCP	Arlington/Shirley Project		8.62	8.58		204			
S7173	Combined	15	208	1927	RCP	Arlington/Shirley Project		9.78	5.98		166			
S7175	Combined	12	347	1927	RCP	Arlington/Shirley Project		7.28	7.91	347				
S7176	Combined	12	347	1927	RCP	Arlington/Shirley Project		9.26	7.22	347				
S7177	Combined	10	314	1927	RCP	Arlington/Shirley Project		7.70	9.22	314				
S7178	Combined	24	293	1952	RCP	Arlington/Shirley Project		7.79	5.84			293		
S7179	Combined	18	197	1927	RCP	Arlington/Shirley Project		8.48	8.66		197			
S7180	Combined	18	243	1927	RCP	Arlington/Shirley Project		6.31	8.24		243			
S7860	Sanitary	8	375	1922	Clay	Wallace Street	Rear yard south of Wallace east of Southfield	6.63	8.90	375				
S7861	Sanitary	18	158	1915	Clay	Watkins Street	Watkins south of Wallace	19.48	20.55		158			
S7862	Sanitary	18	478	1915	Clay	Wallace Street	Rear yard south of Wallace east of Southfield	20.56	20.77		478			
S7863	Sanitary	18	464	1915	Clay	Wallace Street	Rear yard south of Wallace east of Southfield	20.75	17.79		464			
S7866	Sanitary	18	430	1915	Clay	Wallace Street	Wallace between Watkins and Stanley	20.05	19.48		430			
										6055	3024	436		

APPENDIX B

CCTV SEWER INSPECTION LOGS

Pipe Graphic Report of PSR S5117 for Birmingham

Setup	202	Surveyor	Gary	Certificate #	U206-3080
System Owner	Birmingham				
Drainage	Map 10	Survey Customer	Birmingham		
P/O #		Date	2018/09/24	Time	10:10
Street	VINEWOOD				
City	Birmingham	Further location details			
Up	MH25-3-154	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH25-3-155	Rim to invert		Grade to invert	Rim to grade Ft
Use	Sanitary	Direction	Upstream	Flow control	Media No S5117
Shape	Circular	Height	8	Width ins	Preclean J
Date Cleaned	2018/09/24				
Material	Vitrified Clay Pipe	Joint length	2.0 Ft	Total length	222.0 Ft
Length Surveyed	113.00 Ft				
Lining		Year laid	1952	Year rehabilitated	Weather Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural O & M Constructional Miscellaneous Hydraulic	
Location	Light Highway				
Project	Birmingham Phase 1			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	



0.0 Ft	Start of Survey Manhole [MH25-3-155] Water Level 5%
7.0 Ft	Tap Factory Active 6.000 09 o'clock
8.9 Ft	Tap Factory Active 6.000 03 o'clock
21.0 Ft	Tap Break-in Active 6.000 10 o'clock [pvc]
55.6 Ft	Tap Factory Active 6.000 03 o'clock
74.7 Ft	Deposits Attached Encrustation 08 to 12 o'clock 005% OM: 2
80.6 Ft	Fracture Circumferential 01 to 03 o'clock ST: 2
92.4 Ft	Tap Break-in Active 6.000 09 o'clock Deposits Attached Encrustation 08 to 10 o'clock 005% OM: 2
100.6 Ft	Tap Factory Active 6.000 09 o'clock
113.0 Ft	Tap Factory Defective 6.000 02 o'clock OM: 2 [mineral deposit] Deposits Attached Encrustation 02 to 05 o'clock 015% OM: 3 Abandoned Survey [mineral deposit @ lateral]

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S5117 for Birmingham

Setup	202	Surveyor Gary	Certificate # U206-3080	System Owner Birmingham	
Drainage	Map 10	Survey Customer Birmingham			
P/O #		Date 2018/09/24	Time 10:10	Street VINEWOOD	
City	Birmingham	Further location details			
Up	MH25-3-154	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH25-3-155	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Sanitary	Direction Up	Flow control	Media No S5117	
Shape	Circular	Height 8 Width	ins Preclean J	Date Cleaned 2018/09/24	
Material	Vitrified Clay Pipe	Joint length 2.00 Ft	Total length 222.0 Ft	Length Surveyed 113.0	Ft
Lining		Year laid 1952	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video		CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0				ST	Start of Survey								
0.0				AMH	Manhole								MH25-3-155
0.0				MWL	Water Level			5					
7.0				TFA	Tap Factory Active	6.000				09			
8.9				TFA	Tap Factory Active	6.000				03			
21.0				TBA	Tap Break-in Active	6.000				10			pvc
55.6				TFA	Tap Factory Active	6.000				03			
74.7				DAE	Deposits Attached Encrustation			5	J	08	12		
80.6				FC	Fracture Circumferential				J	01	03		
92.4				TBA	Tap Break-in Active	6.000				09			
92.4				DAE	Deposits Attached Encrustation			5		08	10		
100.6				TFA	Tap Factory Active	6.000				09			
113.0				TFD	Tap Factory Defective	6.000				02			mineral deposit
113.0				DAE	Deposits Attached Encrustation			15		02	05		
113.0				MSA	Abandoned Survey								mineral deposit @ lateral

113.0 Ft Total Length Surveyed

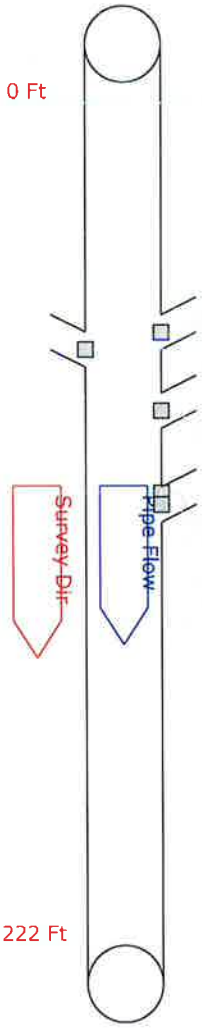
Scores				
	Structural:	Pipe Rating 2	Pipe Ratings Index 2	Quick Rating 2100
	O&M:	Pipe Rating 9	Pipe Ratings Index 2.3	Quick Rating 3123
	Overall	Pipe Rating 11	Pipe Ratings Index 4.3	Quick Rating 3124

Doetsch ENVIRONMENTAL SERVICES

Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S5117R for Birmingham

Setup	204 Surveyor Gary	Certificate #	U206-3080	System Owner	Birmingham
Drainage	Map 10	Survey Customer	Birmingham		
P/O #		Date	2018/09/24 Time 12:07	Street	VINEWOOD
City	Birmingham	Further location details			
Up	MH25-3-154	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH25-3-155	Rim to invert		Grade to invert	Rim to grade Ft
Use	Sanitary	Direction	Downstream	Flow control	Media No S5117R
Shape	Circular	Height 8	Width ins	Preclean J	Date Cleaned 2018/09/24
Material	Vitrified Clay Pipe	Joint length	2.0 Ft	Total length 222.0 Ft	Length Surveyed 109.00 Ft
Lining		Year laid	1952	Year rehabilitated	Weather Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural O & M Constructional Miscellaneous Hydraulic	
Location	Light Highway				
Project	Birmingham Phase 1			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	



0.0 Ft	Start of Survey Manhole [MH25-3-154] Water Level 5%
68.3 Ft	Tap Factory Capped 6.000 09 o'clock
72.3 Ft	Tap Factory Active 6.000 03 o'clock
86.8 Ft	Tap Break-in Active 6.000 09 o'clock
106.2 Ft	Fracture Longitudinal 10 o'clock ST: 3
109.0 Ft	Tap Factory Defective 6.000 10 o'clock OM: 2 [mineral deposit] Deposits Attached Encrustation 07 to 10 o'clock 015% OM: 3 General Observation [point of previous inspection] Abandoned Survey [mineral deposit @ lateral]

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S5117R for Birmingham

Setup	204	Surveyor Gary	Certificate # U206-3080	System Owner Birmingham	
Drainage	Map 10	Survey Customer Birmingham			
P/O #		Date 2018/09/24	Time 12:07	Street VINEWOOD	
City	Birmingham	Further location details			
Up	MH25-3-154	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH25-3-155	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Sanitary	Direction Down	Flow control	Media No S5117R	
Shape	Circular	Height 8 Width	ins Preclean J	Date Cleaned 2018/09/24	
Material	Vitrified Clay Pipe	Joint length 2.00 Ft	Total length 222.0 Ft	Length Surveyed 109.0	Ft
Lining		Year laid 1952	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video		CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0				ST	Start of Survey								
0.0				AMH	Manhole								MH25-3-154
0.0				MWL	Water Level			5					
68.3				TFC	Tap Factory Capped	6.000				09			
72.3				TFA	Tap Factory Active	6.000				03			
86.8				TBA	Tap Break-in Active	6.000				09			
106.2				FL	Fracture Longitudinal				J	10			
109.0				TFD	Tap Factory Defective	6.000				10			mineral deposit
109.0				DAE	Deposits Attached Encrustation			15		07	10		
109.0				MGO	General Observation								point of previous inspection
109.0				MSA	Abandoned Survey								mineral deposit @ lateral

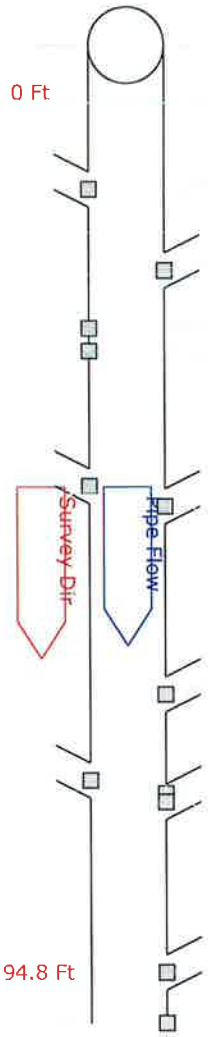
109.0 Ft Total Length Surveyed

Scores				
	Structural:	Pipe Rating 3	Pipe Ratings Index 3	Quick Rating 3100
	O&M:	Pipe Rating 5	Pipe Ratings Index 2.5	Quick Rating 3121
	Overall	Pipe Rating 8	Pipe Ratings Index 5.5	Quick Rating 3221

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S5118 for Birmingham

Setup	203 Surveyor Gary	Certificate #	U206-3080	System Owner	Birmingham
Drainage	Map 10	Survey Customer	Birmingham		
P/O #		Date	2018/09/24 Time 10:49	Street	VINEWOOD
City	Birmingham	Further location details			
Up	MH25-3-155	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH25-3-037	Rim to invert		Grade to invert	Rim to grade Ft
Use	Sanitary	Direction	Downstream	Flow control	Media No S5118
Shape	Circular	Height 8	Width ins	Preclean J	Date Cleaned 2018/09/24
Material	Vitrified Clay Pipe	Joint length	2.0 Ft	Total length 345.0 Ft	Length Surveyed 345.00 Ft
Lining		Year laid 0		Year rehabilitated	Weather Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural O & M Constructional Miscellaneous Hydraulic	
Location	Light Highway				
Project	Birmingham Phase 1			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	

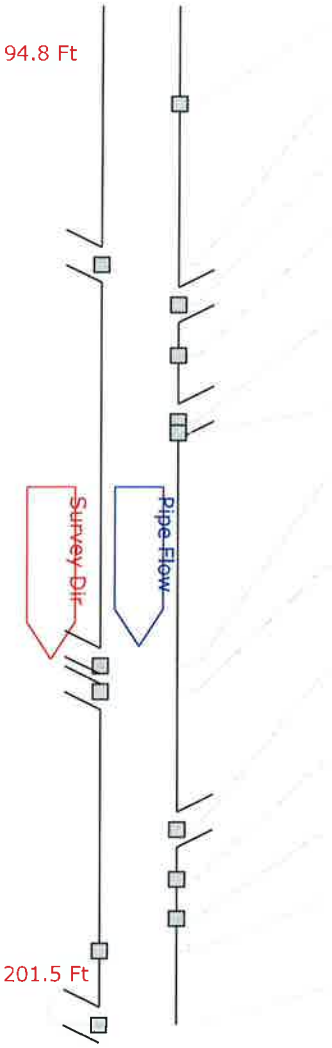


0.0 Ft	Start of Survey Manhole [MH25-3-155] Water Level 5%
14.0 Ft	Tap Factory Active 6.000 02 o'clock
21.9 Ft	Tap Break-in Active 6.000 10 o'clock
27.5 Ft	Fracture Multiple 02 to 03 o'clock ST: 4
29.7 Ft	Crack Longitudinal 05 o'clock ST: 2
42.8 Ft	Tap Break-in Active 6.000 02 o'clock
44.8 Ft	Tap Break-in Active 6.000 09 o'clock Deposits Attached Encrustation 08 to 10 o'clock 005% OM: 2
63.0 Ft	Tap Break-in Intruding 6.000 10 o'clock 1.000 OM: 3
71.3 Ft	Tap Factory Active 6.000 03 o'clock
72.6 Ft	Fracture Multiple 08 to 10 o'clock ST: 4
73.4 Ft	Tap Factory 6.000 09 o'clock Deposits Attached Encrustation 08 to 09 o'clock 005% OM: 2
89.9 Ft	Tap Break-in Active 6.000 09 o'clock
94.8 Ft	Hole 11 o'clock ST: 3

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S5118 for Birmingham

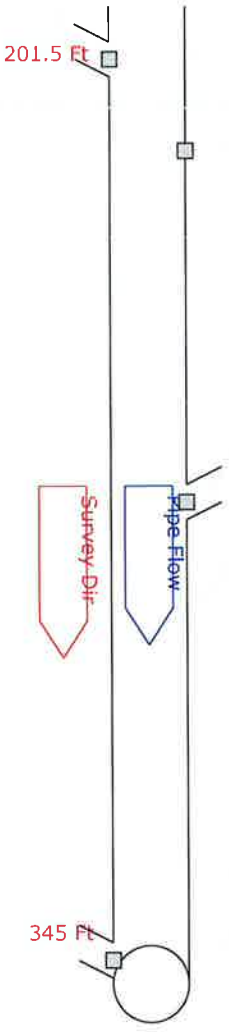
Setup	203 Surveyor Gary	Certificate #	U206-3080	System Owner	Birmingham
Drainage	Map 10	Survey Customer	Birmingham		
P/O #		Date	2018/09/24	Time	10:49
Street	VINEWOOD				
City	Birmingham	Further location details			
Up	MH25-3-155	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH25-3-037	Rim to invert		Grade to invert	Rim to grade Ft
Use	Sanitary	Direction	Downstream	Flow control	Media No S5118
Shape	Circular	Height	8 Width ins	Preclean J	Date Cleaned 2018/09/24
Material	Vitrified Clay Pipe	Joint length	2.0 Ft	Total length 345.0 Ft	Length Surveyed 345.00 Ft
Lining		Year laid	0	Year rehabilitated	Weather Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural O & M Constructional Miscellaneous Hydraulic	
Location	Light Highway				
Project	Birmingham Phase 1			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	



105.1 Ft	Fracture Circumferential 09 to 10 o'clock ST: 2
122.0 Ft	Tap Factory Active 6.000 03 o'clock
126.2 Ft	Tap Factory Active 6.000 09 o'clock
131.5 Ft	Fracture Multiple 12 to 12 o'clock ST: 4
138.4 Ft	Tap Factory Active 6.000 09 o'clock [mineral deposit] Deposits Attached Encrustation 08 o'clock 005% OM: 2
139.6 Ft	Fracture Circumferential 09 to 10 o'clock ST: 2
164.0 Ft	Tap Break-in Intruding 6.000 02 o'clock 1.000 OM: 3
166.7 Ft	Tap Factory 6.000 03 o'clock Deposits Attached Encrustation 03 to 04 o'clock 005% OM: 2
181.1 Ft	Tap Factory Active 6.000 09 o'clock Deposits Attached Encrustation 07 to 09 o'clock 005% OM: 2
186.3 Ft	Fracture Circumferential 12 to 02 o'clock ST: 2
190.4 Ft	Deposits Attached Encrustation 08 to 09 o'clock 005% OM: 2
193.8 Ft	Surface Missing Wall 03 o'clock ST: 5
201.5 Ft	Tap Factory 6.000 03 o'clock Deposits Attached Encrustation 03 to 04 o'clock 005% OM: 2

Pipe Graphic Report of PSR S5118 for Birmingham

Setup	203 Surveyor Gary	Certificate # U206-3080	System Owner Birmingham		
Drainage	Map 10	Survey Customer Birmingham			
P/O #		Date 2018/09/24 Time 10:49	Street VINEWOOD		
City	Birmingham	Further location details			
Up	MH25-3-155	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH25-3-037	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Sanitary	Direction Downstream	Flow control	Media No S5118	
Shape	Circular	Height 8 Width ins	Preclean J	Date Cleaned 2018/09/24	
Material	Vitrified Clay Pipe	Joint length 2.0 Ft	Total length 345.0 Ft	Length Surveyed 345.00 Ft	
Lining		Year laid 0	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info			Structural O & M Constructional Miscellaneous Hydraulic		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		



209.3 Ft	Tap Break-in Active 6.000 03 o'clock
222.8 Ft	Fracture Multiple 09 to 10 o'clock ST: 4
274.4 Ft	Tap Factory Active 6.000 09 o'clock [mineral deposit] Deposits Attached Encrustation 07 to 09 o'clock 005% OM: 2
288.1 Ft	Water Level 010%
313.1 Ft	Water Level 005%
335.0 Ft	Material change [pvc] Alignment Down 030% OM: 4
341.5 Ft	Tap Factory Active 6.000 06 o'clock [drop connection]
345.0 Ft	Manhole [MH25-3-037] End of Survey

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S5118 for Birmingham

Setup	203	Surveyor Gary	Certificate # U206-3080	System Owner Birmingham	
Drainage	Map 10	Survey Customer Birmingham			
P/O #		Date 2018/09/24	Time 10:49	Street VINEWOOD	
City	Birmingham	Further location details			
Up	MH25-3-155	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH25-3-037	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Sanitary	Direction Down	Flow control	Media No S5118	
Shape	Circular	Height 8	Width ins	Preclean J	Date Cleaned 2018/09/24
Material	Vitrified Clay Pipe	Joint length 2.00 Ft	Total length 345.0 Ft	Length Surveyed 345.0	Ft
Lining		Year laid 0	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video		CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0				ST	Start of Survey								
0.0				AMH	Manhole								MH25-3-155
0.0				MWL	Water Level			5					
14.0				TFA	Tap Factory Active	6.000				02			
21.9				TBA	Tap Break-in Active	6.000				10			
27.5				FM	Fracture Multiple				J	02	03		
29.7				CL	Crack Longitudinal				J	05			
42.8				TBA	Tap Break-in Active	6.000				02			
44.8				TBA	Tap Break-in Active	6.000				09			
44.8				DAE	Deposits Attached Encrustation			5		08	10		
63.0				TBI	Tap Break-in Intruding	6.000	1.000			10			
71.3				TFA	Tap Factory Active	6.000				03			
72.6				FM	Fracture Multiple				J	08	10		
73.4				TF	Tap Factory	6.000				09			
73.4				DAE	Deposits Attached Encrustation			5		08	09		
89.9				TBA	Tap Break-in Active	6.000				09			
94.8				H	Hole				J	11			
105.1				FC	Fracture Circumferential				J	09	10		
122.0				TFA	Tap Factory Active	6.000				03			
126.2				TFA	Tap Factory Active	6.000				09			
131.5				FM	Fracture Multiple				J	12	12		
138.4				TFA	Tap Factory Active	6.000				09			mineral deposit
138.4				DAE	Deposits Attached Encrustation			5		08			
139.6				FC	Fracture Circumferential				J	09	10		
164.0				TBI	Tap Break-in Intruding	6.000	1.000			02			
166.7				TF	Tap Factory	6.000				03			
166.7				DAE	Deposits Attached Encrustation			5		03	04		
181.1				TFA	Tap Factory Active	6.000				09			
181.1				DAE	Deposits Attached Encrustation			5		07	09		
186.3				FC	Fracture Circumferential				J	12	02		
190.4				DAE	Deposits Attached Encrustation			5	J	08	09		

Tabular Report of PSR S5118 for Birmingham

Setup	203	Surveyor	Gary	Certificate #	U206-3080	System Owner	Birmingham
Drainage	Map 10	Survey Customer	Birmingham				
P/O #		Date	2018/09/24	Time	10:49	Street	VINEWOOD
City	Birmingham	Further location details					
Up	MH25-3-155	Rim to invert		Grade to invert		Rim to grade	Ft
Down	MH25-3-037	Rim to invert		Grade to invert		Rim to grade	Ft
Use	Sanitary	Direction	Down	Flow control		Media No	S5118
Shape	Circular	Height	8	Width	ins	Preclean	J
Material	Vitrified Clay Pipe	Joint length	2.00 Ft	Total length	345.0 Ft	Length Surveyed	345.0 Ft
Lining		Year laid	0	Year rehabilitated		Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat				Pressure	
Additional info						Structural / O & M / Constructional / Miscellaneous	
Location	Light Highway						
Project	Birmingham Phase 1					Work Order	
Northing		Easting				Elevation	
Coordinate System						GPS Accuracy	

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
193.8			SMW	Surface Missing Wall					03			
201.5			TF	Tap Factory	6.000				03			
201.5			DAE	Deposits Attached Encrustation			5		03	04		
209.3			TBA	Tap Break-In Active	6.000				03			
222.8			FM	Fracture Multiple				J	09	10		
274.4			TFA	Tap Factory Active	6.000				09			mineral deposit
274.4			DAE	Deposits Attached Encrustation			5		07	09		
288.1			MWL	Water Level			10					
313.1			MWL	Water Level			5					
335.0			MMC	Material change								pvc
335.0			LD	Alignment Down			30					
341.5			TFA	Tap Factory Active	6.000				06			drop connection
345.0			AMH	Manhole								MH25-3-037
345.0			FH	End of Survey								

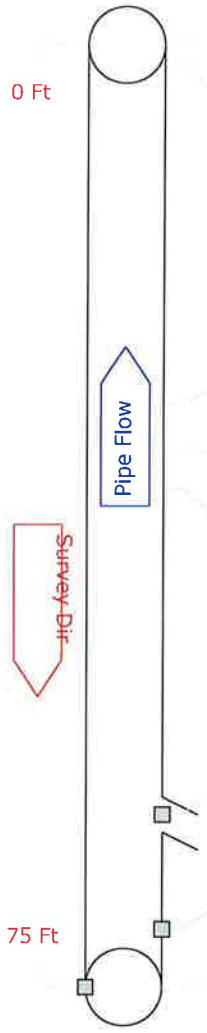
345.0 Ft Total Length Surveyed

Scores

Structural:	Pipe Rating 32	Pipe Ratings Index 3.2	Quick Rating 5144
O&M:	Pipe Rating 26	Pipe Ratings Index 2.4	Quick Rating 4132
Overall	Pipe Rating 58	Pipe Ratings Index 5.6	Quick Rating 5145

Pipe Graphic Report of PSR S5121 for Birmingham

Setup	207 Surveyor Gary	Certificate #	U206-3080	System Owner	Birmingham
Drainage	Map 10	Survey Customer	Birmingham		
P/O #		Date	2018/09/24	Time	14:14
Street	VINEWOOD				
City	Birmingham	Further location details			
Up	MH25-3-152	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH25-3-153	Rim to invert		Grade to invert	Rim to grade Ft
Use	Stormwater	Direction	Upstream	Flow control	Media No S5121
Shape	Circular	Height	8 Width ins	Preclean J	Date Cleaned 2018/09/24
Material	Vitrified Clay Pipe	Joint length	2.0 Ft	Total length Ft	Length Surveyed 75.00 Ft
Lining		Year laid	1952	Year rehabilitated	Weather Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural O & M Constructional Miscellaneous Hydraulic	
Location	Light Highway				
Project	Birmingham Phase 1			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	



0.0 Ft	Start of Survey Manhole [MH25-3-153] Water Level 5%
1.0 Ft	Alignment Right 015% OM: 2
28.6 Ft	Water Level 010%
32.1 Ft	Water Level 015%
35.3 Ft	Water Level 025%
61.3 Ft	Tap Factory Capped 6.000 09 o'clock
70.4 Ft	Roots Fine Joint 08 to 04 o'clock OM: 1
75.0 Ft	Deposits Settled Compacted 06 o'clock 015% OM: 3 Abandoned Survey [deposits settled]

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S5121 for Birmingham

Setup	207	Surveyor Gary	Certificate # U206-3080	System Owner Birmingham	
Drainage	Map 10	Survey Customer Birmingham			
P/O #		Date 2018/09/24	Time 14:14	Street VINEWOOD	
City	Birmingham	Further location details			
Up	MH25-3-152	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH25-3-153	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Stormwater	Direction Up	Flow control	Media No S5121	
Shape	Circular	Height 8	Width ins	Preclean J	Date Cleaned 2018/09/24
Material	Vitrified Clay Pipe	Joint length 2.00Ft	Total length Ft	Length Surveyed 75.0	Ft
Lining		Year laid 1952	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video		CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0				ST	Start of Survey								
0.0				AMH	Manhole								MH25-3-153
0.0				MWL	Water Level			5					
1.0				LR	Alignment Right			15					
28.6				MWL	Water Level			10					
32.1				MWL	Water Level			15					
35.3				MWL	Water Level			25					
61.3				TFC	Tap Factory Capped	6.000				09			
70.4				RFJ	Roots Fine Joint				J	08	04		
75.0				DSC	Deposits Settled Compacted			15		06			
75.0				MSA	Abandoned Survey								deposits settled

75.0 Ft Total Length Surveyed

Scores

Structural:	Pipe Rating 0	Pipe Ratings Index 0	Quick Rating 0000
O&M:	Pipe Rating 6	Pipe Ratings Index 2	Quick Rating 3121
Overall	Pipe Rating 6	Pipe Ratings Index 2	Quick Rating 3121

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

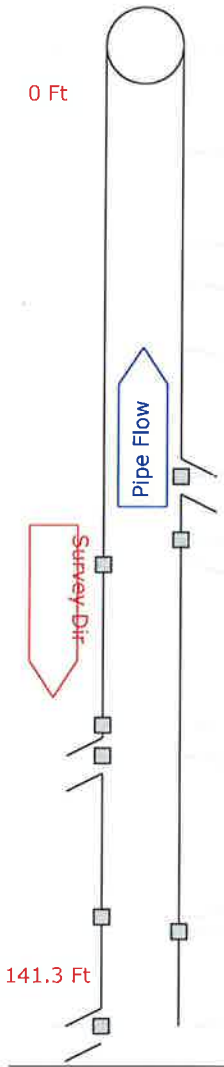
Pipe Graphic Report of PSR S5121H for Birmingham

Setup	346 Surveyor Gary	Certificate #	U206-3080	System Owner	Birmingham
Drainage	Map 10	Survey Customer	Birmingham		
P/O #		Date	2018/11/07	Time	12:42
Street	VINEWOOD				
City	Birmingham	Further location details			

Up	MH25-3-155A	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH25-3-153	Rim to invert		Grade to invert	Rim to grade Ft

Use	Stormwater	Direction	Upstream	Flow control	Media No S5121H
Shape	Circular	Height	8 Width	ins Preclean H	Date Cleaned 2018/11/07
Material	Vitrified Clay Pipe	Joint length	2.0 Ft	Total length 194.0 Ft	Length Surveyed 194.00 Ft
Lining		Year laid	1951	Year rehabilitated	Weather Dry
Purpose	Pre-Rehabilitation Survey	Cat			

Additional info		Structural	O & M Constructional
Location	Light Highway	Miscellaneous	Hydraulic
Project	Birmingham Phase 1		Work Order
Northing	Easting		Elevation
Coordinate System			GPS Accuracy

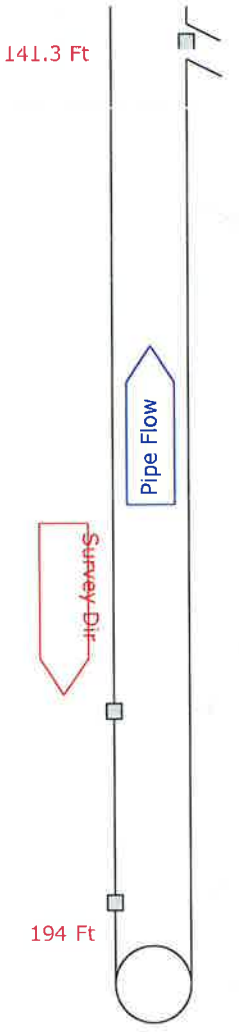


0.0 Ft	Start of Survey Manhole [MH25-3-153] Water Level 5%
15.4 Ft	Alignment Right 015% OM: 2
28.8 Ft	Water Level 015%
34.3 Ft	Water Level Sag 030% ST: 2
44.0 Ft	Water Level 015%
62.2 Ft	Tap Factory Capped 6.000 09 o'clock
71.3 Ft	Roots Fine Joint 08 to 04 o'clock OM: 1
74.9 Ft	Obstacle Rocks 06 o'clock 005% OM: 2
98.0 Ft	Deposits Settled Fine 06 o'clock 010% OM: 2 General Observation [broken up concrete slurry pices visible ahead]
102.4 Ft	Tap Factory Active 6.000 03 o'clock
125.6 Ft	Hole 05 o'clock ST: 3
127.7 Ft	Roots Tap Joint 08 o'clock 005% OM: 2
141.3 Ft	Tap Break-in Active 6.000 03 o'clock

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S5121H for Birmingham

Setup	346 Surveyor Gary	Certificate # U206-3080	System Owner Birmingham		
Drainage	Map 10	Survey Customer Birmingham			
P/O #		Date 2018/11/07	Time 12:42	Street VINEWOOD	
City	Birmingham	Further location details			
Up	MH25-3-155A	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH25-3-153	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Stormwater	Direction Upstream	Flow control	Media No S5121H	
Shape	Circular	Height 8 Width	ins Preclean H	Date Cleaned 2018/11/07	
Material	Vitrified Clay Pipe	Joint length 2.0 Ft	Total length 194.0 Ft	Length Surveyed 194.00 Ft	
Lining		Year laid 1951	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info			Structural O & M Constructional Miscellaneous Hydraulic		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		



143.2 Ft	Tap Factory Defective 6.000 12 o'clock OM: 2 [broken/ void visible] Hole Void Visible 12 o'clock ST: 5
152.0 Ft	General Observation [MH25-3-152 does not exist]
179.3 Ft	Roots Tap Joint 01 o'clock 005% OM: 2
189.6 Ft	Broken Soil Visible 04 to 08 o'clock ST: 5
194.0 Ft	Manhole [MH25-3-155A] End of Survey

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S5121H for Birmingham

Setup	346	Surveyor Gary	Certificate # U206-3080	System Owner Birmingham	
Drainage	Map 10	Survey Customer Birmingham			
P/O #		Date 2018/11/07	Time 12:42	Street VINEWOOD	
City	Birmingham	Further location details			
Up	MH25-3-155A	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH25-3-153	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Stormwater	Direction Up	Flow control	Media No S5121H	
Shape	Circular	Height 8	Width ins	Preclean H	Date Cleaned 2018/11/07
Material	Vitrified Clay Pipe	Joint length 2.00 Ft	Total length 194.0 Ft	Length Surveyed 194.0	Ft
Lining		Year laid 1951	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video		CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0				ST	Start of Survey								
0.0				AMH	Manhole								MH25-3-153
0.0				MWL	Water Level			5					
15.4				LR	Alignment Right			15					
28.8				MWL	Water Level			15					
34.3				MWLS	Water Level Sag			30					
44.0				MWL	Water Level			15					
62.2				TFC	Tap Factory Capped	6.000				09			
71.3				RFJ	Roots Fine Joint				J	08	04		
74.9				OBR	Obstacle Rocks			5		06			
98.0				DSF	Deposits Settled Fine			10		06			
98.0				MGO	General Observation								broken up concrete slurry pic...
102.4				TFA	Tap Factory Active	6.000				03			
125.6				H	Hole				J	05			
127.7				RTJ	Roots Tap Joint			5	J	08			
141.3				TBA	Tap Break-in Active	6.000				03			
143.2				TFD	Tap Factory Defective	6.000				12			broken/ void visible
143.2				HVV	Hole Void Visible					12			
152.0				MGO	General Observation								MH25-3-152 does not exist
179.3				RTJ	Roots Tap Joint			5	J	01			
189.6				BSV	Broken Soil Visible				J	04	08		
194.0				AMH	Manhole								MH25-3-155A
194.0				FH	End of Survey								

194.0 Ft Total Length Surveyed

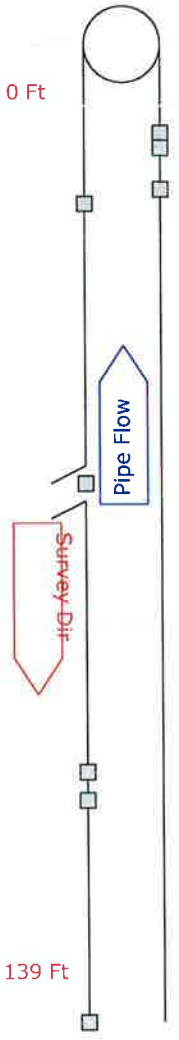
Scores

Structural:	Pipe Rating 15	Pipe Ratings Index 3.8	Quick Rating 5231
O&M:	Pipe Rating 13	Pipe Ratings Index 1.9	Quick Rating 2611
Overall	Pipe Rating 28	Pipe Ratings Index 5.7	Quick Rating 5231

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S5123 for Birmingham

Setup	210 Surveyor Gary	Certificate #	U206-3080	System Owner	Birmingham
Drainage	Map 10	Survey Customer	Birmingham		
P/O #		Date 2018/09/25	Time 7:55	Street	VINEWOOD
City	Birmingham	Further location details			
Up	MH25-3-155A	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH25-3-023E	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Stormwater	Direction Upstream	Flow control	Media No	S5123
Shape	Circular	Height 8 Width	ins Preclean J	Date Cleaned	2018/09/25
Material	Polyvinyl Chloride	Joint length 2.0 Ft	Total length 367.0 Ft	Length Surveyed	206.00 Ft
Lining		Year laid 0	Year rehabilitated	Weather	Light Rain
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info			Structural O & M Constructional Miscellaneous Hydraulic		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

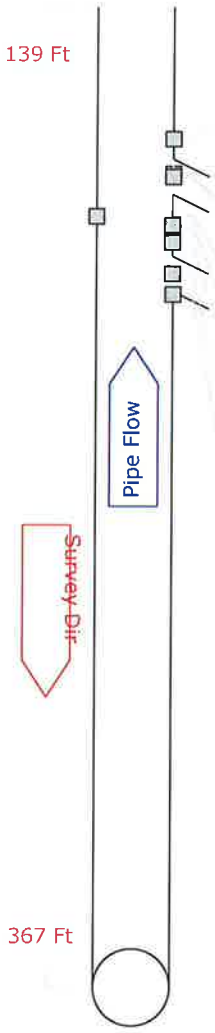


0.0 Ft	Start of Survey Manhole [MH25-3-023E] Water Level 5%
8.0 Ft	Joint Offset Medium ST: 1 Material change [vcp]
11.2 Ft	General Observation [got camera past offset]
12.7 Ft	Roots Fine Joint 08 to 04 o'clock OM: 1
14.8 Ft	Roots Fine Joint 08 to 04 o'clock OM: 1
20.7 Ft	Roots Fine Joint 08 to 04 o'clock OM: 1
22.7 Ft	Roots Tap Joint 03 o'clock 005% OM: 2
62.5 Ft	Tap Factory Active 6.000 03 o'clock
103.5 Ft	Deposits Attached Encrustation 02 to 04 o'clock 005% OM: 2
107.5 Ft	Deposits Attached Encrustation 02 to 04 o'clock 005% OM: 2
135.0 Ft	Joint Offset Medium ST: 1 Material change [pvc]
139.0 Ft	Material change [vcp] Crack Longitudinal 04 o'clock ST: 2

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S5123 for Birmingham

Setup	210 Surveyor Gary	Certificate #	U206-3080	System Owner	Birmingham
Drainage	Map 10	Survey Customer	Birmingham		
P/O #		Date	2018/09/25 Time 7:55	Street	VINEWOOD
City	Birmingham	Further location details			
Up	MH25-3-155A	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH25-3-023E	Rim to invert		Grade to invert	Rim to grade Ft
Use	Stormwater	Direction	Upstream	Flow control	Media No S5123
Shape	Circular	Height 8	Width ins	Preclean J	Date Cleaned 2018/09/25
Material	Polyvinyl Chloride	Joint length	2.0 Ft	Total length 367.0 Ft	Length Surveyed 206.00 Ft
Lining		Year laid 0		Year rehabilitated	Weather Light Rain
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural O & M Constructional Miscellaneous Hydraulic	
Location	Light Highway				
Project	Birmingham Phase 1			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	



169.8 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2 Infil Weeper 08 to 04 o'clock OM: 2
177.9 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2
178.6 Ft	Tap Break-in Active 6.000 10 o'clock [pvc]
187.8 Ft	Roots Fine Joint 03 to 04 o'clock OM: 1
189.9 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2
193.9 Ft	Roots Fine Joint 08 to 04 o'clock OM: 1 [S01]
201.2 Ft	Tap Break-in Active 6.000 09 o'clock
206.0 Ft	Roots Medium Joint 08 to 04 o'clock 035% OM: 3 General Observation [rootball visible ahead] Roots Fine Joint 08 to 04 o'clock OM: 1 [F01] Abandoned Survey [roots]

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S5123 for Birmingham

Setup	210	Surveyor Gary	Certificate # U206-3080	System Owner Birmingham	
Drainage	Map 10	Survey Customer Birmingham			
P/O #		Date 2018/09/25	Time 7:55	Street VINEWOOD	
City	Birmingham	Further location details			
Up	MH25-3-155A	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH25-3-023E	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Stormwater	Direction Up	Flow control	Media No S5123	
Shape	Circular	Height 8	Width ins	Preclean J	Date Cleaned 2018/09/25
Material	Polyvinyl Chloride	Joint length 2.00 Ft	Total length 367.0 Ft	Length Surveyed 206.0	Ft
Lining		Year laid 0	Year rehabilitated	Weather Light Rain	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST	Start of Survey								
0.0			AMH	Manhole								MH25-3-023E
0.0			MWL	Water Level			5					
8.0			JOM	Joint Offset Medium								
8.0			MMC	Material change								vcp
11.2			MGO	General Observation								got camera past offset
12.7			RFJ	Roots Fine Joint				J	08	04		
14.8			RFJ	Roots Fine Joint				J	08	04		
20.7			RFJ	Roots Fine Joint				J	08	04		
22.7			RTJ	Roots Tap Joint			5	J	03			
62.5			TFA	Tap Factory Active	6.000				03			
103.5			DAE	Deposits Attached Encrustation			5	J	02	04		
107.5			DAE	Deposits Attached Encrustation			5	J	02	04		
135.0			JOM	Joint Offset Medium								
135.0			MMC	Material change								pvc
139.0			MMC	Material change								vcp
139.0			CL	Crack Longitudinal				J	04			
169.8			DAE	Deposits Attached Encrustation			5	J	08	04		
169.8			IW	Infil Weeper				J	08	04		
177.9			DAE	Deposits Attached Encrustation			5	J	08	04		
178.6			TBA	Tap Break-in Active	6.000				10			pvc
187.8			RFJ	Roots Fine Joint				J	03	04		
189.9			DAE	Deposits Attached Encrustation			5	J	08	04		
193.9		S01	RFJ	Roots Fine Joint				J	08	04		
201.2			TBA	Tap Break-in Active	6.000				09			
206.0			RMJ	Roots Medium Joint			35	J	08	04		
206.0			MGO	General Observation								rootball visible ahead
206.0		F01	RFJ	Roots Fine Joint				J	08	04		
206.0			MSA	Abandoned Survey								roots

206.0 Ft Total Length Surveyed

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S5123 for Birmingham

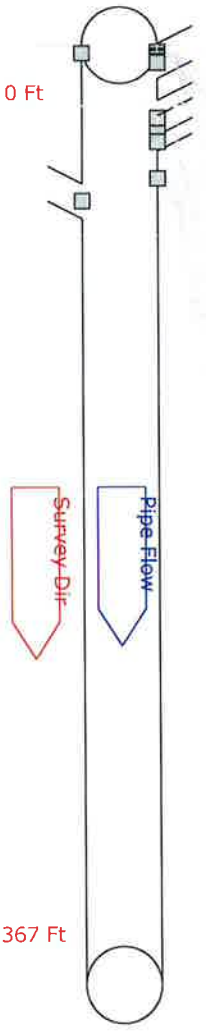
Setup 210	Surveyor Gary	Certificate # U206-3080	System Owner Birmingham	
Drainage Map 10		Survey Customer Birmingham		
P/O #	Date 2018/09/25	Time 7:55	Street VINEWOOD	
City Birmingham		Further location details		
Up MH25-3-155A		Rim to invert	Grade to invert	Rim to grade Ft
Down MH25-3-023E		Rim to invert	Grade to invert	Rim to grade Ft
Use Stormwater		Direction Up	Flow control	Media No S5123
Shape Circular		Height 8 Width ins	Preclean J	Date Cleaned 2018/09/25
Material Polyvinyl Chloride		Joint length 2.00 Ft	Total length 367.0 Ft	Length Surveyed 206.0 Ft
Lining		Year laid 0	Year rehabilitated	Weather Light Rain
Purpose Pre-Rehabilitation Survey		Cat		Pressure
Additional info			Structural O & M Constructional Miscellaneous	
Location Light Highway				
Project Birmingham Phase 1			Work Order	
Northing		Easting	Elevation	
Coordinate System			GPS Accuracy	

Scores

Structural:	Pipe Rating 4	Pipe Ratings Index 1.3	Quick Rating 2112
O&M:	Pipe Rating 23	Pipe Ratings Index 1.6	Quick Rating 3127
Overall	Pipe Rating 27	Pipe Ratings Index 2.9	Quick Rating 3128

Pipe Graphic Report of PSR S5123H for Birmingham

Setup	347 Surveyor Gary	Certificate # U206-3080	System Owner Birmingham		
Drainage	Map 10	Survey Customer Birmingham			
P/O #		Date 2018/11/07 Time 13:34	Street VINEWOOD		
City	Birmingham	Further location details			
Up	MH25-3-155A	Rim to Invert	Grade to invert	Rim to grade	Ft
Down	MH25-3-023E	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Stormwater	Direction Downstream	Flow control	Media No S5123H	
Shape	Circular	Height 8 Width	ins Preclean H	Date Cleaned 2018/11/07	
Material	Vitrified Clay Pipe	Joint length 2.0 Ft	Total length 367.0 Ft	Length Surveyed 61.00	Ft
Lining		Year laid 1951	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info			Structural O & M Constructional Miscellaneous Hydraulic		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		



0.0 Ft	Start of Survey Manhole [MH25-3-155A] Water Level 5%
2.8 Ft	Fracture Multiple 12 to 12 o'clock ST: 4
3.1 Ft	Broken 05 to 07 o'clock ST: 5
4.5 Ft	Obstacle Intruding Thru Wall 10 to 02 o'clock 005% OM: 2
5.1 Ft	Fracture Multiple 10 to 02 o'clock ST: 4
6.3 Ft	Tap Factory Active 6.000 12 o'clock
6.9 Ft	Crack Multiple 08 to 04 o'clock ST: 3
28.5 Ft	Tap Factory Active 6.000 12 o'clock
34.6 Ft	Tap Break-in Active 6.000 10 o'clock
37.9 Ft	Crack Multiple 12 to 12 o'clock ST: 3
52.2 Ft	Crack Multiple 10 to 12 o'clock ST: 3
56.7 Ft	Water Level Sag 020% ST: 2
61.0 Ft	Tap Break-in Intruding 6.000 03 o'clock 5.000 OM: 5 [pvc pipe] Abandoned Survey [intruding lateral]

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S5123H for Birmingham

Setup	347	Surveyor Gary	Certificate # U206-3080	System Owner Birmingham	
Drainage	Map 10	Survey Customer Birmingham			
P/O #		Date 2018/11/07	Time 13:34	Street VINEWOOD	
City	Birmingham	Further location details			
Up	MH25-3-155A	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH25-3-023E	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Stormwater	Direction Down	Flow control	Media No S5123H	
Shape	Circular	Height 8	Width ins	Preclean H	Date Cleaned 2018/11/07
Material	Vitrified Clay Pipe	Joint length 2.00 Ft	Total length 367.0 Ft	Length Surveyed 61.0	Ft
Lining		Year laid 1951	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video		CD	Code		In1	In2	%		Jnt	Fr	To	ImRef	Remarks
0.0				ST	Start of Survey									
0.0				AMH	Manhole									MH25-3-155A
0.0				MWL	Water Level			5						
2.8				FM	Fracture Multiple					J	12	12		
3.1				B	Broken					J	05	07		
4.5				OBI	Obstacle Intruding Thru Wall			5			10	02		
5.1				FM	Fracture Multiple					J	10	02		
6.3				TFA	Tap Factory Active	6.000					12			
6.9				CM	Crack Multiple					J	08	04		
28.5				TFA	Tap Factory Active	6.000					12			
34.6				TBA	Tap Break-in Active	6.000					10			
37.9				CM	Crack Multiple					J	12	12		
52.2				CM	Crack Multiple					J	10	12		
56.7				MWLS	Water Level Sag			20						
61.0				TBI	Tap Break-in Intruding	6.000	5.000				03			pvc pipe
61.0				MSA	Abandoned Survey									intruding lateral

61.0 Ft Total Length Surveyed

Scores

Structural:	Pipe Rating 24	Pipe Ratings Index 3.4	Quick Rating 5142
O&M:	Pipe Rating 7	Pipe Ratings Index 3.5	Quick Rating 5121
Overall	Pipe Rating 31	Pipe Ratings Index 6.9	Quick Rating 5242

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

CCTV pictures of S5123H
For Birmingham

Work Order		Surveyed On 2018/11/07
Street Name VINEWOOD		Video S5123H
City Name Birmingham	Weather Dry	
Location Light Highway		
From Manhole MH25-3-155A	To Manhole MH25-3-023E	Survey Direction Downstream

Setup 347 Counter 61.0 Ft

S5123H.jpg 2018/11/07

Pipe Details:

Year Laid	1951	Shape Circular	Size 8	By	ins
Material	Vitrified Clay Pipe	Lining	Use Stormwater		

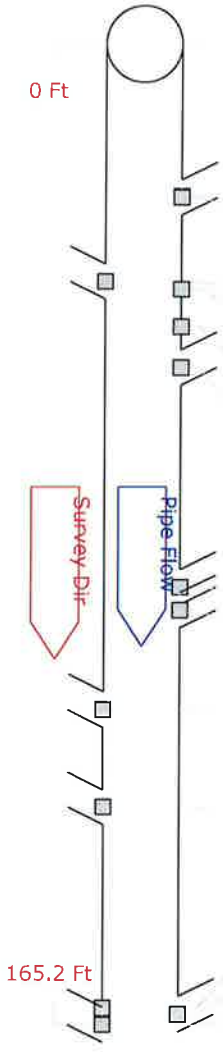
Observation: Abandoned Survey

Comments: intruding lateral

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S5204 for Birmingham

Setup	344	Surveyor	Gary	Certificate #	U206-3080
System Owner	Birmingham				
Drainage	Map 10			Survey Customer	Birmingham
P/O #		Date	2018/11/06	Time	10:10
Street	BONNIEBRIER				
City	Birmingham			Further location details	
Up	MH25-3-113	Rim to invert		Grade to invert		Rim to grade	Ft
Down	MH25-3-114	Rim to invert		Grade to invert		Rim to grade	Ft
Use	Combined	Direction	Downstream	Flow control		Media No	S5204
Shape	Circular	Height	8	Width	ins	Preclean	H	Date Cleaned	2018/11/06
Material	Vitrified Clay Pipe	Joint length	2.0 Ft	Total length	223.0 Ft	Length Surveyed	223.00 Ft
Lining		Year laid	1951	Year rehabilitated		Weather	Light Rain
Purpose	Pre-Rehabilitation Survey	Cat					
Additional info				Structural	O & M	Constructional
Location	Light Highway			Miscellaneous	Hydraulic	
Project	Birmingham Phase 1			Work Order		
Northing		Easting		Elevation		
Coordinate System				GPS Accuracy		

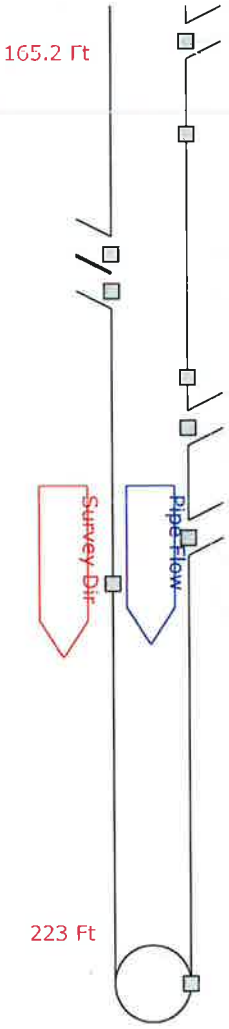


0.0 Ft	Start of Survey Manhole [MH25-3-113] Water Level 5%
25.7 Ft	Deposits Attached Encrustation 07 to 09 o'clock 010% OM: 2
25.9 Ft	Tap Factory Active 6.000 09 o'clock [mineral deposit]
40.1 Ft	Tap Break-in Active 6.000 02 o'clock
41.4 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2
47.7 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2 Infil Weeper 08 to 04 o'clock OM: 2
54.6 Ft	Tap Factory Active 6.000 09 o'clock
91.6 Ft	Tap Factory Active 6.000 09 o'clock
95.5 Ft	Tap Factory Active 6.000 10 o'clock
112.2 Ft	Tap Factory Active 6.000 03 o'clock
128.6 Ft	Tap Factory Active 6.000 02 o'clock
162.4 Ft	Hole Void Visible 03 to 05 o'clock ST: 5
163.4 Ft	Tap Factory Active 6.000 10 o'clock
165.2 Ft	Tap Break-in Active 6.000 02 o'clock

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S5204 for Birmingham

Setup	344 Surveyor Gary	Certificate # U206-3080	System Owner Birmingham		
Drainage	Map 10	Survey Customer Birmingham			
P/O #		Date 2018/11/06	Time 10:10	Street BONNIEBRIER	
City	Birmingham	Further location details			
Up	MH25-3-113	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH25-3-114	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Combined	Direction Downstream	Flow control	Media No S5204	
Shape	Circular	Height 8 Width	ins Preclean H	Date Cleaned 2018/11/06	
Material	Vitrified Clay Pipe	Joint length 2.0 Ft	Total length 223.0 Ft	Length Surveyed 223.00 Ft	
Lining		Year laid 1951	Year rehabilitated	Weather Light Rain	
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info			Structural O & M Constructional Miscellaneous Hydraulic		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		



167.3 Ft	Tap Factory Active 6.000 10 o'clock
172.8 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2
179.9 Ft	Tap Factory Active 6.000 02 o'clock
182.1 Ft	Tap Break-in Active 6.000 02 o'clock
187.2 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2 [S01]
190.2 Ft	Tap Factory Active 6.000 10 o'clock
196.7 Ft	Tap Break-in Active 6.000 10 o'clock
199.4 Ft	Infil Dripper 02 o'clock OM: 3
223.0 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2 [F01] Manhole [MH25-3-114] End of Survey

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S5204 for Birmingham

Setup 344	Surveyor Gary	Certificate # U206-3080		System Owner Birmingham	
Drainage Map 10		Survey Customer Birmingham			
P/O #		Date 2018/11/06	Time 10:10	Street BONNIEBRIER	
City Birmingham		Further location details			
Up MH25-3-113		Rim to invert	Grade to invert	Rim to grade	Ft
Down MH25-3-114		Rim to invert	Grade to invert	Rim to grade	Ft
Use Combined		Direction Down	Flow control	Media No S5204	
Shape Circular		Height 8	Width ins	Preclean H	Date Cleaned 2018/11/06
Material Vitrified Clay Pipe		Joint length 2.00 Ft	Total length 223.0 Ft	Length Surveyed 223.0	Ft
Lining		Year laid 1951	Year rehabilitated	Weather Light Rain	
Purpose Pre-Rehabilitation Survey		Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location Light Highway					
Project Birmingham Phase 1			Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST	Start of Survey								
0.0			AMH	Manhole								MH25-3-113
0.0			MWL	Water Level			5					
25.7			DAE	Deposits Attached Encrustation			10		07	09		
25.9			TFA	Tap Factory Active	6.000				09			mineral deposit
40.1			TBA	Tap Break-in Active	6.000				02			
41.4			DAE	Deposits Attached Encrustation			5	J	08	04		
47.7			DAE	Deposits Attached Encrustation			5	J	08	04		
47.7			IW	Infil Weeper				J	08	04		
54.6			TFA	Tap Factory Active	6.000				09			
91.6			TFA	Tap Factory Active	6.000				09			
95.5			TFA	Tap Factory Active	6.000				10			
112.2			TFA	Tap Factory Active	6.000				03			
128.6			TFA	Tap Factory Active	6.000				02			
162.4			HVV	Hole Void Visible				J	03	05		
163.4			TFA	Tap Factory Active	6.000				10			
165.2			TBA	Tap Break-in Active	6.000				02			
167.3			TFA	Tap Factory Active	6.000				10			
172.8			DAE	Deposits Attached Encrustation			5	J	08	04		
179.9			TFA	Tap Factory Active	6.000				02			
182.1			TBA	Tap Break-in Active	6.000				02			
187.2		S01	DAE	Deposits Attached Encrustation			5	J	08	04		
190.2			TFA	Tap Factory Active	6.000				10			
196.7			TBA	Tap Break-in Active	6.000				10			
199.4			ID	Infil Dripper				J	02			
223.0		F01	DAE	Deposits Attached Encrustation			5	J	08	04		
223.0			AMH	Manhole								MH25-3-114
223.0			FH	End of Survey								

223.0 Ft Total Length Surveyed

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S5204 for Birmingham

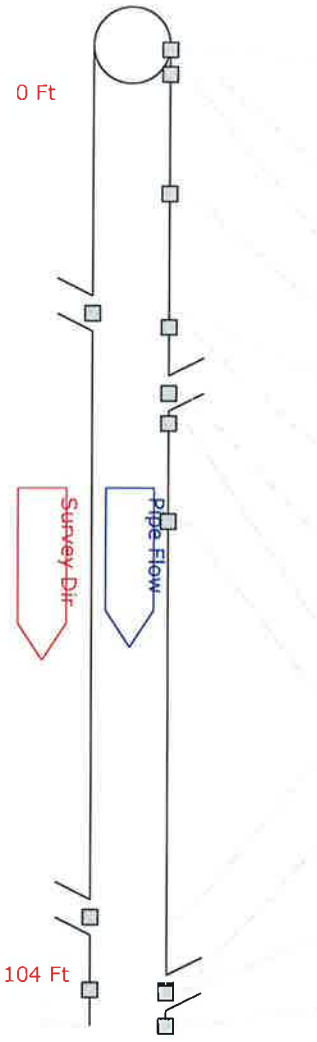
Setup	344	Surveyor Gary	Certificate # U206-3080	System Owner Birmingham	
Drainage	Map 10	Survey Customer Birmingham			
P/O #		Date 2018/11/06	Time 10:10	Street BONNIEBRIER	
City	Birmingham	Further location details			
Up	MH25-3-113	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH25-3-114	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Combined	Direction Down	Flow control	Media No S5204	
Shape	Circular	Height 8	Width ins	Preclean H	Date Cleaned 2018/11/06
Material	Vitrified Clay Pipe	Joint length 2.00Ft	Total length 223.0 Ft	Length Surveyed 223.0	Ft
Lining		Year laid 1951	Year rehabilitated	Weather Light Rain	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info				Structural O & M Constructional Miscellaneous	
Location	Light Highway				
Project	Birmingham Phase 1			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	

Scores

Structural:	Pipe Rating 5	Pipe Ratings Index 5	Quick Rating 5100
O&M:	Pipe Rating 27	Pipe Ratings Index 2.1	Quick Rating 312Λ
Overall	Pipe Rating 32	Pipe Ratings Index 7.1	Quick Rating 5131

Pipe Graphic Report of PSR S5205 for Birmingham

Setup	345 Surveyor Gary	Certificate #	U206-3080	System Owner	Birmingham
Drainage	Map 10	Survey Customer	Birmingham		
P/O #		Date	2018/11/06 Time 11:16	Street	BONNIEBRIER
City	Birmingham	Further location details			
Up	MH25-3-114	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH25-3-115	Rim to invert		Grade to invert	Rim to grade Ft
Use	Combined	Direction	Downstream	Flow control	Media No S5205
Shape	Circular	Height 8	Width ins	Preclean H	Date Cleaned 2018/11/06
Material	Vitrified Clay Pipe	Joint length 2.0 Ft		Total length 180.0 Ft	Length Surveyed 180.00 Ft
Lining		Year laid 1951		Year rehabilitated	Weather Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural O & M Constructional Miscellaneous Hydraulic	
Location	Light Highway				
Project	Birmingham Phase 1			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	



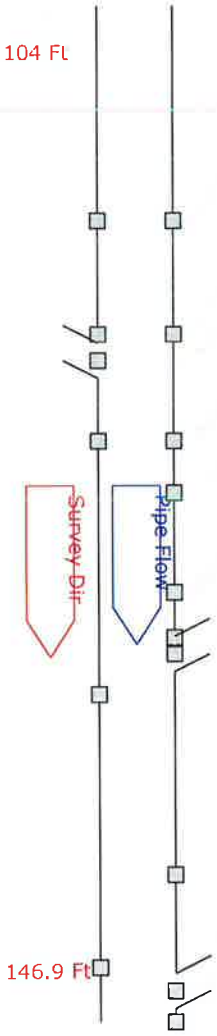
0.0 Ft	Start of Survey Manhole [MH25-3-114] Water Level 5%
0.5 Ft	Deposits Attached Encrustation 07 to 09 o'clock 005% OM: 2
3.1 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2
15.8 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2
28.5 Ft	Tap Break-in Active 6.000 03 o'clock
30.0 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2 [S01]
37.0 Ft	Tap Factory Active 6.000 09 o'clock [mineral deposit] Deposits Attached Encrustation 07 to 09 o'clock 005% OM: 2
40.2 Ft	Deposits Attached Encrustation 07 to 04 o'clock 010% OM: 2
50.6 Ft	Crack Longitudinal 12 o'clock ST: 2
92.5 Ft	Tap Factory Active 6.000 02 o'clock
100.2 Ft	Crack Longitudinal 12 o'clock ST: 2 Fracture Longitudinal 06 o'clock ST: 3
100.5 Ft	Tap Factory Active 6.000 10 o'clock
104.0 Ft	Fracture Multiple 12 to 12 o'clock ST: 4

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S5205 for Birmingham

Setup	345 Surveyor Gary	Certificate #	U206-3080	System Owner	Birmingham
Drainage	Map 10	Survey Customer	Birmingham		
P/O #		Date 2018/11/06	Time 11:16	Street	BONNIEBRIER
City	Birmingham	Further location details			
Up	MH25-3-114	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH25-3-115	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Combined	Direction Downstream	Flow control	Media No	S5205
Shape	Circular	Height 8 Width	ins Preclean H	Date Cleaned	2018/11/06
Material	Vitrified Clay Pipe	Joint length 2.0 Ft	Total length 180.0 Ft	Length Surveyed	180.00 Ft
Lining		Year laid 1951	Year rehabilitated	Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat			

Additional info		Structural	O & M Constructional
Location	Light Highway	Miscellaneous	Hydraulic
Project	Birmingham Phase 1		Work Order
Northing	Easting		Elevation
Coordinate System			GPS Accuracy

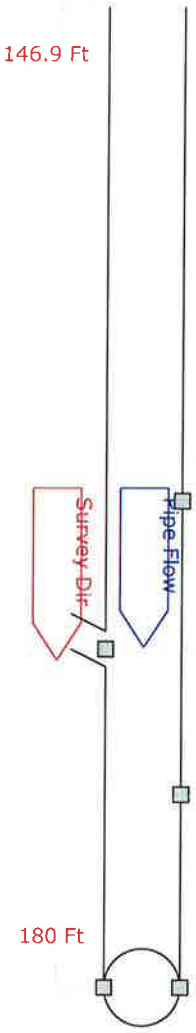


113.1 Ft	Fracture Longitudinal 12 o'clock ST: 3 [S02] Fracture Longitudinal 06 o'clock ST: 3 [S03]
117.9 Ft	Fracture Longitudinal 12 o'clock ST: 3 [F02] Fracture Longitudinal 06 o'clock ST: 3 [F03]
119.0 Ft	Tap Break-in Intruding 6.000 03 o'clock 1.000 OM: 3
122.4 Ft	Fracture Longitudinal 12 o'clock ST: 3 [S04] Fracture Longitudinal 06 o'clock ST: 3 [S05]
124.6 Ft	Roots Fine Joint 12 o'clock OM: 1
128.8 Ft	Roots Fine Barrel 12 o'clock OM: 2
130.7 Ft	Fracture Multiple 12 to 12 o'clock ST: 4 [S06]
131.4 Ft	Tap Factory Defective 6.000 10 o'clock OM: 2 [roots] Roots Tap Lateral 10 o'clock 010% OM: 2 [removed rootball]
133.1 Ft	Surface Missing Wall 04 to 08 o'clock ST: 5
140.7 Ft	Roots Fine Joint 08 to 04 o'clock OM: 1 [S07]
144.6 Ft	Hole Soil Visible 04 to 08 o'clock ST: 5
145.6 Ft	Tap Factory Active 6.000 10 o'clock
146.9 Ft	Roots Tap Joint 10 o'clock 015% OM: 2 Hole 10 o'clock ST: 3

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S5205 for Birmingham

Setup	345 Surveyor Gary	Certificate #	U206-3080	System Owner	Birmingham
Drainage	Map 10	Survey Customer	Birmingham		
P/O #		Date 2018/11/06	Time 11:16	Street	BONNIEBRIER
City	Birmingham	Further location details			
Up	MH25-3-114	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH25-3-115	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Combined	Direction Downstream	Flow control	Media No	S5205
Shape	Circular	Height 8 Width	ins Preclean H	Date Cleaned	2018/11/06
Material	Vitrified Clay Pipe	Joint length 2.0 Ft	Total length 180.0 Ft	Length Surveyed	180.00 Ft
Lining		Year laid 1951	Year rehabilitated	Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info			Structural O & M Constructional Miscellaneous Hydraulic		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		



146.9 Ft

162.2 Ft Deformed 005% ST: 4

163.6 Ft Roots Tap Joint 10 o'clock 010% OM: 2

168.6 Ft Tap Factory Active 6.000 03 o'clock

173.5 Ft Broken 12 to 12 o'clock ST: 5

180.0 Ft
Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2 [F01]
Fracture Longitudinal 12 o'clock ST: 3 [F04]
Fracture Longitudinal 06 o'clock ST: 3 [F05]
Fracture Multiple 12 to 12 o'clock ST: 4 [F06]
Roots Fine Joint 08 to 04 o'clock OM: 1 [F07]
Manhole [MH25-3-115]
End of Survey

180 Ft

Tabular Report of PSR S5205 for Birmingham

Setup	345	Surveyor Gary	Certificate # U206-3080	System Owner Birmingham	
Drainage	Map 10	Survey Customer Birmingham			
P/O #		Date 2018/11/06	Time 11:16	Street BONNIEBRIER	
City	Birmingham	Further location details			
Up	MH25-3-114	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH25-3-115	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Combined	Direction Down	Flow control	Media No S5205	
Shape	Circular	Height 8 Width	ins Preclean H	Date Cleaned 2018/11/06	
Material	Vitrified Clay Pipe	Joint length 2.00 Ft	Total length 180.0 Ft	Length Surveyed 180.0	Ft
Lining		Year laid 1951	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST	Start of Survey								
0.0			AMH	Manhole								MH25-3-114
0.0			MWL	Water Level			5					
0.5			DAE	Deposits Attached Encrustation			5		07	09		
3.1			DAE	Deposits Attached Encrustation			5	J	08	04		
15.8			DAE	Deposits Attached Encrustation			5	J	08	04		
28.5			TBA	Tap Break-in Active	6.000				03			
30.0		S01	DAE	Deposits Attached Encrustation			5	J	08	04		
37.0			TFA	Tap Factory Active	6.000				09			mineral deposit
37.0			DAE	Deposits Attached Encrustation			5		07	09		
40.2			DAE	Deposits Attached Encrustation			10	J	07	04		
50.6			CL	Crack Longitudinal				J	12			
92.5			TFA	Tap Factory Active	6.000				02			
100.2			CL	Crack Longitudinal				J	12			
100.2			FL	Fracture Longitudinal				J	06			
100.5			TFA	Tap Factory Active	6.000				10			
104.0			FM	Fracture Multiple				J	12	12		
113.1		S02	FL	Fracture Longitudinal				J	12			
113.1		S03	FL	Fracture Longitudinal				J	06			
117.9		F02	FL	Fracture Longitudinal				J	12			
117.9		F03	FL	Fracture Longitudinal				J	06			
119.0			TBI	Tap Break-in Intruding	6.000	1.000			03			
122.4		S04	FL	Fracture Longitudinal				J	12			
122.4		S05	FL	Fracture Longitudinal				J	06			
124.6			RFJ	Roots Fine Joint				J	12			
128.8			RFB	Roots Fine Barrel					12			
130.7		S06	FM	Fracture Multiple				J	12	12		
131.4			TFD	Tap Factory Defective	6.000				10			roots
131.4			RTL	Roots Tap Lateral			10		10			removed rootball
133.1			SMW	Surface Missing Wall					04	08		
140.7		S07	RFJ	Roots Fine Joint				J	08	04		

Tabular Report of PSR S5205 for Birmingham

Setup	345	Surveyor Gary	Certificate # U206-3080	System Owner Birmingham	
Drainage	Map 10	Survey Customer Birmingham			
P/O #		Date 2018/11/06	Time 11:16	Street BONNIEBRIER	
City	Birmingham	Further location details			
Up	MH25-3-114	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH25-3-115	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Combined	Direction Down	Flow control	Media No S5205	
Shape	Circular	Height 8	Width ins	Preclean H	Date Cleaned 2018/11/06
Material	Vitrified Clay Pipe	Joint length 2.00 Ft	Total length 180.0 Ft	Length Surveyed 180.0	Ft
Lining		Year laid 1951	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
144.6			HSV	Hole Soil Visible				J	04	08		
145.6			TFA	Tap Factory Active	6.000				10			
146.9			RTJ	Roots Tap Joint			15	J	10			
146.9			H	Hole				J	10			
162.2			D	Deformed			5					
163.6			RTJ	Roots Tap Joint			10	J	10			
168.6			TFA	Tap Factory Active	6.000				03			
173.5			B	Broken				J	12	12		
180.0		F01	DAE	Deposits Attached Encrustation			5	J	08	04		
180.0		F04	FL	Fracture Longitudinal				J	12			
180.0		F05	FL	Fracture Longitudinal				J	06			
180.0		F06	FM	Fracture Multiple				J	12	12		
180.0		F07	RFJ	Roots Fine Joint				J	08	04		
180.0			AMH	Manhole								MH25-3-115
180.0			FH	End of Survey								

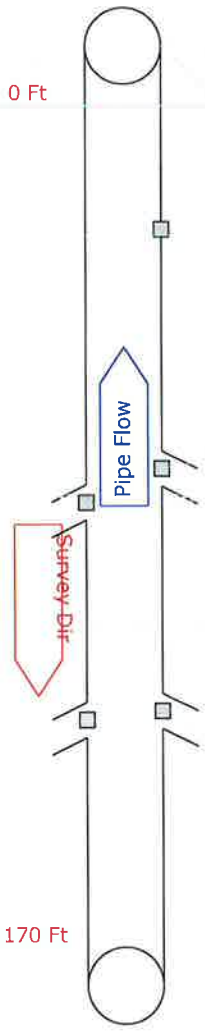
180.0 Ft Total Length Surveyed

Scores

Structural:	Pipe Rating 151	Pipe Ratings Index 3.4	Quick Rating 534A
O&M:	Pipe Rating 92	Pipe Ratings Index 1.8	Quick Rating 312G
Overall	Pipe Rating 243	Pipe Ratings Index 5.2	Quick Rating 534A

Pipe Graphic Report of PSR S5232 for Birmingham

Setup	62	Surveyor Gary	Certificate # U206-3080	System Owner	Birmingham
Drainage	Map 15	Survey Customer Birmingham			
P/O #		Date 2018/08/17	Time 11:55	Street OAKLAND	
City	Birmingham	Further location details			
Up	MH25-3-051	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH25-4-083	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Combined	Direction Upstream	Flow control	Media No	S5232
Shape	Circular	Height 10 Width	ins Preclean J	Date Cleaned	2018/08/17
Material	Polyvinyl Chloride	Joint length 2.0 Ft	Total length 170.0 Ft	Length Surveyed	170.00 Ft
Lining		Year laid 0	Year rehabilitated	Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info			Structural O & M Constructional Miscellaneous Hydraulic		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		



0.0 Ft	Start of Survey Manhole [MH25-4-083] Water Level 5%
3.0 Ft	Material change [vcp]
33.3 Ft	Roots Tap Joint 08 o'clock 005% OM: 2
76.6 Ft	Tap Factory Defective 6.000 09 o'clock OM: 2 [deposits inside]
82.7 Ft	Tap Factory Defective 6.000 03 o'clock OM: 2 [deposits inside]
113.9 Ft	Material change [pvc]
116.7 Ft	Material change [vcp]
120.4 Ft	Tap Factory Defective 6.000 09 o'clock OM: 2 [deposits inside]
122.0 Ft	Tap Factory Defective 6.000 03 o'clock OM: 2 [deposits inside]
170.0 Ft	Manhole [MH25-3-051] End of Survey

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S5232 for Birmingham

Setup 62	Surveyor Gary	Certificate # U206-3080		System Owner Birmingham	
Drainage Map 15		Survey Customer Birmingham			
P/O #		Date 2018/08/17	Time 11:55	Street OAKLAND	
City Birmingham		Further location details			
Up MH25-3-051		Rim to invert	Grade to invert	Rim to grade	Ft
Down MH25-4-083		Rim to invert	Grade to invert	Rim to grade	Ft
Use Combined		Direction Up	Flow control	Media No S5232	
Shape Circular		Height 10 Width	ins Preclean J	Date Cleaned 2018/08/17	
Material Polyvinyl Chloride		Joint length 2.00 Ft	Total length 170.0 Ft	Length Surveyed 170.0	Ft
Lining		Year laid 0	Year rehabilitated	Weather Dry	
Purpose Pre-Rehabilitation Survey		Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location Light Highway					
Project Birmingham Phase 1			Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video		CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0				ST	Start of Survey								
0.0				AMH	Manhole								MH25-4-083
0.0				MWL	Water Level			5					
3.0				MMC	Material change								vcp
33.3				RTJ	Roots Tap Joint			5	J	08			
76.6				TFD	Tap Factory Defective	6.000				09			deposits inside
82.7				TFD	Tap Factory Defective	6.000				03			deposits inside
113.9				MMC	Material change								pvc
116.7				MMC	Material change								vcp
120.4				TFD	Tap Factory Defective	6.000				09			deposits inside
122.0				TFD	Tap Factory Defective	6.000				03			deposits inside
170.0				AMH	Manhole								MH25-3-051
170.0				FH	End of Survey								

170.0 Ft Total Length Surveyed

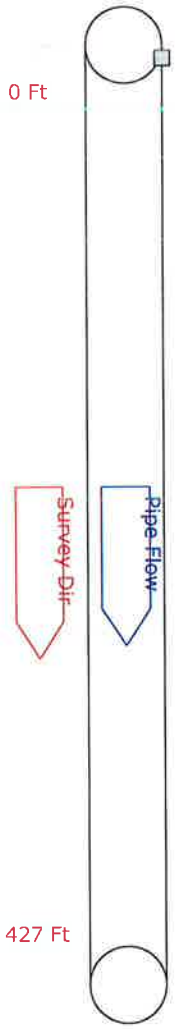
Scores

Structural:	Pipe Rating 0	Pipe Ratings Index 0	Quick Rating 0000
O&M:	Pipe Rating 10	Pipe Ratings Index 2	Quick Rating 2500
Overall	Pipe Rating 10	Pipe Ratings Index 2	Quick Rating 2500

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S5381 for Birmingham

Setup	404 Surveyor Gary	Certificate # U206-3080	System Owner Birmingham		
Drainage	Map 24	Survey Customer Birmingham			
P/O #		Date 2019/08/29	Time 10:16	Street ETON	
City	Birmingham	Further location details Maple-Yorkshire Easement			
Up	MH30-4-084	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH30-4-083	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Sanitary	Direction Downstream	Flow control	Media No S5381	
Shape	Circular	Height 8	Width ins	Preclean H	Date Cleaned 2019/08/29
Material	Vitrified Clay Pipe	Joint length 2.0 Ft	Total length 427.0 Ft	Length Surveyed 06.00	Ft
Lining		Year laid 1948	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info			Structural O & M Constructional Miscellaneous Hydraulic		
Location	Easement/Right of Way				
Project	Birmingham Phase 3		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		



0 Ft — 0.0 Ft — Start of Survey
Manhole [MH30-4-084]
Water Level 5%
General Observation [incoming south/ outgoing north in mh also]

427 Ft — 6.0 Ft — Hole Void Visible 09 to 01 o'clock ST: 5 [dirt falling in after jetting]
General Observation [utility pole at hole]
Abandoned Survey [hole/ void dirt falling in]

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S5381 for Birmingham

Setup 404	Surveyor Gary	Certificate # U206-3080		System Owner Birmingham	
Drainage Map 24		Survey Customer Birmingham			
P/O #		Date 2019/08/29	Time 10:16	Street ETON	
City Birmingham		Further location details Maple-Yorkshire Easement			
Up MH30-4-084		Rim to invert	Grade to invert	Rim to grade	Ft
Down MH30-4-083		Rim to invert	Grade to invert	Rim to grade	Ft
Use Sanitary		Direction Down	Flow control	Media No S5381	
Shape Circular		Height 8	Width ins	Preclean H	Date Cleaned 2019/08/29
Material Vitrified Clay Pipe		Joint length 2.00 Ft	Total length 427.0 Ft	Length Surveyed 6.0	Ft
Lining		Year laid 1948	Year rehabilitated	Weather Dry	
Purpose Pre-Rehabilitation Survey		Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location Easement/Right of Way					
Project Birmingham Phase 3			Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video		CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0				ST	Start of Survey								
0.0				AMH	Manhole								MH30-4-084
0.0				MWL	Water Level			5					
0.0				MGO	General Observation								incoming south/ outgoing nort...
6.0				HVV	Hole Void Visible					09	01		dirt falling in after jetting
6.0				MGO	General Observation								utility pole at hole
6.0				MSA	Abandoned Survey								hole/ void dirt falling in

6.0 Ft Total Length Surveyed

Scores

Structural:	Pipe Rating 5	Pipe Ratings Index 5	Quick Rating 5100
O&M:	Pipe Rating 0	Pipe Ratings Index 0	Quick Rating 0000
Overall	Pipe Rating 5	Pipe Ratings Index 5	Quick Rating 5100

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

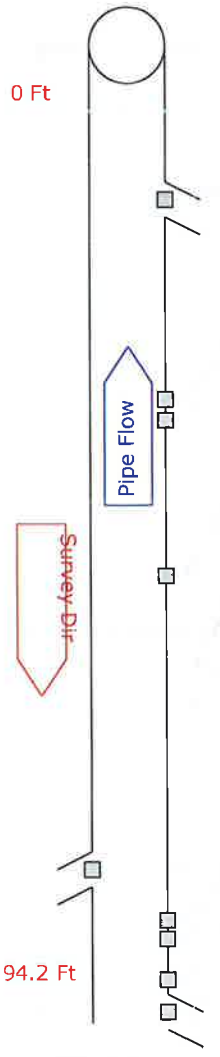
Pipe Graphic Report of PSR S5381R for Birmingham

Setup	405 Surveyor Gary	Certificate #	U206-3080	System Owner	Birmingham
Drainage	Map 24	Survey Customer	Birmingham		
P/O #		Date 2019/08/29	Time 11:04	Street	ETON
City	Birmingham	Further location details	Maple-Yorkshire Easement		
Up	MH30-4-084	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH30-4-083	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Sanitary	Direction Upstream	Flow control	Media No	S5381R
Shape	Circular	Height 8 Width	ins Preclean H	Date Cleaned	2019/08/29
Material	Vitrified Clay Pipe	Joint length 2.0 Ft	Total length 427.0 Ft	Length Surveyed	421.00 Ft
Lining		Year laid 1948	Year rehabilitated	Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat			

Additional info

Structural O & M Constructional
Miscellaneous Hydraulic

Location	Easement/Right of Way		
Project	Birmingham Phase 3		Work Order
Northing		Easting	Elevation
Coordinate System			GPS Accuracy

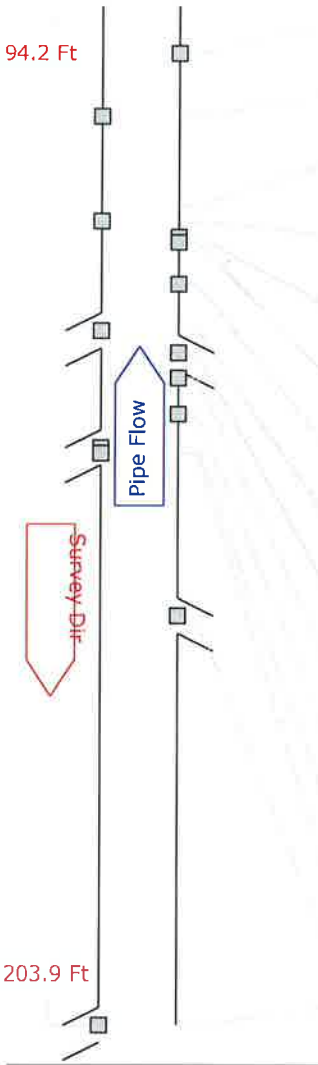


0.0 Ft	Start of Survey Manhole [MH30-4-083] Water Level 5%
14.9 Ft	Tap Break-in Active 6.000 10 o'clock
34.2 Ft	Crack Longitudinal 12 o'clock ST: 2 [S01]
36.2 Ft	Crack Longitudinal Hinge, 3 09 to 03 o'clock ST: 5
51.2 Ft	Crack Longitudinal 12 o'clock ST: 2 [F01]
61.9 Ft	Material change [pvc]
65.1 Ft	Material change [vcp]
79.4 Ft	Tap Break-in Active 6.000 03 o'clock
84.3 Ft	Fracture Multiple 12 to 12 o'clock ST: 4
86.1 Ft	Fracture Multiple 11 to 01 o'clock ST: 4
90.0 Ft	Fracture Circumferential 07 to 09 o'clock ST: 2 Material change [pvc] Joint Offset Medium ST: 1
93.1 Ft	Tap Break-in Active 6.000 09 o'clock
94.2 Ft	Material change [vcp]

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S5381R for Birmingham

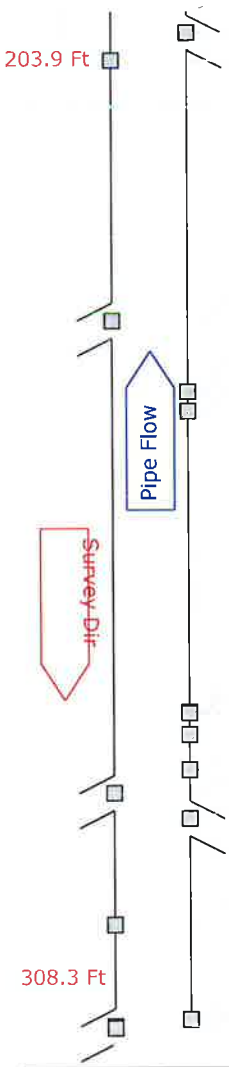
Setup	405	Surveyor	Gary	Certificate #	U206-3080
System Owner	Birmingham				
Drainage	Map 24	Survey Customer	Birmingham		
P/O #		Date	2019/08/29	Time	11:04
Street	ETON				
City	Birmingham	Further location details	Maple-Yorkshire Easement		
Up	MH30-4-084	Rim to invert		Grade to invert		Rim to grade	Ft
Down	MH30-4-083	Rim to invert		Grade to invert		Rim to grade	Ft
Use	Sanitary	Direction	Upstream	Flow control		Media No	S5381R
Shape	Circular	Height	8	Width	ins	Preclean	H	Date Cleaned	2019/08/29
Material	Vitrified Clay Pipe	Joint length	2.0 Ft	Total length	427.0 Ft	Length Surveyed	421.00 Ft
Lining		Year laid	1948	Year rehabilitated		Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural	O & M	Constructional
Location	Easement/Right of Way			Miscellaneous	Hydraulic	
Project	Birmingham Phase 3			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	



99.3 Ft	Hole Void Visible 08 to 09 o'clock ST: 5
106.1 Ft	Fracture Multiple 01 to 04 o'clock ST: 4
115.8 Ft	Material change [pvc]
117.4 Ft	Fracture Circumferential 04 to 06 o'clock ST: 2
119.1 Ft	Repair Patch 10 to 02 o'clock [repair]
119.7 Ft	Fracture Longitudinal 09 o'clock ST: 3
124.2 Ft	Fracture Circumferential 08 to 09 o'clock ST: 2
129.2 Ft	Tap Factory Capped 6.000 02 o'clock
131.6 Ft	Tap Factory Capped 6.000 10 o'clock
134.3 Ft	Fracture Multiple 12 to 03 o'clock ST: 4
138.2 Ft	Fracture Circumferential 09 to 10 o'clock ST: 2
141.8 Ft	Tap Factory Active 6.000 03 o'clock
142.4 Ft	Broken Soil Visible 04 to 08 o'clock ST: 5
159.9 Ft	Tap Break-in Active 6.000 09 o'clock
203.9 Ft	Tap Factory Capped 6.000 02 o'clock

Pipe Graphic Report of PSR S5381R for Birmingham

Setup	405 Surveyor Gary	Certificate #	U206-3080	System Owner	Birmingham
Drainage	Map 24	Survey Customer	Birmingham		
P/O #		Date	2019/08/29 Time 11:04	Street	ETON
City	Birmingham	Further location details	Maple-Yorkshire Easement		
Up	MH30-4-084	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH30-4-083	Rim to invert		Grade to invert	Rim to grade Ft
Use	Sanitary	Direction	Upstream	Flow control	Media No S5381R
Shape	Circular	Height 8	Width ins	Preclean H	Date Cleaned 2019/08/29
Material	Vitrified Clay Pipe	Joint length	2.0 Ft	Total length 427.0 Ft	Length Surveyed 421.00 Ft
Lining		Year laid	1948	Year rehabilitated	Weather Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural O & M Constructional Miscellaneous Hydraulic	
Location	Easement/Right of Way				
Project	Birmingham Phase 3			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	

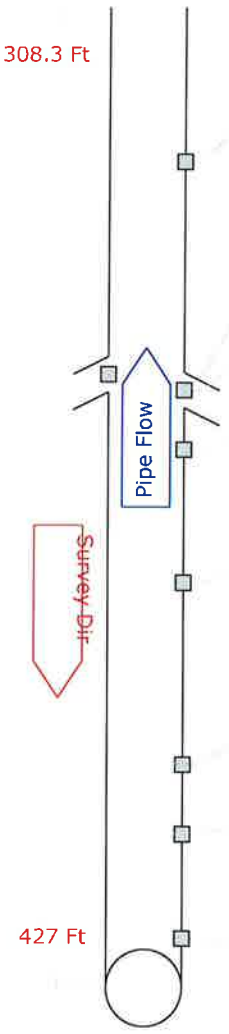


206.1 Ft	Tap Factory Capped 6.000 10 o'clock
208.9 Ft	Roots Fine Joint 03 o'clock OM: 1
235.7 Ft	Tap Break-in Active 6.000 02 o'clock
243.0 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2
245.0 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2
275.9 Ft	Fracture Multiple 12 to 12 o'clock ST: 4
276.0 Ft	Crack Longitudinal Hinge, 3 09 to 03 o'clock ST: 5
278.2 Ft	Fracture Multiple 12 to 12 o'clock ST: 4
281.8 Ft	Fracture Longitudinal Hinge, 4 12 to 12 o'clock ST: 5 [S02]
284.2 Ft	Tap Factory Capped 6.000 02 o'clock
286.8 Ft	Tap Factory Capped 6.000 10 o'clock [soil visible]
297.7 Ft	Broken 04 o'clock ST: 3
307.4 Ft	Fracture Longitudinal Hinge, 4 12 to 12 o'clock ST: 5 [F02]
308.1 Ft	Tap Break-in Active 6.000 02 o'clock
308.3 Ft	Crack Multiple 02 to 06 o'clock ST: 3

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S5381R for Birmingham

Setup	405 Surveyor Gary	Certificate # U206-3080	System Owner Birmingham		
Drainage	Map 24	Survey Customer Birmingham			
P/O #		Date 2019/08/29	Time 11:04	Street ETON	
City	Birmingham	Further location details Maple-Yorkshire Easement			
Up	MH30-4-084	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH30-4-083	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Sanitary	Direction Upstream	Flow control	Media No S5381R	
Shape	Circular	Height 8 Width	ins Preclean H	Date Cleaned 2019/08/29	
Material	Vitrified Clay Pipe	Joint length 2.0 Ft	Total length 427.0 Ft	Length Surveyed 421.00 Ft	
Lining		Year laid 1948	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info			Structural O & M Constructional Miscellaneous Hydraulic		
Location	Easement/Right of Way				
Project	Birmingham Phase 3		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		



327.0 Ft Fracture Multiple 12 to 12 o'clock ST: 4

352.8 Ft Tap Factory Capped 6.000 02 o'clock

354.7 Ft Tap Factory Capped 6.000 10 o'clock

361.9 Ft Crack Longitudinal 12 o'clock ST: 2

378.0 Ft Hole Soil Visible 09 to 11 o'clock ST: 5

400.0 Ft Fracture Multiple 12 to 12 o'clock ST: 4 [S03]

408.4 Ft Fracture Multiple 12 to 12 o'clock ST: 4 [F03]

Hole Void Visible 10 to 02 o'clock ST: 5

421.0 Ft General Observation [dirt falling in]

Abandoned Survey [hole void/ dirt falling in]

Tabular Report of PSR S5381R for Birmingham

Setup	405	Surveyor Gary	Certificate # U206-3080	System Owner Birmingham	
Drainage	Map 24	Survey Customer Birmingham			
P/O #		Date 2019/08/29	Time 11:04	Street ETON	
City	Birmingham	Further location details Maple-Yorkshire Easement			
Up	MH30-4-084	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH30-4-083	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Sanitary	Direction Up	Flow control	Media No S5381R	
Shape	Circular	Height 8 Width	ins Preclean H	Date Cleaned 2019/08/29	
Material	Vitrified Clay Pipe	Joint length 2.00 Ft	Total length 427.0 Ft	Length Surveyed 421.0	Ft
Lining		Year laid 1948	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Easement/Right of Way				
Project	Birmingham Phase 3		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video		CD	Code		In1	In2	%	Jnt	Fr	To	Im	Ref	Remarks
0.0				ST	Start of Survey									
0.0				AMH	Manhole									MH30-4-083
0.0				MWL	Water Level			5						
14.9				TBA	Tap Break-in Active	6.000				10				
34.2			S01	CL	Crack Longitudinal				J	12				
36.2				CH3	Crack Longitudinal Hinge, 3				J	09	03			
51.2			F01	CL	Crack Longitudinal				J	12				
61.9				MMC	Material change									pvc
65.1				MMC	Material change									vcp
79.4				TBA	Tap Break-in Active	6.000				03				
84.3				FM	Fracture Multiple				J	12	12			
86.1				FM	Fracture Multiple				J	11	01			
90.0				FC	Fracture Circumferential				J	07	09			
90.0				MMC	Material change									pvc
90.0				JOM	Joint Offset Medium									
93.1				TBA	Tap Break-in Active	6.000				09				
94.2				MMC	Material change									vcp
99.3				HVV	Hole Void Visible					08	09			
106.1				FM	Fracture Multiple				J	01	04			
115.8				MMC	Material change									pvc
117.4				FC	Fracture Circumferential				J	04	06			
119.1				RPP	Repair Patch					10	02			repair
119.7				FL	Fracture Longitudinal				J	09				
124.2				FC	Fracture Circumferential				J	08	09			
129.2				TFC	Tap Factory Capped	6.000				02				
131.6				TFC	Tap Factory Capped	6.000				10				
134.3				FM	Fracture Multiple				J	12	03			
138.2				FC	Fracture Circumferential				J	09	10			
141.8				TFA	Tap Factory Active	6.000				03				
142.4				BSV	Broken Soil Visible				J	04	08			
159.9				TBA	Tap Break-in Active	6.000				09				

Tabular Report of PSR S5381R for Birmingham

Setup	405	Surveyor Gary	Certificate # U206-3080	System Owner Birmingham	
Drainage	Map 24	Survey Customer Birmingham			
P/O #		Date 2019/08/29	Time 11:04	Street ETON	
City	Birmingham	Further location details Maple-Yorkshire Easement			
Up	MH30-4-084	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH30-4-083	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Sanitary	Direction Up	Flow control	Media No S5381R	
Shape	Circular	Height 8	Width ins	Preclean H	Date Cleaned 2019/08/29
Material	Vitrified Clay Pipe	Joint length 2.00 Ft	Total length 427.0 Ft	Length Surveyed 421.0	Ft
Lining		Year laid 1948	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Easement/Right of Way				
Project	Birmingham Phase 3			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
203.9			TFC	Tap Factory Capped	6.000				02			
206.1			TFC	Tap Factory Capped	6.000				10			
208.9			RFJ	Roots Fine Joint				J	03			
235.7			TBA	Tap Break-in Active	6.000				02			
243.0			DAE	Deposits Attached Encrustation			5	J	08	04		
245.0			DAE	Deposits Attached Encrustation			5	J	08	04		
275.9			FM	Fracture Multiple				J	12	12		
276.0			CH3	Crack Longitudinal Hinge, 3				J	09	03		
278.2			FM	Fracture Multiple				J	12	12		
281.8		S02	FH4	Fracture Longitudinal Hinge, 4				J	12	12		
284.2			TFC	Tap Factory Capped	6.000				02			
286.8			TFC	Tap Factory Capped	6.000				10			soil visible
297.7			B	Broken					04			
307.4		F02	FH4	Fracture Longitudinal Hinge, 4				J	12	12		
308.1			TBA	Tap Break-in Active	6.000				02			
308.3			CM	Crack Multiple					02	06		
327.0			FM	Fracture Multiple					12	12		
352.8			TFC	Tap Factory Capped	6.000				02			
354.7			TFC	Tap Factory Capped	6.000				10			
361.9			CL	Crack Longitudinal				J	12			
378.0			HSV	Hole Soil Visible				J	09	11		
400.0		S03	FM	Fracture Multiple				J	12	12		
408.4		F03	FM	Fracture Multiple				J	12	12		
421.0			HVV	Hole Void Visible					10	02		
421.0			MGO	General Observation								dirt falling in
421.0			MSA	Abandoned Survey								hole void/ dirt falling in

421.0 Ft Total Length Surveyed

Scores

Structural:	Pipe Rating 117	Pipe Ratings Index 3.7	Quick Rating 5A49
O&M:	Pipe Rating 5	Pipe Ratings Index 1.7	Quick Rating 2211
Overall	Pipe Rating 122	Pipe Ratings Index 5.4	Quick Rating 5A49

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

CCTV pictures of S5381R
For Birmingham

Work Order			Surveyed On 2019/08/29
Street Name ETON			Video S5381R
City Name Birmingham		Weather Dry	
Location Easement/Right of Way			
From Manhole MH30-4-083	To Manhole MH30-4-084		Survey Direction Upstream

Setup 405 Counter 99.3 Ft

S5381R.jpg 2019/08/29

Pipe Details:

Year Laid 1948 Shape Circular Size 8 By ins

Material Vitrified Clay Pipe Lining Use Sanitary

Observation: Hole Void Visible

Comments:

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

CCTV pictures of S5381R
For Birmingham

Work Order			Surveyed On 2019/08/29
Street Name ETON			Video S5381R
City Name Birmingham		Weather Dry	
Location Easement/Right of Way			
From Manhole MH30-4-083	To Manhole MH30-4-084		Survey Direction Upstream

Setup 405 Counter 421.0 Ft

S5381R.jpg 2019/08/29

Pipe Details:

Year Laid 1948 Shape Circular Size 8 By ins

Material Vitrified Clay Pipe Lining Use Sanitary

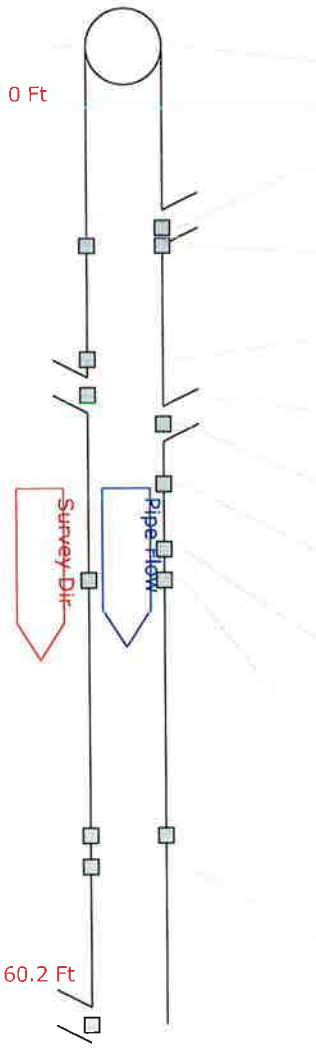
Observation: Hole Void Visible

Comments:

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S5382 for Birmingham

Setup	406 Surveyor Gary	Certificate # U206-3080	System Owner U206-3080		
Drainage	Map 24	Survey Customer Birmingham			
P/O #		Date 2019/08/29	Time 12:37	Street EDENBOROUGH	
City	Birmingham	Further location details			
Up	MH30-4-083	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH30-4-081	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Sanitary	Direction Downstream	Flow control	Media No S5382	
Shape	Circular	Height 8 Width	ins Preclean H	Date Cleaned 2019/08/29	
Material	Vitrified Clay Pipe	Joint length 2.0 Ft	Total length 368.0 Ft	Length Surveyed 368.00 Ft	
Lining		Year laid 1948	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info			Structural O & M Constructional Miscellaneous Hydraulic		
Location	Easement/Right of Way				
Project	Birmingham Phase 3		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

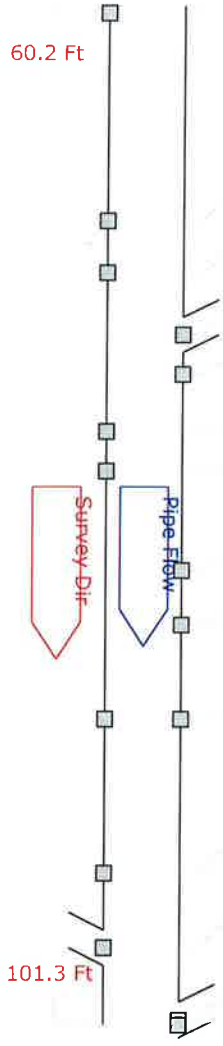


0.0 Ft	Start of Survey Manhole [MH30-4-083] Water Level 5%
11.2 Ft	Tap Factory Active 6.000 09 o'clock
12.3 Ft	Broken Soil Visible 06 to 08 o'clock ST: 5 Broken Soil Visible 11 to 12 o'clock ST: 5
19.3 Ft	Fracture Longitudinal 06 o'clock ST: 3
21.5 Ft	Tap Factory Capped 6.000 03 o'clock
23.3 Ft	Tap Factory Capped 6.000 09 o'clock
27.0 Ft	Fracture Longitudinal 07 o'clock ST: 3
31.0 Ft	Fracture Longitudinal 07 o'clock ST: 3 Fracture Longitudinal 11 o'clock ST: 3
32.9 Ft	Fracture Longitudinal 12 o'clock ST: 3 [S01] Fracture Longitudinal 06 o'clock ST: 3 [S02]
48.6 Ft	Fracture Longitudinal 12 o'clock ST: 3 [F01] Fracture Longitudinal 06 o'clock ST: 3 [F02]
50.5 Ft	Roots Fine Joint 04 o'clock OM: 1
60.2 Ft	Tap Break-in Active 6.000 03 o'clock

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S5382 for Birmingham

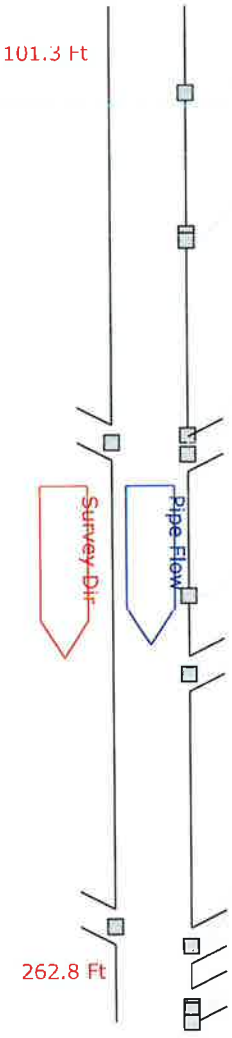
Setup	406 Surveyor Gary	Certificate #	U206-3080	System Owner	U206-3080
Drainage	Map 24	Survey Customer	Birmingham		
P/O #		Date	2019/08/29	Time	12:37
Street	EDENBOROUGH				
City	Birmingham	Further location details			
Up	MH30-4-083	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH30-4-081	Rim to invert		Grade to invert	Rim to grade Ft
Use	Sanitary	Direction	Downstream	Flow control	Media No S5382
Shape	Circular	Height	8 Width ins	Preclean	H Date Cleaned 2019/08/29
Material	Vitrified Clay Pipe	Joint length	2.0 Ft	Total length	368.0 Ft Length Surveyed 368.00 Ft
Lining		Year laid	1948	Year rehabilitated	Weather Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural O & M Constructional Miscellaneous Hydraulic	
Location	Easement/Right of Way				
Project	Birmingham Phase 3			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	



60.5 Ft	Crack Longitudinal 03 o'clock ST: 2
68.9 Ft	Roots Fine Joint 04 o'clock OM: 1
71.0 Ft	Fracture Circumferential 03 to 06 o'clock ST: 2
73.5 Ft	Tap Break-in Active 6.000 10 o'clock
75.1 Ft	Roots Fine Joint 09 to 10 o'clock OM: 1
77.4 Ft	Roots Fine Joint 04 o'clock OM: 1
79.0 Ft	Roots Fine Joint 04 o'clock OM: 1
83.0 Ft	Roots Fine Joint 09 o'clock OM: 1
85.2 Ft	Roots Fine Joint 08 to 09 o'clock OM: 1
89.0 Ft	Crack Longitudinal 12 o'clock ST: 2 [S03] Crack Longitudinal 03 o'clock ST: 2
95.2 Ft	Fracture Longitudinal 06 o'clock ST: 3
98.2 Ft	Tap Factory Capped 6.000 03 o'clock
101.1 Ft	Tap Factory Capped 6.000 09 o'clock
101.3 Ft	Crack Longitudinal 12 o'clock ST: 2 [F03] Crack Longitudinal Hinge, 3 09 to 03 o'clock ST: 5 [S04]

Pipe Graphic Report of PSR S5382 for Birmingham

Setup	406 Surveyor Gary	Certificate #	U206-3080	System Owner	U206-3080
Drainage	Map 24	Survey Customer	Birmingham		
P/O #		Date 2019/08/29	Time 12:37	Street	EDENBOROUGH
City	Birmingham	Further location details			
Up	MH30-4-083	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH30-4-081	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Sanitary	Direction Downstream	Flow control	Media No	S5382
Shape	Circular	Height 8 Width	ins Preclean H	Date Cleaned	2019/08/29
Material	Vitrified Clay Pipe	Joint length 2.0 Ft	Total length 368.0 Ft	Length Surveyed	368.00 Ft
Lining		Year laid 1948	Year rehabilitated	Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info			Structural O & M Constructional Miscellaneous Hydraulic		
Location	Easement/Right of Way				
Project	Birmingham Phase 3		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

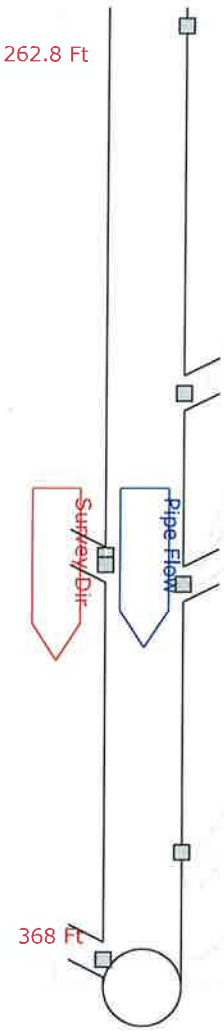


115.2 Ft	Crack Longitudinal Hinge, 3 09 to 03 o'clock ST: 5 [F04] Crack Longitudinal Hinge, 4 12 to 12 o'clock ST: 5 [S05]
137.6 Ft	Hole Void Visible 10 to 02 o'clock ST: 5
138.7 Ft	Crack Longitudinal Hinge, 4 12 to 12 o'clock ST: 5 [F05]
169.7 Ft	Fracture Multiple 12 to 12 o'clock ST: 4 [S06]
170.8 Ft	Tap Factory Capped 6.000 03 o'clock Deposits Attached Encrustation 03 to 04 o'clock 005% OM: 2
172.7 Ft	Tap Factory Capped 6.000 09 o'clock
195.2 Ft	Fracture Multiple 12 to 12 o'clock ST: 4 [F06]
207.6 Ft	Tap Break-in Active 6.000 09 o'clock
247.6 Ft	Tap Factory Capped 6.000 03 o'clock
250.7 Ft	Tap Factory Capped 6.000 09 o'clock
260.3 Ft	Tap Break-in Defective 6.000 09 o'clock OM: 3 [roots] Roots Fine Lateral 09 o'clock OM: 1 Roots Fine Connection 09 o'clock OM: 1
260.9 Ft	Roots Fine Joint 08 to 04 o'clock OM: 1
262.8 Ft	Roots Fine Joint 08 to 04 o'clock OM: 1
262.8 Ft	Fracture Multiple 08 to 04 o'clock ST: 4

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S5382 for Birmingham

Setup	406 Surveyor Gary	Certificate #	U206-3080	System Owner	U206-3080
Drainage	Map 24	Survey Customer	Birmingham		
P/O #		Date 2019/08/29	Time 12:37	Street	EDENBOROUGH
City	Birmingham	Further location details			
Up	MH30-4-083	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH30-4-081	Rim to invert		Grade to invert	Rim to grade Ft
Use	Sanitary	Direction	Downstream	Flow control	Media No S5382
Shape	Circular	Height 8	Width ins	Preclean H	Date Cleaned 2019/08/29
Material	Vitrified Clay Pipe	Joint length 2.0 Ft		Total length 368.0 Ft	Length Surveyed 368.00 Ft
Lining		Year laid 1948		Year rehabilitated	Weather Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural O & M Constructional Miscellaneous Hydraulic	
Location	Easement/Right of Way				
Project	Birmingham Phase 3				Work Order
Northing		Easting			Elevation
Coordinate System					GPS Accuracy



264.8 Ft	Roots Fine Joint 08 to 04 o'clock OM: 1 [S07]
304.3 Ft	Tap Factory Active 6.000 09 o'clock
321.7 Ft	Fracture Longitudinal 05 o'clock ST: 3
322.7 Ft	Tap Factory Capped 6.000 03 o'clock
324.8 Ft	Tap Factory Capped 6.000 09 o'clock Roots Fine Lateral 09 o'clock OM: 1
353.5 Ft	Roots Fine Joint 08 to 04 o'clock OM: 1 [F07]
357.2 Ft	Material change [pvc]
365.0 Ft	Tap Factory Active 6.000 06 o'clock [drop connection]
368.0 Ft	Manhole [MH30-4-081] End of Survey

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S5382 for Birmingham

Setup 406	Surveyor Gary	Certificate # U206-3080	System Owner U206-3080		
Drainage Map 24	Survey Customer Birmingham				
P/O #	Date 2019/08/29	Time 12:37	Street EDENBOROUGH		
City Birmingham	Further location details				
Up MH30-4-083	Rim to invert	Grade to invert	Rim to grade	Ft	
Down MH30-4-081	Rim to invert	Grade to invert	Rim to grade	Ft	
Use Sanitary	Direction Down	Flow control	Media No S5382		
Shape Circular	Height 8	Width ins	Preclean H	Date Cleaned 2019/08/29	
Material Vitrified Clay Pipe	Joint length 2.00Ft	Total length 368.0 Ft	Length Surveyed 368.0 Ft		
Lining	Year laid 1948	Year rehabilitated	Weather Dry		
Purpose Pre-Rehabilitation Survey	Cat		Pressure		
Additional info			Structural O & M Constructional Miscellaneous		
Location Easement/Right of Way					
Project Birmingham Phase 3			Work Order		
Northing	Easting		Elevation		
Coordinate System			GPS Accuracy		

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST	Start of Survey								
0.0			AMH	Manhole								MH30-4-083
0.0			MWL	Water Level			5					
11.2			TFA	Tap Factory Active	6.000				09			
12.3			BSV	Broken Soil Visible				J	06	08		
12.3			BSV	Broken Soil Visible				J	11	12		
19.3			FL	Fracture Longitudinal				J	06			
21.5			TFC	Tap Factory Capped	6.000				03			
23.3			TFC	Tap Factory Capped	6.000				09			
27.0			FL	Fracture Longitudinal				J	07			
31.0			FL	Fracture Longitudinal				J	07			
31.0			FL	Fracture Longitudinal				J	11			
32.9		S01	FL	Fracture Longitudinal				J	12			
32.9		S02	FL	Fracture Longitudinal				J	06			
48.6		F01	FL	Fracture Longitudinal				J	12			
48.6		F02	FL	Fracture Longitudinal				J	06			
50.5			RFJ	Roots Fine Joint				J	04			
60.2			TBA	Tap Break-in Active	6.000				03			
60.5			CL	Crack Longitudinal				J	03			
68.9			RFJ	Roots Fine Joint				J	04			
71.0			FC	Fracture Circumferential				J	03	06		
73.5			TBA	Tap Break-in Active	6.000				10			
75.1			RFJ	Roots Fine Joint				J	09	10		
77.4			RFJ	Roots Fine Joint				J	04			
79.0			RFJ	Roots Fine Joint				J	04			
83.0			RFJ	Roots Fine Joint				J	09			
85.2			RFJ	Roots Fine Joint				J	08	09		
89.0		S03	CL	Crack Longitudinal				J	12			
89.0			CL	Crack Longitudinal				J	03			
95.2			FL	Fracture Longitudinal				J	06			
98.2			TFC	Tap Factory Capped	6.000				03			

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S5382 for Birmingham

Setup 406	Surveyor Gary	Certificate # U206-3080		System Owner U206-3080	
Drainage Map 24		Survey Customer Birmingham			
P/O #		Date 2019/08/29	Time 12:37	Street EDENBOROUGH	
City Birmingham		Further location details			
Up MH30-4-083		Rim to invert	Grade to invert	Rim to grade	Ft
Down MH30-4-081		Rim to invert	Grade to invert	Rim to grade	Ft
Use Sanitary		Direction Down	Flow control	Media No S5382	
Shape Circular		Height 8	Width ins	Preclean H	Date Cleaned 2019/08/29
Material Vitrified Clay Pipe		Joint length 2.00 Ft	Total length 368.0 Ft	Length Surveyed 368.0	Ft
Lining		Year laid 1948	Year rehabilitated	Weather Dry	
Purpose Pre-Rehabilitation Survey		Cat		Pressure	
Additional info				Structural O & M Constructional Miscellaneous	
Location Easement/Right of Way					
Project Birmingham Phase 3				Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
101.1			TFC	Tap Factory Capped	6.000				09			
101.3		F03	CL	Crack Longitudinal				J	12			
101.3		S04	CH3	Crack Longitudinal Hinge, 3				J	09	03		
115.2		F04	CH3	Crack Longitudinal Hinge, 3				J	09	03		
115.2		S05	CH4	Crack Longitudinal Hinge, 4				J	12	12		
137.6			HVV	Hole Void Visible				J	10	02		
138.7		F05	CH4	Crack Longitudinal Hinge, 4				J	12	12		
169.7		S06	FM	Fracture Multiple				J	12	12		
170.8			TFC	Tap Factory Capped	6.000				03			
170.8			DAE	Deposits Attached Encrustation			5		03	04		
172.7			TFC	Tap Factory Capped	6.000				09			
195.2		F06	FM	Fracture Multiple				J	12	12		
207.6			TBA	Tap Break-in Active	6.000				09			
247.6			TFC	Tap Factory Capped	6.000				03			
250.7			TFC	Tap Factory Capped	6.000				09			
260.3			TBD	Tap Break-in Defective	6.000				09			roots
260.3			RFL	Roots Fine Lateral					09			
260.3			RFC	Roots Fine Connection					09			
260.9			RFJ	Roots Fine Joint				J	08	04		
262.8			RFJ	Roots Fine Joint				J	08	04		
262.8			FM	Fracture Multiple				J	08	04		
264.8		S07	RFJ	Roots Fine Joint				J	08	04		
304.3			TFA	Tap Factory Active	6.000				09			
321.7			FL	Fracture Longitudinal				J	05			
322.7			TFC	Tap Factory Capped	6.000				03			
324.8			TFC	Tap Factory Capped	6.000				09			
324.8			RFL	Roots Fine Lateral					09			
353.5		F07	RFJ	Roots Fine Joint				J	08	04		
357.2			MMC	Material change								pvc
365.0			TFA	Tap Factory Active	6.000				06			drop connection
368.0			AMH	Manhole								MH30-4-081
368.0			FH	End of Survey								

Tabular Report of PSR S5382 for Birmingham

Setup	406	Surveyor	Gary	Certificate #	U206-3080	System Owner	U206-3080
Drainage	Map 24	Survey Customer	Birmingham				
P/O #		Date	2019/08/29	Time	12:37	Street	EDENBOROUGH
City	Birmingham	Further location details					

Up	MH30-4-083	Rim to invert		Grade to invert		Rim to grade	Ft
Down	MH30-4-081	Rim to invert		Grade to invert		Rim to grade	Ft

Use	Sanitary	Direction	Down	Flow control		Media No	S5382
Shape	Circular	Height	8	Width	ins	Preclean	H
Material	Vitrified Clay Pipe	Joint length	2.00 Ft	Total length	368.0 Ft	Length Surveyed	368.0 Ft
Lining		Year laid	1948	Year rehabilitated		Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat				Pressure	

Additional info						Structural	O & M
Location	Easement/Right of Way					Constructional	Miscellaneous
Project	Birmingham Phase 3					Work Order	
Northing		Easting				Elevation	
Coordinate System						GPS Accuracy	

368.0 Ft Total Length Surveyed

Scores

Structural:	Pipe Rating 125	Pipe Ratings Index 3.7	Quick Rating 5A46
O&M:	Pipe Rating 35	Pipe Ratings Index 1.1	Quick Rating 3121
Overall	Pipe Rating 160	Pipe Ratings Index 4.8	Quick Rating 5A46

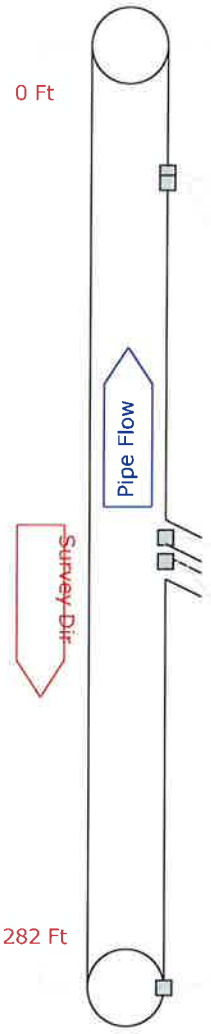
Pipe Graphic Report of PSR S5802 for Birmingham

Setup	165	Surveyor	Gary	Certificate #	U206-3080
System Owner	Birmingham				
Drainage	Map 9			Survey Customer	Birmingham
P/O #		Date	2018/09/14	Time	10:05
Street	REDDING				
City	Birmingham			Further location details	

Up	MH25-2-088	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH25-2-089	Rim to invert		Grade to invert	Rim to grade Ft

Use	Stormwater	Direction	Upstream	Flow control	Media No S5802
Shape	Circular	Height 12	Width	ins	Preclean J	Date Cleaned 2018/09/14
Material	Reinforced Concrete Pipe	Joint length 3.0 Ft	Total length 282.0 Ft	Length Surveyed 282.00 Ft	
Lining		Year laid 1961	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat			

Additional info				Structural	O & M	Constructional
Location	Light Highway			Miscellaneous	Hydraulic	
Project	Birmingham Phase 1			Work Order		
Northing		Easting		Elevation		
Coordinate System				GPS Accuracy		



0.0 Ft	Start of Survey Manhole [MH25-2-089] Water Level 5%
38.2 Ft	Deposits Attached Encrustation 08 to 09 o'clock 005% OM: 2
41.2 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2 [S01] Infil Weeper 08 to 04 o'clock OM: 2 [S02]
147.5 Ft	Tap Break-in Active 6.000 10 o'clock
154.6 Ft	Tap Break-in Active 6.000 10 o'clock [mineral deposit] Deposits Attached Encrustation 08 to 10 o'clock 005% OM: 2
282.0 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2 [F01] Infil Weeper 08 to 04 o'clock OM: 2 [F02] Manhole [MH25-2-088] End of Survey

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S5802 for Birmingham

Setup	165	Surveyor Gary	Certificate # U206-3080	System Owner Birmingham	
Drainage	Map 9	Survey Customer Birmingham			
P/O #		Date 2018/09/14	Time 10:05	Street REDDING	
City	Birmingham	Further location details			
Up	MH25-2-088	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH25-2-089	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Stormwater	Direction Up	Flow control	Media No S5802	
Shape	Circular	Height 12	Width ins	Preclean J	Date Cleaned 2018/09/14
Material	Reinforced Concrete Pipe	Joint length 3.00Ft	Total length 282.0 Ft	Length Surveyed 282.0	Ft
Lining		Year laid 1961	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST	Start of Survey								
0.0			AMH	Manhole								MH25-2-089
0.0			MWL	Water Level			5					
38.2			DAE	Deposits Attached Encrustation			5	J	08	09		
41.2		S01	DAE	Deposits Attached Encrustation			5	J	08	04		
41.2		S02	IW	Infil Weeper				J	08	04		
147.5			TBA	Tap Break-in Active	6.000				10			
154.6			TBA	Tap Break-in Active	6.000				10			mineral deposit
154.6			DAE	Deposits Attached Encrustation			5		08	10		
282.0		F01	DAE	Deposits Attached Encrustation			5	J	08	04		
282.0		F02	IW	Infil Weeper				J	08	04		
282.0			AMH	Manhole								MH25-2-088
282.0			FH	End of Survey								

282.0 Ft Total Length Surveyed

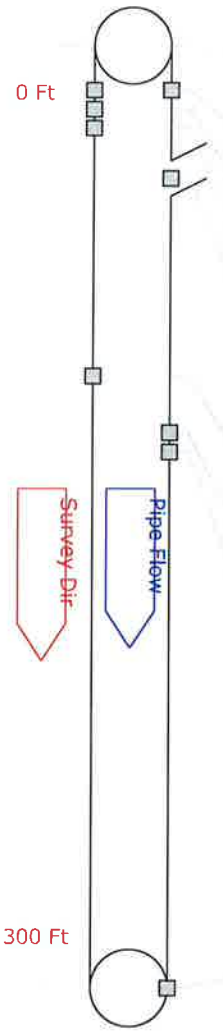
Scores

Structural:	Pipe Rating 0	Pipe Ratings Index 0	Quick Rating 0000
O&M:	Pipe Rating 196	Pipe Ratings Index 2	Quick Rating 2R00
Overall	Pipe Rating 196	Pipe Ratings Index 2	Quick Rating 2R00

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S6033 for Birmingham

Setup 166 Surveyor Gary		Certificate # U206-3080	System Owner Birmingham	
Drainage Map 9	Survey Customer Birmingham			
P/O #	Date 2018/09/14	Time 10:39	Street REDDING	
City Birmingham	Further location details			
Up MH25-2-089	Rim to invert	Grade to invert	Rim to grade	Ft
Down MH26-1-099	Rim to invert	Grade to invert	Rim to grade	Ft
Use Stormwater	Direction Downstream	Flow control	Media No S6033	
Shape Circular	Height 15 Width	ins Preclean J	Date Cleaned 2018/09/14	
Material Reinforced Concrete Pipe	Joint length 6.0 Ft	Total length 300.0 Ft	Length Surveyed 300.00 Ft	
Lining	Year laid 1961	Year rehabilitated	Weather Dry	
Purpose Pre-Rehabilitation Survey	Cat			
Additional info		Structural O & M Constructional Miscellaneous Hydraulic		
Location Light Highway				
Project Birmingham Phase 1		Work Order		
Northing	Easting	Elevation		
Coordinate System		GPS Accuracy		



0.0 Ft	Start of Survey Manhole [MH25-2-089] Water Level 5%
14.2 Ft	Deposits Attached Encrustation 03 to 04 o'clock 005% OM: 2 Deposits Attached Encrustation 08 to 09 o'clock 005% OM: 2
20.3 Ft	Deposits Attached Encrustation 03 to 04 o'clock 005% OM: 2 Infil Weeper 03 to 04 o'clock OM: 2
26.3 Ft	Deposits Attached Encrustation 03 to 04 o'clock 005% OM: 2
42.3 Ft	Tap Break-in Active 6.000 10 o'clock
105.4 Ft	Deposits Attached Encrustation 02 to 04 o'clock 005% OM: 2
123.4 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2 Infil Weeper 08 to 04 o'clock OM: 2
129.5 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2 [S01] Infil Weeper 08 to 04 o'clock OM: 2 [S02]
300.0 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2 [F01] Infil Weeper 08 to 04 o'clock OM: 2 [F02] Manhole [MH26-1-099] End of Survey

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S6033 for Birmingham

Setup	166	Surveyor Gary	Certificate # U206-3080	System Owner Birmingham	
Drainage	Map 9	Survey Customer Birmingham			
P/O #		Date 2018/09/14	Time 10:39	Street REDDING	
City	Birmingham	Further location details			
Up	MH25-2-089	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH26-1-099	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Stormwater	Direction Down	Flow control	Media No S6033	
Shape	Circular	Height 15 Width	ins Preclean J	Date Cleaned 2018/09/14	
Material	Reinforced Concrete Pipe	Joint length 6.00 Ft	Total length 300.0 Ft	Length Surveyed 300.0	Ft
Lining		Year laid 1961	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST	Start of Survey								
0.0			AMH	Manhole								MH25-2-089
0.0			MWL	Water Level			5					
14.2			DAE	Deposits Attached Encrustation			5	J	03	04		
14.2			DAE	Deposits Attached Encrustation			5	J	08	09		
20.3			DAE	Deposits Attached Encrustation			5	J	03	04		
20.3			IW	Infil Weeper				J	03	04		
26.3			DAE	Deposits Attached Encrustation			5	J	03	04		
42.3			TBA	Tap Break-in Active	6.000				10			
105.4			DAE	Deposits Attached Encrustation			5	J	02	04		
123.4			DAE	Deposits Attached Encrustation			5	J	08	04		
123.4			IW	Infil Weeper				J	08	04		
129.5		S01	DAE	Deposits Attached Encrustation			5	J	08	04		
129.5		S02	IW	Infil Weeper				J	08	04		
300.0		F01	DAE	Deposits Attached Encrustation			5	J	08	04		
300.0		F02	IW	Infil Weeper				J	08	04		
300.0			AMH	Manhole								MH26-1-099
300.0			FH	End of Survey								

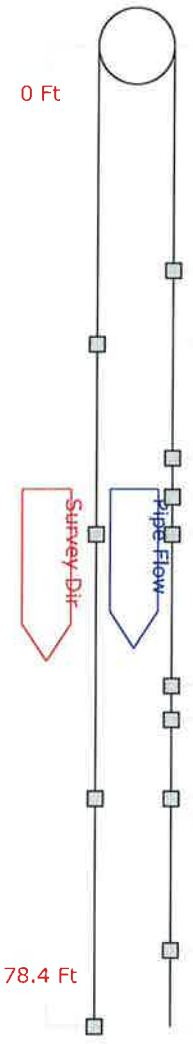
300.0 Ft Total Length Surveyed

Scores

Structural:	Pipe Rating 0	Pipe Ratings Index 0	Quick Rating 0000
O&M:	Pipe Rating 152	Pipe Ratings Index 2	Quick Rating 2N00
Overall	Pipe Rating 152	Pipe Ratings Index 2	Quick Rating 2N00

Pipe Graphic Report of PSR S6216 for Birmingham

Setup	59	Surveyor	Gary	Certificate #	U206-3080
System Owner	Birmingham				
Drainage	Map 15	Survey Customer	Birmingham		
P/O #		Date	2018/08/17	Time	9:22
Street	OAKLAND				
City	Birmingham	Further location details			
Up	MH25-4-094	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH25-4-099	Rim to invert		Grade to invert	Rim to grade Ft
Use	Combined	Direction	Downstream	Flow control	Media No S6216
Shape	Circular	Height 12	Width	ins	Preclean J
Date Cleaned	2018/08/17				
Material	Vitrified Clay Pipe	Joint length 3.0 Ft	Total length 185.0 Ft	Length Surveyed 185.00 Ft	
Lining		Year laid 0	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural O & M Constructional Miscellaneous Hydraulic	
Location	Light Highway				
Project	Birmingham Phase 1			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	



0.0 Ft	Start of Survey Manhole [MH25-4-094] Water Level 5%
18.0 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2
23.9 Ft	Deposits Attached Encrustation 02 to 04 o'clock 005% OM: 2
33.0 Ft	Crack Longitudinal Hinge, 4 12 to 12 o'clock ST: 5 [S01]
36.1 Ft	Crack Longitudinal Hinge, 4 12 to 12 o'clock ST: 5 [F01]
39.1 Ft	Fracture Longitudinal 12 o'clock ST: 3 [S02] Crack Longitudinal 06 o'clock ST: 2 [S03]
51.2 Ft	Crack Multiple 12 to 12 o'clock ST: 3
53.9 Ft	Roots Tap Joint 09 o'clock 005% OM: 2 Crack Multiple 12 to 12 o'clock ST: 3
60.2 Ft	Fracture Longitudinal 12 o'clock ST: 3 [F02] Crack Longitudinal 06 o'clock ST: 2 [F03] Fracture Longitudinal Hinge, 4 12 to 12 o'clock ST: 5 [S04]
61.6 Ft	Deformed 005% ST: 4 [S05]
72.3 Ft	Roots Tap Joint 08 o'clock 005% OM: 2
78.4 Ft	Fracture Circumferential 06 to 09 o'clock ST: 2

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S6216 for Birmingham

Setup	59	Surveyor Gary	Certificate # U206-3080	System Owner	Birmingham
Drainage	Map 15		Survey Customer Birmingham		
P/O #		Date 2018/08/17	Time 9:22	Street OAKLAND	
City	Birmingham		Further location details		
Up	MH25-4-094	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH25-4-099	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Combined	Direction Downstream	Flow control	Media No S6216	
Shape	Circular	Height 12	Width ins	Preclean J	Date Cleaned 2018/08/17
Material	Vitrified Clay Pipe	Joint length 3.0 Ft	Total length 185.0 Ft	Length Surveyed 185.00 Ft	
Lining		Year laid 0	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat			

Additional info

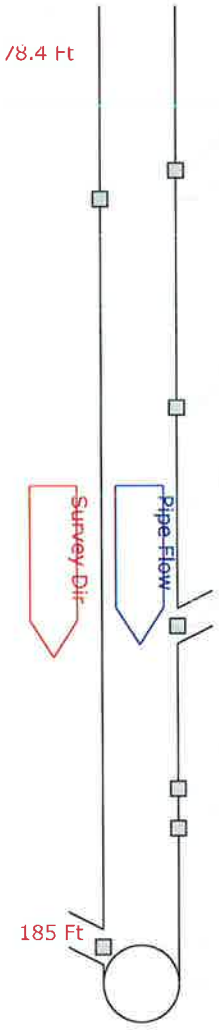
Structural O & M Constructional
Miscellaneous Hydraulic

Location Light Highway

Project Birmingham Phase 1 Work Order

Northing Easting Elevation

Coordinate System GPS Accuracy



96.4 Ft	Roots Tap Joint 09 o'clock 005% OM: 2
99.5 Ft	Roots Fine Joint 03 o'clock OM: 1
122.3 Ft	Broken 07 o'clock ST: 3
133.0 Ft	Deformed 005% ST: 4 [F05]
146.1 Ft	Tap Factory Defective 6.000 11 o'clock OM: 2 [offset]
163.8 Ft	Fracture Longitudinal Hinge, 4 12 to 12 o'clock ST: 5 [F04]
168.1 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2
181.0 Ft	Tap Factory Active 10.000 06 o'clock [drop connection]
185.0 Ft	Manhole [MH25-4-099] End of Survey

Doetsch ENVIRONMENTAL SERVICES

Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S6216 for Birmingham

Setup	59	Surveyor Gary	Certificate # U206-3080	System Owner Birmingham	
Drainage	Map 15	Survey Customer Birmingham			
P/O #		Date 2018/08/17	Time 9:22	Street OAKLAND	
City	Birmingham	Further location details			
Up	MH25-4-094	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH25-4-099	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Combined	Direction Down	Flow control	Media No S6216	
Shape	Circular	Height 12	Width ins	Preclean J	Date Cleaned 2018/08/17
Material	Vitrified Clay Pipe	Joint length 3.00Ft	Total length 185.0 Ft	Length Surveyed 185.0	Ft
Lining		Year laid 0	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST	Start of Survey								
0.0			AMH	Manhole								MH25-4-094
0.0			MWL	Water Level			5					
18.0			DAE	Deposits Attached Encrustation			5	J	08	04		
23.9			DAE	Deposits Attached Encrustation			5	J	02	04		
33.0		S01	CH4	Crack Longitudinal Hinge, 4				J	12	12		
36.1		F01	CH4	Crack Longitudinal Hinge, 4				J	12	12		
39.1		S02	FL	Fracture Longitudinal				J	12			
39.1		S03	CL	Crack Longitudinal				J	06			
51.2			CM	Crack Multiple				J	12	12		
53.9			RTJ	Roots Tap Joint			5	J	09			
53.9			CM	Crack Multiple				J	12	12		
60.2		F02	FL	Fracture Longitudinal				J	12			
60.2		F03	CL	Crack Longitudinal				J	06			
60.2		S04	FH4	Fracture Longitudinal Hinge, 4				J	12	12		
61.6		S05	D	Deformed			5					
72.3			RTJ	Roots Tap Joint			5	J	08			
78.4			FC	Fracture Circumferential				J	06	09		
96.4			RTJ	Roots Tap Joint			5	J	09			
99.5			RFJ	Roots Fine Joint				J	03			
122.3			B	Broken				J	07			
133.0		F05	D	Deformed			5					
146.1			TFD	Tap Factory Defective	6.000				11			offset
163.8		F04	FH4	Fracture Longitudinal Hinge, 4				J	12	12		
168.1			DAE	Deposits Attached Encrustation			5	J	08	04		
181.0			TFA	Tap Factory Active	10.000				06			drop connection
185.0			AMH	Manhole								MH25-4-099
185.0			FH	End of Survey								

185.0 Ft Total Length Surveyed

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S6216 for Birmingham

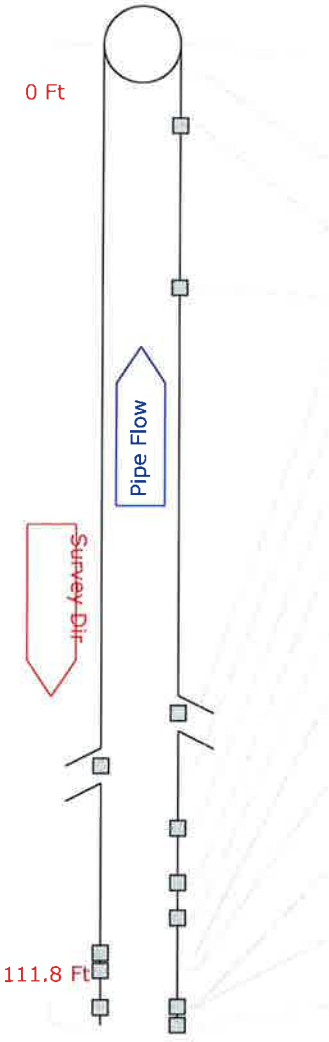
Setup	59	Surveyor Gary	Certificate # U206-3080	System Owner Birmingham	
Drainage	Map 15	Survey Customer Birmingham			
P/O #		Date 2018/08/17	Time 9:22	Street OAKLAND	
City	Birmingham	Further location details			
Up	MH25-4-094	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH25-4-099	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Combined	Direction Down	Flow control	Media No S6216	
Shape	Circular	Height 12	Width ins	Preclean J	Date Cleaned 2018/08/17
Material	Vitrified Clay Pipe	Joint length 3.00Ft	Total length 185.0 Ft	Length Surveyed 185.0	Ft
Lining		Year laid 0	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Scores

Structural:	Pipe Rating 197	Pipe Ratings Index 4.1	Quick Rating 5C4A
O&M:	Pipe Rating 15	Pipe Ratings Index 1.9	Quick Rating 2711
Overall	Pipe Rating 212	Pipe Ratings Index 6	Quick Rating 5C4A

Pipe Graphic Report of PSR S6217 for Birmingham

Setup	52	Surveyor Gary	Certificate # U206-3080	System Owner	Birmingham
Drainage	Map 15	Survey Customer Birmingham			
P/O #		Date 2018/08/16	Time 12:03	Street OAKLAND	
City	Birmingham	Further location details			
Up	MH25-4-085	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH25-4-090A	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Sanitary	Direction Upstream	Flow control	Media No	S6217
Shape	Circular	Height 8 Width	ins Preclean J	Date Cleaned	2018/08/16
Material	Polyvinyl Chloride	Joint length 2.0 Ft	Total length 190.0 Ft	Length Surveyed	190.00 Ft
Lining		Year laid 0	Year rehabilitated	Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info			Structural O & M Constructional Miscellaneous Hydraulic		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

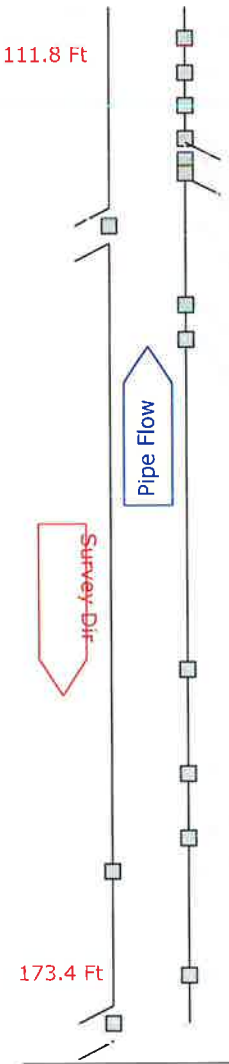


0.0 Ft	Start of Survey Manhole [MH25-4-090A] Water Level 5%
3.0 Ft	Material change [vcp]
9.3 Ft	Crack Circumferential 08 to 10 o'clock ST: 1
27.8 Ft	Fracture Multiple 12 to 06 o'clock ST: 4
76.3 Ft	Tap Factory Active 6.000 10 o'clock
82.3 Ft	Tap Factory Active 6.000 02 o'clock
89.4 Ft	Deposits Attached Encrustation 08 to 10 o'clock 005% OM: 2
95.6 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2
99.6 Ft	Roots Tap Joint 08 o'clock 005% OM: 2
103.6 Ft	Roots Fine Joint 04 o'clock OM: 1
105.6 Ft	Fracture Circumferential 04 to 08 o'clock ST: 2 Roots Fine Joint 04 to 08 o'clock OM: 1
109.7 Ft	Roots Fine Joint 09 o'clock OM: 1
109.8 Ft	Crack Circumferential 06 to 07 o'clock ST: 1
111.8 Ft	Roots Fine Joint 08 o'clock OM: 1

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S6217 for Birmingham

Setup	52	Surveyor Gary	Certificate # U206-3080	System Owner	Birmingham
Drainage	Map 15		Survey Customer Birmingham		
P/O #		Date 2018/08/16	Time 12:03	Street OAKLAND	
City	Birmingham		Further location details		
Up	MH25-4-085	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH25-4-090A	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Sanitary	Direction Upstream	Flow control	Media No S6217	
Shape	Circular	Height 8	Width ins	Preclean J	Date Cleaned 2018/08/16
Material	Polyvinyl Chloride	Joint length 2.0 Ft	Total length 190.0 Ft	Length Surveyed 190.00 Ft	
Lining		Year laid 0	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info			Structural O & M Constructional Miscellaneous Hydraulic		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		



113.7 Ft	Roots Fine Joint 08 to 04 o'clock OM: 1
115.8 Ft	Roots Fine Joint 08 o'clock OM: 1
117.8 Ft	Roots Fine Joint 08 to 04 o'clock OM: 1
119.8 Ft	Roots Fine Joint 08 to 09 o'clock OM: 1
121.1 Ft	Tap Factory Active 6.000 09 o'clock [roots]
121.9 Ft	Roots Tap Joint 09 o'clock 005% OM: 2
125.1 Ft	Tap Factory Defective 6.000 03 o'clock OM: 2 [rootball]
129.9 Ft	Roots Fine Joint 08 to 04 o'clock OM: 1
132.0 Ft	Roots Fine Joint 12 o'clock OM: 1
152.0 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2
158.3 Ft	Fracture Circumferential 09 to 10 o'clock ST: 2
162.2 Ft	Fracture Circumferential 08 to 09 o'clock ST: 2
164.2 Ft	Deposits Attached Encrustation 01 to 04 o'clock 005% OM: 2
170.5 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2
173.4 Ft	Tap Factory Defective 6.000 03 o'clock OM: 2 [mineral deposit]
173.4 Ft	Deposits Attached Encrustation 03 to 04 o'clock 005% OM: 2

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S6217 for Birmingham

Setup	52	Surveyor Gary	Certificate # U206-3080	System Owner	Birmingham
Drainage	Map 15	Survey Customer Birmingham			
P/O #		Date 2018/08/16	Time 12:03	Street OAKLAND	
City	Birmingham	Further location details			
Up	MH25-4-085	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH25-4-090A	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Sanitary	Direction Upstream	Flow control	Media No	S6217
Shape	Circular	Height 8 Width	ins Preclean J	Date Cleaned	2018/08/16
Material	Polyvinyl Chloride	Joint length 2.0 Ft	Total length 190.0 Ft	Length Surveyed	190.00 Ft
Lining		Year laid 0	Year rehabilitated	Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat			

Additional info

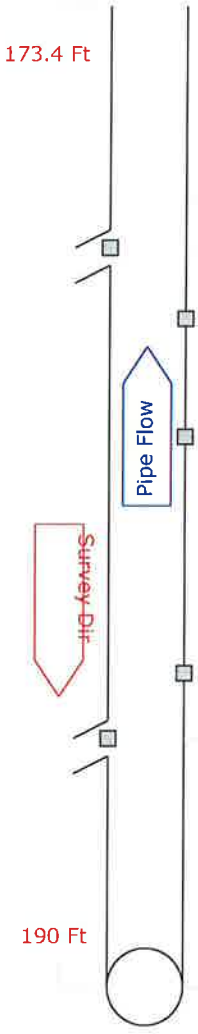
Structural O & M Constructional
Miscellaneous Hydraulic

Location Light Highway

Project Birmingham Phase 1 Work Order

Northing Easting Elevation

Coordinate System GPS Accuracy



177.5 Ft Tap Break-in Active 6.000 03 o'clock

178.7 Ft Crack Circumferential 09 to 10 o'clock ST: 1

180.7 Ft Crack Multiple 09 to 11 o'clock ST: 3

184.7 Ft Fracture Multiple 11 to 01 o'clock ST: 4

185.8 Ft Tap Factory Defective 6.000 02 o'clock OM: 2 [mineral deposit]

190.0 Ft Manhole [MH25-4-085]
End of Survey

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S6217 for Birmingham

Setup 52	Surveyor Gary	Certificate # U206-3080	System Owner Birmingham		
Drainage Map 15	Survey Customer Birmingham				
P/O #	Date 2018/08/16	Time 12:03	Street OAKLAND		
City Birmingham	Further location details				
Up MH25-4-085	Rim to invert	Grade to invert	Rim to grade	Ft	
Down MH25-4-090A	Rim to invert	Grade to invert	Rim to grade	Ft	
Use Sanitary	Direction Up	Flow control	Media No S6217		
Shape Circular	Height 8	Width ins	Preclean J	Date Cleaned 2018/08/16	
Material Polyvinyl Chloride	Joint length 2.00 Ft	Total length 190.0 Ft	Length Surveyed 190.0 Ft		
Lining	Year laid 0	Year rehabilitated	Weather Dry		
Purpose Pre-Rehabilitation Survey	Cat		Pressure		
Additional info			Structural O & M Constructional Miscellaneous		
Location Light Highway					
Project Birmingham Phase 1			Work Order		
Northing	Easting		Elevation		
Coordinate System			GPS Accuracy		

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST	Start of Survey								
0.0			AMH	Manhole								MH25-4-090A
0.0			MWL	Water Level			5					
3.0			MMC	Material change								vcp
9.3			CC	Crack Circumferential				J	08	10		
27.8			FM	Fracture Multiple				J	12	06		
76.3			TFA	Tap Factory Active	6.000				10			
82.3			TFA	Tap Factory Active	6.000				02			
89.4			DAE	Deposits Attached Encrustation			5	J	08	10		
95.6			DAE	Deposits Attached Encrustation			5	J	08	04		
99.6			RTJ	Roots Tap Joint			5	J	08			
103.6			RFJ	Roots Fine Joint				J	04			
105.6			FC	Fracture Circumferential				J	04	08		
105.6			RFJ	Roots Fine Joint				J	04	08		
109.7			RFJ	Roots Fine Joint				J	09			
109.8			CC	Crack Circumferential				J	06	07		
111.8			RFJ	Roots Fine Joint				J	08			
113.7			RFJ	Roots Fine Joint				J	08	04		
115.8			RFJ	Roots Fine Joint				J	08			
117.8			RFJ	Roots Fine Joint				J	08	04		
119.8			RFJ	Roots Fine Joint				J	08	09		
121.1			TFA	Tap Factory Active	6.000				09			roots
121.9			RTJ	Roots Tap Joint			5	J	09			
125.1			TFD	Tap Factory Defective	6.000				03			rootball
129.9			RFJ	Roots Fine Joint				J	08	04		
132.0			RFJ	Roots Fine Joint				J	12			
152.0			DAE	Deposits Attached Encrustation			5	J	08	04		
158.3			FC	Fracture Circumferential				J	09	10		
162.2			FC	Fracture Circumferential				J	08	09		
164.2			DAE	Deposits Attached Encrustation			5	J	01	04		
170.5			DAE	Deposits Attached Encrustation			5	J	08	04		

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S6217 for Birmingham

Setup	52	Surveyor	Gary	Certificate #	U206-3080	System Owner	Birmingham
Drainage	Map 15	Survey Customer	Birmingham				
P/O #		Date	2018/08/16	Time	12:03	Street	OAKLAND
City	Birmingham	Further location details					
Up	MH25-4-085	Rim to invert		Grade to invert		Rim to grade	Ft
Down	MH25-4-090A	Rim to invert		Grade to invert		Rim to grade	Ft
Use	Sanitary	Direction	Up	Flow control		Media No	S6217
Shape	Circular	Height	8	Width	ins	Preclean	J
Material	Polyvinyl Chloride	Joint length	2.00 Ft	Total length	190.0 Ft	Length Surveyed	190.0 Ft
Lining		Year laid	0	Year rehabilitated		Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat				Pressure	
Additional info						Structural O & M Constructional Miscellaneous	
Location	Light Highway						
Project	Birmingham Phase 1					Work Order	
Northing		Easting				Elevation	
Coordinate System						GPS Accuracy	

Count	Video		CD	Code		In1	In2	%		Jnt	Fr	To	ImRef	Remarks
173.4				TFD	Tap Factory Defective	6.000					03			mineral deposit
173.4				DAE	Deposits Attached Encrustation			5			03	04		
177.5				TBA	Tap Break-in Active	6.000					03			
178.7				CC	Crack Circumferential					J	09	10		
180.7				CM	Crack Multiple					J	09	11		
184.7				FM	Fracture Multiple					J	11	01		
185.8				TFD	Tap Factory Defective	6.000					02			mineral deposit
190.0				AMH	Manhole									MH25-4-085
190.0				FH	End of Survey									

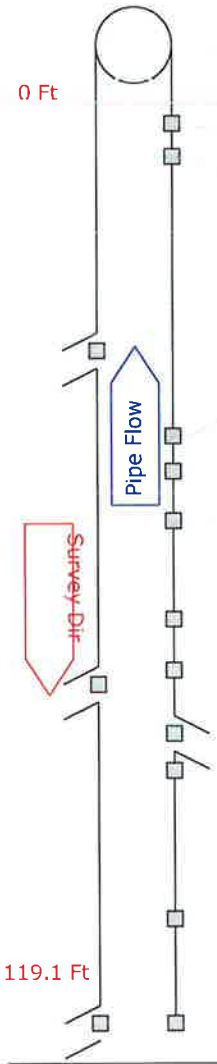
190.0 Ft Total Length Surveyed

Scores

Structural:	Pipe Rating 20	Pipe Ratings Index 2.2	Quick Rating 4231
O&M:	Pipe Rating 32	Pipe Ratings Index 1.5	Quick Rating 2A1A
Overall	Pipe Rating 52	Pipe Ratings Index 3.7	Quick Rating 4231

Pipe Graphic Report of PSR S6588 for Birmingham

Setup	187 Surveyor Gary	Certificate #	U206-3080	System Owner	Birmingham
Drainage	Map 14	Survey Customer	Birmingham		
P/O #		Date	2019/01/23 Time 14:05	Street	ANN
City	Birmingham	Further location details			
Up	MH36-1-083	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH36-1-082	Rim to invert		Grade to invert	Rim to grade Ft
Use	Sanitary	Direction	Upstream	Flow control	Media No S6588
Shape	Circular	Height 8	Width ins	Preclean J	Date Cleaned 2019/01/23
Material	Vitrified Clay Pipe	Joint length 2.0 Ft	Total length 396.0 Ft		Length Surveyed 275.00 Ft
Lining		Year laid 0	Year rehabilitated		Weather Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural O & M Constructional Miscellaneous Hydraulic	
Location	Easement/Right of Way				
Project	Birmingham Phase 2			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	

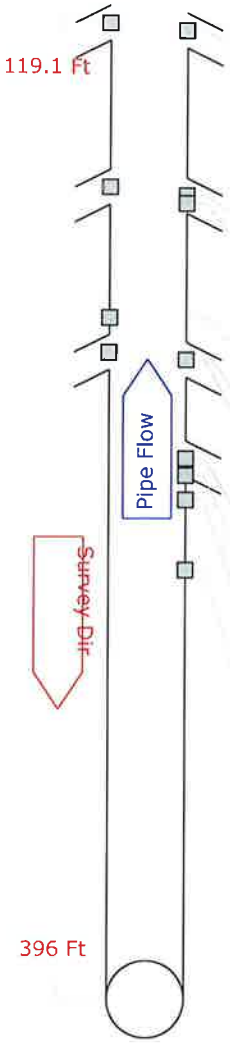


0.0 Ft	Start of Survey Manhole [MH36-1-082] Water Level 5%
9.6 Ft	Roots Fine Joint 08 to 04 o'clock OM: 1
13.6 Ft	Roots Fine Joint 08 to 04 o'clock OM: 1 [S01]
37.3 Ft	Tap Factory Capped 6.000 03 o'clock
47.7 Ft	Roots Fine Joint 08 to 04 o'clock OM: 1 [F01]
52.0 Ft	Roots Fine Joint 08 to 04 o'clock OM: 1
58.0 Ft	Roots Fine Joint 08 to 04 o'clock OM: 1
70.0 Ft	Crack Multiple 12 to 12 o'clock ST: 3 [S02]
76.2 Ft	Crack Multiple 12 to 12 o'clock ST: 3 [F02]
77.9 Ft	Tap Factory Active 6.000 03 o'clock
83.9 Ft	Tap Factory Capped 6.000 09 o'clock
88.4 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2 [S03]
106.4 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2 [F03]
119.1 Ft	Tap Break-in Intruding 6.000 01 o'clock 2.000 OM: 4 Hole Soil Visible 12 o'clock ST: 5

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S6588 for Birmingham

Setup	187 Surveyor Gary	Certificate #	U206-3080	System Owner	Birmingham
Drainage	Map 14	Survey Customer	Birmingham		
P/O #		Date 2019/01/23	Time 14:05	Street ANN	
City	Birmingham	Further location details			
Up	MH36-1-083	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH36-1-082	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Sanitary	Direction Upstream	Flow control	Media No	S6588
Shape	Circular	Height 8 Width	ins Preclean J	Date Cleaned	2019/01/23
Material	Vitrified Clay Pipe	Joint length 2.0 Ft	Total length 396.0 Ft	Length Surveyed	275.00 Ft
Lining		Year laid 0	Year rehabilitated	Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info			Structural O & M Constructional Miscellaneous Hydraulic		
Location	Easement/Right of Way				
Project	Birmingham Phase 2		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		



120.2 Ft	Tap Factory Capped 6.000 03 o'clock
122.4 Ft	Tap Factory Capped 6.000 09 o'clock
166.7 Ft	Tap Factory Active 6.000 03 o'clock
169.2 Ft	Tap Factory Capped 6.000 09 o'clock
171.4 Ft	Roots Fine Joint 08 to 09 o'clock OM: 1
203.6 Ft	Roots Fine Joint 02 to 04 o'clock OM: 1
213.4 Ft	Tap Factory Defective 6.000 03 o'clock OM: 2 [broken inside/ soil visible]
215.6 Ft	Tap Factory Capped 6.000 09 o'clock
243.5 Ft	Tap Factory Capped 6.000 09 o'clock
248.3 Ft	Roots Fine Joint 08 to 04 o'clock OM: 1 [S04] Crack Longitudinal 12 o'clock ST: 2 [S05]
255.2 Ft	Crack Longitudinal 12 o'clock ST: 2 [F05]
275.0 Ft	Roots Ball Barrel 08 to 04 o'clock 080% OM: 5 Roots Fine Joint 08 to 04 o'clock OM: 1 [F04] Abandoned Survey [rootball]

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S6588 for Birmingham

Setup 187	Surveyor Gary	Certificate # U206-3080	System Owner Birmingham	
Drainage Map 14	Survey Customer Birmingham			
P/O #	Date 2019/01/23	Time 14:05	Street ANN	
City Birmingham	Further location details			
Up MH36-1-083	Rim to invert	Grade to invert	Rim to grade	Ft
Down MH36-1-082	Rim to invert	Grade to invert	Rim to grade	Ft
Use Sanitary	Direction Up	Flow control	Media No S6588	
Shape Circular	Height 8 Width ins	Preclean J	Date Cleaned 2019/01/23	
Material Vitrified Clay Pipe	Joint length 2.00 Ft	Total length 396.0 Ft	Length Surveyed 275.0 Ft	
Lining	Year laid 0	Year rehabilitated	Weather Dry	
Purpose Pre-Rehabilitation Survey	Cat		Pressure	
Additional info		Structural O & M Constructional Miscellaneous		
Location Easement/Right of Way				
Project Birmingham Phase 2		Work Order		
Northing	Easting	Elevation		
Coordinate System		GPS Accuracy		

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST	Start of Survey								
0.0			AMH	Manhole								MH36-1-082
0.0			MWL	Water Level			5					
9.6			RFJ	Roots Fine Joint				J	08	04		
13.6		S01	RFJ	Roots Fine Joint				J	08	04		
37.3			TFC	Tap Factory Capped	6.000				03			
47.7		F01	RFJ	Roots Fine Joint				J	08	04		
52.0			RFJ	Roots Fine Joint				J	08	04		
58.0			RFJ	Roots Fine Joint				J	08	04		
70.0		S02	CM	Crack Multiple				J	12	12		
76.2		F02	CM	Crack Multiple				J	12	12		
77.9			TFA	Tap Factory Active	6.000				03			
83.9			TFC	Tap Factory Capped	6.000				09			
88.4		S03	DAE	Deposits Attached Encrustation			5	J	08	04		
106.4		F03	DAE	Deposits Attached Encrustation			5	J	08	04		
119.1			TBI	Tap Break-in Intruding	6.000	2.000			01			
119.1			HSV	Hole Soil Visible					12			
120.2			TFC	Tap Factory Capped	6.000				03			
122.4			TFC	Tap Factory Capped	6.000				09			
166.7			TFA	Tap Factory Active	6.000				03			
169.2			TFC	Tap Factory Capped	6.000				09			
171.4			RFJ	Roots Fine Joint				J	08	09		
203.6			RFJ	Roots Fine Joint				J	02	04		
213.4			TFD	Tap Factory Defective	6.000				03			broken inside/ soil visible
215.6			TFC	Tap Factory Capped	6.000				09			
243.5			TFC	Tap Factory Capped	6.000				09			
248.3		S04	RFJ	Roots Fine Joint				J	08	04		
248.3		S05	CL	Crack Longitudinal				J	12			
255.2		F05	CL	Crack Longitudinal				J	12			
275.0			RBB	Roots Ball Barrel			80		08	04		
275.0		F04	RFJ	Roots Fine Joint				J	08	04		

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S6588 for Birmingham

Setup 187	Surveyor Gary	Certificate # U206-3080	System Owner Birmingham	
Drainage Map 14	Survey Customer Birmingham			
P/O #	Date 2019/01/23	Time 14:05	Street ANN	
City Birmingham	Further location details			
Up MH36-1-083	Rim to invert	Grade to invert	Rim to grade	Ft
Down MH36-1-082	Rim to invert	Grade to invert	Rim to grade	Ft
Use Sanitary	Direction Up	Flow control	Media No S6588	
Shape Circular	Height 8 Width	ins Preclean J	Date Cleaned 2019/01/23	
Material Vitrified Clay Pipe	Joint length 2.00 Ft	Total length 396.0 Ft	Length Surveyed 275.0	Ft
Lining	Year laid 0	Year rehabilitated	Weather Dry	
Purpose Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous	
Location Easement/Right of Way				
Project Birmingham Phase 2			Work Order	
Northing	Easting		Elevation	
Coordinate System			GPS Accuracy	

Count	Video		CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
275.0				MSA	Abandoned Survey								rootball

275.0 Ft Total Length Surveyed

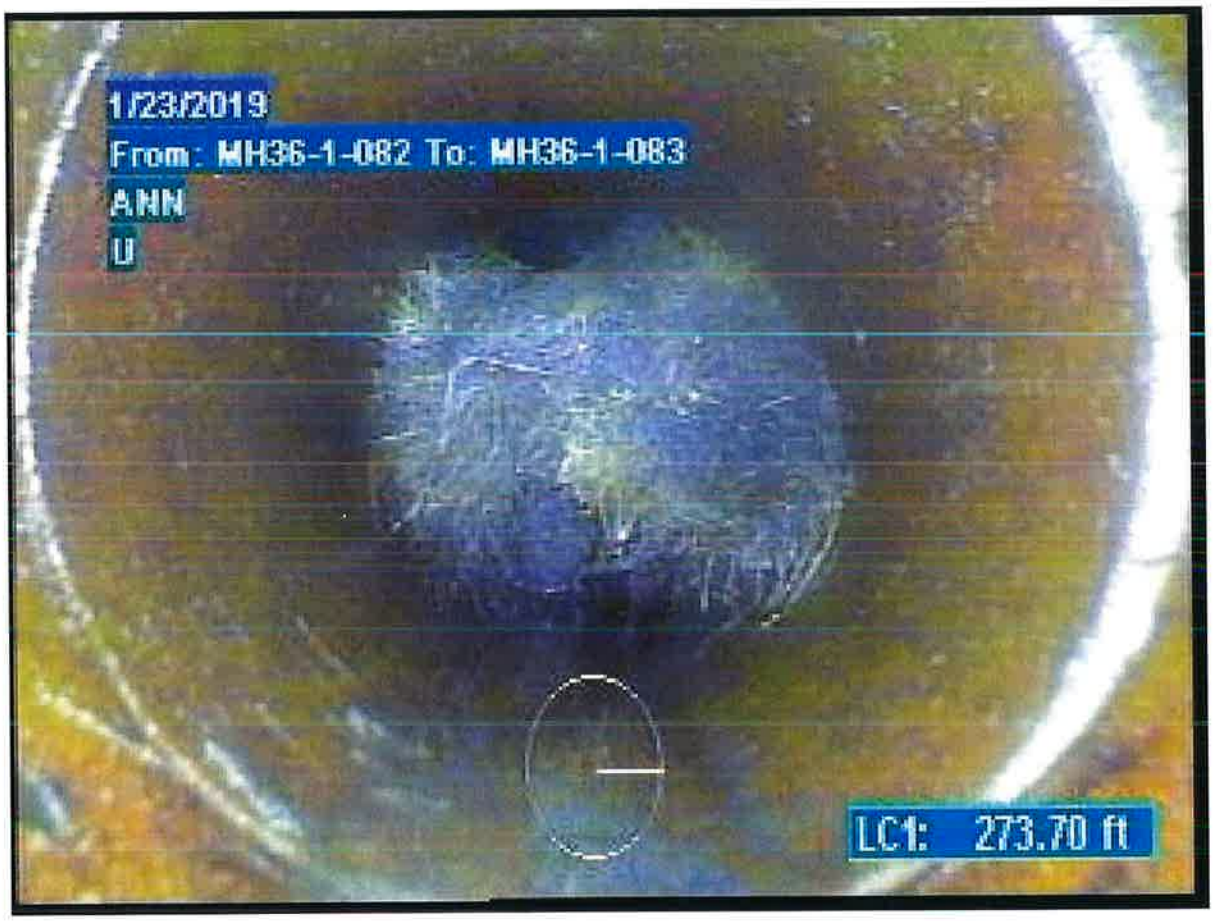
Scores

Structural:	Pipe Rating 10	Pipe Ratings Index 3.3	Quick Rating 5131
O&M:	Pipe Rating 36	Pipe Ratings Index 1.5	Quick Rating 5141
Overall	Pipe Rating 46	Pipe Ratings Index 4.8	Quick Rating 5241

CCTV pictures of S6588
For Birmingham

Work Order			Surveyed On 2019/01/23
Street Name ANN			Video S6588
City Name Birmingham		Weather Dry	
Location Easement/Right of Way			
From Manhole MH36-1-082	To Manhole MH36-1-083		Survey Direction Upstream

Setup 187 Counter 275.0 Ft



S6588.jpg 2019/01/23

Pipe Details:

Year Laid 0 Shape Circular Size 8 By ins

Material Vitrified Clay Pipe Lining Use Sanitary

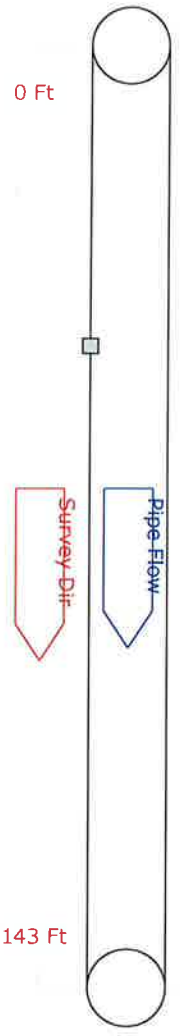
Observation: Abandoned Survey

Comments: rootball

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S6769 for Birmingham

Setup	167 Surveyor Gary	Certificate #	U206-3080	System Owner	Birmingham
Drainage	Map 8	Survey Customer	Birmingham		
P/O #		Date	2018/09/14	Time	11:03
Street	REDDING				
City	Birmingham	Further location details			
Up	MH26-1-099	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH26-1-099A	Rim to invert		Grade to invert	Rim to grade Ft
Use	Stormwater	Direction	Downstream	Flow control	Media No S6769
Shape	Circular	Height 21	Width	ins	Preclean J
Date Cleaned	2018/09/14				
Material	Reinforced Concrete Pipe	Joint length	8.0 Ft	Total length	143.0 Ft
Length Surveyed	143.00 Ft				
Lining		Year laid	0	Year rehabilitated	Weather Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info		Structural	O & M	Constructional	
Miscellaneous	Hydraulic				
Location	Light Highway				
Project	Birmingham Phase 1	Work Order			
Northing		Easting		Elevation	
Coordinate System		GPS Accuracy			



0.0 Ft Start of Survey
Manhole [MH26-1-099]
Water Level 5%

45.7 Ft Infil Weeper 04 o'clock OM: 2

143.0 Ft Manhole [MH26-1-099A]
End of Survey

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S6769 for Birmingham

Setup	167	Surveyor Gary	Certificate # U206-3080	System Owner Birmingham	
Drainage	Map 8	Survey Customer Birmingham			
P/O #		Date 2018/09/14	Time 11:03	Street REDDING	
City	Birmingham	Further location details			
Up	MH26-1-099	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH26-1-099A	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Stormwater	Direction Down	Flow control	Media No S6769	
Shape	Circular	Height 21	Width ins	Preclean J	Date Cleaned 2018/09/14
Material	Reinforced Concrete Pipe	Joint length 8.00Ft	Total length 143.0 Ft	Length Surveyed 143.0	Ft
Lining		Year laid 0	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video		CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0				ST	Start of Survey								
0.0				AMH	Manhole								MH26-1-099
0.0				MWL	Water Level			5					
45.7				IW	Infil Weeper				J	04			
143.0				AMH	Manhole								MH26-1-099A
143.0				FH	End of Survey								

143.0 Ft Total Length Surveyed

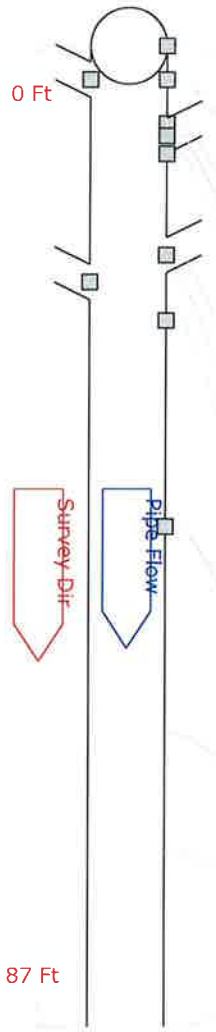
Scores

Structural:	Pipe Rating 0	Pipe Ratings Index 0	Quick Rating 0000
O&M:	Pipe Rating 2	Pipe Ratings Index 2	Quick Rating 2100
Overall	Pipe Rating 2	Pipe Ratings Index 2	Quick Rating 2100

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S7021 for Birmingham

Setup	133	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/10/16	Time	7:30
Street	ARLINGTON				
City	Birmingham	Further location details			
Up	MH35-1-102	Rim to invert		Grade to invert		Rim to grade	Ft
Down	MH35-1-103	Rim to invert		Grade to invert		Rim to grade	Ft
Use	Combined	Direction	Downstream	Flow control		Media No	S7021
Shape	Circular	Height	10	Width	ins	Preclean	J	Date Cleaned	2018/10/16
Material	Reinforced Concrete Pipe	Joint length	3.0 Ft	Total length	248.0 Ft	Length Surveyed	248.00 Ft
Lining		Year laid	1952	Year rehabilitated		Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural	O & M	Constructional
				Miscellaneous	Hydraulic	
Location	Light Highway				
Project	Birmingham Phase 1			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	

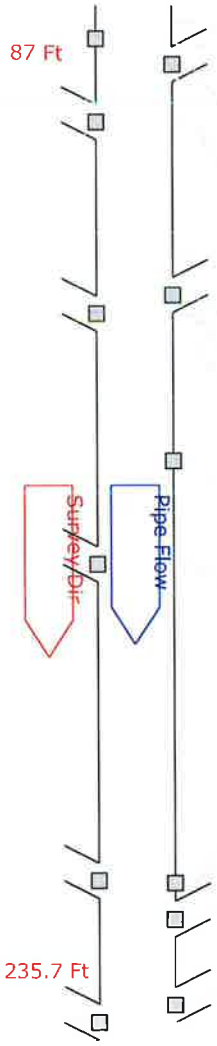


0.0 Ft	Start of Survey Manhole [MH35-1-102] Water Level 0% Surface Aggregate Visible 07 to 05 o'clock ST: 3 [S01]
3.0 Ft	Roots Medium Joint 09 o'clock 005% OM: 3 Tap Break-in Active 6.000 03 o'clock
6.9 Ft	Broken 07 to 11 o'clock ST: 5
8.0 Ft	Tap Break-in Active 6.000 10 o'clock
9.6 Ft	Roots Fine Joint 08 o'clock OM: 1
18.6 Ft	Tap Factory Capped 6.000 10 o'clock
21.0 Ft	Tap Factory Capped 6.000 02 o'clock
24.4 Ft	Surface Roughness Increased 07 to 05 o'clock ST: 1
42.7 Ft	Crack Circumferential 12 to 04 o'clock ST: 1
61.1 Ft	Material change [to PVC] Repair Point [replaced with PVC]
71.6 Ft	Material change [to RCP]
87.0 Ft	Repair Point [replaced with PVC] Material change [to PVC]

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S7021 for Birmingham

Setup	133	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/10/16	Time	7:30
Street	ARLINGTON				
City	Birmingham	Further location details			
Up	MH35-1-102	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH35-1-103	Rim to invert		Grade to invert	Rim to grade Ft
Use	Combined	Direction	Downstream	Flow control	Media No S7021
Shape	Circular	Height	10 Width	ins Preclean J	Date Cleaned 2018/10/16
Material	Reinforced Concrete Pipe	Joint length	3.0 Ft	Total length 248.0 Ft	Length Surveyed 248.00 Ft
Lining		Year laid	1952	Year rehabilitated	Weather Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural O & M Constructional Miscellaneous Hydraulic	
Location	Light Highway				
Project	Birmingham Phase 1			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	



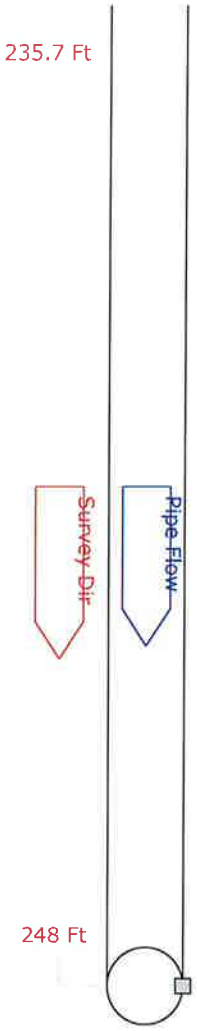
89.7 Ft	Material change [to RCP] Joint Angular Medium ST: 1
91.9 Ft	Roots Medium Joint 03 o'clock 005% OM: 3 Joint Angular Medium ST: 1
95.7 Ft	Tap Break-in Active 6.000 09 o'clock
104.1 Ft	Tap Break-in Active 6.000 03 o'clock
129.5 Ft	Tap Factory Capped 6.000 10 o'clock
132.2 Ft	Tap Factory Capped 6.000 02 o'clock
136.2 Ft	Joint Angular Medium ST: 1
153.8 Ft	Crack Circumferential 12 to 02 o'clock ST: 1
168.9 Ft	Tap Break-in Active 6.000 03 o'clock
215.1 Ft	Tap Break-in Active 6.000 02 o'clock
215.5 Ft	Crack Circumferential 07 to 09 o'clock ST: 1
220.7 Ft	Tap Break-in Active 6.000 10 o'clock
233.2 Ft	Tap Factory Capped 6.000 10 o'clock
235.7 Ft	Tap Factory Capped 6.000 02 o'clock

Pipe Graphic Report of PSR S7021 for Birmingham

Setup	133	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/10/16	Time	7:30
Street	ARLINGTON				
City	Birmingham	Further location details			
Up	MH35-1-102	Rim to invert		Grade to invert		Rim to grade	Ft
Down	MH35-1-103	Rim to invert		Grade to invert		Rim to grade	Ft
Use	Combined	Direction	Downstream	Flow control		Media No	S7021
Shape	Circular	Height	10	Width	ins	Preclean	J	Date Cleaned	2018/10/16
Material	Reinforced Concrete Pipe	Joint length	3.0 Ft	Total length	248.0 Ft	Length Surveyed	248.00 Ft
Lining		Year laid	1952	Year rehabilitated		Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info					
Location	Light Highway				
Project	Birmingham Phase 1				
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	

Structural	O & M	Constructional
Miscellaneous	Hydraulic	

Work Order



248.0 Ft Surface Aggregate Visible 07 to 05 o'clock ST: 3 [F01]
Manhole [MH35-1-103]
End of Survey

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S7021 for Birmingham

Setup 133	Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham		
Drainage Map 6	Survey Customer Birmingham				
P/O #	Date 2018/10/16	Time 7:30	Street ARLINGTON		
City Birmingham	Further location details				
Up MH35-1-102	Rim to invert	Grade to invert	Rim to grade Ft		
Down MH35-1-103	Rim to invert	Grade to invert	Rim to grade Ft		
Use Combined	Direction Down	Flow control	Media No S7021		
Shape Circular	Height 10 Width ins	Preclean J	Date Cleaned 2018/10/16		
Material Reinforced Concrete Pipe	Joint length 3.00 Ft	Total length 248.0 Ft	Length Surveyed 248.0 Ft		
Lining	Year laid 1952	Year rehabilitated	Weather Dry		
Purpose Pre-Rehabilitation Survey	Cat		Pressure		
Additional info			Structural O & M Constructional Miscellaneous		
Location Light Highway					
Project Birmingham Phase 1			Work Order		
Northing	Easting		Elevation		
Coordinate System			GPS Accuracy		

Count	Video		CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0				ST	Start of Survey								
0.0				AMH	Manhole								MH35-1-102
0.0				MWL	Water Level			0					
0.0			S01	SAV	Surface Aggregate Visible					07	05		
3.0				RMJ	Roots Medium Joint			5	J	09			
3.0				TBA	Tap Break-in Active	6.000				03			
6.9				B	Broken				J	07	11		
8.0				TBA	Tap Break-in Active	6.000				10			
9.6				RFJ	Roots Fine Joint				J	08			
18.6				TFC	Tap Factory Capped	6.000				10			
21.0				TFC	Tap Factory Capped	6.000				02			
24.4				SRI	Surface Roughness Increased					07	05		
42.7				CC	Crack Circumferential				J	12	04		
61.1				MMC	Material change								to PVC
61.1				RPR	Repair Point								replaced with PVC
71.6				MMC	Material change								to RCP
87.0				RPR	Repair Point								replaced with PVC
87.0				MMC	Material change								to PVC
89.7				MMC	Material change								to RCP
89.7				JAM	Joint Angular Medium								
91.9				RMJ	Roots Medium Joint			5	J	03			
91.9				JAM	Joint Angular Medium								
95.7				TBA	Tap Break-in Active	6.000				09			
104.1				TBA	Tap Break-in Active	6.000				03			
129.5				TFC	Tap Factory Capped	6.000				10			
132.2				TFC	Tap Factory Capped	6.000				02			
136.2				JAM	Joint Angular Medium								
153.8				CC	Crack Circumferential				J	12	02		
168.9				TBA	Tap Break-in Active	6.000				03			
215.1				TBA	Tap Break-in Active	6.000				02			
215.5				CC	Crack Circumferential					07	09		

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S7021 for Birmingham

Setup	133	Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham	
Drainage	Map 6	Survey Customer Birmingham			
P/O #		Date 2018/10/16	Time 7:30	Street ARLINGTON	
City	Birmingham	Further location details			
Up	MH35-1-102	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH35-1-103	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Combined	Direction Down	Flow control	Media No S7021	
Shape	Circular	Height 10 Width	ins Preclean J	Date Cleaned 2018/10/16	
Material	Reinforced Concrete Pipe	Joint length 3.00 Ft	Total length 248.0 Ft	Length Surveyed 248.0	Ft
Lining		Year laid 1952	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
220.7			TBA	Tap Break-in Active	6.000				10			
233.2			TFC	Tap Factory Capped	6.000				10			
235.7			TFC	Tap Factory Capped	6.000				02			
248.0		F01	SAV	Surface Aggregate Visible					07	05		
248.0			AMH	Manhole								MH35-1-103
248.0			FH	End of Survey								

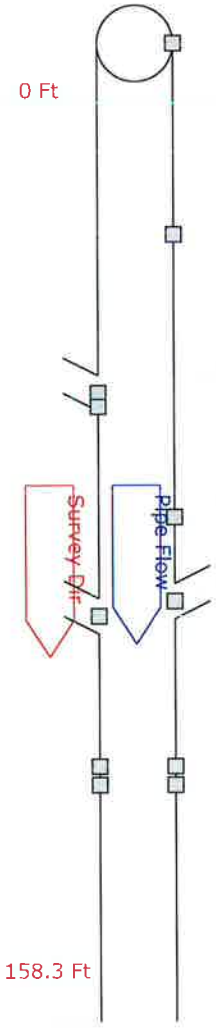
248.0 Ft Total Length Surveyed

Scores

Structural:	Pipe Rating 162	Pipe Ratings Index 2.8	Quick Rating 513I
O&M:	Pipe Rating 7	Pipe Ratings Index 2.3	Quick Rating 3211
Overall	Pipe Rating 169	Pipe Ratings Index 5.1	Quick Rating 513I

Pipe Graphic Report of PSR S7022 for Birmingham

Setup	134 Surveyor Robert B	Certificate #	U-915-07001225	System Owner	Birmingham
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/10/16 Time 8:34	Street	ARLINGTON
City	Birmingham	Further location details			
Up	MH35-1-103	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH35-1-104	Rim to invert		Grade to invert	Rim to grade Ft
Use	Combined	Direction	Downstream	Flow control	Media No S7022
Shape	Circular	Height 12	Width ins	Preclean J	Date Cleaned 2018/10/16
Material	Reinforced Concrete Pipe	Joint length 3.0 Ft		Total length 250.0 Ft	Length Surveyed 250.00 Ft
Lining		Year laid 1952		Year rehabilitated	Weather Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural O & M Constructional Miscellaneous Hydraulic	
Location	Light Highway				
Project	Birmingham Phase 1			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	



0.0 Ft	Start of Survey Manhole [MH35-1-103] Water Level 5% Surface Aggregate Visible 07 to 05 o'clock ST: 3 [S01]
31.0 Ft	Roots Medium Joint 08 o'clock 005% OM: 3
56.7 Ft	Tap Break-in Intruding 6.000 02 o'clock 2.000 OM: 3
58.9 Ft	Deposits Settled Fine 06 o'clock 010% OM: 2
76.8 Ft	Deposits Attached Encrustation 07 to 10 o'clock 005% OM: 2
90.4 Ft	Tap Factory Capped 6.000 10 o'clock
92.8 Ft	Tap Factory Capped 6.000 02 o'clock
117.1 Ft	Crack Circumferential 08 to 04 o'clock ST: 1 Deposits Attached Encrustation 09 o'clock 005% OM: 2 Deposits Attached Encrustation 02 to 05 o'clock 005% OM: 2
118.8 Ft	Joint Separated Large ST: 2
120.1 Ft	Crack Circumferential 08 to 04 o'clock ST: 1 Deposits Attached Encrustation 08 o'clock 005% OM: 2 Deposits Attached Encrustation 02 to 04 o'clock 005% OM: 2
158.3 Ft	Water Level 035% [35%]

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

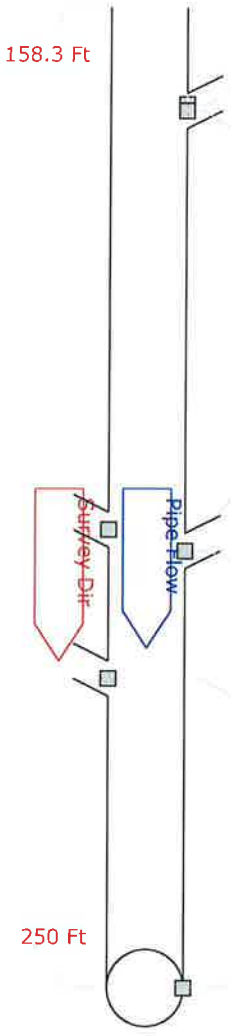
Pipe Graphic Report of PSR S7022 for Birmingham

Setup	134	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/10/16	Time	8:34
Street	ARLINGTON				
City	Birmingham	Further location details			

Up	MH35-1-103	Rim to invert		Grade to invert		Rim to grade	Ft
Down	MH35-1-104	Rim to invert		Grade to invert		Rim to grade	Ft

Use	Combined	Direction	Downstream	Flow control		Media No	S7022
Shape	Circular	Height	12	Width	ins	Preclean	J	Date Cleaned	2018/10/16
Material	Reinforced Concrete Pipe	Joint length	3.0 Ft	Total length	250.0 Ft	Length Surveyed	250.00 Ft
Lining		Year laid	1952	Year rehabilitated		Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat					

Additional info				Structural	O & M	Constructional
Location	Light Highway			Miscellaneous	Hydraulic	
Project	Birmingham Phase 1			Work Order		
Northing		Easting		Elevation		
Coordinate System				GPS Accuracy		



167.4 Ft Broken 07 to 09 o'clock ST: 5

168.0 Ft Tap Break-in Active 6.000 10 o'clock

207.2 Ft Tap Break-in Active 6.000 02 o'clock
Roots Medium Lateral 03 o'clock 010% OM: 3

209.2 Ft Tap Factory Capped 6.000 10 o'clock

221.1 Ft Tap Factory Capped 6.000 02 o'clock

250.0 Ft Surface Aggregate Visible 07 to 05 o'clock ST: 3 [F01]
Manhole [MH35-1-104]
End of Survey

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S7022 for Birmingham

Setup	134	Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham	
Drainage	Map 6	Survey Customer Birmingham			
P/O #		Date 2018/10/16	Time 8:34	Street ARLINGTON	
City	Birmingham	Further location details			
Up	MH35-1-103	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH35-1-104	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Combined	Direction Down	Flow control	Media No S7022	
Shape	Circular	Height 12 Width	ins Preclean J	Date Cleaned 2018/10/16	
Material	Reinforced Concrete Pipe	Joint length 3.00Ft	Total length 250.0 Ft	Length Surveyed 250.0	Ft
Lining		Year laid 1952	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST	Start of Survey								
0.0			AMH	Manhole								MH35-1-103
0.0			MWL	Water Level			5					
0.0		S01	SAV	Surface Aggregate Visible					07	05		
31.0			RMJ	Roots Medium Joint			5	J	08			
56.7			TBI	Tap Break-in Intruding	6.000	2.000			02			
58.9			DSF	Deposits Settled Fine			10		06			
76.8			DAE	Deposits Attached Encrustation			5	J	07	10		
90.4			TFC	Tap Factory Capped	6.000				10			
92.8			TFC	Tap Factory Capped	6.000				02			
117.1			CC	Crack Circumferential					08	04		
117.1			DAE	Deposits Attached Encrustation			5		09			
117.1			DAE	Deposits Attached Encrustation			5		02	05		
118.8			JSL	Joint Separated Large								
120.1			CC	Crack Circumferential					08	04		
120.1			DAE	Deposits Attached Encrustation			5		08			
120.1			DAE	Deposits Attached Encrustation			5		02	04		
158.3			MWL	Water Level			35					35%
167.4			B	Broken				J	07	09		
168.0			TBA	Tap Break-in Active	6.000				10			
207.2			TBA	Tap Break-in Active	6.000				02			
207.2			RML	Roots Medium Lateral			10		03			
209.2			TFC	Tap Factory Capped	6.000				10			
221.1			TFC	Tap Factory Capped	6.000				02			
250.0		F01	SAV	Surface Aggregate Visible					07	05		
250.0			AMH	Manhole								MH35-1-104
250.0			FH	End of Survey								

250.0 Ft Total Length Surveyed

Scores

Structural:	Pipe Rating 159	Pipe Ratings Index 2.9	Quick Rating 5131
O&M:	Pipe Rating 21	Pipe Ratings Index 2.3	Quick Rating 3326
Overall	Pipe Rating 180	Pipe Ratings Index 5.2	Quick Rating 5131

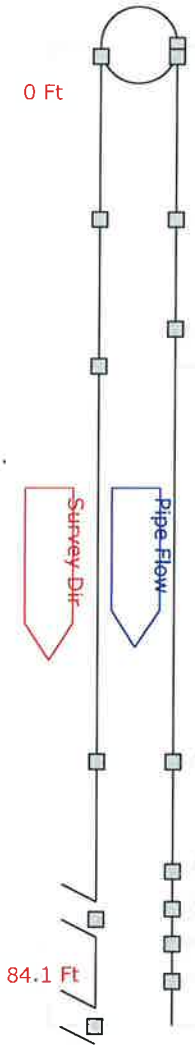
Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S7023 for Birmingham

Setup	135	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/10/16	Time	9:21
Street	ARLINGTON				
City	Birmingham	Further location details			
Up	MH35-1-104	Rim to invert		Grade to invert		Rim to grade	Ft
Down	MH35-1-105	Rim to invert		Grade to invert		Rim to grade	Ft
Use	Combined	Direction	Downstream	Flow control		Media No	S7023
Shape	Circular	Height	12	Width	ins	Preclean	J	Date Cleaned	2018/10/16
Material	Reinforced Concrete Pipe	Joint length	3.0 Ft	Total length	296.0 Ft	Length Surveyed	296.00 Ft
Lining		Year laid	1952	Year rehabilitated		Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info					
Location	Light Highway				
Project	Birmingham Phase 1				
Northing		Easting			
Coordinate System					

Structural O & M Constructional
Miscellaneous Hydraulic

Work Order
Elevation
GPS Accuracy

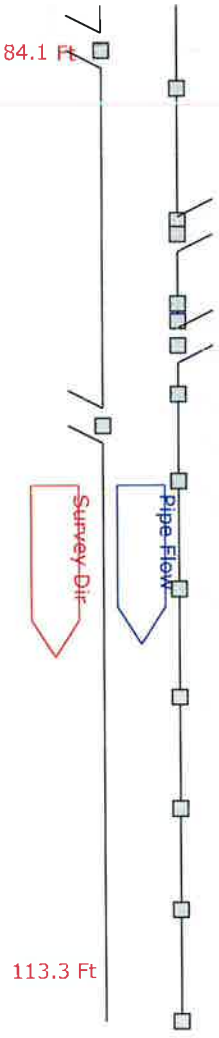


0.0 Ft	Start of Survey Manhole [MH35-1-104] Water Level 5% Surface Aggregate Visible 07 to 05 o'clock ST: 3 [S01]
1.0 Ft	Deposits Attached Encrustation 04 o'clock 005% OM: 2 Crack Circumferential 12 to 06 o'clock ST: 1
15.0 Ft	Roots Medium Joint 07 o'clock 005% OM: 3 Deposits Attached Encrustation 03 to 05 o'clock 005% OM: 2
24.4 Ft	Crack Longitudinal 12 o'clock ST: 2
27.6 Ft	Deposits Attached Encrustation 03 to 05 o'clock 005% OM: 2
61.5 Ft	Roots Medium Joint 05 o'clock 005% OM: 3 Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2
70.9 Ft	Deposits Attached Encrustation 07 to 09 o'clock 005% OM: 2
74.1 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2
75.0 Ft	Tap Break-in Active 6.000 02 o'clock
77.1 Ft	Deposits Attached Encrustation 07 to 12 o'clock 005% OM: 2
80.3 Ft	Deposits Attached Encrustation 07 to 12 o'clock 005% OM: 2
84.1 Ft	Tap Factory Active 6.000 02 o'clock

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S7023 for Birmingham

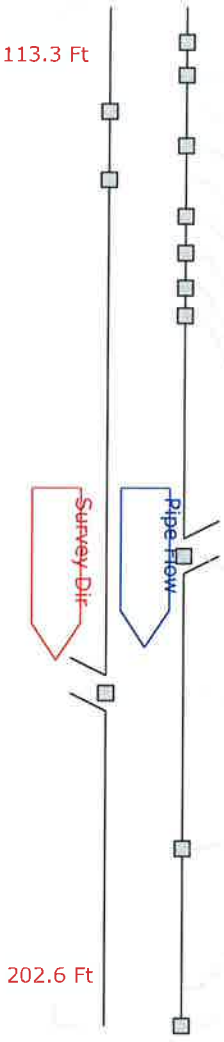
Setup	135 Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham		
Drainage	Map 6	Survey Customer Birmingham			
P/O #		Date 2018/10/16 Time 9:21	Street ARLINGTON		
City	Birmingham	Further location details			
Up	MH35-1-104	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH35-1-105	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Combined	Direction Downstream	Flow control	Media No S7023	
Shape	Circular	Height 12 Width	ins Preclean J	Date Cleaned 2018/10/16	
Material	Reinforced Concrete Pipe	Joint length 3.0 Ft	Total length 296.0 Ft	Length Surveyed 296.00 Ft	
Lining		Year laid 1952	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info			Structural O & M Constructional Miscellaneous Hydraulic		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		



85.4 Ft	Tap Break-in Active 6.000 02 o'clock
86.5 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2
90.3 Ft	Deposits Attached Encrustation 08 to 11 o'clock 005% OM: 2 [around tap]
90.7 Ft	Tap Break-in Active 6.000 10 o'clock
92.7 Ft	Deposits Attached Encrustation 07 to 09 o'clock 005% OM: 2
93.2 Ft	Deposits Attached Encrustation 07 to 09 o'clock 005% OM: 2 [under tap]
93.9 Ft	Tap Factory Capped 6.000 10 o'clock
95.3 Ft	Deposits Attached Encrustation 07 to 05 o'clock 010% OM: 2
96.2 Ft	Tap Factory Capped 6.000 02 o'clock Deposits Attached Encrustation 02 to 05 o'clock 005% OM: 2 [under tap]
97.8 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2
100.9 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2
104.0 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2
107.2 Ft	Deposits Attached Encrustation 07 to 05 o'clock 010% OM: 2
110.1 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2
113.3 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2

Pipe Graphic Report of PSR S7023 for Birmingham

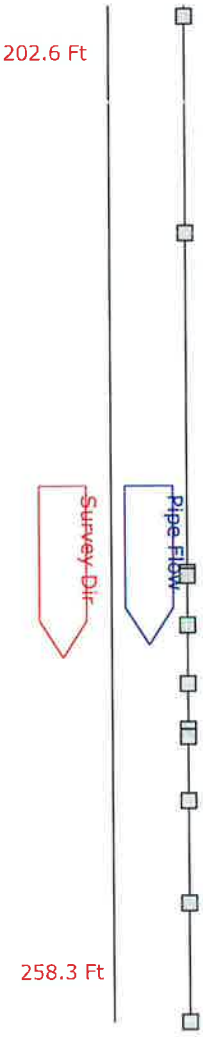
Setup	135	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/10/16	Time	9:21
Street	ARLINGTON				
City	Birmingham	Further location details			
Up	MH35-1-104	Rim to invert		Grade to invert		Rim to grade	Ft
Down	MH35-1-105	Rim to invert		Grade to invert		Rim to grade	Ft
Use	Combined	Direction	Downstream	Flow control		Media No	S7023
Shape	Circular	Height	12	Width	ins	Preclean	J	Date Cleaned	2018/10/16
Material	Reinforced Concrete Pipe	Joint length	3.0 Ft	Total length	296.0 Ft	Length Surveyed	296.00 Ft
Lining		Year laid	1952	Year rehabilitated		Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural	O & M	Constructional
				Miscellaneous	Hydraulic	
Location	Light Highway				
Project	Birmingham Phase 1			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	



116.4 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2
119.3 Ft	Infil Stain 07 to 05 o'clock
122.5 Ft	Deposits Attached Encrustation 03 to 05 o'clock 005% OM: 2
125.5 Ft	Deposits Attached Encrustation 09 to 03 o'clock 005% OM: 2
128.5 Ft	Deposits Attached Encrustation 02 to 05 o'clock 005% OM: 2
131.7 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2
134.9 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2
138.0 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2
140.4 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2 [S02]
161.5 Ft	Tap Break-in Active 6.000 10 o'clock
173.5 Ft	Tap Break-in Active 6.000 02 o'clock Deposits Attached Encrustation 02 to 05 o'clock 005% OM: 2 [under tap]
187.1 Ft	Infil Dripper 12 o'clock OM: 3
199.2 Ft	Water Level Sag 065% ST: 4 [65%]
202.6 Ft	Surface Aggregate Visible 07 to 05 o'clock ST: 3 [F01] Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2 [F02] Deposits Attached Encrustation 09 to 03 o'clock 005% OM: 2 [S03]

Pipe Graphic Report of PSR S7023 for Birmingham

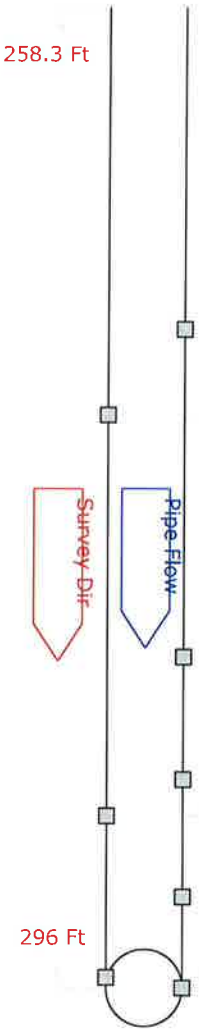
Setup	135	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/10/16	Time	9:21
Street	ARLINGTON				
City	Birmingham	Further location details			
Up	MH35-1-104	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH35-1-105	Rim to invert		Grade to invert	Rim to grade Ft
Use	Combined	Direction	Downstream	Flow control	Media No S7023
Shape	Circular	Height	12	Width ins	Preclean J
Date Cleaned	2018/10/16				
Material	Reinforced Concrete Pipe	Joint length	3.0 Ft	Total length	296.0 Ft
Length Surveyed	296.00 Ft				
Lining		Year laid	1952	Year rehabilitated	Weather Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural O & M Constructional Miscellaneous Hydraulic	
Location	Light Highway				
Project	Birmingham Phase 1			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	



203.2 Ft	Surface Aggregate Visible 09 to 03 o'clock ST: 3 [S04]
209.6 Ft	Water Level Sag 075% ST: 4 [75%]
215.1 Ft	Deposits Attached Encrustation 08 to 04 o'clock 010% OM: 2
216.9 Ft	Water Level 035% [35%]
222.8 Ft	Water Level Sag 075% ST: 4 [75%]
233.7 Ft	Deposits Attached Encrustation 07 to 05 o'clock 010% OM: 2 Deposits Attached Encrustation 09 to 03 o'clock 005% OM: 2 [F03] Surface Aggregate Visible 09 to 03 o'clock ST: 3 [F04]
233.9 Ft	Surface Aggregate Visible 07 to 05 o'clock ST: 3 [S05]
236.6 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2
239.8 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2 [S06]
242.3 Ft	Broken 08 to 02 o'clock ST: 5
242.7 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2
246.2 Ft	Deposits Attached Encrustation 07 to 05 o'clock 010% OM: 2
251.8 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2 [F06]
258.3 Ft	Deposits Attached Encrustation 08 to 05 o'clock 005% OM: 2

Pipe Graphic Report of PSR S7023 for Birmingham

Setup	135 Surveyor Robert B	Certificate #	U-915-07001225	System Owner	Birmingham
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/10/16 Time 9:21	Street	ARLINGTON
City	Birmingham	Further location details			
Up	MH35-1-104	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH35-1-105	Rim to invert		Grade to invert	Rim to grade Ft
Use	Combined	Direction	Downstream	Flow control	Media No S7023
Shape	Circular	Height 12	Width ins	Preclean J	Date Cleaned 2018/10/16
Material	Reinforced Concrete Pipe	Joint length	3.0 Ft	Total length 296.0 Ft	Length Surveyed 296.00 Ft
Lining		Year laid	1952	Year rehabilitated	Weather Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural O & M Constructional Miscellaneous Hydraulic	
Location	Light Highway				
Project	Birmingham Phase 1			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	



270.7 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2
274.0 Ft	Deposits Attached Encrustation 05 o'clock 005% OM: 2
283.3 Ft	Fracture Circumferential 07 to 05 o'clock ST: 2
288.0 Ft	Crack Longitudinal 12 o'clock ST: 2
289.4 Ft	Deposits Attached Encrustation 04 o'clock 005% OM: 2
292.5 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2
295.6 Ft	Deposits Attached Encrustation 03 o'clock 025% OM: 4 [in channel at Manhole]
296.0 Ft	Surface Aggregate Visible 07 to 05 o'clock ST: 3 [F05] Manhole [MH35-1-105] End of Survey

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S7023 for Birmingham

Setup	135	Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham	
Drainage	Map 6	Survey Customer Birmingham			
P/O #		Date 2018/10/16	Time 9:21	Street ARLINGTON	
City	Birmingham	Further location details			
Up	MH35-1-104	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH35-1-105	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Combined	Direction Down	Flow control	Media No S7023	
Shape	Circular	Height 12 Width	ins Preclean J	Date Cleaned 2018/10/16	
Material	Reinforced Concrete Pipe	Joint length 3.00 Ft	Total length 296.0 Ft	Length Surveyed 296.0	Ft
Lining		Year laid 1952	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video		CD	Code		In1	In2	%	Jnt	Fr	To	Im	Ref	Remarks
0.0				ST	Start of Survey									
0.0				AMH	Manhole									MH35-1-104
0.0				MWL	Water Level			5						
0.0			S01	SAV	Surface Aggregate Visible					07	05			
1.0				DAE	Deposits Attached Encrustation			5		04				
1.0				CC	Crack Circumferential					12	06			
15.0				RMJ	Roots Medium Joint			5	J	07				
15.0				DAE	Deposits Attached Encrustation			5	J	03	05			
24.4				CL	Crack Longitudinal				J	12				
27.6				DAE	Deposits Attached Encrustation			5	J	03	05			
61.5				RMJ	Roots Medium Joint			5	J	05				
61.5				DAE	Deposits Attached Encrustation			5	J	07	05			
70.9				DAE	Deposits Attached Encrustation			5	J	07	09			
74.1				DAE	Deposits Attached Encrustation			5	J	07	05			
75.0				TBA	Tap Break-in Active	6.000				02				
77.1				DAE	Deposits Attached Encrustation			5	J	07	12			
80.3				DAE	Deposits Attached Encrustation			5	J	07	12			
84.1				TFA	Tap Factory Active	6.000				02				
85.4				TBA	Tap Break-in Active	6.000				02				
86.5				DAE	Deposits Attached Encrustation			5	J	07	05			
90.3				DAE	Deposits Attached Encrustation			5		08	11			around tap
90.7				TBA	Tap Break-in Active	6.000				10				
92.7				DAE	Deposits Attached Encrustation			5	J	07	09			
93.2				DAE	Deposits Attached Encrustation			5		07	09			under tap
93.9				TFC	Tap Factory Capped	6.000				10				
95.3				DAE	Deposits Attached Encrustation			10	J	07	05			
96.2				TFC	Tap Factory Capped	6.000				02				
96.2				DAE	Deposits Attached Encrustation			5		02	05			under tap
97.8				DAE	Deposits Attached Encrustation			5	J	07	05			
100.9				DAE	Deposits Attached Encrustation			5	J	07	05			
104.0				DAE	Deposits Attached Encrustation			5	J	07	05			

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S7023 for Birmingham

Setup 135	Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham	
Drainage Map 6	Survey Customer Birmingham			
P/O #	Date 2018/10/16	Time 9:21	Street ARLINGTON	
City Birmingham	Further location details			
Up MH35-1-104	Rim to invert	Grade to invert	Rim to grade	Ft
Down MH35-1-105	Rim to invert	Grade to invert	Rim to grade	Ft
Use Combined	Direction Down	Flow control	Media No S7023	
Shape Circular	Height 12 Width	ins Preclean J	Date Cleaned 2018/10/16	
Material Reinforced Concrete Pipe	Joint length 3.00 Ft	Total length 296.0 Ft	Length Surveyed 296.0	Ft
Lining	Year laid 1952	Year rehabilitated	Weather Dry	
Purpose Pre-Rehabilitation Survey	Cat		Pressure	
Additional info		Structural O & M Constructional Miscellaneous		
Location Light Highway				
Project Birmingham Phase 1		Work Order		
Northing	Easting	Elevation		
Coordinate System		GPS Accuracy		

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
107.2			DAE	Deposits Attached Encrustation			10	J	07	05		
110.1			DAE	Deposits Attached Encrustation			5	J	07	05		
113.3			DAE	Deposits Attached Encrustation			5	J	07	05		
116.4			DAE	Deposits Attached Encrustation			5	J	07	05		
119.3			IS	Infil Stain				J	07	05		
122.5			DAE	Deposits Attached Encrustation			5	J	03	05		
125.5			DAE	Deposits Attached Encrustation			5	J	09	03		
128.5			DAE	Deposits Attached Encrustation			5	J	02	05		
131.7			DAE	Deposits Attached Encrustation			5	J	07	05		
134.9			DAE	Deposits Attached Encrustation			5	J	07	05		
138.0			DAE	Deposits Attached Encrustation			5	J	07	05		
140.4		S02	DAE	Deposits Attached Encrustation			5	J	07	05		
161.5			TBA	Tap Break-in Active	6.000				10			
173.5			TBA	Tap Break-in Active	6.000				02			
173.5			DAE	Deposits Attached Encrustation			5		02	05		under tap
187.1			ID	Infil Dripper				J	12			
199.2			MWLS	Water Level Sag			65					65%
202.6		F01	SAV	Surface Aggregate Visible					07	05		
202.6		F02	DAE	Deposits Attached Encrustation			5	J	07	05		
202.6		S03	DAE	Deposits Attached Encrustation			5	J	09	03		
203.2		S04	SAV	Surface Aggregate Visible					09	03		
209.6			MWLS	Water Level Sag			75					75%
215.1			DAE	Deposits Attached Encrustation			10	J	08	04		
216.9			MWL	Water Level			35					35%
222.8			MWLS	Water Level Sag			75					75%
233.7			DAE	Deposits Attached Encrustation			10	J	07	05		
233.7		F03	DAE	Deposits Attached Encrustation			5	J	09	03		
233.7		F04	SAV	Surface Aggregate Visible					09	03		
233.9		S05	SAV	Surface Aggregate Visible					07	05		
236.6			DAE	Deposits Attached Encrustation			5	J	07	05		
239.8		S06	DAE	Deposits Attached Encrustation			5	J	07	05		
242.3			B	Broken				J	08	02		

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S7023 for Birmingham

Setup	135	Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham	
Drainage	Map 6	Survey Customer Birmingham			
P/O #		Date 2018/10/16	Time 9:21	Street ARLINGTON	
City	Birmingham	Further location details			
Up	MH35-1-104	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH35-1-105	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Combined	Direction Down	Flow control	Media No S7023	
Shape	Circular	Height 12 Width	ins Preclean J	Date Cleaned 2018/10/16	
Material	Reinforced Concrete Pipe	Joint length 3.00Ft	Total length 296.0 Ft	Length Surveyed 296.0 Ft	
Lining		Year laid 1952	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
242.7			DAE	Deposits Attached Encrustation			5	J	07	05		
246.2			DAE	Deposits Attached Encrustation			10	J	07	05		
251.8		F06	DAE	Deposits Attached Encrustation			5	J	07	05		
258.3			DAE	Deposits Attached Encrustation			5	J	08	05		
270.7			DAE	Deposits Attached Encrustation			5	J	07	05		
274.0			DAE	Deposits Attached Encrustation			5	J	05			
283.3			FC	Fracture Circumferential				J	07	05		
288.0			CL	Crack Longitudinal				J	12			
289.4			DAE	Deposits Attached Encrustation			5	J	04			
292.5			DAE	Deposits Attached Encrustation			5	J	07	05		
295.6			DAE	Deposits Attached Encrustation			25		03			in channel at Manhole
296.0		F05	SAV	Surface Aggregate Visible					07	05		
296.0			AMH	Manhole								MH35-1-105
296.0			FH	End of Survey								

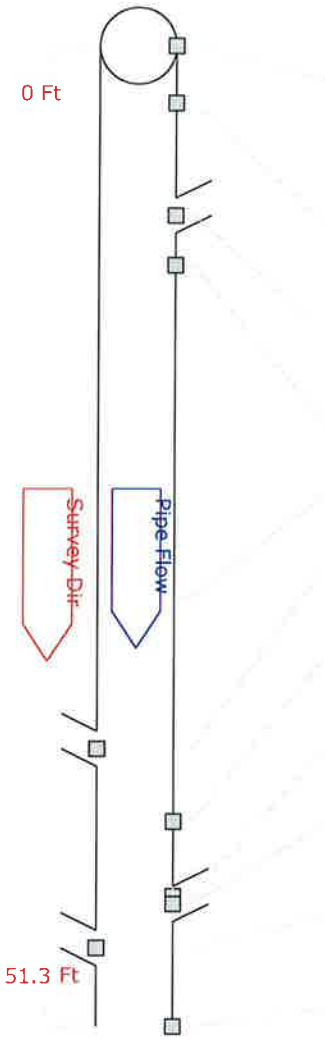
296.0 Ft Total Length Surveyed

Scores

Structural:	Pipe Rating 201	Pipe Ratings Index 3	Quick Rating 5143
O&M:	Pipe Rating 129	Pipe Ratings Index 2.1	Quick Rating 4133
Overall	Pipe Rating 330	Pipe Ratings Index 5.1	Quick Rating 5144

Pipe Graphic Report of PSR S7024 for Birmingham

Setup	136	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/10/16	Time	11:07
Street	ARLINGTON				
City	Birmingham	Further location details			
Up	MH35-1-105	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH35-1-085	Rim to invert		Grade to invert	Rim to grade Ft
Use	Combined	Direction	Downstream	Flow control	Media No S7024
Shape	Circular	Height	18	Width ins	Preclean J
Date Cleaned	2018/10/16				
Material	Reinforced Concrete Pipe	Joint length	3.0 Ft	Total length	416.0 Ft
Length Surveyed	82.00 Ft				
Lining		Year laid	1952	Year rehabilitated	Weather Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural O & M Constructional Miscellaneous Hydraulic	
Location	Light Highway				
Project	Birmingham Phase 1			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	



0.0 Ft	Start of Survey Manhole [MH35-1-105] Water Level 5% Surface Aggregate Visible 07 to 05 o'clock ST: 3 [S01]
3.0 Ft	Joint Offset Medium ST: 1 Fracture Longitudinal 12 o'clock ST: 3 [S02]
8.9 Ft	Tap Break-in Active 6.000 11 o'clock Water Level 025% [25%]
11.5 Ft	Fracture Longitudinal 12 o'clock ST: 3 [F02]
28.9 Ft	Water Level 010% [10%]
36.8 Ft	Tap Break-in Active 6.000 02 o'clock
40.6 Ft	Infil Stain 09 to 03 o'clock Water Level 050% [50%]
44.5 Ft	Deposits Attached Encrustation 08 to 11 o'clock 005% OM: 2 [under tap]
44.9 Ft	Tap Factory Capped 6.000 10 o'clock
47.2 Ft	Tap Factory Capped 6.000 02 o'clock Deposits Attached Encrustation 02 to 04 o'clock 005% OM: 2 [under tap]
51.3 Ft	Deposits Attached Encrustation 09 to 03 o'clock 005% OM: 2

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

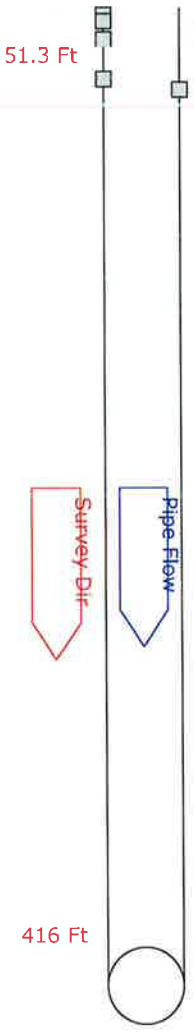
Pipe Graphic Report of PSR S7024 for Birmingham

Setup	136	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/10/16	Time	11:07
Street	ARLINGTON				
City	Birmingham	Further location details			

Up	MH35-1-105	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH35-1-085	Rim to invert		Grade to invert	Rim to grade Ft

Use	Combined	Direction	Downstream	Flow control	Media No S7024
Shape	Circular	Height 18	Width	ins	Preclean J	Date Cleaned 2018/10/16
Material	Reinforced Concrete Pipe	Joint length 3.0 Ft	Total length 416.0 Ft	Length Surveyed 82.00 Ft	
Lining		Year laid 1952	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat			

Additional info			Structural	O & M	Constructional
Location	Light Highway		Miscellaneous	Hydraulic	
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		



53.9 Ft	Deposits Attached Encrustation 03 o'clock 005% OM: 2
56.3 Ft	Deposits Attached Encrustation 02 to 04 o'clock 005% OM: 2
63.1 Ft	Deposits Settled Gravel 04 to 08 o'clock 020% OM: 3
77.9 Ft	Deposits Settled Gravel 04 to 08 o'clock 015% OM: 3
82.0 Ft	Surface Aggregate Visible 07 to 05 o'clock ST: 3 [F01] Abandoned Survey [debris level to high]

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S7024 for Birmingham

Setup 136	Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham		
Drainage Map 6	Survey Customer Birmingham				
P/O #	Date 2018/10/16	Time 11:07	Street ARLINGTON		
City Birmingham	Further location details				
Up MH35-1-105	Rim to invert	Grade to invert	Rim to grade	Ft	
Down MH35-1-085	Rim to invert	Grade to invert	Rim to grade	Ft	
Use Combined	Direction Down	Flow control	Media No S7024		
Shape Circular	Height 18	Width ins	Preclean J	Date Cleaned 2018/10/16	
Material Reinforced Concrete Pipe	Joint length 3.00Ft	Total length 416.0 Ft	Length Surveyed 82.0	Ft	
Lining	Year laid 1952	Year rehabilitated	Weather Dry		
Purpose Pre-Rehabilitation Survey	Cat		Pressure		
Additional info		Structural O & M Constructional Miscellaneous			
Location Light Highway					
Project Birmingham Phase 1		Work Order			
Northing	Easting	Elevation			
Coordinate System		GPS Accuracy			

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST	Start of Survey								
0.0			AMH	Manhole								MH35-1-105
0.0			MWL	Water Level			5					
0.0		S01	SAV	Surface Aggregate Visible					07	05		
3.0			JOM	Joint Offset Medium								
3.0		S02	FL	Fracture Longitudinal				J	12			
8.9			TBA	Tap Break-in Active	6.000			J	11			
8.9			MWL	Water Level			25					25%
11.5		F02	FL	Fracture Longitudinal				J	12			
28.9			MWL	Water Level			10					10%
36.8			TBA	Tap Break-in Active	6.000				02			
40.6			IS	Infil Stain				J	09	03		
40.6			MWL	Water Level			50					50%
44.5			DAE	Deposits Attached Encrustation			5		08	11		under tap
44.9			TFC	Tap Factory Capped	6.000				10			
47.2			TFC	Tap Factory Capped	6.000				02			
47.2			DAE	Deposits Attached Encrustation			5		02	04		under tap
51.3			DAE	Deposits Attached Encrustation			5	J	09	03		
53.9			DAE	Deposits Attached Encrustation			5	J	03			
56.3			DAE	Deposits Attached Encrustation			5	J	02	04		
63.1			DSGV	Deposits Settled Gravel			20		04	08		
77.9			DSGV	Deposits Settled Gravel			15		04	08		
82.0		F01	SAV	Surface Aggregate Visible					07	05		
82.0			MSA	Abandoned Survey								debris level to high

82.0 Ft Total Length Surveyed

Scores

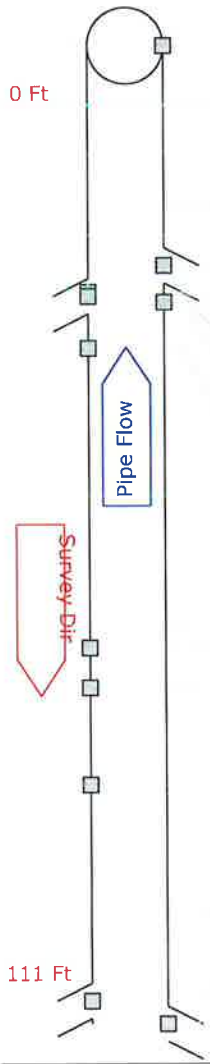
Structural:	Pipe Rating 55	Pipe Ratings Index 2.9	Quick Rating 3B11
O&M:	Pipe Rating 16	Pipe Ratings Index 2.3	Quick Rating 3225
Overall	Pipe Rating 71	Pipe Ratings Index 5.2	Quick Rating 3C25

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S7024 for Birmingham

Setup	181	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/11/01	Time	9:39
Street	ARLINGTON				
City	Birmingham	Further location details			
Up	MH35-1-105	Rim to invert		Grade to invert		Rim to grade	Ft
Down	MH35-1-085	Rim to invert		Grade to invert		Rim to grade	Ft
Use	Combined	Direction	Upstream	Flow control		Media No	S7024R
Shape	Circular	Height	18	Width	ins	Preclean	H	Date Cleaned	2018/11/01
Material	Reinforced Concrete Pipe	Joint length	3.0 Ft	Total length	416.0 Ft	Length Surveyed	278.00 Ft
Lining		Year laid	1952	Year rehabilitated		Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat			

Additional info	Structural	O & M	Constructional
Location Light Highway	Miscellaneous	Hydraulic	
Project Birmingham Phase 1	Work Order	
Northing	Easting	Elevation	
Coordinate System	GPS Accuracy	

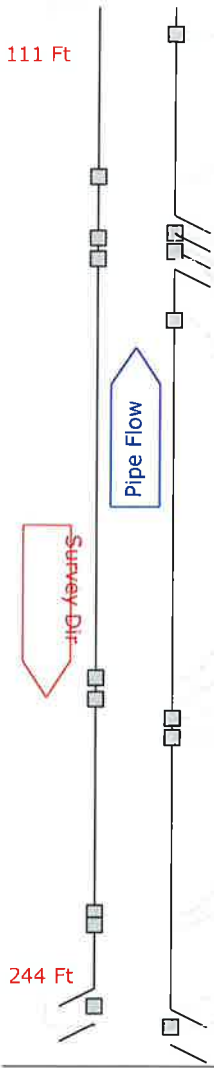


0.0 Ft	Start of Survey Manhole [MH35-1-085] Water Level 10% Surface Aggregate Visible 07 to 05 o'clock S1: 3 [S01]
18.2 Ft	Water Level 025% [25%]
25.0 Ft	Tap Factory Capped 6.000 10 o'clock
28.0 Ft	Deposits Attached Encrustation 01 to 05 o'clock 005% OM: 2 [next to tap]
28.5 Ft	Tap Break-in Active 6.000 02 o'clock
29.2 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2
34.4 Ft	Deposits Attached Encrustation 01 to 05 o'clock 005% OM: 2
68.4 Ft	Deposits Settled Fine 06 to 07 o'clock 010% OM: 2
72.9 Ft	Deposits Settled Gravel 06 to 07 o'clock 015% OM: 3
83.9 Ft	Deposits Settled Gravel 05 to 07 o'clock 015% OM: 3 [S02]
99.9 Ft	Water Level 035% [35%]
108.4 Ft	Tap Factory Active 6.000 02 o'clock
111.0 Ft	Tap Factory Capped 6.000 10 o'clock

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S7024 for Birmingham

Setup	181	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/11/01	Time	9:39
Street	ARLINGTON				
City	Birmingham	Further location details			
Up	MH35-1-105	Rim to invert		Grade to invert		Rim to grade	Ft
Down	MH35-1-085	Rim to invert		Grade to invert		Rim to grade	Ft
Use	Combined	Direction	Upstream	Flow control		Media No	S7024R
Shape	Circular	Height	18	Width	ins	Preclean	H	Date Cleaned	2018/11/01
Material	Reinforced Concrete Pipe	Joint length	3.0 Ft	Total length	416.0 Ft	Length Surveyed	278.00 Ft
Lining		Year laid	1952	Year rehabilitated		Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural	O & M	Constructional
Location	Light Highway			Miscellaneous	Hydraulic	
Project	Birmingham Phase 1			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	

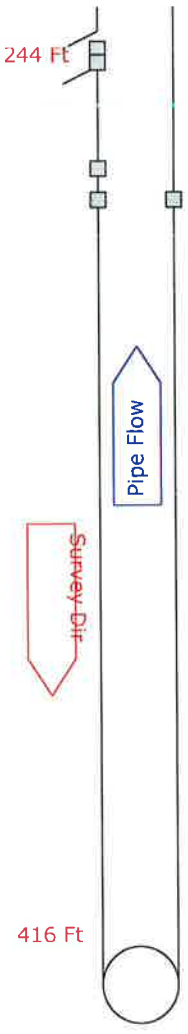


114.5 Ft	Broken 11 to 04 o'clock ST: 5 Hole 11 to 04 o'clock ST: 5
133.2 Ft	Deposits Attached Encrustation 03 o'clock 005% OM: 2
140.5 Ft	Tap Break-in Active 6.000 10 o'clock
141.2 Ft	Deposits Attached Encrustation 01 to 04 o'clock 005% OM: 2
142.9 Ft	Tap Break-in Active 6.000 10 o'clock
143.9 Ft	Deposits Attached Encrustation 01 to 04 o'clock 005% OM: 2
151.9 Ft	Deposits Attached Encrustation 12 to 03 o'clock 005% OM: 2
198.6 Ft	Deposits Attached Encrustation 02 to 04 o'clock 005% OM: 2
201.4 Ft	Deposits Settled Gravel 04 to 07 o'clock 020% OM: 3
203.8 Ft	Deposits Attached Encrustation 12 to 04 o'clock 005% OM: 2
206.3 Ft	Deposits Attached Encrustation 12 to 05 o'clock 005% OM: 2
229.2 Ft	Deposits Settled Gravel 05 to 07 o'clock 015% OM: 3 [F02]
230.8 Ft	Deposits Settled Gravel 05 to 06 o'clock 010% OM: 2
241.4 Ft	Tap Factory Capped 6.000 02 o'clock
244.0 Ft	Tap Factory Capped 6.000 10 o'clock

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S7024 for Birmingham

Setup	181 Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham		
Drainage	Map 6	Survey Customer Birmingham			
P/O #		Date 2018/11/01	Time 9:39	Street ARLINGTON	
City	Birmingham	Further location details			
Up	MH35-1-105	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH35-1-085	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Combined	Direction Upstream	Flow control	Media No S7024R	
Shape	Circular	Height 18 Width	ins Preclean H	Date Cleaned 2018/11/01	
Material	Reinforced Concrete Pipe	Joint length 3.0 Ft	Total length 416.0 Ft	Length Surveyed 278.00 Ft	
Lining		Year laid 1952	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info			Structural O & M Constructional Miscellaneous Hydraulic		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		



251.4 Ft Tap Break-in Active 6.000 02 o'clock

253.8 Ft Deposits Settled Gravel 04 to 06 o'clock 015% OM: 3 [S03]

272.5 Ft Obstacle Brick 04 o'clock 005% OM: 2 [on top of gravel]

Surface Aggregate Visible 07 to 05 o'clock ST: 3 [F01]

278.0 Ft Deposits Settled Gravel 04 to 06 o'clock 015% OM: 3 [F03]

Abandoned Survey [can't pass debris]

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S7024 for Birmingham

Setup	181	Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham	
Drainage	Map 6	Survey Customer Birmingham			
P/O #		Date 2018/11/01	Time 9:39	Street ARLINGTON	
City	Birmingham	Further location details			
Up	MH35-1-105	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH35-1-085	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Combined	Direction Up	Flow control	Media No S7024R	
Shape	Circular	Height 18 Width	ins Preclean H	Date Cleaned 2018/11/01	
Material	Reinforced Concrete Pipe	Joint length 3.00 Ft	Total length 416.0 Ft	Length Surveyed 278.0	Ft
Lining		Year laid 1952	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST	Start of Survey								
0.0			AMH	Manhole								MH35-1-085
0.0			MWL	Water Level			10					
0.0		S01	SAV	Surface Aggregate Visible					07	05		
18.2			MWL	Water Level			25					25%
25.0			TFC	Tap Factory Capped	6.000				10			
28.0			DAE	Deposits Attached Encrustation			5		01	05		next to tap
28.5			TBA	Tap Break-in Active	6.000				02			
29.2			DAE	Deposits Attached Encrustation			5	J	07	05		
34.4			DAE	Deposits Attached Encrustation			5	J	01	05		
68.4			DSF	Deposits Settled Fine			10		06	07		
72.9			DSGV	Deposits Settled Gravel			15		06	07		
83.9		S02	DSGV	Deposits Settled Gravel			15		05	07		
99.9			MWL	Water Level			35					35%
108.4			TFA	Tap Factory Active	6.000				02			
111.0			TFC	Tap Factory Capped	6.000				10			
114.5			B	Broken					11	04		
114.5			H	Hole					11	04		
133.2			DAE	Deposits Attached Encrustation			5	J	03			
140.5			TBA	Tap Break-in Active	6.000				10			
141.2			DAE	Deposits Attached Encrustation			5	J	01	04		
142.9			TBA	Tap Break-in Active	6.000				10			
143.9			DAE	Deposits Attached Encrustation			5	J	01	04		
151.9			DAE	Deposits Attached Encrustation			5	J	12	03		
198.6			DAE	Deposits Attached Encrustation			5	J	02	04		
201.4			DSGV	Deposits Settled Gravel			20		04	07		
203.8			DAE	Deposits Attached Encrustation			5	J	12	04		
206.3			DAE	Deposits Attached Encrustation			5	J	12	05		
229.2		F02	DSGV	Deposits Settled Gravel			15		05	07		
230.8			DSGV	Deposits Settled Gravel			10		05	06		
241.4			TFC	Tap Factory Capped	6.000				02			

Tabular Report of PSR S7024 for Birmingham

Setup	181	Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham	
Drainage	Map 6	Survey Customer Birmingham			
P/O #		Date 2018/11/01	Time 9:39	Street ARLINGTON	
City	Birmingham	Further location details			
Up	MH35-1-105	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH35-1-085	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Combined	Direction Up	Flow control	Media No S7024R	
Shape	Circular	Height 18 Width	ins Preclean H	Date Cleaned 2018/11/01	
Material	Reinforced Concrete Pipe	Joint length 3.00 Ft	Total length 416.0 Ft	Length Surveyed 278.0	Ft
Lining		Year laid 1952	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
244.0			TFC	Tap Factory Capped	6.000				10			
251.4			TBA	Tap Break-in Active	6.000				02			
253.8		S03	DSGV	Deposits Settled Gravel			15		04	00		
272.5			OBB	Obstacle Brick			5		04			on top of gravel
278.0		F01	SAV	Surface Aggregate Visible					07	05		
278.0		F03	DSGV	Deposits Settled Gravel			15		04	06		
278.0			MSA	Abandoned Survey								can't pass debris

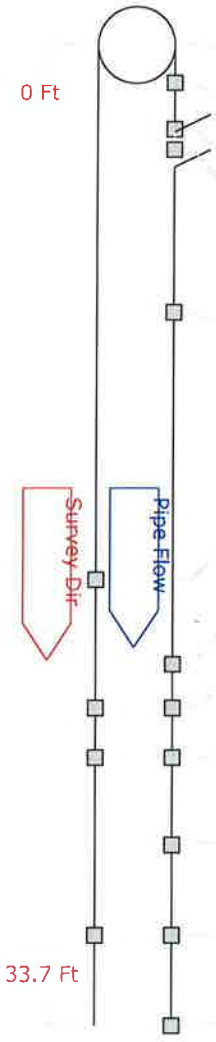
278.0 Ft Total Length Surveyed

Scores

Structural:	Pipe Rating 178	Pipe Ratings Index 3.1	Quick Rating 523J
O&M:	Pipe Rating 134	Pipe Ratings Index 2.7	Quick Rating 3F2A
Overall	Pipe Rating 312	Pipe Ratings Index 5.8	Quick Rating 523Q

Pipe Graphic Report of PSR S7025 for Birmingham

Setup	145	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/10/22	Time	9:00
Street	SHIRLEY				
City	Birmingham	Further location details			
Up	MH35-1-106	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH35-1-105	Rim to invert		Grade to invert	Rim to grade Ft
Use	Combined	Direction	Downstream	Flow control	Media No S7025
Shape	Circular	Height 12	Width	ins	Preclean J
Date Cleaned	2018/10/22				
Material	Reinforced Concrete Pipe	Joint length	3.0 Ft	Total length	180.0 Ft
Length Surveyed	180.00 Ft				
Lining		Year laid	1952	Year rehabilitated	Weather Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info		Structural	O & M	Constructional	
Miscellaneous	Hydraulic				
Location	Light Highway				
Project	Birmingham Phase 1			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	

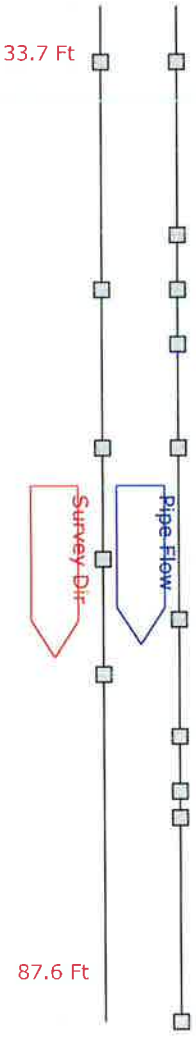


0.0 Ft	Start of Survey Manhole [MH35-1-106] Water Level 5%
1.3 Ft	Surface Aggregate Visible 07 to 05 o'clock ST: 3 [S01]
2.9 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2
3.6 Ft	Tap Break-in Active 6.000 10 o'clock
9.2 Ft	Deposits Attached Encrustation 09 o'clock 005% OM: 2
18.4 Ft	Deposits Attached Encrustation 03 to 05 o'clock 010% OM: 2
21.3 Ft	Deposits Attached Encrustation 09 o'clock 005% OM: 2
22.8 Ft	Crack Circumferential 07 to 05 o'clock ST: 1 Deposits Attached Encrustation 01 to 05 o'clock 005% OM: 2 Deposits Attached Encrustation 08 o'clock 005% OM: 2
24.5 Ft	Deposits Attached Encrustation 03 to 05 o'clock 005% OM: 2 Deposits Attached Encrustation 09 o'clock 005% OM: 2
27.5 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2
30.6 Ft	Deposits Attached Encrustation 03 to 05 o'clock 005% OM: 2 Deposits Attached Encrustation 08 o'clock 005% OM: 2
33.7 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S7025 for Birmingham

Setup	145	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/10/22	Time	9:00
Street	SHIRLEY				
City	Birmingham	Further location details			
Up	MH35-1-106	Rim to invert		Grade to invert		Rim to grade	Ft
Down	MH35-1-105	Rim to invert		Grade to invert		Rim to grade	Ft
Use	Combined	Direction	Downstream	Flow control		Media No	S7025
Shape	Circular	Height	12	Width	ins	Preclean	J	Date Cleaned	2018/10/22
Material	Reinforced Concrete Pipe	Joint length	3.0 Ft	Total length	180.0 Ft	Length Surveyed	180.00 Ft
Lining		Year laid	1952	Year rehabilitated		Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural	O & M	Constructional
Location	Light Highway			Miscellaneous	Hydraulic	
Project	Birmingham Phase 1			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	



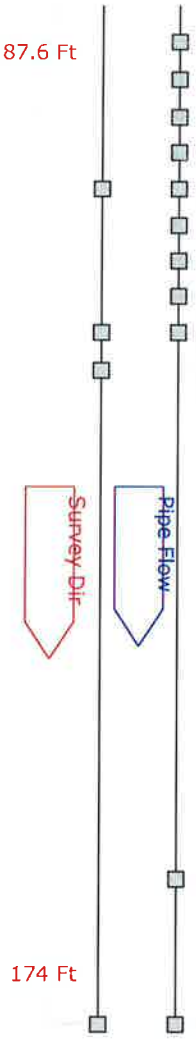
36.7 Ft	Deposits Attached Encrustation 04 o'clock 005% OM: 2 Deposits Attached Encrustation 07 to 09 o'clock 005% OM: 2
45.9 Ft	Deposits Attached Encrustation 08 to 10 o'clock 005% OM: 2
48.8 Ft	Deposits Attached Encrustation 03 o'clock 005% OM: 2 Deposits Attached Encrustation 08 o'clock 005% OM: 2
51.7 Ft	Deposits Attached Encrustation 07 to 05 o'clock 010% OM: 2
57.2 Ft	Deposits Attached Encrustation 07 to 11 o'clock 010% OM: 2 Fracture Longitudinal 01 o'clock ST: 3 Deposits Attached Encrustation 01 o'clock 005% OM: 2 [from fracture]
63.1 Ft	Deposits Attached Encrustation 04 to 05 o'clock 005% OM: 2
66.3 Ft	Deposits Attached Encrustation 12 to 05 o'clock 005% OM: 2
69.2 Ft	Deposits Attached Encrustation 01 to 05 o'clock 010% OM: 2
72.5 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2
75.4 Ft	Deposits Attached Encrustation 12 to 05 o'clock 010% OM: 2 Deposits Attached Encrustation 08 to 12 o'clock 005% OM: 2
76.8 Ft	Fracture Circumferential 07 to 05 o'clock ST: 2 Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2 [from fracture]
87.6 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S7025 for Birmingham

Setup	145	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/10/22	Time	9:00
Street	SHIRLEY				
City	Birmingham	Further location details			
Up	MH35-1-106	Rim to invert		Grade to invert		Rim to grade	Ft
Down	MH35-1-105	Rim to invert		Grade to invert		Rim to grade	Ft
Use	Combined	Direction	Downstream	Flow control		Media No	S7025
Shape	Circular	Height	12	Width	ins	Preclean	J	Date Cleaned	2018/10/22
Material	Reinforced Concrete Pipe	Joint length	3.0 Ft	Total length	180.0 Ft	Length Surveyed	180.00 Ft
Lining		Year laid	1952	Year rehabilitated		Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info					
Location	Light Highway				
Project	Birmingham Phase 1				
Northing		Easting		Work Order	
Coordinate System				Elevation	
				GPS Accuracy	

Structural O & M Constructional
Miscellaneous Hydraulic

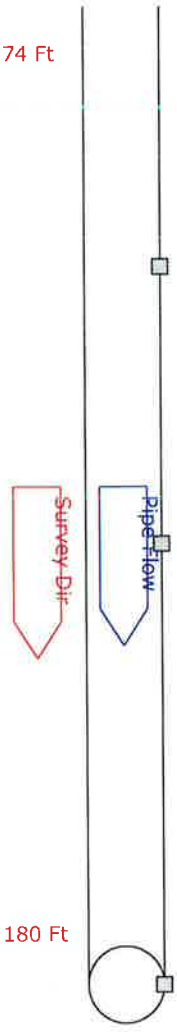


90.7 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2
93.9 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2
97.1 Ft	Deposits Attached Encrustation 08 to 04 o'clock 010% OM: 2
100.1 Ft	Deposits Attached Encrustation 09 to 03 o'clock 010% OM: 2
100.7 Ft	Water Level 035% [35%]
103.2 Ft	Deposits Attached Encrustation 02 to 04 o'clock 010% OM: 2 Deposits Attached Encrustation 08 to 11 o'clock 005% OM: 2
106.3 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2
109.3 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2
112.3 Ft	Deposits Attached Encrustation 12 to 05 o'clock 010% OM: 2 Deposits Attached Encrustation 07 to 09 o'clock 005% OM: 2
115.4 Ft	Deposits Attached Encrustation 01 to 05 o'clock 005% OM: 2 Deposits Attached Encrustation 07 to 09 o'clock 005% OM: 2
118.6 Ft	Deposits Attached Encrustation 02 to 05 o'clock 005% OM: 2
161.7 Ft	Deposits Attached Encrustation 08 o'clock 005% OM: 2
174.0 Ft	Fracture Multiple 06 to 06 o'clock ST: 4 Crack Longitudinal 12 o'clock ST: 2

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S7025 for Birmingham

Setup	145	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/10/22	Time	9:00
Street	SHIRLEY				
City	Birmingham	Further location details			
Up	MH35-1-106	Rim to invert		Grade to invert		Rim to grade	Ft
Down	MH35-1-105	Rim to invert		Grade to invert		Rim to grade	Ft
Use	Combined	Direction	Downstream	Flow control		Media No	S7025
Shape	Circular	Height	12	Width	ins	Preclean	J	Date Cleaned	2018/10/22
Material	Reinforced Concrete Pipe	Joint length	3.0 Ft	Total length	180.0 Ft	Length Surveyed	180.00 Ft
Lining		Year laid	1952	Year rehabilitated		Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural	O & M	Constructional
Location	Light Highway			Miscellaneous	Hydraulic	
Project	Birmingham Phase 1			Work Order		
Northing		Easting		Elevation		
Coordinate System				GPS Accuracy		



174 Ft

175.6 Ft Crack Multiple 07 to 05 o'clock ST: 3

177.3 Ft Deposits Attached Encrustation 07 o'clock 005% OM: 2

180 Ft

Surface Aggregate Visible 07 to 05 o'clock ST: 3 [F01]

180.0 Ft Manhole [MH35-1-105]

End of Survey

Doetsch ENVIRONMENTAL SERVICES

Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S7025 for Birmingham

Setup	145	Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham	
Drainage	Map 6	Survey Customer Birmingham			
P/O #		Date 2018/10/22	Time 9:00	Street SHIRLEY	
City	Birmingham	Further location details			
Up	MH35-1-106	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH35-1-105	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Combined	Direction Down	Flow control	Media No S7025	
Shape	Circular	Height 12 Width	ins Preclean J	Date Cleaned 2018/10/22	
Material	Reinforced Concrete Pipe	Joint length 3.00 Ft	Total length 180.0 Ft	Length Surveyed 180.0	Ft
Lining		Year laid 1952	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video		CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0				ST	Start of Survey								
0.0				AMH	Manhole								MH35-1-106
0.0				MWL	Water Level			5					
1.3			S01	SAV	Surface Aggregate Visible					07	05		
2.9				DAE	Deposits Attached Encrustation			5	J	07	05		
3.6				TBA	Tap Break-in Active	6.000				10			
9.2				DAE	Deposits Attached Encrustation			5	J	09			
18.4				DAE	Deposits Attached Encrustation			10	J	03	05		
21.3				DAE	Deposits Attached Encrustation			5	J	09			
22.8				CC	Crack Circumferential					07	05		
22.8				DAE	Deposits Attached Encrustation			5		01	05		
22.8				DAE	Deposits Attached Encrustation			5		08			
24.5				DAE	Deposits Attached Encrustation			5	J	03	05		
24.5				DAE	Deposits Attached Encrustation			5	J	09			
27.5				DAE	Deposits Attached Encrustation			5	J	07	05		
30.6				DAE	Deposits Attached Encrustation			5	J	03	05		
30.6				DAE	Deposits Attached Encrustation			5	J	08			
33.7				DAE	Deposits Attached Encrustation			5	J	07	05		
36.7				DAE	Deposits Attached Encrustation			5	J	04			
36.7				DAE	Deposits Attached Encrustation			5	J	07	09		
45.9				DAE	Deposits Attached Encrustation			5	J	08	10		
48.8				DAE	Deposits Attached Encrustation			5	J	03			
48.8				DAE	Deposits Attached Encrustation			5	J	08			
51.7				DAE	Deposits Attached Encrustation			10	J	07	05		
57.2				DAE	Deposits Attached Encrustation			10	J	07	11		
57.2				FL	Fracture Longitudinal				J	01			
57.2				DAE	Deposits Attached Encrustation			5		01			from fracture
63.1				DAE	Deposits Attached Encrustation			5	J	04	05		
66.3				DAE	Deposits Attached Encrustation			5	J	12	05		
69.2				DAE	Deposits Attached Encrustation			10	J	01	05		
72.5				DAE	Deposits Attached Encrustation			5	J	07	05		

Tabular Report of PSR S7025 for Birmingham

Setup	145	Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham	
Drainage	Map 6	Survey Customer Birmingham			
P/O #		Date 2018/10/22	Time 9:00	Street SHIRLEY	
City	Birmingham	Further location details			
Up	MH35-1-106	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH35-1-105	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Combined	Direction Down	Flow control	Media No S7025	
Shape	Circular	Height 12 Width	ins Preclean J	Date Cleaned 2018/10/22	
Material	Reinforced Concrete Pipe	Joint length 3.00Ft	Total length 180.0 Ft	Length Surveyed 180.0	Ft
Lining		Year laid 1952	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video		CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
75.4				DAE	Deposits Attached Encrustation			10	J	12	05		
75.4				DAE	Deposits Attached Encrustation			5	J	08	12		
76.8				FC	Fracture Circumferential					07	05		
76.8				DAE	Deposits Attached Encrustation			5		07	05		from fracture
87.6				DAE	Deposits Attached Encrustation			5	J	07	05		
90.7				DAE	Deposits Attached Encrustation			5	J	08	04		
93.9				DAE	Deposits Attached Encrustation			5	J	08	04		
97.1				DAE	Deposits Attached Encrustation			10	J	08	04		
100.1				DAE	Deposits Attached Encrustation			10	J	09	03		
100.7				MWL	Water Level			35					35%
103.2				DAE	Deposits Attached Encrustation			10	J	02	04		
103.2				DAE	Deposits Attached Encrustation			5	J	08	11		
106.3				DAE	Deposits Attached Encrustation			5	J	08	04		
109.3				DAE	Deposits Attached Encrustation			5	J	08	04		
112.3				DAE	Deposits Attached Encrustation			10	J	12	05		
112.3				DAE	Deposits Attached Encrustation			5	J	07	09		
115.4				DAE	Deposits Attached Encrustation			5	J	01	05		
115.4				DAE	Deposits Attached Encrustation			5	J	07	09		
118.6				DAE	Deposits Attached Encrustation			5	J	02	05		
161.7				DAE	Deposits Attached Encrustation			5	J	08			
174.0				FM	Fracture Multiple				J	06	06		
174.0				CL	Crack Longitudinal				J	12			
175.6				CM	Crack Multiple					07	05		
177.3				DAE	Deposits Attached Encrustation			5	J	07			
180.0			F01	SAV	Surface Aggregate Visible					07	05		
180.0				AMH	Manhole								MH35-1-105
180.0				FH	End of Survey								

180.0 Ft Total Length Surveyed

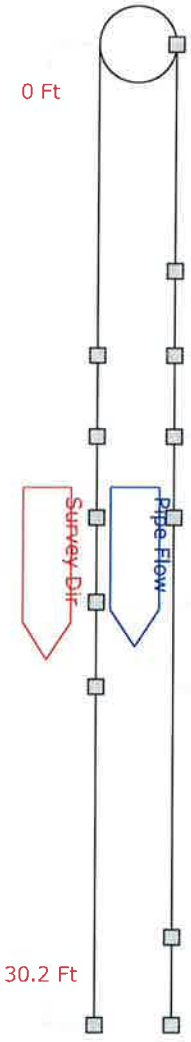
Scores

Structural:	Pipe Rating 123	Pipe Ratings Index 2.9	Quick Rating 413F
O&M:	Pipe Rating 86	Pipe Ratings Index 2	Quick Rating 2G00
Overall	Pipe Rating 209	Pipe Ratings Index 4.9	Quick Rating 413F

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S7028 for Birmingham

Setup	142	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/10/18	Time	12:21
Street	SHIRLEY				
City	Birmingham	Further location details			
Up	MH35-1-109	Rim to invert		Grade to invert	
Rim to grade	Ft				
Down	MH35-1-108	Rim to invert		Grade to invert	
Rim to grade	Ft				
Use	Combined	Direction	Downstream	Flow control	
Media No	S7028				
Shape	Circular	Height	10	Width	ins
Preclean	J	Date Cleaned	2018/10/18		
Material	Reinforced Concrete Pipe	Joint length	3.0 Ft	Total length	199.0 Ft
Length Surveyed	199.00 Ft				
Lining		Year laid	1952	Year rehabilitated	
Weather	Dry				
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info					
Structural	O & M	Constructional			
Miscellaneous	Hydraulic				
Location	Light Highway				
Project	Birmingham Phase 1			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	

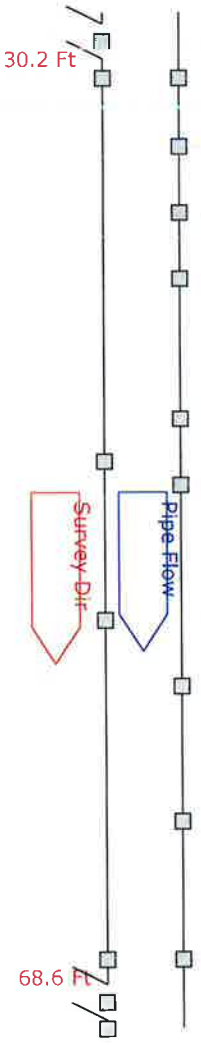


0.0 Ft	Start of Survey Manhole [MH35-1-109] Water Level 0% Surface Aggregate Visible 07 to 05 o'clock ST: 3 [S01] Fracture Circumferential 07 to 05 o'clock ST: 2 Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2
7.0 Ft	Deposits Attached Encrustation 07 to 10 o'clock 005% OM: 2
9.6 Ft	Deposits Attached Encrustation 03 to 05 o'clock 005% OM: 2 Deposits Attached Encrustation 07 to 09 o'clock 005% OM: 2 Roots Fine Joint 08 o'clock OM: 1
12.1 Ft	Deposits Attached Encrustation 03 to 05 o'clock 005% OM: 2 Roots Fine Joint 09 o'clock OM: 1
14.6 Ft	Deposits Attached Encrustation 05 o'clock 005% OM: 2 Deposits Attached Encrustation 07 to 09 o'clock 005% OM: 2
17.2 Ft	Roots Fine Joint 03 o'clock OM: 1 Deposits Attached Encrustation 03 to 05 o'clock 005% OM: 2
19.8 Ft	Deposits Attached Encrustation 02 to 05 o'clock 005% OM: 2
27.5 Ft	Deposits Attached Encrustation 12 to 05 o'clock 005% OM: 2
30.2 Ft	Infil Stain 03 to 05 o'clock Deposits Attached Encrustation 07 to 09 o'clock 005% OM: 2

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S7028 for Birmingham

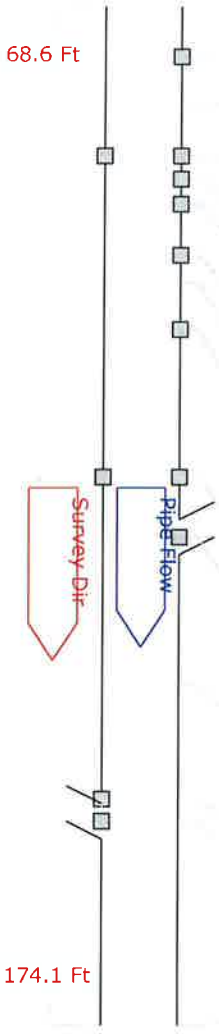
Setup 142	Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham	
Drainage Map 6	Survey Customer Birmingham			
P/O #	Date 2018/10/18	Time 12:21	Street SHIRLEY	
City Birmingham	Further location details			
Up MH35-1-109	Rim to invert	Grade to invert	Rim to grade Ft	
Down MH35-1-108	Rim to invert	Grade to invert	Rim to grade Ft	
Use Combined	Direction Downstream	Flow control	Media No S7028	
Shape Circular	Height 10 Width ins	Preclean J	Date Cleaned 2018/10/18	
Material Reinforced Concrete Pipe	Joint length 3.0 Ft	Total length 199.0 Ft	Length Surveyed 199.00 Ft	
Lining	Year laid 1952	Year rehabilitated	Weather Dry	
Purpose Pre-Rehabilitation Survey	Cat			
Additional info		Structural O & M Constructional Miscellaneous Hydraulic		
Location Light Highway		Work Order		
Project Birmingham Phase 1				
Northing	Easting	Elevation		
Coordinate System		GPS Accuracy		



31.3 Ft	Tap Factory Active 6.000 02 o'clock
32.7 Ft	Deposits Attached Encrustation 01 to 05 o'clock 005% OM: 2 Deposits Attached Encrustation 07 to 11 o'clock 005% OM: 2
35.3 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2
37.8 Ft	Infil Stain 08 o'clock
40.3 Ft	Deposits Attached Encrustation 09 o'clock 005% OM: 2
45.6 Ft	Infil Stain 07 to 05 o'clock Surface Roughness Increased 07 to 05 o'clock ST: 1
47.2 Ft	Infil Stain 01 to 04 o'clock
48.1 Ft	Deposits Attached Encrustation 07 to 09 o'clock 005% OM: 2
53.2 Ft	Deposits Attached Encrustation 02 to 05 o'clock 005% OM: 2
55.7 Ft	Infil Stain 08 o'clock
60.8 Ft	Infil Stain 08 o'clock
66.0 Ft	Infil Stain 02 to 04 o'clock Deposits Attached Encrustation 07 to 09 o'clock 005% OM: 2
67.6 Ft	Tap Break-in Active 6.000 03 o'clock
68.6 Ft	Deposits Attached Encrustation 01 to 05 o'clock 005% OM: 2

Pipe Graphic Report of PSR S7028 for Birmingham

Setup	142	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/10/18	Time	12:21
Street	SHIRLEY				
City	Birmingham	Further location details			
Up	MH35-1-109	Rim to invert		Grade to invert		Rim to grade	Ft
Down	MH35-1-108	Rim to invert		Grade to invert		Rim to grade	Ft
Use	Combined	Direction	Downstream	Flow control		Media No	S7028
Shape	Circular	Height	10	Width	ins	Preclean	J	Date Cleaned	2018/10/18
Material	Reinforced Concrete Pipe	Joint length	3.0 Ft	Total length	199.0 Ft	Length Surveyed	199.00 Ft
Lining		Year laid	1952	Year rehabilitated		Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural	O & M	Constructional
Location	Light Highway			Miscellaneous	Hydraulic	
Project	Birmingham Phase 1			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	

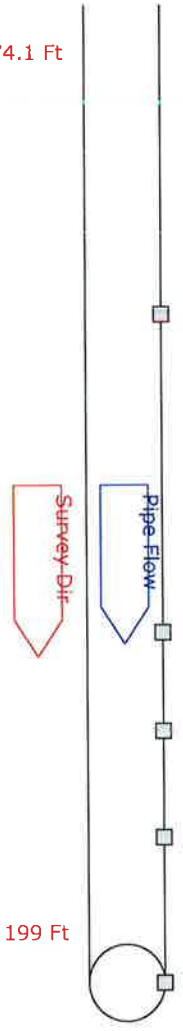


73.8 Ft	Deposits Attached Encrustation 07 to 09 o'clock 005% OM: 2
78.8 Ft	Water Level 025% [25%]
84.1 Ft	Deposits Attached Encrustation 08 o'clock 005% OM: 2 Deposits Attached Encrustation 01 to 05 o'clock 005% OM: 2
86.5 Ft	Deposits Attached Encrustation 09 o'clock 005% OM: 2
89.1 Ft	Deposits Attached Encrustation 09 to 03 o'clock 005% OM: 2
94.4 Ft	Deposits Attached Encrustation 07 to 11 o'clock 005% OM: 2
97.3 Ft	Water Level 050% [50%]
102.1 Ft	Deposits Attached Encrustation 09 to 12 o'clock 005% OM: 2
117.4 Ft	Crack Longitudinal 09 o'clock ST: 2 Crack Longitudinal 03 o'clock ST: 2
123.6 Ft	Tap Factory Capped 6.000 09 o'clock
138.9 Ft	Water Level 060% [60%]
150.7 Ft	Deposits Attached Encrustation 03 o'clock 005% OM: 2
153.0 Ft	Tap Break-in Active 6.000 03 o'clock
174.1 Ft	Water Level 015% [15%]

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S7028 for Birmingham

Setup	142	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/10/18	Time	12:21
Street	SHIRLEY				
City	Birmingham	Further location details			
Up	MH35-1-109	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH35-1-108	Rim to invert		Grade to invert	Rim to grade Ft
Use	Combined	Direction	Downstream	Flow control	Media No S7028
Shape	Circular	Height	10	Width ins	Preclean J
Date Cleaned	2018/10/18				
Material	Reinforced Concrete Pipe	Joint length	3.0 Ft	Total length	199.0 Ft
Length Surveyed	199.00 Ft				
Lining		Year laid	1952	Year rehabilitated	Weather Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info		Structural	O & M	Constructional	
Miscellaneous	Hydraulic				
Location	Light Highway				
Project	Birmingham Phase 1	Work Order			
Northing		Easting		Elevation	
Coordinate System		GPS Accuracy			



174.1 Ft

182.0 Ft Deposits Attached Encrustation 08 to 11 o'clock 005% OM: 2

190.1 Ft Infil Stain 08 to 12 o'clock

192.6 Ft Fracture Longitudinal 12 o'clock ST: 3

195.3 Ft Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2

199 Ft

Surface Aggregate Visible 07 to 05 o'clock ST: 3 [F01]

199.0 Ft Manhole [MH35-1-108]

End of Survey

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S7028 for Birmingham

Setup	142	Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham	
Drainage	Map 6	Survey Customer Birmingham			
P/O #		Date 2018/10/18	Time 12:21	Street SHIRLEY	
City	Birmingham	Further location details			
Up	MH35-1-109	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH35-1-108	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Combined	Direction Down	Flow control	Media No S7028	
Shape	Circular	Height 10 Width	ins Preclean J	Date Cleaned 2018/10/18	
Material	Reinforced Concrete Pipe	Joint length 3.00 Ft	Total length 199.0 Ft	Length Surveyed 199.0	Ft
Lining		Year laid 1952	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video		CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0				ST	Start of Survey								
0.0				AMH	Manhole								MH35-1-109
0.0				MWL	Water Level			0					
0.0			S01	SAV	Surface Aggregate Visible					07	05		
0.0				FC	Fracture Circumferential					07	05		
0.0				DAE	Deposits Attached Encrustation			5		07	05		
7.0				DAE	Deposits Attached Encrustation			5	J	07	10		
9.6				DAE	Deposits Attached Encrustation			5	J	03	05		
9.6				DAE	Deposits Attached Encrustation			5	J	07	09		
9.6				RFJ	Roots Fine Joint				J	08			
12.1				DAE	Deposits Attached Encrustation			5	J	03	05		
12.1				RFJ	Roots Fine Joint				J	09			
14.6				DAE	Deposits Attached Encrustation			5	J	05			
14.6				DAE	Deposits Attached Encrustation			5	J	07	09		
17.2				RFJ	Roots Fine Joint				J	03			
17.2				DAE	Deposits Attached Encrustation			5	J	03	05		
19.8				DAE	Deposits Attached Encrustation			5	J	02	05		
27.5				DAE	Deposits Attached Encrustation			5	J	12	05		
30.2				IS	Infil Stain				J	03	05		
30.2				DAE	Deposits Attached Encrustation			5	J	07	09		
31.3				TFA	Tap Factory Active	6.000				02			
32.7				DAE	Deposits Attached Encrustation			5	J	01	05		
32.7				DAE	Deposits Attached Encrustation			5	J	07	11		
35.3				DAE	Deposits Attached Encrustation			5	J	07	05		
37.8				IS	Infil Stain				J	08			
40.3				DAE	Deposits Attached Encrustation			5	J	09			
45.6				IS	Infil Stain				J	07	05		
45.6				SRI	Surface Roughness Increased					07	05		
47.2				IS	Infil Stain					01	04		
48.1				DAE	Deposits Attached Encrustation			5	J	07	09		
53.2				DAE	Deposits Attached Encrustation			5	J	02	05		

Tabular Report of PSR S7028 for Birmingham

Setup	142	Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham	
Drainage	Map 6	Survey Customer Birmingham			
P/O #		Date 2018/10/18	Time 12:21	Street SHIRLEY	
City	Birmingham	Further location details			
Up	MH35-1-109	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH35-1-108	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Combined	Direction Down	Flow control	Media No S7028	
Shape	Circular	Height 10	Width ins	Preclean J	Date Cleaned 2018/10/18
Material	Reinforced Concrete Pipe	Joint length 3.00Ft	Total length 199.0 Ft	Length Surveyed 199.0	Ft
Lining		Year laid 1952	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
55.7			IS	Infil Stain				J	08			
60.8			IS	Infil Stain				J	08			
66.0			IS	Infil Stain				J	02	04		
66.0			DAE	Deposits Attached Encrustation			5	J	07	09		
67.6			TBA	Tap Break-in Active	6.000				03			
68.6			DAE	Deposits Attached Encrustation			5	J	01	05		
73.8			DAE	Deposits Attached Encrustation			5	J	07	09		
78.8			MWL	Water Level			25					25%
84.1			DAE	Deposits Attached Encrustation			5	J	08			
84.1			DAE	Deposits Attached Encrustation			5	J	01	05		
86.5			DAE	Deposits Attached Encrustation			5	J	09			
89.1			DAE	Deposits Attached Encrustation			5	J	09	03		
94.4			DAE	Deposits Attached Encrustation			5	J	07	11		
97.3			MWL	Water Level			50					50%
102.1			DAE	Deposits Attached Encrustation			5	J	09	12		
117.4			CL	Crack Longitudinal				J	09			
117.4			CL	Crack Longitudinal				J	03			
123.6			TFC	Tap Factory Capped	6.000				09			
138.9			MWL	Water Level			60					60%
150.7			DAE	Deposits Attached Encrustation			5	J	03			
153.0			TBA	Tap Break-in Active	6.000				03			
174.1			MWL	Water Level			15					15%
182.0			DAE	Deposits Attached Encrustation			5	J	08	11		
190.1			IS	Infil Stain				J	08	12		
192.6			FL	Fracture Longitudinal				J	12			
195.3			DAE	Deposits Attached Encrustation			5	J	07	05		
199.0		F01	SAV	Surface Aggregate Visible					07	05		
199.0			AMH	Manhole								MH35-1-108
199.0			FH	End of Survey								

199.0 Ft Total Length Surveyed

Tabular Report of PSR S7028 for Birmingham

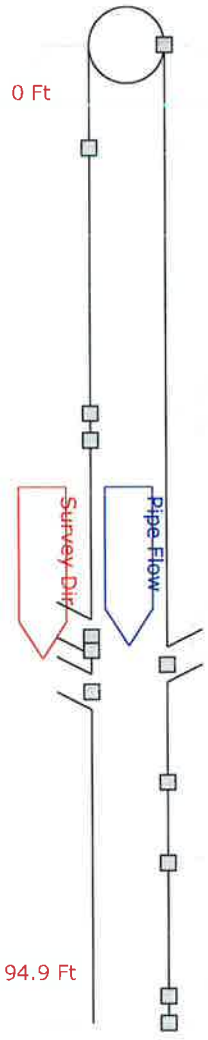
Setup 142	Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham	
Drainage Map 6	Survey Customer Birmingham			
P/O #	Date 2018/10/18	Time 12:21	Street SHIRLEY	
City Birmingham	Further location details			
Up MH35-1-109	Rim to invert	Grade to invert	Rim to grade	Ft
Down MH35-1-108	Rim to invert	Grade to invert	Rim to grade	Ft
Use Combined	Direction Down	Flow control	Media No S7028	
Shape Circular	Height 10 Width	ins Preclean J	Date Cleaned 2018/10/18	
Material Reinforced Concrete Pipe	Joint length 3.00 Ft	Total length 199.0 Ft	Length Surveyed 199.0	Ft
Lining	Year laid 1952	Year rehabilitated	Weather Dry	
Purpose Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous	
Location Light Highway				
Project Birmingham Phase 1			Work Order	
Northing	Easting		Elevation	
Coordinate System			GPS Accuracy	

Scores

Structural:	Pipe Rating 130	Pipe Ratings Index 2.9	Quick Rating 3G23
O&M:	Pipe Rating 61	Pipe Ratings Index 1.9	Quick Rating 2D13
Overall	Pipe Rating 191	Pipe Ratings Index 4.8	Quick Rating 3G2E

Pipe Graphic Report of PSR S7173 for Birmingham

Setup	141 Surveyor Robert B	Certificate #	U-915-07001225	System Owner	Birmingham
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date 2018/10/18	Time 11:18	Street	ARLINGTON
City	Birmingham	Further location details			
Up	MH35-1-090	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH35-4-091	Rim to invert		Grade to invert	Rim to grade Ft
Use	Combined	Direction Downstream	Flow control		Media No S7173
Shape	Circular	Height 15 Width	ins	Preclean J	Date Cleaned 2018/10/18
Material	Reinforced Concrete Pipe	Joint length 3.0 Ft	Total length 166.0 Ft		Length Surveyed 166.00 Ft
Lining		Year laid 0	Year rehabilitated		Weather Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info			Structural O & M Constructional Miscellaneous Hydraulic		
Location	Light Highway				
Project	Birmingham Phase 1			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	



0.0 Ft	Start of Survey Manhole [MH35-1-090] Water Level 10% Surface Aggregate Visible 07 to 05 o'clock S1: 3 [S01]
10.0 Ft	Deposits Attached Encrustation 04 o'clock 005% OM: 2
35.8 Ft	Deposits Attached Encrustation 05 o'clock 005% OM: 2
38.4 Ft	Deposits Attached Encrustation 03 to 05 o'clock 005% OM: 2
40.7 Ft	Water Level 040% [40%]
57.5 Ft	Tap Break-in Active 6.000 02 o'clock
58.8 Ft	Deposits Attached Encrustation 01 to 05 o'clock 010% OM: 2
60.2 Ft	Tap Factory Capped 6.000 10 o'clock
62.8 Ft	Tap Factory Active 6.000 02 o'clock
71.6 Ft	Deposits Attached Encrustation 07 to 10 o'clock 005% OM: 2
79.4 Ft	Infil Stain 07 to 09 o'clock
86.2 Ft	Water Level 030% [30]
92.3 Ft	Infil Stain 09 o'clock
94.9 Ft	Deposits Attached Encrustation 09 to 11 o'clock 005% OM: 2

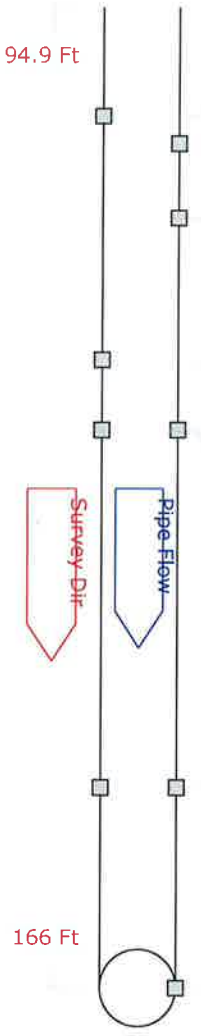
Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S7173 for Birmingham

Setup	141	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/10/18	Time	11:18
Street	ARLINGTON				
City	Birmingham	Further location details			
Up	MH35-1-090	Rim to invert		Grade to invert		Rim to grade	Ft
Down	MH35-4-091	Rim to invert		Grade to invert		Rim to grade	Ft
Use	Combined	Direction	Downstream	Flow control		Media No	S7173
Shape	Circular	Height	15	Width	ins	Preclean	J	Date Cleaned	2018/10/18
Material	Reinforced Concrete Pipe	Joint length	3.0 Ft	Total length	166.0 Ft	Length Surveyed	166.00 Ft
Lining		Year laid	0	Year rehabilitated		Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info					
Location	Light Highway				
Project	Birmingham Phase 1				
Northing		Easting			
Coordinate System					

Structural O & M Constructional
Miscellaneous Hydraulic

Work Order
Elevation
GPS Accuracy



102.8 Ft	Deposits Attached Encrustation 03 to 05 o'clock 005% OM: 2
104.8 Ft	Deposits Attached Encrustation 11 to 04 o'clock 005% OM: 2
110.2 Ft	Infil Stain 12 to 03 o'clock
120.5 Ft	Infil Stain 03 to 05 o'clock
125.6 Ft	Infil Stain 05 o'clock Deposits Attached Encrustation 08 o'clock 005% OM: 2
151.5 Ft	Deposits Attached Encrustation 04 o'clock 005% OM: 2 Deposits Attached Encrustation 07 o'clock 005% OM: 2
166.0 Ft	Surface Aggregate Visible 07 to 05 o'clock ST: 3 [F01] Manhole [MH35-4-091] End of Survey

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S7173 for Birmingham

Setup	141	Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham	
Drainage	Map 6	Survey Customer Birmingham			
P/O #		Date 2018/10/18	Time 11:18	Street ARLINGTON	
City	Birmingham	Further location details			
Up	MH35-1-090	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH35-4-091	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Combined	Direction Down	Flow control	Media No S7173	
Shape	Circular	Height 15 Width	ins Preclean J	Date Cleaned 2018/10/18	
Material	Reinforced Concrete Pipe	Joint length 3.00Ft	Total length 166.0 Ft	Length Surveyed 166.0	Ft
Lining		Year laid 0	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST	Start of Survey								
0.0			AMH	Manhole								MH35-1-090
0.0			MWL	Water Level			10					
0.0		S01	SAV	Surface Aggregate Visible					07	05		
10.0			DAE	Deposits Attached Encrustation			5	J	04			
35.8			DAE	Deposits Attached Encrustation			5	J	05			
38.4			DAE	Deposits Attached Encrustation			5	J	03	05		
40.7			MWL	Water Level			40					40%
57.5			TBA	Tap Break-in Active	6.000				02			
58.8			DAE	Deposits Attached Encrustation			10	J	01	05		
60.2			TFC	Tap Factory Capped	6.000				10			
62.8			TFA	Tap Factory Active	6.000				02			
71.6			DAE	Deposits Attached Encrustation			5	J	07	10		
79.4			IS	Infil Stain				J	07	09		
86.2			MWL	Water Level			30					30
92.3			IS	Infil Stain				J	09			
94.9			DAE	Deposits Attached Encrustation			5	J	09	11		
102.8			DAE	Deposits Attached Encrustation			5	J	03	05		
104.8			DAE	Deposits Attached Encrustation			5	J	11	04		
110.2			IS	Infil Stain				J	12	03		
120.5			IS	Infil Stain				J	03	05		
125.6			IS	Infil Stain				J	05			
125.6			DAE	Deposits Attached Encrustation			5	J	08			
151.5			DAE	Deposits Attached Encrustation			5	J	04			
151.5			DAE	Deposits Attached Encrustation			5	J	07			
166.0		F01	SAV	Surface Aggregate Visible					07	05		
166.0			AMH	Manhole								MH35-4-091
166.0			FH	End of Survey								

166.0 Ft Total Length Surveyed

Tabular Report of PSR S7173 for Birmingham

Setup 141	Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham	
Drainage Map 6	Survey Customer Birmingham			
P/O #	Date 2018/10/18	Time 11:18	Street ARLINGTON	
City Birmingham	Further location details			
Up MH35-1-090	Rim to invert	Grade to invert	Rim to grade	Ft
Down MH35-4-091	Rim to invert	Grade to invert	Rim to grade	Ft
Use Combined	Direction Down	Flow control	Media No S7173	
Shape Circular	Height 15 Width	ins Preclean J	Date Cleaned 2018/10/18	
Material Reinforced Concrete Pipe	Joint length 3.00 Ft	Total length 166.0 Ft	Length Surveyed 166.0	Ft
Lining	Year laid 0	Year rehabilitated .	Weather Dry	
Purpose Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous	
Location Light Highway				
Project Birmingham Phase 1			Work Order	
Northing	Easting		Elevation	
Coordinate System			GPS Accuracy	

Scores

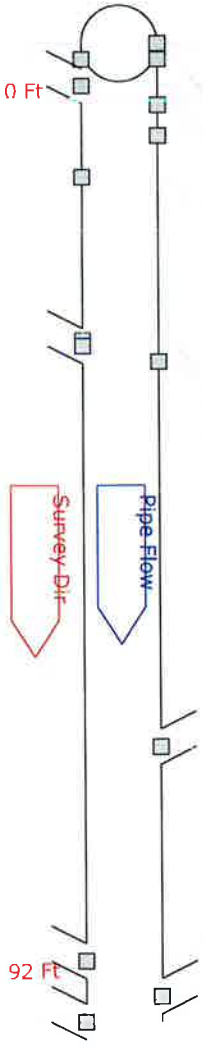
Structural:	Pipe Rating 99	Pipe Ratings Index 3	Quick Rating 3E00
O&M:	Pipe Rating 22	Pipe Ratings Index 2	Quick Rating 2A00
Overall	Pipe Rating 121	Pipe Ratings Index 5	Quick Rating 3E2A

Pipe Graphic Report of PSR S7175 for Birmingham

Setup	139	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/10/18	Time	9:03
Street	ARLINGTON				
City	Birmingham	Further location details			
Up	MH35-1-088	Rim to invert		Grade to invert		Rim to grade	Ft
Down	MH35-1-089	Rim to invert		Grade to invert		Rim to grade	Ft
Use	Combined	Direction	Downstream	Flow control		Media No	S7175
Shape	Circular	Height	12	Width	ins	Preclean	J	Date Cleaned	2018/10/18
Material	Reinforced Concrete Pipe	Joint length	3.0 Ft	Total length	347.1 Ft	Length Surveyed	347.10 Ft
Lining		Year laid	1952	Year rehabilitated		Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat			

Structural	O & M	Constructional
Miscellaneous	Hydraulic	

Additional info	
Location	Light Highway
Project	Birmingham Phase 1
Work Order	
Northing	Easting	Elevation
Coordinate System	GPS Accuracy

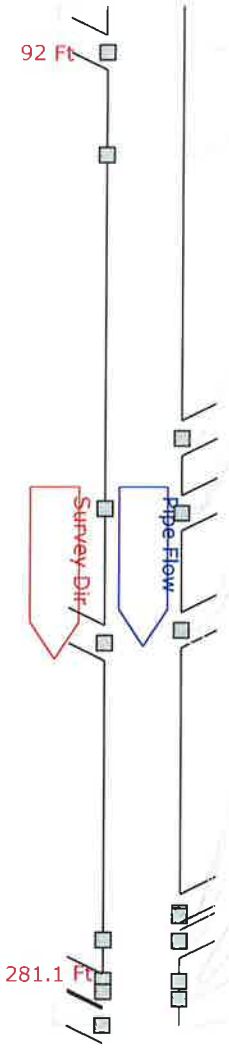


0.0 Ft	Start of Survey Manhole [MH35-1-088] Water Level 10% Surface Aggregate Visible 07 to 05 o'clock ST: 3 [S01]
1.5 Ft	Crack Circumferential 06 to 06 o'clock ST: 1 Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2
4.0 Ft	Tap Break-in Active 6.000 03 o'clock
5.8 Ft	Crack Longitudinal 12 o'clock ST: 2
8.7 Ft	Crack Longitudinal 12 o'clock ST: 2 [S02]
12.6 Ft	Crack Circumferential 06 to 06 o'clock ST: 1
28.0 Ft	Crack Circumferential 06 to 06 o'clock ST: 1
28.5 Ft	Tap Break-in Active 6.000 02 o'clock
30.0 Ft	Crack Longitudinal 12 o'clock ST: 2 [F02]
66.2 Ft	Tap Break-in Active 6.000 10 o'clock
86.3 Ft	Tap Break-in Active 6.000 03 o'clock Deposits Attached Encrustation 03 to 05 o'clock 005% OM: 2 [from tap]
89.6 Ft	Tap Factory Capped 6.000 10 o'clock
92.0 Ft	Tap Factory Capped 6.000 02 o'clock

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S7175 for Birmingham

Setup	139	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6		Survey Customer	Birmingham	
P/O #		Date	2018/10/18	Time	9:03
Street	ARLINGTON				
City	Birmingham		Further location details		
Up	MH35-1-088	Rim to invert		Grade to invert		Rim to grade	Ft
Down	MH35-1-089	Rim to invert		Grade to invert		Rim to grade	Ft
Use	Combined	Direction	Downstream	Flow control		Media No	S7175
Shape	Circular	Height	12	Width	ins	Preclean	J	Date Cleaned	2018/10/18
Material	Reinforced Concrete Pipe	Joint length	3.0 Ft	Total length	347.1 Ft	Length Surveyed	347.10 Ft
Lining		Year laid	1952	Year rehabilitated		Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural	O & M	Constructional
Location	Light Highway			Miscellaneous	Hydraulic	
Project	Birmingham Phase 1			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	

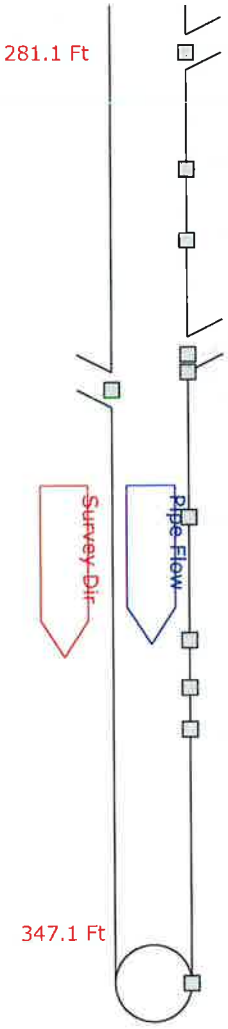


100.7 Ft	Tap Break-in Active 6.000 03 o'clock
119.8 Ft	Deposits Attached Encrustation 03 o'clock 005% OM: 2
172.4 Ft	Tap Break-in Active 6.000 09 o'clock
185.5 Ft	Deposits Attached Encrustation 04 o'clock 005% OM: 2
186.3 Ft	Tap Break-in Active 6.000 09 o'clock
208.0 Ft	Tap Factory Capped 6.000 10 o'clock
210.4 Ft	Tap Factory Capped 6.000 02 o'clock
260.2 Ft	Tap Break-in Active 6.000 10 o'clock
260.8 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2
265.4 Ft	Tap Break-in Active 6.000 12 o'clock Deposits Attached Encrustation 01 to 05 o'clock 005% OM: 2 [from tap]
272.9 Ft	Deposits Attached Encrustation 07 to 10 o'clock 005% OM: 2 Deposits Attached Encrustation 04 to 05 o'clock 005% OM: 2
275.0 Ft	Tap Break-in Active 6.000 02 o'clock
276.2 Ft	Deposits Attached Encrustation 07 to 05 o'clock 010% OM: 2 Infil Dripper 12 o'clock OM: 3
281.1 Ft	Tap Break-in Active 6.000 02 o'clock

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S7175 for Birmingham

Setup	139	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/10/18	Time	9:03
Street	ARLINGTON				
City	Birmingham	Further location details			
Up	MH35-1-088	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH35-1-089	Rim to invert		Grade to invert	Rim to grade Ft
Use	Combined	Direction	Downstream	Flow control	Media No S7175
Shape	Circular	Height	12	Width	ins
Preclean	J	Date Cleaned	2018/10/18		
Material	Reinforced Concrete Pipe	Joint length	3.0 Ft	Total length	347.1 Ft
Length Surveyed	347.10 Ft				
Lining		Year laid	1952	Year rehabilitated	Weather Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info		Structural	O & M	Constructional	
Miscellaneous	Hydraulic				
Location	Light Highway				
Project	Birmingham Phase 1	Work Order			
Northing		Easting		Elevation	
Coordinate System		GPS Accuracy			



284.3 Ft	Tap Break-in Active 6.000 09 o'clock
292.2 Ft	Crack Longitudinal 12 o'clock ST: 2
297.0 Ft	Crack Longitudinal 12 o'clock ST: 2
304.7 Ft	Tap Factory Capped 6.000 10 o'clock
305.9 Ft	Crack Longitudinal 12 o'clock ST: 2
307.1 Ft	Tap Factory Capped 6.000 02 o'clock
315.7 Ft	Crack Longitudinal 12 o'clock ST: 2
324.0 Ft	Crack Longitudinal 12 o'clock ST: 2
327.2 Ft	Crack Longitudinal 12 o'clock ST: 2
330.0 Ft	Crack Longitudinal 12 o'clock ST: 2 [S03]
347.1 Ft	Surface Aggregate Visible 07 to 05 o'clock ST: 3 [F01] Crack Longitudinal 12 o'clock ST: 2 [F03] Manhole [MH35-1-089] End of Survey

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S7175 for Birmingham

Setup	139	Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham	
Drainage	Map 6	Survey Customer Birmingham			
P/O #		Date 2018/10/18	Time 9:03	Street ARLINGTON	
City	Birmingham	Further location details			
Up	MH35-1-088	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH35-1-089	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Combined	Direction Down	Flow control	Media No S7175	
Shape	Circular	Height 12 Width	ins Preclean J	Date Cleaned 2018/10/18	
Material	Reinforced Concrete Pipe	Joint length 3.00 Ft	Total length 347.1 Ft	Length Surveyed 347.1	Ft
Lining		Year laid 1952	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video		CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0				ST	Start of Survey								
0.0				AMH	Manhole								MH35-1-088
0.0				MWL	Water Level			10					
0.0			S01	SAV	Surface Aggregate Visible					07	05		
1.5				CC	Crack Circumferential					06	06		
1.5				DAE	Deposits Attached Encrustation			5		07	05		
4.0				TBA	Tap Break-in Active	6.000				03			
5.8				CL	Crack Longitudinal				J	12			
8.7			S02	CL	Crack Longitudinal				J	12			
12.6				CC	Crack Circumferential					06	06		
28.0				CC	Crack Circumferential					06	06		
28.5				TBA	Tap Break-in Active	6.000				02			
30.0			F02	CL	Crack Longitudinal				J	12			
66.2				TBA	Tap Break-in Active	6.000				10			
86.3				TBA	Tap Break-in Active	6.000				03			
86.3				DAE	Deposits Attached Encrustation			5		03	05		from tap
89.6				TFC	Tap Factory Capped	6.000				10			
92.0				TFC	Tap Factory Capped	6.000				02			
100.7				TBA	Tap Break-in Active	6.000				03			
119.8				DAE	Deposits Attached Encrustation			5		03			
172.4				TBA	Tap Break-in Active	6.000				09			
185.5				DAE	Deposits Attached Encrustation			5	J	04			
186.3				TBA	Tap Break-in Active	6.000				09			
208.0				TFC	Tap Factory Capped	6.000				10			
210.4				TFC	Tap Factory Capped	6.000				02			
260.2				TBA	Tap Break-in Active	6.000				10			
260.8				DAE	Deposits Attached Encrustation			5	J	07	05		
265.4				TBA	Tap Break-in Active	6.000				12			
265.4				DAE	Deposits Attached Encrustation			5		01	05		from tap
272.9				DAE	Deposits Attached Encrustation			5	J	07	10		
272.9				DAE	Deposits Attached Encrustation			5	J	04	05		

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S7175 for Birmingham

Setup	139	Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham	
Drainage	Map 6	Survey Customer Birmingham			
P/O #		Date 2018/10/18	Time 9:03	Street ARLINGTON	
City	Birmingham	Further location details			
Up	MH35-1-088	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH35-1-089	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Combined	Direction Down	Flow control	Media No S7175	
Shape	Circular	Height 12	Width ins	Preclean J	Date Cleaned 2018/10/18
Material	Reinforced Concrete Pipe	Joint length 3.00 Ft	Total length 347.1 Ft	Length Surveyed 347.1	Ft
Lining		Year laid 1952	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
275.0			TBA	Tap Break-in Active	6.000				02			
276.2			DAE	Deposits Attached Encrustation			10	J	07	05		
276.2			ID	Infil Dripper				J	12			
281.1			TBA	Tap Break-in Active	6.000				02			
284.3			TBA	Tap Break-in Active	6.000				09			
292.2			CL	Crack Longitudinal					12			
297.0			CL	Crack Longitudinal				J	12			
304.7			TFC	Tap Factory Capped	6.000				10			
305.9			CL	Crack Longitudinal				J	12			
307.1			TFC	Tap Factory Capped	6.000				02			
315.7			CL	Crack Longitudinal					12			
324.0			CL	Crack Longitudinal				J	12			
327.2			CL	Crack Longitudinal				J	12			
330.0		S03	CL	Crack Longitudinal				J	12			
347.1		F01	SAV	Surface Aggregate Visible					07	05		
347.1		F03	CL	Crack Longitudinal				J	12			
347.1			AMH	Manhole								MH35-1-089
347.1			FH	End of Survey								

347.1 Ft Total Length Surveyed

Scores

Structural:	Pipe Rating 238	Pipe Ratings Index 2.8	Quick Rating 3L2A
O&M:	Pipe Rating 21	Pipe Ratings Index 2.1	Quick Rating 3129
Overall	Pipe Rating 259	Pipe Ratings Index 4.9	Quick Rating 3M2C

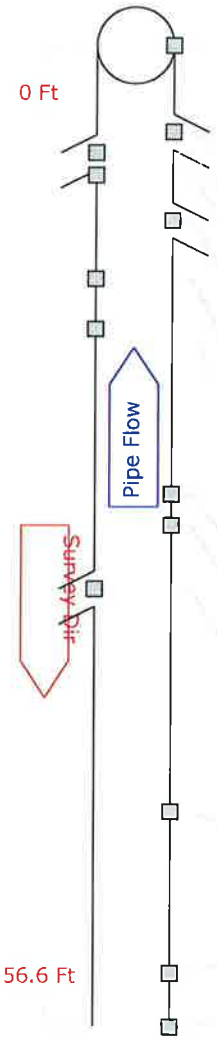
Pipe Graphic Report of PSR S7176 for Birmingham

Setup	138	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6		Survey Customer	Birmingham	
P/O #		Date	2018/10/18	Time	7:34
Street	ARLINGTON				
City	Birmingham		Further location details		

Up	MH35-1-087	Rim to invert		Grade to invert	Rim to grade	Ft
Down	MH35-1-088	Rim to invert		Grade to invert	Rim to grade	Ft

Use	Combined	Direction	Upstream	Flow control	Media No S7176
Shape	Circular	Height	12 Width	ins Preclean J	Date Cleaned 2018/10/18
Material	Reinforced Concrete Pipe	Joint length	3.0 Ft	Total length 347.0 Ft	Length Surveyed 347.00 Ft
Lining		Year laid	0	Year rehabilitated	Weather Dry
Purpose	Pre-Rehabilitation Survey	Cat			

Additional info		Structural	O & M	Constructional
Location	Light Highway	Miscellaneous	Hydraulic	
Project	Birmingham Phase 1		Work Order	
Northing	Easting		Elevation	
Coordinate System			GPS Accuracy	

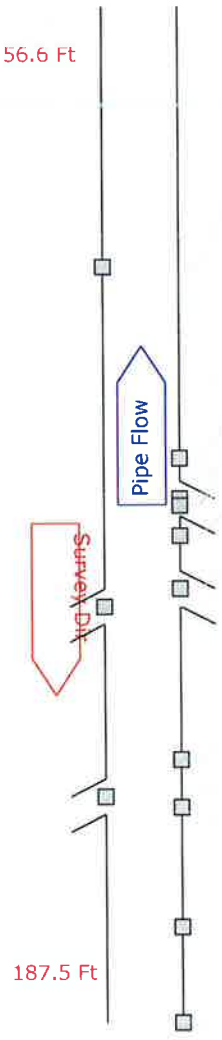


0.0 Ft	Start of Survey Manhole [MH35-1-088] Water Level 5% Surface Aggregate Visible 07 to 05 o'clock ST: 3 [S01]
5.0 Ft	Tap Factory Capped 6.000 10 o'clock Fracture Longitudinal 12 o'clock ST: 3 [S02]
6.2 Ft	Tap Factory Capped 6.000 02 o'clock
7.5 Ft	Crack Longitudinal 06 o'clock ST: 2 [S03]
10.1 Ft	Tap Break-in Active 6.000 09 o'clock
13.5 Ft	Crack Longitudinal 06 o'clock ST: 2 [F03]
16.4 Ft	Deposits Attached Encrustation 05 o'clock 005% OM: 2
25.9 Ft	Deposits Attached Encrustation 08 o'clock 005% OM: 2
27.7 Ft	Fracture Circumferential 07 to 05 o'clock ST: 2
31.4 Ft	Tap Break-in Active 6.000 03 o'clock
44.2 Ft	Fracture Longitudinal 12 o'clock ST: 3 [F02]
53.5 Ft	Infil Stain 07 to 10 o'clock
56.6 Ft	Deposits Attached Encrustation 08 o'clock 005% OM: 2

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S7176 for Birmingham

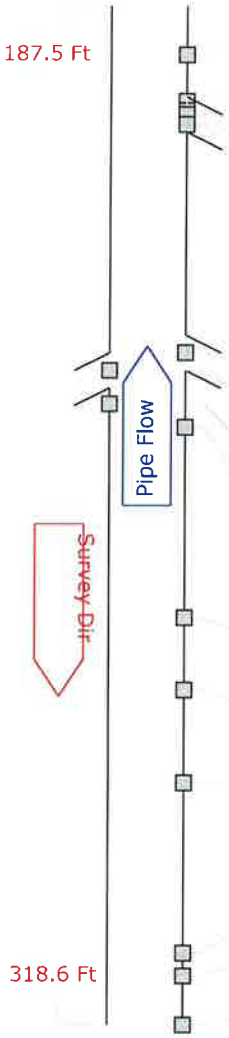
Setup	138 Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham		
Drainage	Map 6	Survey Customer Birmingham			
P/O #		Date 2018/10/18	Time 7:34	Street ARLINGTON	
City	Birmingham	Further location details			
Up	MH35-1-087	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH35-1-088	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Combined	Direction Upstream	Flow control	Media No S7176	
Shape	Circular	Height 12 Width	ins Preclean J	Date Cleaned 2018/10/18	
Material	Reinforced Concrete Pipe	Joint length 3.0 Ft	Total length 347.0 Ft	Length Surveyed 347.00 Ft	
Lining		Year laid 0	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info			Structural O & M Constructional Miscellaneous Hydraulic		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		



90.2 Ft	Deposits Attached Encrustation 04 o'clock 005% OM: 2
111.2 Ft	Water Level 025% [25%]
114.9 Ft	Infil Stain 09 o'clock
116.7 Ft	Water Level 040% [40%]
120.1 Ft	Tap Break-in Active 6.000 09 o'clock
121.0 Ft	Deposits Attached Encrustation 09 to 03 o'clock 005% OM: 2
124.9 Ft	Crack Circumferential 09 to 11 o'clock ST: 1
131.7 Ft	Tap Factory Capped 6.000 10 o'clock
134.0 Ft	Tap Factory Capped 6.000 02 o'clock
153.7 Ft	Infil Stain 09 to 11 o'clock
158.4 Ft	Tap Break-in Active 6.000 03 o'clock
159.8 Ft	Infil Stain 09 o'clock
160.5 Ft	Water Level 020% [20%]
175.2 Ft	Deposits Attached Encrustation 09 to 12 o'clock 005% OM: 2
187.5 Ft	Deposits Attached Encrustation 09 o'clock 005% OM: 2

Pipe Graphic Report of PSR S7176 for Birmingham

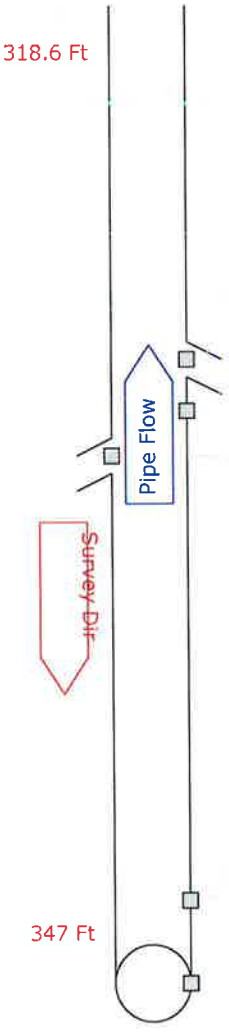
Setup	138 Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham		
Drainage	Map 6	Survey Customer Birmingham			
P/O #		Date 2018/10/18	Time 7:34	Street ARLINGTON	
City	Birmingham	Further location details			
Up	MH35-1-087	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH35-1-088	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Combined	Direction Upstream	Flow control	Media No S7176	
Shape	Circular	Height 12 Width	ins Preclean J	Date Cleaned 2018/10/18	
Material	Reinforced Concrete Pipe	Joint length 3.0 Ft	Total length 347.0 Ft	Length Surveyed 347.00 Ft	
Lining		Year laid 0	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info			Structural O & M Constructional Miscellaneous Hydraulic		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		



193.8 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2
199.8 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2
201.0 Ft	Deposits Attached Encrustation 08 to 11 o'clock 005% OM: 2 [around tap]
201.5 Ft	Tap Break-in Active 6.000 09 o'clock
202.8 Ft	Deposits Attached Encrustation 07 to 12 o'clock 005% OM: 2
232.2 Ft	Tap Factory Capped 6.000 10 o'clock
234.5 Ft	Tap Factory Capped 6.000 02 o'clock Deposits Attached Encrustation 02 to 04 o'clock 005% OM: 2 [from tap]
238.8 Ft	Deposits Attached Encrustation 04 o'clock 005% OM: 2
241.8 Ft	Deposits Attached Encrustation 09 to 05 o'clock 005% OM: 2
266.3 Ft	Deposits Attached Encrustation 12 to 05 o'clock 005% OM: 2
275.6 Ft	Deposits Attached Encrustation 09 o'clock 005% OM: 2
287.5 Ft	Deposits Attached Encrustation 08 to 11 o'clock 005% OM: 2
309.4 Ft	Deposits Attached Encrustation 08 o'clock 005% OM: 2
312.3 Ft	Fracture Longitudinal 12 o'clock ST: 3
318.6 Ft	Deposits Attached Encrustation 07 to 09 o'clock 010% OM: 2

Pipe Graphic Report of PSR S7176 for Birmingham

Setup	138	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/10/18	Time	7:34
Street	ARLINGTON				
City	Birmingham	Further location details			
Up	MH35-1-087	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH35-1-088	Rim to invert		Grade to invert	Rim to grade Ft
Use	Combined	Direction	Upstream	Flow control	Media No S7176
Shape	Circular	Height 12	Width	ins	Preclean J
Date Cleaned	2018/10/18				
Material	Reinforced Concrete Pipe	Joint length	3.0 Ft	Total length	347.0 Ft
Length Surveyed	347.00 Ft				
Lining		Year laid 0		Year rehabilitated	Weather Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural O & M Constructional Miscellaneous Hydraulic	
Location	Light Highway				
Project	Birmingham Phase 1			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	



328.9 Ft Tap Factory Active 6.000 10 o'clock

330.4 Ft Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2

331.7 Ft Tap Factory Capped 6.000 02 o'clock

344.6 Ft Crack Circumferential 07 to 05 o'clock ST: 1

Surface Aggregate Visible 07 to 05 o'clock ST: 3 [F01]

347.0 Ft Manhole [MH35-1-087]
End of Survey

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S7176 for Birmingham

Setup 138	Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham		
Drainage Map 6	Survey Customer Birmingham				
P/O #	Date 2018/10/18	Time 7:34	Street ARLINGTON		
City Birmingham	Further location details				
Up MH35-1-087	Rim to invert	Grade to invert	Rim to grade Ft		
Down MH35-1-088	Rim to invert	Grade to invert	Rim to grade Ft		
Use Combined	Direction Up	Flow control	Media No S7176		
Shape Circular	Height 12 Width ins	Preclean J	Date Cleaned 2018/10/18		
Material Reinforced Concrete Pipe	Joint length 3.00 Ft	Total length 347.0 Ft	Length Surveyed 347.0 Ft		
Lining	Year laid 0	Year rehabilitated	Weather Dry		
Purpose Pre-Rehabilitation Survey	Cat		Pressure		
Additional info			Structural O & M Constructional Miscellaneous		
Location Light Highway					
Project Birmingham Phase 1			Work Order		
Northing	Easting		Elevation		
Coordinate System			GPS Accuracy		

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST	Start of Survey								
0.0			AMH	Manhole								MH35-1-088
0.0			MWL	Water Level			5					
0.0		S01	SAV	Surface Aggregate Visible					07	05		
5.0			TFC	Tap Factory Capped	6.000				10			
5.0		S02	FL	Fracture Longitudinal					12			
6.2			TFC	Tap Factory Capped	6.000				02			
7.5		S03	CL	Crack Longitudinal				J	06			
10.1			TBA	Tap Break-in Active	6.000				09			
13.5		F03	CL	Crack Longitudinal				J	06			
16.4			DAE	Deposits Attached Encrustation			5	J	05			
25.9			DAE	Deposits Attached Encrustation			5	J	08			
27.7			FC	Fracture Circumferential					07	05		
31.4			TBA	Tap Break-in Active	6.000				03			
44.2		F02	FL	Fracture Longitudinal					12			
53.5			IS	Infil Stain				J	07	10		
56.6			DAE	Deposits Attached Encrustation			5	J	08			
90.2			DAE	Deposits Attached Encrustation			5	J	04			
111.2			MWL	Water Level			25					25%
114.9			IS	Infil Stain				J	09			
116.7			MWL	Water Level			40					40%
120.1			TBA	Tap Break-in Active	6.000				09			
121.0			DAE	Deposits Attached Encrustation			5	J	09	03		
124.9			CC	Crack Circumferential					09	11		
131.7			TFC	Tap Factory Capped	6.000				10			
134.0			TFC	Tap Factory Capped	6.000				02			
153.7			IS	Infil Stain				J	09	11		
158.4			TBA	Tap Break-in Active	6.000				03			
159.8			IS	Infil Stain				J	09			
160.5			MWL	Water Level			20					20%
175.2			DAE	Deposits Attached Encrustation			5	J	09	12		

Tabular Report of PSR S7176 for Birmingham

Setup 138	Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham	
Drainage Map 6	Survey Customer Birmingham			
P/O #	Date 2018/10/18	Time 7:34	Street ARLINGTON	
City Birmingham	Further location details			
Up MH35-1-087	Rim to invert	Grade to invert	Rim to grade	Ft
Down MH35-1-088	Rim to invert	Grade to invert	Rim to grade	Ft
Use Combined	Direction Up	Flow control	Media No S7176	
Shape Circular	Height 12 Width	ins Preclean J	Date Cleaned 2018/10/18	
Material Reinforced Concrete Pipe	Joint length 3.00Ft	Total length 347.0 Ft	Length Surveyed 347.0 Ft	
Lining	Year laid 0	Year rehabilitated	Weather Dry	
Purpose Pre-Rehabilitation Survey	Cat		Pressure	
Additional info		Structural O & M Constructional Miscellaneous		
Location Light Highway				
Project Birmingham Phase 1		Work Order		
Northing	Easting	Elevation		
Coordinate System		GPS Accuracy		

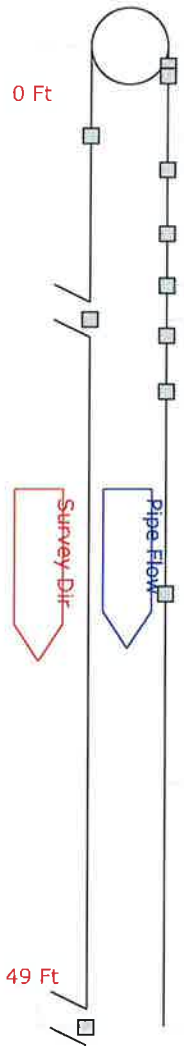
Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
187.5			DAE	Deposits Attached Encrustation			5	J	09			
193.8			DAE	Deposits Attached Encrustation			5	J	08	04		
199.8			DAE	Deposits Attached Encrustation			5	J	07	05		
201.0			DAE	Deposits Attached Encrustation			5		08	11		around tap
201.5			TBA	Tap Break-in Active	6.000				09			
202.8			DAE	Deposits Attached Encrustation			5	J	07	12		
232.2			TFC	Tap Factory Capped	6.000				10			
234.5			TFC	Tap Factory Capped	6.000				02			
234.5			DAE	Deposits Attached Encrustation			5		02	04		from tap
238.8			DAE	Deposits Attached Encrustation			5	J	04			
241.8			DAE	Deposits Attached Encrustation			5	J	09	05		
266.3			DAE	Deposits Attached Encrustation			5	J	12	05		
275.6			DAE	Deposits Attached Encrustation			5	J	09			
287.5			DAE	Deposits Attached Encrustation			5	J	08	11		
309.4			DAE	Deposits Attached Encrustation			5	J	08			
312.3			FL	Fracture Longitudinal				J	12			
318.6			DAE	Deposits Attached Encrustation			10	J	07	09		
328.9			TFA	Tap Factory Active	6.000				10			
330.4			DAE	Deposits Attached Encrustation			5	J	07	05		
331.7			TFC	Tap Factory Capped	6.000				02			
344.6			CC	Crack Circumferential					07	05		
347.0		F01	SAV	Surface Aggregate Visible					07	05		
347.0			AMH	Manhole								MH35-1-087
347.0			FH	End of Survey								

347.0 Ft Total Length Surveyed

Scores				
	Structural:	Pipe Rating 240	Pipe Ratings Index 2.9	Quick Rating 3N22
	O&M:	Pipe Rating 40	Pipe Ratings Index 2	Quick Rating 2C00
	Overall	Pipe Rating 280	Pipe Ratings Index 4.9	Quick Rating 3N2C

Pipe Graphic Report of PSR S7177 for Birmingham

Setup	137	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/10/16	Time	12:47
Street	ARLINGTON				
City	Birmingham	Further location details			
Up	MH35-1-086	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH35-1-087	Rim to invert		Grade to invert	Rim to grade Ft
Use	Combined	Direction	Downstream	Flow control	Media No S7177
Shape	Circular	Height 10	Width ins	Preclean J	Date Cleaned 2018/10/16
Material	Reinforced Concrete Pipe	Joint length 2.0 Ft	Total length 314.0 Ft	Length Surveyed 314.00 Ft	
Lining		Year laid 1965	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural O & M Constructional Miscellaneous Hydraulic	
Location	Light Highway				
Project	Birmingham Phase 1			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	

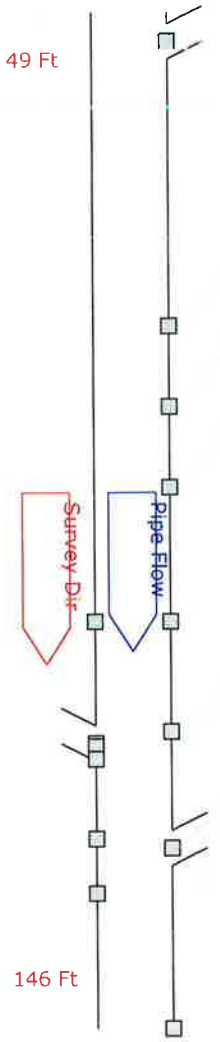


0.0 Ft	Start of Survey Manhole [MH35-1-086] Water Level 015%
1.0 Ft	Crack Circumferential 08 to 11 o'clock ST: 1
1.5 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2 Water Level 025% [25%]
4.5 Ft	Deposits Attached Encrustation 02 to 05 o'clock 005% OM: 2
6.2 Ft	Crack Multiple 07 to 05 o'clock ST: 3 Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2 [from crack]
9.4 Ft	Deposits Attached Encrustation 09 to 03 o'clock 005% OM: 2 Surface Aggregate Visible 07 to 05 o'clock ST: 3 [S01]
12.0 Ft	Deposits Attached Encrustation 09 to 03 o'clock 005% OM: 2
13.7 Ft	Tap Break-in Active 6.000 03 o'clock
14.5 Ft	Deposits Attached Encrustation 09 to 03 o'clock 005% OM: 2
17.3 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2 [S02]
27.4 Ft	Deposits Attached Encrustation 07 to 05 o'clock 010% OM: 2
36.8 Ft	Vermin Other 1.000 OM: 1 [frog]
49.0 Ft	Tap Factory Capped 6.000 03 o'clock

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S7177 for Birmingham

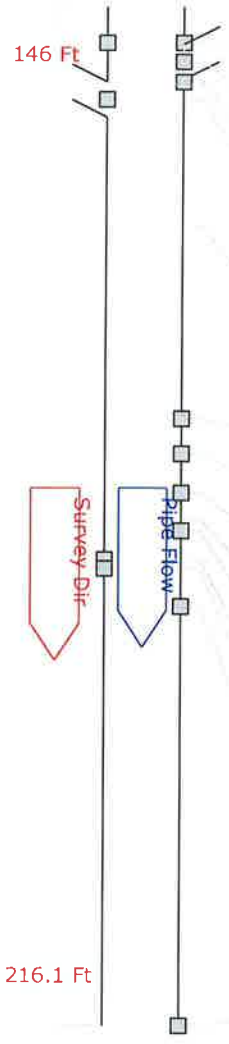
Setup	137	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6		Survey Customer	Birmingham	
P/O #		Date	2018/10/16	Time	12:47
Street	ARLINGTON				
City	Birmingham		Further location details		
Up	MH35-1-086	Rim to invert		Grade to invert		Rim to grade	Ft
Down	MH35-1-087	Rim to invert		Grade to invert		Rim to grade	Ft
Use	Combined	Direction	Downstream	Flow control		Media No	S7177
Shape	Circular	Height	10	Width	ins	Preclean	J	Date Cleaned	2018/10/16
Material	Reinforced Concrete Pipe	Joint length	2.0 Ft	Total length	314.0 Ft	Length Surveyed	314.00 Ft
Lining		Year laid	1965	Year rehabilitated		Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural	O & M	Constructional
				Miscellaneous	Hydraulic	
Location	Light Highway				
Project	Birmingham Phase 1			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	



51.8 Ft	Tap Factory Active 6.000 10 o'clock Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2 [F02]
79.0 Ft	Surface Roughness Increased 07 to 05 o'clock ST: 1
86.7 Ft	Infil Stain 07 to 05 o'clock
94.4 Ft	Deposits Attached Encrustation 09 o'clock 005% OM: 2
107.2 Ft	Deposits Attached Encrustation 05 o'clock 005% OM: 2 Deposits Attached Encrustation 07 to 09 o'clock 005% OM: 2
117.7 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2
118.8 Ft	Tap Break-in Active 6.000 02 o'clock
119.1 Ft	Deposits Attached Encrustation 01 to 04 o'clock 005% OM: 2 [around tap]
120.3 Ft	Infil Stain 02 to 05 o'clock
127.9 Ft	Deposits Attached Encrustation 01 to 05 o'clock 005% OM: 2
128.8 Ft	Tap Break-in Active 6.000 10 o'clock
133.1 Ft	Infil Stain 04 o'clock
136.7 Ft	Water Level 020% [20%]
146.0 Ft	Deposits Attached Encrustation 12 to 05 o'clock 005% OM: 2 Crack Longitudinal 12 o'clock ST: 2

Pipe Graphic Report of PSR S7177 for Birmingham

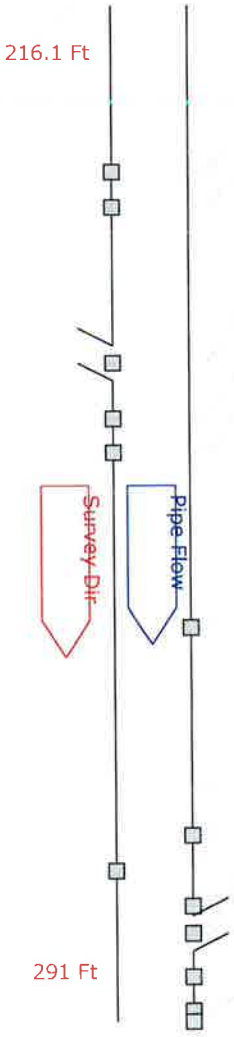
Setup	137	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/10/16	Time	12:47
Street	ARLINGTON				
City	Birmingham	Further location details			
Up	MH35-1-086	Rim to invert		Grade to invert		Rim to grade	Ft
Down	MH35-1-087	Rim to invert		Grade to invert		Rim to grade	Ft
Use	Combined	Direction	Downstream	Flow control		Media No	S7177
Shape	Circular	Height	10	Width	ins	Preclean	J	Date Cleaned	2018/10/16
Material	Reinforced Concrete Pipe	Joint length	2.0 Ft	Total length	314.0 Ft	Length Surveyed	314.00 Ft
Lining		Year laid	1965	Year rehabilitated		Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural	O & M	Constructional
Location	Light Highway			Miscellaneous	Hydraulic	
Project	Birmingham Phase 1			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	



148.5 Ft	Deposits Attached Encrustation 01 to 05 o'clock 005% OM: 2 Deposits Attached Encrustation 07 to 10 o'clock 005% OM: 2
149.8 Ft	Tap Factory Capped 6.000 10 o'clock Deposits Attached Encrustation 08 to 10 o'clock 005% OM: 2 [under tap]
151.2 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2 [S03]
152.4 Ft	Tap Factory Capped 6.000 02 o'clock
161.2 Ft	Alignment Left Down 010% OM: 1
174.4 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2 [F03]
176.8 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2
179.5 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2
181.3 Ft	Water Level 025% [25%]
182.1 Ft	Deposits Attached Encrustation 09 to 03 o'clock 005% OM: 2
184.1 Ft	Deposits Attached Encrustation 02 o'clock 005% OM: 2
184.7 Ft	Deposits Attached Encrustation 03 o'clock 005% OM: 2
187.3 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2 [S04]
216.1 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2 [F04]

Pipe Graphic Report of PSR S7177 for Birmingham

Setup	137	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/10/16	Time	12:47
Street	ARLINGTON				
City	Birmingham	Further location details			
Up	MH35-1-086	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH35-1-087	Rim to invert		Grade to invert	Rim to grade Ft
Use	Combined	Direction	Downstream	Flow control	Media No S7177
Shape	Circular	Height	10 Width	ins	Preclean J Date Cleaned 2018/10/16
Material	Reinforced Concrete Pipe	Joint length	2.0 Ft	Total length	314.0 Ft Length Surveyed 314.00 Ft
Lining		Year laid	1965	Year rehabilitated	Weather Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural O & M Constructional Miscellaneous Hydraulic	
Location	Light Highway				
Project	Birmingham Phase 1			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	



228.4 Ft	Deposits Attached Encrustation 03 to 05 o'clock 005% OM: 2
231.0 Ft	Deposits Attached Encrustation 03 to 05 o'clock 005% OM: 2
242.5 Ft	Tap Break-in Active 6.000 03 o'clock
246.6 Ft	Deposits Attached Encrustation 04 o'clock 005% OM: 2
249.1 Ft	Deposits Attached Encrustation 03 to 05 o'clock 005% OM: 2
262.0 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2
273.8 Ft	Water Level 025% [25%]
277.3 Ft	Deposits Attached Encrustation 09 to 04 o'clock 005% OM: 2
279.9 Ft	Deposits Attached Encrustation 03 o'clock 005% OM: 2
282.5 Ft	Deposits Attached Encrustation 09 to 03 o'clock 010% OM: 2
283.8 Ft	Water Level 040% [40%]
284.5 Ft	Tap Break-in Active 6.000 10 o'clock Deposits Attached Encrustation 12 to 04 o'clock 005% OM: 2
287.7 Ft	Deposits Attached Encrustation 12 to 03 o'clock 005% OM: 2
290.2 Ft	Deposits Attached Encrustation 09 o'clock 010% OM: 2
291.0 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2

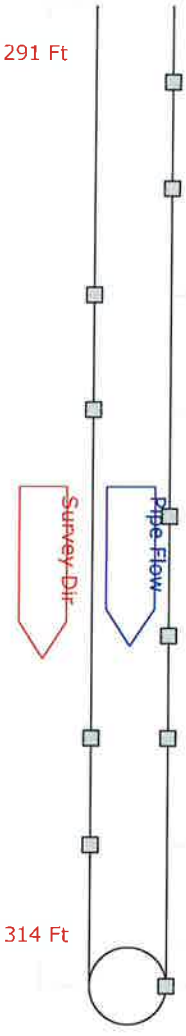
Pipe Graphic Report of PSR S7177 for Birmingham

Setup	137	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6			Survey Customer	Birmingham
P/O #		Date	2018/10/16	Time	12:47
Street	ARLINGTON				
City	Birmingham			Further location details	

Up	MH35-1-086	Rim to invert	Grade to invert	Rim to grade Ft
Down	MH35-1-087	Rim to invert	Grade to invert	Rim to grade Ft

Use	Combined	Direction Downstream	Flow control	Media No S7177
Shape	Circular	Height 10 Width	ins Preclean J	Date Cleaned 2018/10/16
Material	Reinforced Concrete Pipe	Joint length 2.0 Ft	Total length 314.0 Ft	Length Surveyed 314.00 Ft
Lining		Year laid 1965	Year rehabilitated	Weather Dry
Purpose	Pre-Rehabilitation Survey	Cat		

Additional info			Structural	O & M Constructional
Location	Light Highway		Miscellaneous	Hydraulic
Project	Birmingham Phase 1		Work Order	
Northing		Easting	Elevation	
Coordinate System			GPS Accuracy	



292.8 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2
295.3 Ft	Deposits Attached Encrustation 08 to 11 o'clock 005% OM: 2
297.8 Ft	Deposits Attached Encrustation 02 o'clock 005% OM: 2
300.5 Ft	Deposits Attached Encrustation 04 o'clock 005% OM: 2
303.0 Ft	Crack Longitudinal 12 o'clock ST: 2
305.8 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2
308.2 Ft	Deposits Attached Encrustation 03 to 05 o'clock 005% OM: 2 Fracture Longitudinal 12 o'clock ST: 3
310.7 Ft	Deposits Attached Encrustation 01 to 05 o'clock 005% OM: 2
314.0 Ft	Surface Aggregate Visible 07 to 05 o'clock ST: 3 [F01] Manhole [MH35-1-087] End of Survey

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S7177 for Birmingham

Setup	137	Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham	
Drainage	Map 6	Survey Customer Birmingham			
P/O #		Date 2018/10/16	Time 12:47	Street ARLINGTON	
City	Birmingham	Further location details			
Up	MH35-1-086	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH35-1-087	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Combined	Direction Down	Flow control	Media No S7177	
Shape	Circular	Height 10 Width	ins Preclean J	Date Cleaned 2018/10/16	
Material	Reinforced Concrete Pipe	Joint length 2.00 Ft	Total length 314.0 Ft	Length Surveyed 314.0 Ft	
Lining		Year laid 1965	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST	Start of Survey								
0.0			AMH	Manhole								MH35-1-086
0.0			MWL	Water Level			15					
1.0			CC	Crack Circumferential					08	11		
1.5			DAE	Deposits Attached Encrustation			5	J	07	05		
1.5			MWL	Water Level			25					25%
4.5			DAE	Deposits Attached Encrustation			5	J	02	05		
6.2			CM	Crack Multiple				J	07	05		
6.2			DAE	Deposits Attached Encrustation			5		08	04		from crack
9.4			DAE	Deposits Attached Encrustation			5	J	09	03		
9.4		S01	SAV	Surface Aggregate Visible					07	05		
12.0			DAE	Deposits Attached Encrustation			5	J	09	03		
13.7			TBA	Tap Break-in Active	6.000				03			
14.5			DAE	Deposits Attached Encrustation			5	J	09	03		
17.3		S02	DAE	Deposits Attached Encrustation			5	J	08	04		
27.4			DAE	Deposits Attached Encrustation			10	J	07	05		
36.8			VZ	Vermin Other	1.000							frog
49.0			TFC	Tap Factory Capped	6.000				03			
51.8			TFA	Tap Factory Active	6.000				10			
51.8		F02	DAE	Deposits Attached Encrustation			5	J	08	04		
79.0			SRI	Surface Roughness Increased					07	05		
86.7			IS	Infil Stain				J	07	05		
94.4			DAE	Deposits Attached Encrustation			5	J	09			
107.2			DAE	Deposits Attached Encrustation			5	J	05			
107.2			DAE	Deposits Attached Encrustation			5	J	07	09		
117.7			DAE	Deposits Attached Encrustation			5	J	07	05		
118.8			TBA	Tap Break-in Active	6.000				02			
119.1			DAE	Deposits Attached Encrustation			5		01	04		around tap
120.3			IS	Infil Stain				J	02	05		
127.9			DAE	Deposits Attached Encrustation			5	J	01	05		
128.8			TBA	Tap Break-in Active	6.000				10			

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S7177 for Birmingham

Setup 137	Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham		
Drainage Map 6	Survey Customer Birmingham				
P/O #	Date 2018/10/16	Time 12:47	Street ARLINGTON		
City Birmingham	Further location details				
Up MH35-1-086	Rim to invert	Grade to invert	Rim to grade Ft		
Down MH35-1-087	Rim to invert	Grade to invert	Rim to grade Ft		
Use Combined	Direction Down	Flow control	Media No S7177		
Shape Circular	Height 10	Width ins	Preclean J	Date Cleaned 2018/10/16	
Material Reinforced Concrete Pipe	Joint length 2.00 Ft	Total length 314.0 Ft	Length Surveyed 314.0 Ft		
Lining	Year laid 1965	Year rehabilitated	Weather Dry		
Purpose Pre-Rehabilitation Survey	Cat		Pressure		
Additional info		Structural O & M Constructional Miscellaneous			
Location Light Highway					
Project Birmingham Phase 1		Work Order			
Northing	Easting	Elevation			
Coordinate System		GPS Accuracy			

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
133.1			IS	Infil Stain				J	04			
136.7			MWL	Water Level			20					20%
146.0			DAE	Deposits Attached Encrustation			5	J	12	05		
146.0			CL	Crack Longitudinal				J	12			
148.5			DAE	Deposits Attached Encrustation			5	J	01	05		
148.5			DAE	Deposits Attached Encrustation			5	J	07	10		
149.8			TFC	Tap Factory Capped	6.000				10			
149.8			DAE	Deposits Attached Encrustation			5		08	10		under tap
151.2		S03	DAE	Deposits Attached Encrustation			5	J	07	05		
152.4			TFC	Tap Factory Capped	6.000				02			
161.2			LLD	Alignment Left Down			10					
174.4		F03	DAE	Deposits Attached Encrustation			5	J	07	05		
176.8			DAE	Deposits Attached Encrustation			5	J	07	05		
179.5			DAE	Deposits Attached Encrustation			5	J	07	05		
181.3			MWL	Water Level			25					25%
182.1			DAE	Deposits Attached Encrustation			5	J	09	03		
184.1			DAE	Deposits Attached Encrustation			5		02			
184.7			DAE	Deposits Attached Encrustation			5	J	03			
187.3		S04	DAE	Deposits Attached Encrustation			5	J	07	05		
216.1		F04	DAE	Deposits Attached Encrustation			5	J	07	05		
228.4			DAE	Deposits Attached Encrustation			5	J	03	05		
231.0			DAE	Deposits Attached Encrustation			5	J	03	05		
242.5			TBA	Tap Break-in Active	6.000				03			
246.6			DAE	Deposits Attached Encrustation			5	J	04			
249.1			DAE	Deposits Attached Encrustation			5	J	03	05		
262.0			DAE	Deposits Attached Encrustation			5	J	07	05		
273.8			MWL	Water Level			25					25%
277.3			DAE	Deposits Attached Encrustation			5	J	09	04		
279.9			DAE	Deposits Attached Encrustation			5	J	03			
282.5			DAE	Deposits Attached Encrustation			10	J	09	03		
283.8			MWL	Water Level			40					40%
284.5			TBA	Tap Break-in Active	6.000				10			

Tabular Report of PSR S7177 for Birmingham

Setup	137	Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham	
Drainage	Map 6	Survey Customer Birmingham			
P/O #		Date 2018/10/16	Time 12:47	Street ARLINGTON	
City	Birmingham	Further location details			
Up	MH35-1-086	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH35-1-087	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Combined	Direction Down	Flow control	Media No S7177	
Shape	Circular	Height 10 Width	ins Preclean J	Date Cleaned 2018/10/16	
Material	Reinforced Concrete Pipe	Joint length 2.00Ft	Total length 314.0 Ft	Length Surveyed 314.0	Ft
Lining		Year laid 1965	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
284.5			DAE	Deposits Attached Encrustation			5		12	04		
287.7			DAE	Deposits Attached Encrustation			5	J	12	03		
290.2			DAE	Deposits Attached Encrustation			10	J	09			
291.0			DAE	Deposits Attached Encrustation			5		08	04		
292.8			DAE	Deposits Attached Encrustation			5	J	08	04		
295.3			DAE	Deposits Attached Encrustation			5	J	08	11		
297.8			DAE	Deposits Attached Encrustation			5	J	02			
300.5			DAE	Deposits Attached Encrustation			5	J	04			
303.0			CL	Crack Longitudinal				J	12			
305.8			DAE	Deposits Attached Encrustation			5	J	08	04		
308.2			DAE	Deposits Attached Encrustation			5	J	03	05		
308.2			FL	Fracture Longitudinal				J	12			
310.7			DAE	Deposits Attached Encrustation			5	J	01	05		
314.0		F01	SAV	Surface Aggregate Visible					07	05		
314.0			AMH	Manhole								MH35-1-087
314.0			FH	End of Survey								

314.0 Ft Total Length Surveyed

Scores

Structural:	Pipe Rating 195	Pipe Ratings Index 2.9	Quick Rating 3K22
O&M:	Pipe Rating 120	Pipe Ratings Index 2	Quick Rating 2J12
Overall	Pipe Rating 315	Pipe Ratings Index 4.9	Quick Rating 3K2K

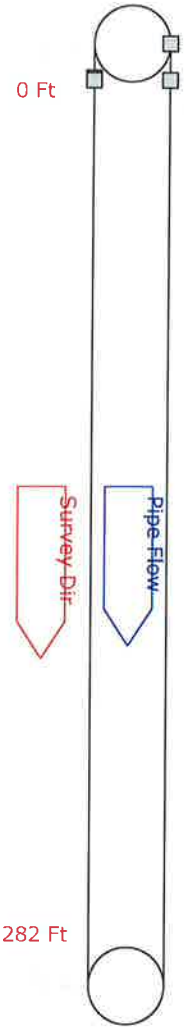
Pipe Graphic Report of PSR S7178 for Birmingham

Setup	163	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/10/25	Time	7:48
Street	SHIRLEY				
City	Birmingham	Further location details			

Up	MH35-1-080	Rim to invert		Grade to invert		Rim to grade	Ft
Down	MH35-1-079	Rim to invert		Grade to invert		Rim to grade	Ft

Use	Combined	Direction	Downstream	Flow control		Media No	S7178
Shape	Circular	Height	24	Width	ins	Preclean	J	Date Cleaned	2018/10/25
Material	Reinforced Concrete Pipe	Joint length	3.0 Ft	Total length	282.0 Ft	Length Surveyed	11.00 Ft
Lining		Year laid	1952	Year rehabilitated		Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat					

Additional info		Structural	O & M	Constructional
Location	Light Highway	Miscellaneous	Hydraulic	
Project	Birmingham Phase 1		Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	



0 Ft — 0.0 Ft — Start of Survey
Manhole [MH35-1-080]
Water Level 10%
Surface Aggregate Visible 07 to 05 o'clock ST: 3 [S01]

10.3 Ft — Deposits Settled Gravel 04 to 08 o'clock 020% OM: 3

282 Ft — 11.0 Ft — Obstacle Rocks 04 to 08 o'clock 025% OM: 4
Surface Aggregate Visible 07 to 05 o'clock ST: 3 [F01]
Abandoned Survey [can't pass brick]

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S7178 for Birmingham

Setup	163	Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham	
Drainage	Map 6	Survey Customer Birmingham			
P/O #		Date 2018/10/25	Time 7:48	Street SHIRLEY	
City	Birmingham	Further location details			
Up	MH35-1-080	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH35-1-079	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Combined	Direction Down	Flow control	Media No S7178	
Shape	Circular	Height 24	Width ins	Preclean J	Date Cleaned 2018/10/25
Material	Reinforced Concrete Pipe	Joint length 3.00 Ft	Total length 282.0 Ft	Length Surveyed 11.0	Ft
Lining		Year laid 1952	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST	Start of Survey								
0.0			AMH	Manhole								MH35-1-080
0.0			MWL	Water Level			10					
0.0		S01	SAV	Surface Aggregate Visible					07	05		
10.3			DSGV	Deposits Settled Gravel			20		04	08		
11.0			OBR	Obstacle Rocks			25		04	08		
11.0		F01	SAV	Surface Aggregate Visible					07	05		
11.0			MSA	Abandoned Survey								can't pass brick

11.0 Ft Total Length Surveyed

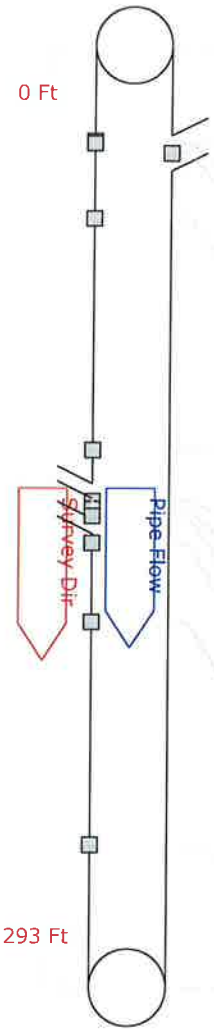
Scores

Structural:	Pipe Rating 6	Pipe Ratings Index 3	Quick Rating 3200
O&M:	Pipe Rating 7	Pipe Ratings Index 3.5	Quick Rating 4131
Overall	Pipe Rating 13	Pipe Ratings Index 6.5	Quick Rating 4133

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S7178H for Birmingham

Setup	371 Surveyor Gary	Certificate #	U206-3080	System Owner	Birmingham
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/11/19	Time	12:49
Street	SHIRLEY				
City	Birmingham	Further location details			
Up	MH35-1-080	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH35-1-079	Rim to invert		Grade to invert	Rim to grade Ft
Use	Combined	Direction	Downstream	Flow control	Media No S7178H
Shape	Circular	Height	24 Width	ins	Preclean H Date Cleaned 2018/11/19
Material	Reinforced Concrete Pipe	Joint length	3.0 Ft	Total length 293.0 Ft	Length Surveyed 293.00 Ft
Lining		Year laid	1952	Year rehabilitated	Weather Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural O & M Constructional Miscellaneous Hydraulic	
Location	Easement/Right of Way				
Project	Birmingham Phase 1			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	



0.0 Ft	Start of Survey Manhole [MH35-1-080] Water Level 5%
29.9 Ft	Obstacle Other 04 to 08 o'clock 015% OM: 3 [piece of mh cover]
30.6 Ft	Obstacle Pipe Material 06 o'clock 005% OM: 2 [concrete core]
33.6 Ft	Tap Break-in Intruding 6.000 12 o'clock 2.000 OM: 2
54.0 Ft	Deposits Settled Gravel 04 to 08 o'clock 020% OM: 3 [S01]
126.1 Ft	Deposits Settled Gravel 04 to 08 o'clock 020% OM: 3 [F01] Deposits Settled Gravel 04 to 08 o'clock 010% OM: 2 [S02]
142.0 Ft	Tap Break-in Active 6.000 03 o'clock
144.4 Ft	Deposits Settled Gravel 04 to 08 o'clock 010% OM: 2 [F02]
146.6 Ft	Tap Break-in Active 6.000 02 o'clock
155.0 Ft	Deposits Settled Fine 05 to 07 o'clock 010% OM: 2 [S03]
179.5 Ft	Deposits Attached Encrustation 03 to 04 o'clock 005% OM: 2
248.7 Ft	Deposits Settled Fine 05 to 07 o'clock 010% OM: 2 [F03]
293.0 Ft	Manhole [MH35-1-079] End of Survey

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S7178H for Birmingham

Setup 371	Surveyor Gary	Certificate # U206-3080		System Owner Birmingham	
Drainage Map 6		Survey Customer Birmingham			
P/O #		Date 2018/11/19	Time 12:49	Street SHIRLEY	
City Birmingham		Further location details			
Up MH35-1-080		Rim to invert	Grade to invert	Rim to grade	Ft
Down MH35-1-079		Rim to invert	Grade to invert	Rim to grade	Ft
Use Combined		Direction Down	Flow control	Media No S7178H	
Shape Circular		Height 24	Width ins	Preclean H	Date Cleaned 2018/11/19
Material Reinforced Concrete Pipe		Joint length 3.00 Ft	Total length 293.0 Ft	Length Surveyed 293.0	Ft
Lining		Year laid 1952	Year rehabilitated	Weather Dry	
Purpose Pre-Rehabilitation Survey		Cat		Pressure	
Additional info				Structural O & M Constructional Miscellaneous	
Location Easement/Right of Way					
Project Birmingham Phase 1				Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST	Start of Survey								
0.0			AMH	Manhole								MH35-1-080
0.0			MWL	Water Level			5					
29.9			OBZ	Obstacle Other			15		04	08		piece of mh cover
30.6			OBM	Obstacle Pipe Material			5		06			concrete core
33.6			TBI	Tap Break-in Intruding	6.000	2.000			12			
54.0		S01	DSGV	Deposits Settled Gravel			20		04	08		
126.1		F01	DSGV	Deposits Settled Gravel			20		04	08		
126.1		S02	DSGV	Deposits Settled Gravel			10		04	08		
142.0			TBA	Tap Break-in Active	6.000				03			
144.4		F02	DSGV	Deposits Settled Gravel			10		04	08		
146.6			TBA	Tap Break-in Active	6.000				02			
155.0		S03	DSF	Deposits Settled Fine			10		05	07		
179.5			DAE	Deposits Attached Encrustation			5	J	03	04		
248.7		F03	DSF	Deposits Settled Fine			10		05	07		
293.0			AMH	Manhole								MH35-1-079
293.0			FH	End of Survey								

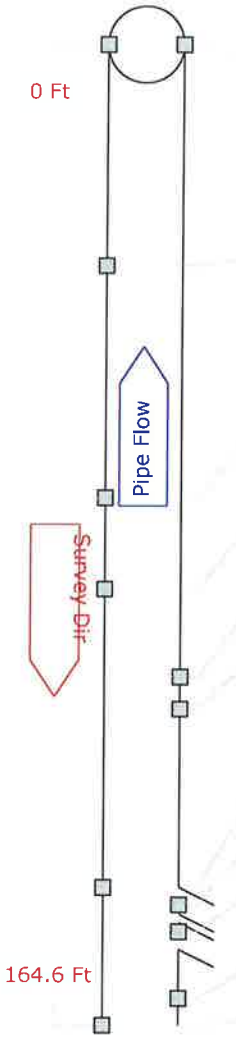
293.0 Ft Total Length Surveyed

Scores				
	Structural:	Pipe Rating 0	Pipe Ratings Index 0	Quick Rating 0000
	O&M:	Pipe Rating 97	Pipe Ratings Index 2.4	Quick Rating 3B2D
	Overall	Pipe Rating 97	Pipe Ratings Index 2.4	Quick Rating 3B2D

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S7178R for Birmingham

Setup	164	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/10/25	Time	8:57
Street	SHIRLEY				
City	Birmingham	Further location details			
Up	MH35-1-080	Rim to invert		Grade to invert		Rim to grade	Ft
Down	MH35-1-079	Rim to invert		Grade to invert		Rim to grade	Ft
Use	Combined	Direction	Upstream	Flow control		Media No	S7178R
Shape	Circular	Height	24	Width	ins	Preclean	J	Date Cleaned	2018/10/25
Material	Reinforced Concrete Pipe	Joint length	3.0 Ft	Total length	282.0 Ft	Length Surveyed	196.00 Ft
Lining		Year laid	1952	Year rehabilitated		Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural	O & M	Constructional
Location	Light Highway			Miscellaneous	Hydraulic	
Project	Birmingham Phase 1			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	

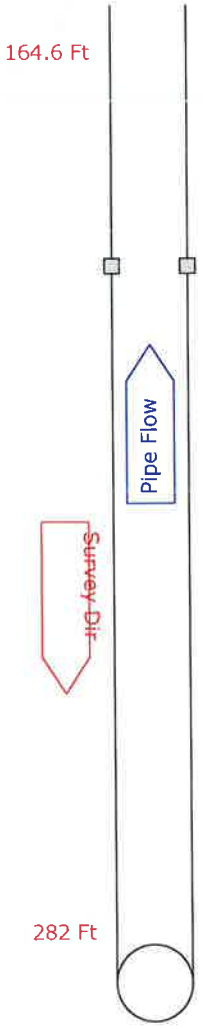


0.0 Ft	Start of Survey
	Manhole [MH35-1-079]
	Water Level 10%
	Surface Aggregate Visible 07 to 05 o'clock ST: 3 [S01]
	Deposits Settled Gravel 06 to 08 o'clock 015% OM: 3
37.2 Ft	Deposits Settled Gravel 06 to 08 o'clock 015% OM: 3 [S02]
76.2 Ft	Deposits Settled Gravel 06 to 08 o'clock 015% OM: 3 [F02]
91.5 Ft	Deposits Settled Gravel 04 to 08 o'clock 020% OM: 3 [S03]
106.2 Ft	Deposits Attached Encrustation 07 o'clock 005% OM: 2
111.6 Ft	Deposits Attached Encrustation 07 to 09 o'clock 005% OM: 2
141.5 Ft	Deposits Settled Gravel 04 to 08 o'clock 020% OM: 3 [F03]
144.4 Ft	Tap Break-in Active 6.000 10 o'clock
148.9 Ft	Tap Break-in Active 6.000 10 o'clock
160.1 Ft	Deposits Attached Encrustation 07 to 09 o'clock 005% OM: 2
164.6 Ft	Deposits Settled Gravel 04 to 06 o'clock 025% OM: 4 [S04]

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S7178R for Birmingham

Setup	164	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/10/25	Time	8:57
Street	SHIRLEY				
City	Birmingham	Further location details			
Up	MH35-1-080	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH35-1-079	Rim to invert		Grade to invert	Rim to grade Ft
Use	Combined	Direction	Upstream	Flow control	Media No S7178R
Shape	Circular	Height	24	Width ins	Preclean J
Date Cleaned	2018/10/25				
Material	Reinforced Concrete Pipe	Joint length	3.0 Ft	Total length	282.0 Ft
Length Surveyed	196.00 Ft				
Lining		Year laid	1952	Year rehabilitated	Weather Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info		Structural	O & M	Constructional	
Miscellaneous	Hydraulic				
Location	Light Highway				
Project	Birmingham Phase 1	Work Order			
Northing		Easting		Elevation	
Coordinate System		GPS Accuracy			



Deposits Settled Gravel 04 to 06 o'clock 025% OM: 4 [F04]
Deposits Settled Gravel 04 to 06 o'clock 035% OM: 5
Surface Aggregate Visible 07 to 05 o'clock ST: 3 [F01]
Abandoned Survey [debris level too high]

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S7178R for Birmingham

Setup 164	Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham	
Drainage Map 6	Survey Customer Birmingham			
P/O #	Date 2018/10/25	Time 8:57	Street SHIRLEY	
City Birmingham	Further location details			
Up MH35-1-080	Rim to invert	Grade to invert	Rim to grade	Ft
Down MH35-1-079	Rim to invert	Grade to invert	Rim to grade	Ft
Use Combined	Direction Up	Flow control	Media No S7178R	
Shape Circular	Height 24 Width	ins Preclean J	Date Cleaned 2018/10/25	
Material Reinforced Concrete Pipe	Joint length 3.00 Ft	Total length 282.0 Ft	Length Surveyed 196.0	Ft
Lining	Year laid 1952	Year rehabilitated	Weather Dry	
Purpose Pre-Rehabilitation Survey	Cat		Pressure	
Additional info		Structural O & M Constructional Miscellaneous		
Location Light Highway				
Project Birmingham Phase 1		Work Order		
Northing	Easting	Elevation		
Coordinate System		GPS Accuracy		

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST	Start of Survey								
0.0			AMH	Manhole								MH35-1-079
0.0			MWL	Water Level			10					
0.0		S01	SAV	Surface Aggregate Visible					07	05		
0.0			DSGV	Deposits Settled Gravel			15		06	08		
37.2		S02	DSGV	Deposits Settled Gravel			15		06	08		
76.2		F02	DSGV	Deposits Settled Gravel			15		06	08		
91.5		S03	DSGV	Deposits Settled Gravel			20		04	08		
106.2			DAE	Deposits Attached Encrustation			5	J	07			
111.6			DAE	Deposits Attached Encrustation			5	J	07	09		
141.5		F03	DSGV	Deposits Settled Gravel			20		04	08		
144.4			TBA	Tap Break-in Active	6.000				10			
148.9			TBA	Tap Break-in Active	6.000				10			
160.1			DAE	Deposits Attached Encrustation			5	J	07	09		
164.6		S04	DSGV	Deposits Settled Gravel			25		04	06		
196.0		F04	DSGV	Deposits Settled Gravel			25		04	06		
196.0			DSGV	Deposits Settled Gravel			35		04	06		
196.0		F01	SAV	Surface Aggregate Visible					07	05		
196.0			MSA	Abandoned Survey								debris level too high

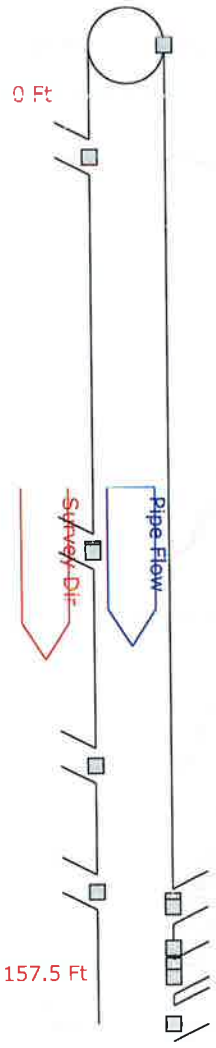
196.0 Ft Total Length Surveyed

Scores

Structural:	Pipe Rating 117	Pipe Ratings Index 3	Quick Rating 3F00
O&M:	Pipe Rating 92	Pipe Ratings Index 3.2	Quick Rating 5146
Overall	Pipe Rating 209	Pipe Ratings Index 6.2	Quick Rating 5146

Pipe Graphic Report of PSR S7179 for Birmingham

Setup	162	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/10/24	Time	13:35
Street	SHIRLEY				
City	Birmingham	Further location details			
Up	MH35-1-081	Rim to invert		Grade to invert		Rim to grade	Ft
Down	MH35-1-080	Rim to invert		Grade to invert		Rim to grade	Ft
Use	Combined	Direction	Downstream	Flow control		Media No	S7179
Shape	Circular	Height	18	Width	ins	Preclean	J	Date Cleaned	2018/10/24
Material	Reinforced Concrete Pipe	Joint length	3.0 Ft	Total length	197.0 Ft	Length Surveyed	197.00 Ft
Lining		Year laid	1952	Year rehabilitated		Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural	O & M	Constructional
				Miscellaneous	Hydraulic	
Location	Light Highway				
Project	Birmingham Phase 1			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	



0.0 Ft	Start of Survey Manhole [MH35-1-081] Water Level 10% Surface Aggregate Visible 07 to 05 o'clock ST: 3 [S01]
18.0 Ft	Tap Factory Capped 6.000 02 o'clock
81.1 Ft	Deposits Attached Encrustation 01 to 05 o'clock 005% OM: 2
81.6 Ft	Tap Break-in Active 6.000 02 o'clock Crack Circumferential 02 to 04 o'clock ST: 1
116.0 Ft	Tap Factory Capped 6.000 02 o'clock
136.3 Ft	Tap Break-in Active 6.000 02 o'clock Deposits Attached Encrustation 02 to 04 o'clock 005% OM: 2 [under tap]
137.8 Ft	Crack Longitudinal 10 o'clock ST: 2
138.8 Ft	Tap Break-in Intruding 6.000 10 o'clock 1.500 OM: 2 Crack Spiral 11 to 12 o'clock ST: 2
145.4 Ft	Deposits Attached Encrustation 08 o'clock 005% OM: 2
148.2 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2
150.1 Ft	Tap Break-in Active 6.000 08 o'clock
157.5 Ft	Tap Factory Capped 6.000 10 o'clock

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

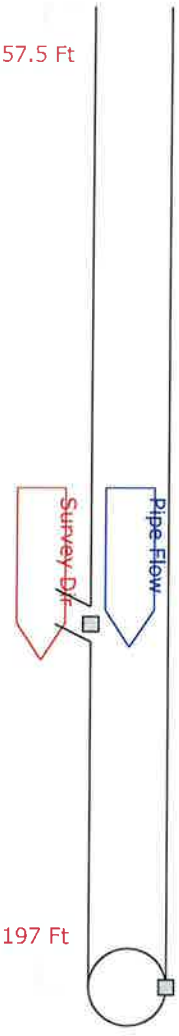
Pipe Graphic Report of PSR S7179 for Birmingham

Setup	162	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/10/24	Time	13:35
Street	SHIRLEY				
City	Birmingham	Further location details			

Up	MH35-1-081	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH35-1-080	Rim to invert		Grade to invert	Rim to grade Ft

Use	Combined	Direction	Downstream	Flow control	Media No S7179
Shape	Circular	Height	18	Width ins	Preclean J
Date Cleaned	2018/10/24				
Material	Reinforced Concrete Pipe	Joint length	3.0 Ft	Total length 197.0 Ft	Length Surveyed 197.00 Ft
Lining		Year laid	1952	Year rehabilitated	Weather Dry
Purpose	Pre-Rehabilitation Survey	Cat			

Additional info		Structural	O & M Constructional
Location	Light Highway	Miscellaneous	Hydraulic
Project	Birmingham Phase 1	Work Order	
Northing	Easting	Elevation	
Coordinate System		GPS Accuracy	



157.5 Ft

182.4 Ft Tap Break-in Intruding 6.000 02 o'clock 1.000 OM: 2

197 Ft

Surface Aggregate Visible 07 to 05 o'clock ST: 3 [F01]

197.0 Ft Manhole [MH35-1-080]

End of Survey

Doetsch ENVIRONMENTAL SERVICES

Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S7179 for Birmingham

Setup 162	Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham		
Drainage Map 6	Survey Customer Birmingham				
P/O #	Date 2018/10/24	Time 13:35	Street SHIRLEY		
City Birmingham	Further location details				
Up MH35-1-081	Rim to invert	Grade to invert	Rim to grade	Ft	
Down MH35-1-080	Rim to invert	Grade to invert	Rim to grade	Ft	
Use Combined	Direction Down	Flow control	Media No S7179		
Shape Circular	Height 18 Width	ins Preclean J	Date Cleaned 2018/10/24		
Material Reinforced Concrete Pipe	Joint length 3.00Ft	Total length 197.0 Ft	Length Surveyed 197.0 Ft		
Lining	Year laid 1952	Year rehabilitated	Weather Dry		
Purpose Pre-Rehabilitation Survey	Cat		Pressure		
Additional info			Structural O & M Constructional Miscellaneous		
Location Light Highway					
Project Birmingham Phase 1			Work Order		
Northing	Easting		Elevation		
Coordinate System			GPS Accuracy		

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST	Start of Survey								
0.0			AMH	Manhole								MH35-1-081
0.0			MWL	Water Level			10					
0.0		S01	SAV	Surface Aggregate Visible					07	05		
18.0			TFC	Tap Factory Capped	6.000				02			
81.1			DAE	Deposits Attached Encrustation			5	J	01	05		
81.6			TBA	Tap Break-in Active	6.000			J	02			
81.6			CC	Crack Circumferential					02	04		
116.0			TFC	Tap Factory Capped	6.000				02			
136.3			TBA	Tap Break-in Active	6.000				02			
136.3			DAE	Deposits Attached Encrustation			5		02	04		under tap
137.8			CL	Crack Longitudinal				J	10			
138.8			TBI	Tap Break-in Intruding	6.000	1.500			10			
138.8			CS	Crack Spiral					11	12		
145.4			DAE	Deposits Attached Encrustation			5	J	08			
148.2			DAE	Deposits Attached Encrustation			5	J	07	05		
150.1			TBA	Tap Break-in Active	6.000				08			
157.5			TFC	Tap Factory Capped	6.000				10			
182.4			TBI	Tap Break-in Intruding	6.000	1.000			02			
197.0		F01	SAV	Surface Aggregate Visible					07	05		
197.0			AMH	Manhole								MH35-1-080
197.0			FH	End of Survey								

197.0 Ft Total Length Surveyed

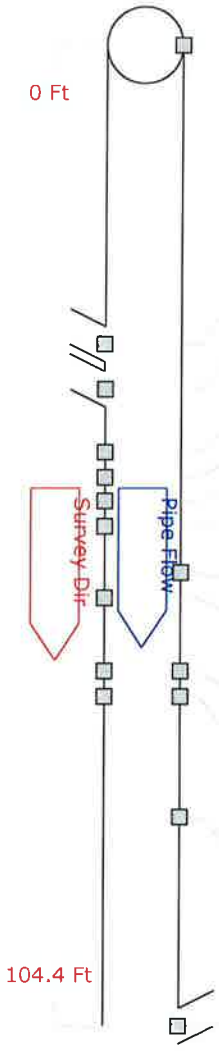
Scores

Structural:	Pipe Rating 122	Pipe Ratings Index 2.9	Quick Rating 3F22
O&M:	Pipe Rating 12	Pipe Ratings Index 2	Quick Rating 2600
Overall	Pipe Rating 134	Pipe Ratings Index 4.9	Quick Rating 3F28

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S7180 for Birmingham

Setup	161	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/10/24	Time	12:02
Street	SHIRLEY				
City	Birmingham	Further location details			
Up	MH35-1-082	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH35-1-081	Rim to invert		Grade to invert	Rim to grade Ft
Use	Combined	Direction	Downstream	Flow control	Media No S7180
Shape	Circular	Height 18	Width	ins	Preclean J
Date Cleaned	2018/10/24				
Material	Reinforced Concrete Pipe	Joint length	3.0 Ft	Total length	243.0 Ft
Length Surveyed	243.00 Ft				
Lining		Year laid	1952	Year rehabilitated	Weather Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info		Structural	O & M	Constructional	
Miscellaneous	Hydraulic				
Location	Light Highway				
Project	Birmingham Phase 1	Work Order			
Northing		Easting		Elevation	
Coordinate System		GPS Accuracy			



0.0 Ft	Start of Survey Manhole [MH35-1-082] Water Level 10% Surface Aggregate Visible 07 to 05 o'clock ST: 3 [S01]
31.9 Ft	Tap Factory Capped 6.000 02 o'clock
36.7 Ft	Tap Break-in Intruding 6.000 01 o'clock 1.000 OM: 2
43.4 Ft	Deposits Attached Encrustation 04 o'clock 005% OM: 2
46.1 Ft	Deposits Attached Encrustation 03 to 05 o'clock 005% OM: 2
48.6 Ft	Deposits Attached Encrustation 04 o'clock 005% OM: 2
51.3 Ft	Deposits Attached Encrustation 03 to 05 o'clock 005% OM: 2
56.2 Ft	Deposits Attached Encrustation 08 o'clock 005% OM: 2
58.9 Ft	Deposits Attached Encrustation 03 to 05 o'clock 005% OM: 2
66.7 Ft	Deposits Attached Encrustation 03 to 05 o'clock 005% OM: 2 Deposits Attached Encrustation 08 o'clock 005% OM: 2
69.4 Ft	Deposits Attached Encrustation 03 to 05 o'clock 005% OM: 2 Deposits Attached Encrustation 08 o'clock 005% OM: 2
82.2 Ft	Deposits Attached Encrustation 07 to 09 o'clock 005% OM: 2
104.4 Ft	Tap Factory Capped 6.000 10 o'clock

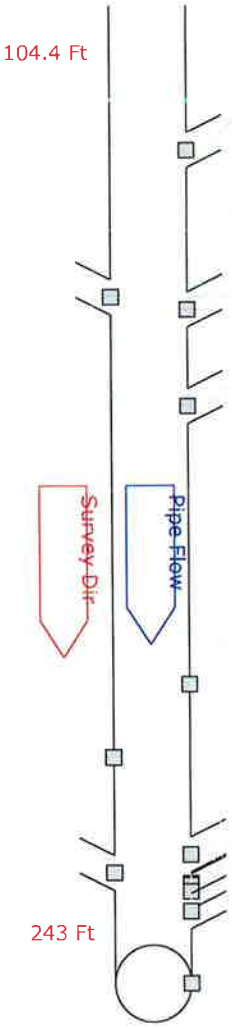
Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S7180 for Birmingham

Setup	161	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/10/24	Time	12:02
Street	SHIRLEY				
City	Birmingham	Further location details			
Up	MH35-1-082	Rim to invert		Grade to invert		Rim to grade	Ft
Down	MH35-1-081	Rim to invert		Grade to invert		Rim to grade	Ft
Use	Combined	Direction	Downstream	Flow control		Media No	S7180
Shape	Circular	Height	18	Width	ins	Preclean	J	Date Cleaned	2018/10/24
Material	Reinforced Concrete Pipe	Joint length	3.0 Ft	Total length	243.0 Ft	Length Surveyed	243.00 Ft
Lining		Year laid	1952	Year rehabilitated		Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info					
Location	Light Highway				
Project	Birmingham Phase 1				
Northing		Easting			
Coordinate System					

Structural O & M Constructional
Miscellaneous Hydraulic

Work Order
Elevation
GPS Accuracy



125.0 Ft	Tap Break-in Intruding 6.000 12 o'clock 1.500 OM: 2
138.5 Ft	Alignment Left 020% OM: 2 [20%]
145.8 Ft	Tap Factory Active 6.000 02 o'clock
147.6 Ft	Tap Break-in Active 6.000 10 o'clock
161.3 Ft	Tap Break-in Active 6.000 09 o'clock
200.7 Ft	Deposits Attached Encrustation 07 o'clock 005% OM: 2
211.0 Ft	Deposits Attached Encrustation 04 o'clock 005% OM: 2
224.8 Ft	Tap Break-in Active 6.000 11 o'clock
227.3 Ft	Tap Break-in Active 6.000 02 o'clock
228.8 Ft	Crack Multiple 12 to 07 o'clock ST: 3
229.1 Ft	Crack Longitudinal 09 o'clock ST: 2
230.0 Ft	Tap Break-in Active 6.000 09 o'clock Crack Longitudinal 10 o'clock ST: 2
232.8 Ft	Tap Factory Capped 6.000 10 o'clock [blocked/abandonded]
243.0 Ft	Surface Aggregate Visible 07 to 05 o'clock ST: 3 [F01] Manhole [MH35-1-081] End of Survey

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S7180 for Birmingham

Setup 161	Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham
Drainage Map 6	Survey Customer Birmingham		
P/O #	Date 2018/10/24	Time 12:02	Street SHIRLEY
City Birmingham	Further location details		
Up MH35-1-082	Rim to invert	Grade to invert	Rim to grade Ft
Down MH35-1-081	Rim to invert	Grade to invert	Rim to grade Ft
Use Combined	Direction Down	Flow control	Media No S7180
Shape Circular	Height 18 Width	ins Preclean J	Date Cleaned 2018/10/24
Material Reinforced Concrete Pipe	Joint length 3.00 Ft	Total length 243.0 Ft	Length Surveyed 243.0 Ft
Lining	Year laid 1952	Year rehabilitated	Weather Dry
Purpose Pre-Rehabilitation Survey	Cat		Pressure
Additional info		Structural O & M Constructional Miscellaneous	
Location Light Highway			
Project Birmingham Phase 1			Work Order
Northing	Easting		Elevation
Coordinate System			GPS Accuracy

Count	Video		CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0				ST	Start of Survey								
0.0				AMH	Manhole								MH35-1-082
0.0				MWL	Water Level			10					
0.0			S01	SAV	Surface Aggregate Visible					07	05		
31.9				TFC	Tap Factory Capped	6.000				02			
36.7				TBI	Tap Break-in Intruding	6.000	1.000			01			
43.4				DAE	Deposits Attached Encrustation			5	J	04			
46.1				DAE	Deposits Attached Encrustation			5	J	03	05		
48.6				DAE	Deposits Attached Encrustation			5	J	04			
51.3				DAE	Deposits Attached Encrustation			5	J	03	05		
56.2				DAE	Deposits Attached Encrustation			5	J	08			
58.9				DAE	Deposits Attached Encrustation			5	J	03	05		
66.7				DAE	Deposits Attached Encrustation			5	J	03	05		
66.7				DAE	Deposits Attached Encrustation			5	J	08			
69.4				DAE	Deposits Attached Encrustation			5	J	03	05		
69.4				DAE	Deposits Attached Encrustation			5	J	08			
82.2				DAE	Deposits Attached Encrustation			5	J	07	09		
104.4				TFC	Tap Factory Capped	6.000				10			
125.0				TBI	Tap Break-in Intruding	6.000	1.500			12			
138.5				LL	Alignment Left			20					20%
145.8				TFA	Tap Factory Active	6.000				02			
147.6				TBA	Tap Break-in Active	6.000				10			
161.3				TBA	Tap Break-in Active	6.000				09			
200.7				DAE	Deposits Attached Encrustation			5	J	07			
211.0				DAE	Deposits Attached Encrustation			5	J	04			
224.8				TBA	Tap Break-in Active	6.000				11			
227.3				TBA	Tap Break-in Active	6.000				02			
228.8				CM	Crack Multiple				J	12	07		
229.1				CL	Crack Longitudinal				J	09			
230.0				TBA	Tap Break-in Active	6.000				09			
230.0				CL	Crack Longitudinal					10			

Tabular Report of PSR S7180 for Birmingham

Setup	161	Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham	
Drainage	Map 6	Survey Customer Birmingham			
P/O #		Date 2018/10/24	Time 12:02	Street SHIRLEY	
City	Birmingham	Further location details			
Up	MH35-1-082	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH35-1-081	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Combined	Direction Down	Flow control	Media No S7180	
Shape	Circular	Height 18 Width	ins Preclean J	Date Cleaned 2018/10/24	
Material	Reinforced Concrete Pipe	Joint length 3.00Ft	Total length 243.0 Ft	Length Surveyed 243.0 Ft	
Lining		Year laid 1952	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	Im	Ref	Remarks
232.8			TFC	Tap Factory Capped	6.000				10				blocked/abandonded
243.0		F01	SAV	Surface Aggregate Visible					07	05			
243.0			AMH	Manhole									MH35-1-081
243.0			FH	End of Survey									

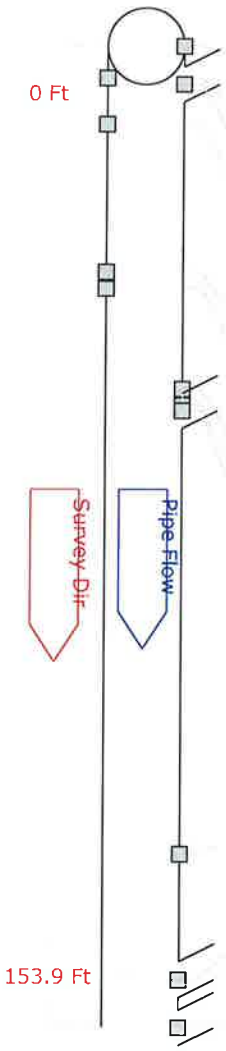
243.0 Ft Total Length Surveyed

Scores

Structural:	Pipe Rating 154	Pipe Ratings Index 3	Quick Rating 3I22
O&M:	Pipe Rating 32	Pipe Ratings Index 2	Quick Rating 2B00
Overall	Pipe Rating 186	Pipe Ratings Index 5	Quick Rating 3I2B

Pipe Graphic Report of PSR S7183 for Birmingham

Setup	158 Surveyor Robert B	Certificate #	U-915-07001225	System Owner	Birmingham
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/10/24 Time 8:49	Street	SHIRLEY
City	Birmingham	Further location details			
Up	MH35-1-085	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH35-1-084	Rim to invert		Grade to invert	Rim to grade Ft
Use	Combined	Direction	Downstream	Flow control	Media No S7183
Shape	Circular	Height 18	Width ins	Preclean J	Date Cleaned 2018/10/24
Material	Reinforced Concrete Pipe	Joint length 6.0 Ft		Total length 204.0 Ft	Length Surveyed 204.00 Ft
Lining		Year laid 1952		Year rehabilitated	Weather Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural O & M Constructional Miscellaneous Hydraulic	
Location	Light Highway				
Project	Birmingham Phase 1			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	

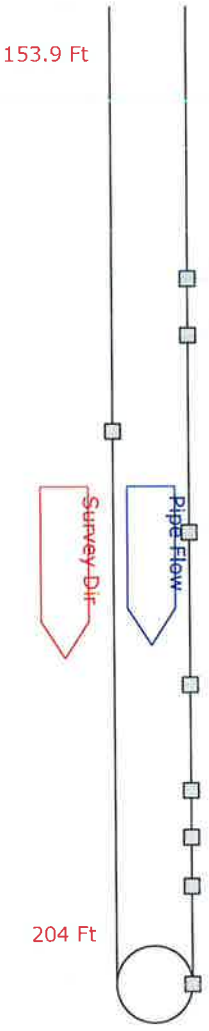


0.0 Ft	Start of Survey Manhole [MH35-1-085] Water Level 0% Surface Aggregate Visible 07 to 05 o'clock ST: 3 [S01]
5.0 Ft	Joint Offset Medium ST: 1 Fracture Circumferential 03 to 06 o'clock ST: 2
6.0 Ft	Tap Factory Capped 6.000 10 o'clock
12.3 Ft	Deposits Attached Encrustation 04 o'clock 005% OM: 2
35.5 Ft	Deposits Attached Encrustation 03 to 05 o'clock 005% OM: 2
38.1 Ft	Deposits Attached Encrustation 01 to 05 o'clock 005% OM: 2
53.9 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2
56.4 Ft	Deposits Attached Encrustation 08 o'clock 005% OM: 2
57.3 Ft	Tap Break-in Active 6.000 10 o'clock
126.8 Ft	Deposits Attached Encrustation 07 to 11 o'clock 005% OM: 2
146.4 Ft	Tap Break-in Active 6.000 10 o'clock
147.1 Ft	Water Level 020% [20%]
153.9 Ft	Tap Factory Capped 6.000 10 o'clock

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S7183 for Birmingham

Setup	158	Surveyor	Robert B	Certificate #	U-915-07001225
System Owner	Birmingham				
Drainage	Map 6	Survey Customer	Birmingham		
P/O #		Date	2018/10/24	Time	8:49
Street	SHIRLEY				
City	Birmingham	Further location details			
Up	MH35-1-085	Rim to invert		Grade to invert		Rim to grade	Ft
Down	MH35-1-084	Rim to invert		Grade to invert		Rim to grade	Ft
Use	Combined	Direction	Downstream	Flow control		Media No	S7183
Shape	Circular	Height	18	Width	ins	Preclean	J	Date Cleaned	2018/10/24
Material	Reinforced Concrete Pipe	Joint length	6.0 Ft	Total length	204.0 Ft	Length Surveyed	204.00 Ft
Lining		Year laid	1952	Year rehabilitated		Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural	O & M	Constructional
Location	Light Highway			Miscellaneous	Hydraulic	
Project	Birmingham Phase 1			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	



167.9 Ft	Deposits Attached Encrustation 08 to 12 o'clock 005% OM: 2 Infil Stain 12 to 05 o'clock
170.8 Ft	Deposits Attached Encrustation 07 o'clock 005% OM: 2
175.7 Ft	Deposits Attached Encrustation 04 o'clock 005% OM: 2
180.9 Ft	Deposits Attached Encrustation 08 o'clock 005% OM: 2
188.7 Ft	Deposits Attached Encrustation 12 to 05 o'clock 005% OM: 2
194.1 Ft	Deposits Attached Encrustation 07 to 05 o'clock 005% OM: 2
196.5 Ft	Infil Stain 08 to 11 o'clock
199.0 Ft	Infil Stain 07 to 05 o'clock
204.0 Ft	Surface Aggregate Visible 07 to 05 o'clock ST: 3 [F01] Manhole [MH35-1-084] End of Survey

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S7183 for Birmingham

Setup 158	Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham	
Drainage Map 6	Survey Customer Birmingham			
P/O #	Date 2018/10/24	Time 8:49	Street SHIRLEY	
City Birmingham	Further location details			
Up MH35-1-085	Rim to invert	Grade to invert	Rim to grade	Ft
Down MH35-1-084	Rim to invert	Grade to invert	Rim to grade	Ft
Use Combined	Direction Down	Flow control	Media No S7183	
Shape Circular	Height 18 Width	ins Preclean J	Date Cleaned 2018/10/24	
Material Reinforced Concrete Pipe	Joint length 6.00 Ft	Total length 204.0 Ft	Length Surveyed 204.0	Ft
Lining	Year laid 1952	Year rehabilitated	Weather Dry	
Purpose Pre-Rehabilitation Survey	Cat		Pressure	
Additional info		Structural O & M Constructional Miscellaneous		
Location Light Highway				
Project Birmingham Phase 1		Work Order		
Northing	Easting	Elevation		
Coordinate System		GPS Accuracy		

Count	Video		CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0				ST	Start of Survey								
0.0				AMH	Manhole								MH35-1-085
0.0				MWL	Water Level			0					
0.0			S01	SAV	Surface Aggregate Visible					07	05		
5.0				JOM	Joint Offset Medium								
5.0				FC	Fracture Circumferential				J	03	06		
6.0				TFC	Tap Factory Capped	6.000				10			
12.3				DAE	Deposits Attached Encrustation			5	J	04			
35.5				DAE	Deposits Attached Encrustation			5	J	03	05		
38.1				DAE	Deposits Attached Encrustation			5	J	01	05		
53.9				DAE	Deposits Attached Encrustation			5	J	08	04		
56.4				DAE	Deposits Attached Encrustation			5	J	08			
57.3				TBA	Tap Break-in Active	6.000				10			
126.8				DAE	Deposits Attached Encrustation			5	J	07	11		
146.4				TBA	Tap Break-in Active	6.000				10			
147.1				MWL	Water Level			20					20%
153.9				TFC	Tap Factory Capped	6.000				10			
167.9				DAE	Deposits Attached Encrustation			5	J	08	12		
167.9				IS	Infil Stain				J	12	05		
170.8				DAE	Deposits Attached Encrustation			5	J	07			
175.7				DAE	Deposits Attached Encrustation			5	J	04			
180.9				DAE	Deposits Attached Encrustation			5	J	08			
188.7				DAE	Deposits Attached Encrustation			5	J	12	05		
194.1				DAE	Deposits Attached Encrustation			5	J	07	05		
196.5				IS	Infil Stain				J	08	11		
199.0				IS	Infil Stain				J	07	05		
204.0			F01	SAV	Surface Aggregate Visible					07	05		
204.0				AMH	Manhole								MH35-1-084
204.0				FH	End of Survey								

204.0 Ft Total Length Surveyed

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S7183 for Birmingham

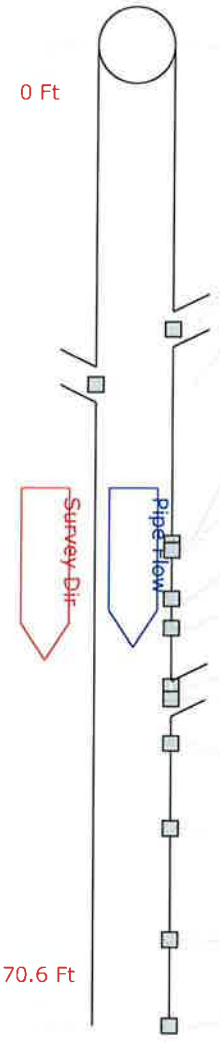
Setup	158	Surveyor Robert B	Certificate # U-915-07001225	System Owner Birmingham	
Drainage	Map 6	Survey Customer Birmingham			
P/O #		Date 2018/10/24	Time 8:49	Street SHIRLEY	
City	Birmingham	Further location details			
Up	MH35-1-085	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH35-1-084	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Combined	Direction Down	Flow control	Media No S7183	
Shape	Circular	Height 18	Width ins	Preclean J	Date Cleaned 2018/10/24
Material	Reinforced Concrete Pipe	Joint length 6.00 Ft	Total length 204.0 Ft	Length Surveyed 204.0	Ft
Lining		Year laid 1952	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Light Highway				
Project	Birmingham Phase 1		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Scores

Structural:	Pipe Rating 126	Pipe Ratings Index 2.9	Quick Rating 3G21
O&M:	Pipe Rating 24	Pipe Ratings Index 2	Quick Rating 2A00
Overall	Pipe Rating 150	Pipe Ratings Index 4.9	Quick Rating 3G2A

Pipe Graphic Report of PSR S7860 for Birmingham

Setup	428	Surveyor	Gary	Certificate #	U206-3080
System Owner	Birmingham				
Drainage	Map 11	Survey Customer	Birmingham		
P/O #		Date	2019/05/16	Time	9:24
Street	WALLACE				
City	Birmingham	Further location details			
Up	MH36-2-121	Rim to invert		Grade to invert		Rim to grade	Ft
Down	MH36-2-124	Rim to invert		Grade to invert		Rim to grade	Ft
Use	Sanitary	Direction	Downstream	Flow control		Media No	S7860
Shape	Circular	Height	8	Width	ins	Preclean	H	Date Cleaned	2019/05/16
Material	Vitrified Clay Pipe	Joint length	2.0 Ft	Total length	381.0 Ft	Length Surveyed	360.00 Ft
Lining		Year laid	1960	Year rehabilitated		Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info		Structural	O & M	Constructional
Location	Yard	Miscellaneous	Hydraulic	
Project	Birmingham Phase 2	Work Order	
Northing	Easting	Elevation	
Coordinate System	GPS Accuracy	

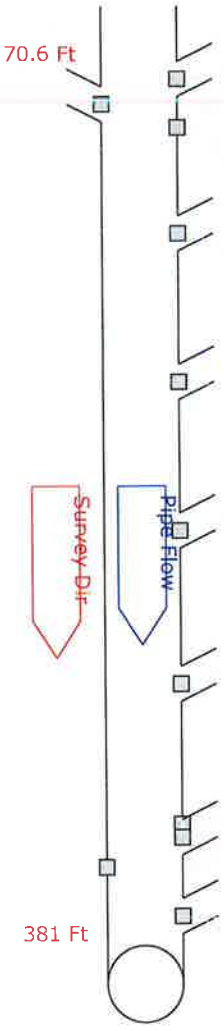


0.0 Ft	Start of Survey Manhole [MH36-2-121] Water Level 5%
20.5 Ft	Tap Factory Active 6.000 09 o'clock
24.5 Ft	Tap Factory Active 6.000 03 o'clock
35.9 Ft	Fracture Multiple 12 to 12 o'clock ST: 4
36.4 Ft	Broken Soil Visible 12 o'clock ST: 5 Roots Fine Barrel 12 o'clock OM: 2 Infil Dripper 12 o'clock OM: 3
39.9 Ft	Roots Fine Joint 08 to 09 o'clock OM: 1
42.0 Ft	Roots Fine Joint 08 to 09 o'clock OM: 1
46.2 Ft	Roots Fine Joint 08 to 04 o'clock OM: 1
47.1 Ft	Tap Factory Capped 6.000 10 o'clock
50.3 Ft	Broken Soil Visible 09 to 01 o'clock ST: 5 Roots Fine Barrel 11 to 01 o'clock OM: 2
56.4 Ft	Roots Fine Joint 08 to 04 o'clock OM: 1
64.4 Ft	Roots Fine Joint 08 to 04 o'clock OM: 1 [S01]
70.6 Ft	Infil Dripper 10 to 02 o'clock OM: 3

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S7860 for Birmingham

Setup	428 Surveyor Gary	Certificate # U206-3080		System Owner Birmingham	
Drainage	Map 11	Survey Customer Birmingham			
P/O #		Date 2019/05/16	Time 9:24	Street WALLACE	
City	Birmingham	Further location details			
Up	MH36-2-121	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH36-2-124	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Sanitary	Direction Downstream	Flow control	Media No S7860	
Shape	Circular	Height 8 Width	ins Preclean H	Date Cleaned 2019/05/16	
Material	Vitrified Clay Pipe	Joint length 2.0 Ft	Total length 381.0 Ft	Length Surveyed 360.00 Ft	
Lining		Year laid 1960	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info			Structural O & M Constructional Miscellaneous Hydraulic		
Location	Yard				
Project	Birmingham Phase 2		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		



93.9 Ft	Tap Factory Capped 6.000 10 o'clock Roots Fine Lateral 10 o'clock OM: 1
101.8 Ft	Tap Break-in Active 6.000 02 o'clock Roots Fine Connection 02 o'clock OM: 1
109.3 Ft	Fracture Circumferential 10 to 02 o'clock ST: 2
143.0 Ft	Tap Factory Capped 6.000 10 o'clock Roots Fine Lateral 10 o'clock OM: 1
190.2 Ft	Tap Factory Capped 6.000 10 o'clock
237.4 Ft	Tap Factory Capped 6.000 10 o'clock
286.0 Ft	Tap Break-in Active 6.000 10 o'clock Roots Fine Lateral 10 o'clock OM: 1
330.4 Ft	Roots Fine Joint 08 to 04 o'clock OM: 1 [F01]
334.6 Ft	Tap Factory Capped 6.000 10 o'clock Deposits Attached Encrustation 08 to 10 o'clock 005% OM: 2
344.0 Ft	Deposits Attached Encrustation 03 to 04 o'clock 005% OM: 2
359.5 Ft	Tap Break-in Intruding 6.000 09 o'clock 2.000 OM: 4 [pvc]
360.0 Ft	Abandoned Survey [intruding lateral]

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S7860 for Birmingham

Setup 428	Surveyor Gary	Certificate # U206-3080	System Owner Birmingham	
Drainage Map 11	Survey Customer Birmingham			
P/O #	Date 2019/05/16	Time 9:24	Street WALLACE	
City Birmingham	Further location details			
Up MH36-2-121	Rim to invert	Grade to invert	Rim to grade	Ft
Down MH36-2-124	Rim to invert	Grade to invert	Rim to grade	Ft
Use Sanitary	Direction Down	Flow control	Media No S7860	
Shape Circular	Height 8 Width	ins Preclean H	Date Cleaned 2019/05/16	
Material Vitrified Clay Pipe	Joint length 2.00 Ft	Total length 381.0 Ft	Length Surveyed 360.0	Ft
Lining	Year laid 1960	Year rehabilitated	Weather Dry	
Purpose Pre-Rehabilitation Survey	Cat		Pressure	
Additional info		Structural O & M Constructional Miscellaneous		
Location Yard				
Project Birmingham Phase 2		Work Order		
Northing	Easting	Elevation		
Coordinate System		GPS Accuracy		

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST	Start of Survey								
0.0			AMH	Manhole								MH36-2-121
0.0			MWL	Water Level			5					
20.5			TFA	Tap Factory Active	6.000				09			
24.5			TFA	Tap Factory Active	6.000				03			
35.9			FM	Fracture Multiple				J	12	12		
36.4			BSV	Broken Soil Visible					12			
36.4			RFB	Roots Fine Barrel					12			
36.4			ID	Infil Dripper					12			
39.9			RFJ	Roots Fine Joint				J	08	09		
42.0			RFJ	Roots Fine Joint				J	08	09		
46.2			RFJ	Roots Fine Joint				J	08	04		
47.1			TFC	Tap Factory Capped	6.000				10			
50.3			BSV	Broken Soil Visible				J	09	01		
50.3			RFB	Roots Fine Barrel					11	01		
56.4			RFJ	Roots Fine Joint				J	08	04		
64.4		S01	RFJ	Roots Fine Joint				J	08	04		
70.6			ID	Infil Dripper				J	10	02		
93.9			TFC	Tap Factory Capped	6.000				10			
93.9			RFL	Roots Fine Lateral					10			
101.8			TBA	Tap Break-in Active	6.000				02			
101.8			RFC	Roots Fine Connection					02			
109.3			FC	Fracture Circumferential				J	10	02		
143.0			TFC	Tap Factory Capped	6.000				10			
143.0			RFL	Roots Fine Lateral					10			
190.2			TFC	Tap Factory Capped	6.000				10			
237.4			TFC	Tap Factory Capped	6.000				10			
286.0			TBA	Tap Break-in Active	6.000				10			
286.0			RFL	Roots Fine Lateral					10			
330.4		F01	RFJ	Roots Fine Joint				J	08	04		
334.6			TFC	Tap Factory Capped	6.000				10			

Tabular Report of PSR S7860 for Birmingham

Setup	428	Surveyor Gary	Certificate # U206-3080	System Owner Birmingham	
Drainage	Map 11	Survey Customer Birmingham			
P/O #		Date 2019/05/16	Time 9:24	Street WALLACE	
City	Birmingham	Further location details			
Up	MH36-2-121	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH36-2-124	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Sanitary	Direction Down	Flow control	Media No S7860	
Shape	Circular	Height 8 Width	ins Preclean H	Date Cleaned 2019/05/16	
Material	Vitrified Clay Pipe	Joint length 2.00 Ft	Total length 381.0 Ft	Length Surveyed 360.0	Ft
Lining		Year laid 1960	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Yard				
Project	Birmingham Phase 2		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video		CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
334.6				DAE	Deposits Attached Encrustation			6		08	10		
344.0				DAE	Deposits Attached Encrustation			5	J	03	04		
359.5				TBI	Tap Break-In Intruding	0.000	2.000			00			pvc
360.0				MSA	Abandoned Survey								intruding lateral

360.0 Ft Total Length Surveyed

Scores

Structural:	Pipe Rating 16	Pipe Ratings Index 4	Quick Rating 5241
O&M:	Pipe Rating 79	Pipe Ratings Index 1.2	Quick Rating 4132
Overall	Pipe Rating 95	Pipe Ratings Index 5.2	Quick Rating 5242

CCTV pictures of S7860
For Birmingham

Work Order		Surveyed On 2019/05/16
Street Name WALLACE		Video S7860
City Name Birmingham	Weather Dry	
Location Yard		
From Manhole MH36-2-121	To Manhole MH36-2-124	Survey Direction Downstream

Setup 428 Counter 360.0 Ft

S7860.jpg 2019/05/16

Pipe Details:

Year Laid	1960	Shape Circular	Size 8	By	ins
Material	Vitrified Clay Pipe	Lining	Use Sanitary		

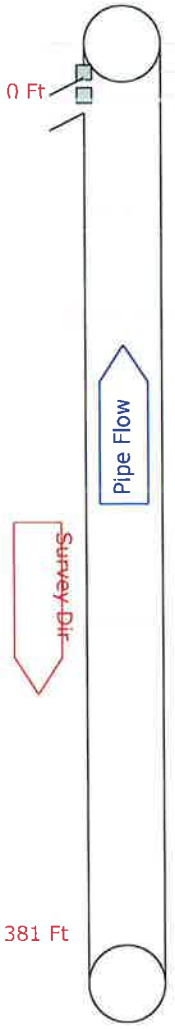
Observation: Abandoned Survey

Comments: intruding lateral

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S7860R for Birmingham

Setup	429	Surveyor	Gary	Certificate #	U206-3080
System Owner	Birmingham				
Drainage	Map 11			Survey Customer	Birmingham
P/O #		Date	2019/05/16	Time	11:16
Street	WALLACE				
City	Birmingham			Further location details	
Up	MH36-2-121	Rim to invert		Grade to invert		Rim to grade	Ft
Down	MH36-2-124	Rim to invert		Grade to invert		Rim to grade	Ft
Use	Sanitary	Direction	Upstream	Flow control		Media No	S7860R
Shape	Circular	Height	8	Width	ins	Preclean	H	Date Cleaned	2019/05/16
Material	Vitrified Clay Pipe	Joint length	2.0 Ft	Total length	381.0 Ft	Length Surveyed	21.00 Ft
Lining		Year laid	1960	Year rehabilitated		Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat					
Additional info				Structural	O & M	Constructional
Location	Yard			Miscellaneous	Hydraulic	
Project	Birmingham Phase 2			Work Order		
Northing		Easting		Elevation		
Coordinate System				GPS Accuracy		



0.0 Ft Start of Survey
Manhole [MH36-2-124]
Water Level 5%

11.7 Ft Crack Longitudinal 03 o'clock ST: 2

21.0 Ft Tap Break-in Intruding 6.000 02 o'clock 2.000 OM: 4 [pvc]
General Observation [point of previous inspection]
Abandoned Survey [intruding lateral]

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S7860R for Birmingham

Setup 429	Surveyor Gary	Certificate # U206-3080	System Owner Birmingham	
Drainage Map 11	Survey Customer Birmingham			
P/O #	Date 2019/05/16	Time 11:16	Street WALLACE	
City Birmingham	Further location details			
Up MH36-2-121	Rim to invert	Grade to invert	Rim to grade	Ft
Down MH36-2-124	Rim to invert	Grade to invert	Rim to grade	Ft
Use Sanitary	Direction Up	Flow control	Media No S7860R	
Shape Circular	Height 8 Width	ins Preclean H	Date Cleaned 2019/05/16	
Material Vitrified Clay Pipe	Joint length 2.00 Ft	Total length 381.0 Ft	Length Surveyed 21.0	Ft
Lining	Year laid 1960	Year rehabilitated	Weather Dry	
Purpose Pre-Rehabilitation Survey	Cat		Pressure	
Additional info		Structural O & M Constructional Miscellaneous		
Location Yard				
Project Birmingham Phase 2		Work Order		
Northing	Easting	Elevation		
Coordinate System		GPS Accuracy		

Count	Video		CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0				ST	Start of Survey								
0.0				AMH	Manhole								MH36-2-124
0.0				MWL	Water Level			5					
11.7				CL	Crack Longitudinal				J	03			
21.0				TBI	Tap Break-in Intruding	6.000	2.000			02			pvc
21.0				MGO	General Observation								point of previous inspection
21.0				MSA	Abandoned Survey								intruding lateral

21.0 Ft Total Length Surveyed

Scores

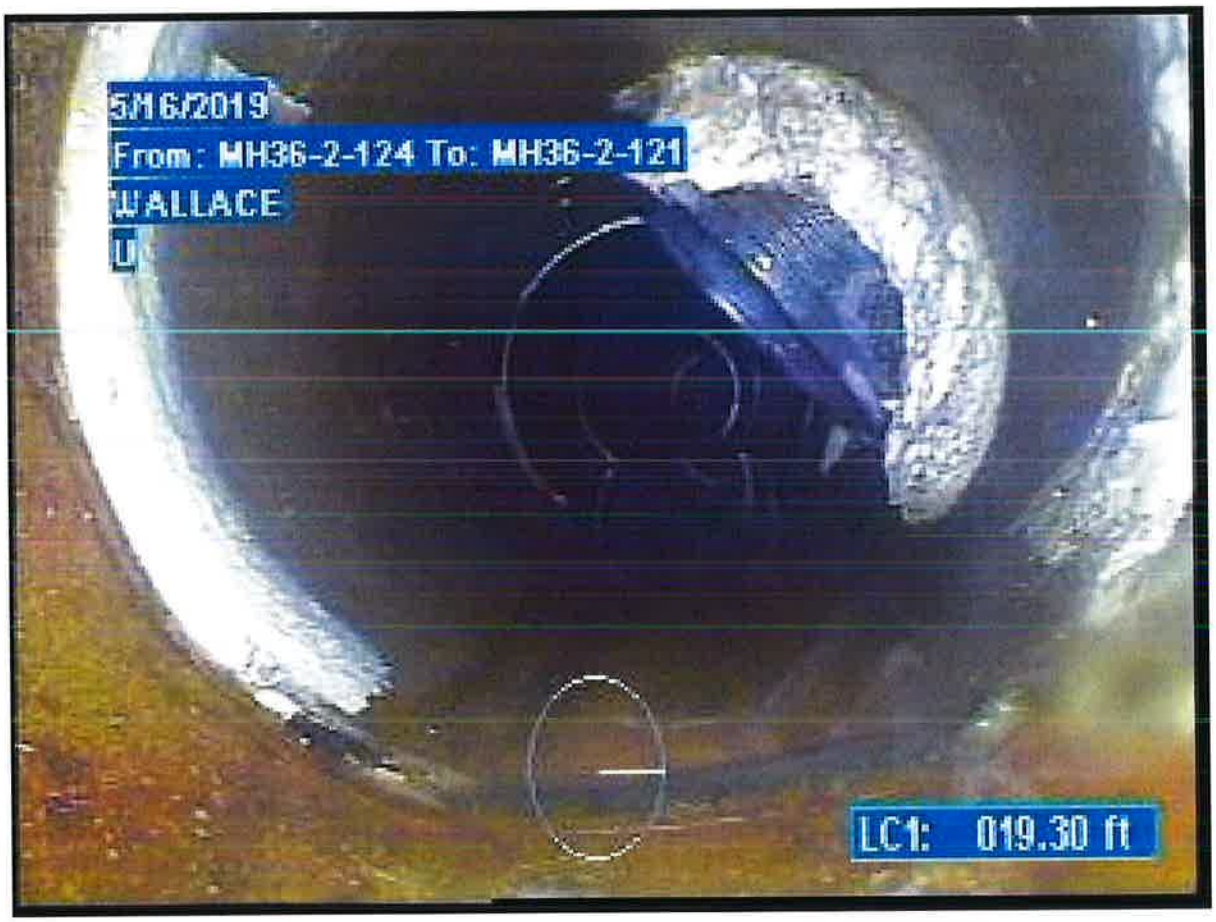
Structural:	Pipe Rating 2	Pipe Ratings Index 2	Quick Rating 2100
O&M:	Pipe Rating 4	Pipe Ratings Index 4	Quick Rating 4100
Overall	Pipe Rating 6	Pipe Ratings Index 6	Quick Rating 4121

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

CCTV pictures of S7860R
For Birmingham

Work Order		Surveyed On 2019/05/16
Street Name WALLACE		Video S7860R
City Name Birmingham	Weather Dry	
Location Yard		
From Manhole MH36-2-124	To Manhole MH36-2-121	Survey Direction Upstream

Setup 429 Counter 21.0 Ft



S7860R.jpg 2019/05/16

Pipe Details:

Year Laid 1960 Shape Circular Size 8 By ins

Material Vitrified Clay Pipe Lining Use Sanitary

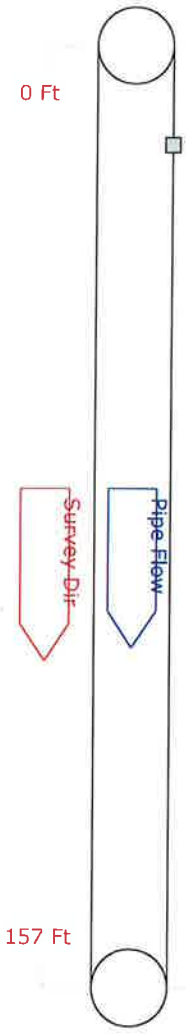
Observation: Abandoned Survey

Comments: intruding lateral

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S7861 for Birmingham

Setup	211 Surveyor Gary	Certificate # U206-3080	System Owner Birmingham		
Drainage	Map 11	Survey Customer Birmingham			
P/O #		Date 2019/02/08 Time 10:27	Street WATKINS		
City	Birmingham	Further location details			
Up	MH36-2-123	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH36-2-124	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Sanitary	Direction Downstream	Flow control	Media No S7861	
Shape	Circular	Height 18 Width	ins Preclean H	Date Cleaned 2019/02/08	
Material	Vitrified Clay Pipe	Joint length 2.0 Ft	Total length 157.0 Ft	Length Surveyed 157.00 Ft	
Lining		Year laid 0	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info			Structural O & M Constructional Miscellaneous Hydraulic		
Location	Light Highway				
Project	Birmingham Phase 2		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		



0.0 Ft Start of Survey
Manhole [MH36-2-123]
Water Level 015%

16.6 Ft Deposits Attached Encrustation 12 to 04 o'clock 005% OM: 2

44.6 Ft Water Level 020%

157.0 Ft Manhole [MH36-2-124]
End of Survey

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S7861 for Birmingham

Setup	211	Surveyor Gary	Certificate # U206-3080	System Owner Birmingham	
Drainage	Map 11	Survey Customer Birmingham			
P/O #		Date 2019/02/08	Time 10:27	Street WATKINS	
City	Birmingham	Further location details			
Up	MH36-2-123	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH36-2-124	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Sanitary	Direction Down	Flow control	Media No S7861	
Shape	Circular	Height 18	Width ins	Preclean H	Date Cleaned 2019/02/08
Material	Vitrified Clay Pipe	Joint length 2.00 Ft	Total length 157.0 Ft	Length Surveyed 157.0	Ft
Lining		Year laid 0	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Light Highway				
Project	Birmingham Phase 2		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video		CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0				ST	Start of Survey								
0.0				AMH	Manhole								MH36-2-123
0.0				MWL	Water Level			15					
16.6				DAE	Deposits Attached Encrustation			5	J	12	04		
44.6				MWL	Water Level			20					
157.0				AMH	Manhole								MH36-2-124
157.0				FH	End of Survey								

157.0 Ft Total Length Surveyed

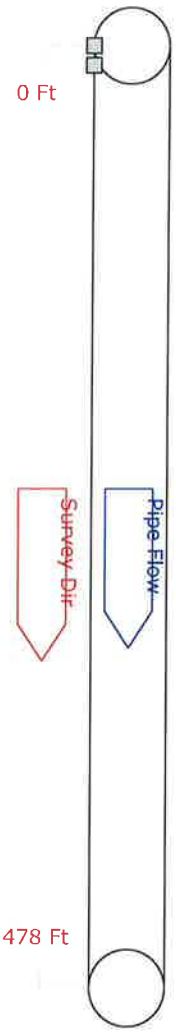
Scores

Structural:	Pipe Rating 0	Pipe Ratings Index 0	Quick Rating 0000
O&M:	Pipe Rating 2	Pipe Ratings Index 2	Quick Rating 2100
Overall	Pipe Rating 2	Pipe Ratings Index 2	Quick Rating 2100

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S7862 for Birmingham

Setup	430 Surveyor Gary	Certificate #	U206-3080	System Owner	Birmingham
Drainage	Map 11	Survey Customer	Birmingham		
P/O #		Date	2019/10/01	Time	10:31
Street	WALLACE				
City	Birmingham	Further location details	Wallace-Lincoln Easement		
Up	MH36-2-124	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH36-2-126	Rim to invert		Grade to invert	Rim to grade Ft
Use	Sanitary	Direction	Downstream	Flow control	Media No S7862
Shape	Circular	Height	18 Width ins	Preclean H	Date Cleaned 2019/10/01
Material	Vitrified Clay Pipe	Joint length	2.0 Ft	Total length 478.0 Ft	Length Surveyed 10.00 Ft
Lining		Year laid	1960	Year rehabilitated	Weather Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural O & M Constructional Miscellaneous Hydraulic	
Location	Yard				
Project	Birmingham Phase 2			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	



0.0 Ft
Start of Survey
Manhole [MH36-2-124]
Water Level 10%
Deposits Settled Fine 04 to 08 o'clock 025% OM: 4 [S01]

10.0 Ft
Deposits Settled Fine 04 to 08 o'clock 025% OM: 4 [F01]
Abandoned Survey [debris]

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S7862 for Birmingham

Setup	430	Surveyor Gary	Certificate # U206-3080	System Owner Birmingham	
Drainage	Map 11	Survey Customer Birmingham			
P/O #		Date 2019/10/01	Time 10:31	Street WALLACE	
City	Birmingham	Further location details Wallace-Lincoln Easement			
Up	MH36-2-124	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH36-2-126	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Sanitary	Direction Down	Flow control	Media No S7862	
Shape	Circular	Height 18 Width	ins Preclean H	Date Cleaned 2019/10/01	
Material	Vitrified Clay Pipe	Joint length 2.00 Ft	Total length 478.0 Ft	Length Surveyed 10.0	Ft
Lining		Year laid 1960	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Yard				
Project	Birmingham Phase 2		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST	Start of Survey								
0.0			AMH	Manhole								MH36-2-124
0.0			MWL	Water Level			10					
0.0		S01	DSF	Deposits Settled Fine			25		04	08		
10.0		F01	DSF	Deposits Settled Fine			25		04	08		
10.0			MSA	Abandoned Survey								debris

10.0 Ft Total Length Surveyed

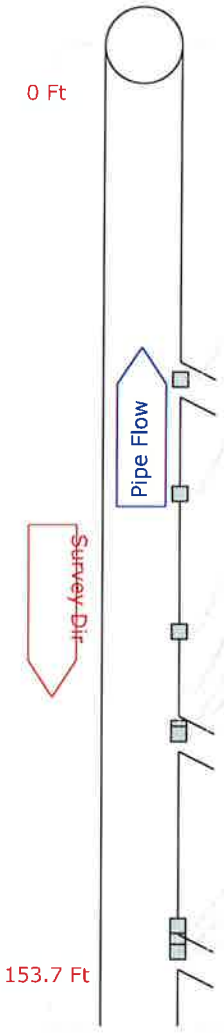
Scores

Structural:	Pipe Rating 0	Pipe Ratings Index 0	Quick Rating 0000
O&M:	Pipe Rating 8	Pipe Ratings Index 4	Quick Rating 4200
Overall	Pipe Rating 8	Pipe Ratings Index 4	Quick Rating 4200

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S7862R for Birmingham

Setup	431 Surveyor Gary	Certificate # U206-3080	System Owner Birmingham		
Drainage	Map 11	Survey Customer Birmingham			
P/O #		Date 2019/10/01 Time 11:26	Street WALLACE		
City	Birmingham	Further location details Wallace-Lincoln Easement			
Up	MH36-2-124	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH36-2-126	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Sanitary	Direction Upstream	Flow control	Media No S7862R	
Shape	Circular	Height 18 Width ins	Preclean H	Date Cleaned 2019/10/01	
Material	Vitrified Clay Pipe	Joint length 2.0 Ft	Total length 478.0 Ft	Length Surveyed 205.00 Ft	
Lining		Year laid 1960	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info	Reverse		Structural O & M Constructional Miscellaneous Hydraulic		
Location	Yard				
Project	Birmingham Phase 2		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

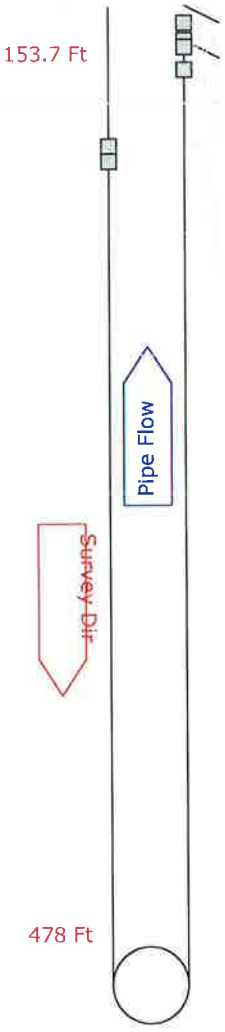


0.0 Ft	Start of Survey Manhole [MH36-2-126] Water Level 10%
52.5 Ft	Tap Factory Active 6.000 12 o'clock
70.4 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2 [S01] Water Level 005%
92.0 Ft	Water Level 015% Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2 [F01]
101.3 Ft	Water Level 025%
105.9 Ft	Water Level 035%
107.1 Ft	Joint Offset Medium ST: 1 Fracture Longitudinal 11 o'clock ST: 3
108.0 Ft	Tap Factory Active 6.000 12 o'clock
138.1 Ft	Fracture Longitudinal 12 o'clock ST: 3
140.4 Ft	Fracture Longitudinal 12 o'clock ST: 3
142.1 Ft	Tap Break-in Active 6.000 12 o'clock Roots Fine Connection 12 o'clock OM: 1
153.7 Ft	Water Level 040%

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S7862R for Birmingham

Setup	431	Surveyor	Gary	Certificate #	U206-3080
System Owner	Birmingham				
Drainage	Map 11			Survey Customer	Birmingham
P/O #				Date	2019/10/01
Time	11:26	Street	WALLACE		
City	Birmingham			Further location details	Wallace-Lincoln Easement
Up	MH36-2-124	Rim to invert		Grade to invert		Rim to grade	Ft
Down	MH36-2-126	Rim to invert		Grade to invert		Rim to grade	Ft
Use	Sanitary	Direction	Upstream	Flow control		Media No	S7862R
Shape	Circular	Height	18	Width	ins	Preclean	H	Date Cleaned	2019/10/01
Material	Vitrified Clay Pipe	Joint length	2.0 Ft	Total length	478.0 Ft	Length Surveyed	205.00 Ft
Lining		Year laid	1960	Year rehabilitated		Weather	Dry
Purpose	Pre-Rehabilitation Survey	Cat					
Additional info	Reverse	Structural	O & M	Constructional			
Location	Yard	Miscellaneous	Hydraulic				
Project	Birmingham Phase 2	Work Order					
Northing		Easting		Elevation			
Coordinate System		GPS Accuracy					



159.0 Ft	Tap Factory Defective 6.000 12 o'clock OM: 2 [mineral deposit] Roots Fine Connection 12 o'clock OM: 1
159.5 Ft	Water Level 055%
164.8 Ft	Roots Fine Joint 10 o'clock OM: 1
167.0 Ft	Roots Fine Joint 09 to 03 o'clock OM: 1 [S02]
174.6 Ft	Water Level 060% Roots Fine Joint 09 to 03 o'clock OM: 1 [F02]
200.0 Ft	Deposits Settled Fine 04 to 08 o'clock 020% OM: 3 [S03]
205.0 Ft	Deposits Settled Fine 04 to 08 o'clock 020% OM: 3 [F03] Abandoned Survey [debris]

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S7862R for Birmingham

Setup	431	Surveyor Gary	Certificate # U206-3080	System Owner Birmingham	
Drainage	Map 11	Survey Customer Birmingham			
P/O #		Date 2019/10/01	Time 11:26	Street WALLACE	
City	Birmingham	Further location details Wallace-Lincoln Easement			
Up	MH36-2-124	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH36-2-126	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Sanitary	Direction Up	Flow control	Media No S7862R	
Shape	Circular	Height 18 Width	ins Preclean H	Date Cleaned 2019/10/01	
Material	Vitrified Clay Pipe	Joint length 2.00 Ft	Total length 478.0 Ft	Length Surveyed 205.0	Ft
Lining		Year laid 1960	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info	Reverse		Structural O & M Constructional Miscellaneous		
Location	Yard				
Project	Birmingham Phase 2		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video		CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0				ST	Start of Survey								
0.0				AMH	Manhole								MH36-2-126
0.0				MWL	Water Level			10					
52.5				TFA	Tap Factory Active	6.000				12			
70.4			S01	DAE	Deposits Attached Encrustation			5	J	08	04		
70.4				MWL	Water Level			5					
92.0				MWL	Water Level			15					
92.0			F01	DAE	Deposits Attached Encrustation			5	J	08	04		
101.3				MWL	Water Level			25					
105.9				MWL	Water Level			35					
107.1				JOM	Joint Offset Medium								
107.1				FL	Fracture Longitudinal				J	11			
108.0				TFA	Tap Factory Active	6.000				12			
138.1				FL	Fracture Longitudinal				J	12			
140.4				FL	Fracture Longitudinal				J	12			
142.1				TBA	Tap Break-in Active	6.000				12			
142.1				RFC	Roots Fine Connection					12			
153.7				MWL	Water Level			40					
159.0				TFD	Tap Factory Defective	6.000				12			mineral deposit
159.0				RFC	Roots Fine Connection					12			
159.5				MWL	Water Level			55					
164.8				RFJ	Roots Fine Joint				J	10			
167.0			S02	RFJ	Roots Fine Joint				J	09	03		
174.6				MWL	Water Level			60					
174.6			F02	RFJ	Roots Fine Joint				J	09	03		
200.0			S03	DSF	Deposits Settled Fine			20		04	08		
205.0			F03	DSF	Deposits Settled Fine			20		04	08		
205.0				MSA	Abandoned Survey								debris

205.0 Ft Total Length Surveyed

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S7862R for Birmingham

Setup	431	Surveyor Gary	Certificate # U206-3080	System Owner Birmingham	
Drainage	Map 11	Survey Customer Birmingham			
P/O #		Date 2019/10/01	Time 11:26	Street WALLACE	
City	Birmingham	Further location details Wallace-Lincoln Easement			
Up	MH36-2-124	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH36-2-126	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Sanitary	Direction Up	Flow control	Media No S7862R	
Shape	Circular	Height 18	Width ins	Preclean H	Date Cleaned 2019/10/01
Material	Vitrified Clay Pipe	Joint length 2.00 Ft	Total length 478.0 Ft	Length Surveyed 205.0	Ft
Lining		Year laid 1960	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info	Reverse		Structural O & M Constructional Miscellaneous		
Location	Yard				
Project	Birmingham Phase 2		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Scores

Structural:	Pipe Rating 10	Pipe Ratings Index 2.5	Quick Rating 3311
O&M:	Pipe Rating 18	Pipe Ratings Index 1.6	Quick Rating 3125
Overall	Pipe Rating 28	Pipe Ratings Index 4.1	Quick Rating 3425

Pipe Graphic Report of PSR S7863 for Birmingham

Setup	432	Surveyor Gary	Certificate # U206-3080	System Owner	Birmingham
Drainage	Map 11		Survey Customer Birmingham		
P/O #		Date 2019/10/01	Time 12:09	Street WALLACE	
City	Birmingham		Further location details		
Up	MH36-2-126	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH36-2-135	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Sanitary	Direction Downstream	Flow control	Media No S7863	
Shape	Circular	Height 18	Width ins	Preclean H	Date Cleaned 2019/10/01
Material	Vitrified Clay Pipe	Joint length 2.0 Ft	Total length 464.0 Ft	Length Surveyed 166.00 Ft	
Lining		Year laid 1960	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat			

Additional info

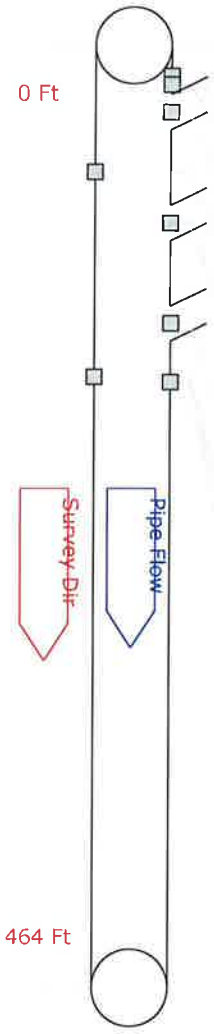
Structural O & M Constructional
Miscellaneous Hydraulic

Location Yard

Project Birmingham Phase 2 Work Order

Northing Easting Elevation

Coordinate System GPS Accuracy



0.0 Ft	Start of Survey Manhole [MH36-2-126] Water Level 5%
15.1 Ft	Deposits Attached Encrustation 08 to 09 o'clock 005% OM: 2
19.3 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2 [S01]
32.8 Ft	Tap Factory Active 6.000 12 o'clock
62.5 Ft	Deposits Settled Fine 05 to 07 o'clock 010% OM: 2 [S02]
87.5 Ft	Tap Factory Capped 6.000 12 o'clock
137.1 Ft	Tap Factory Active 6.000 12 o'clock Water Level 010%
163.5 Ft	Deposits Settled Fine 05 to 07 o'clock 010% OM: 2 [F02] Deposits Settled Fine 04 to 08 o'clock 020% OM: 3
166.0 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2 [F01] Abandoned Survey [debris]

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S7863 for Birmingham

Setup	432	Surveyor Gary	Certificate # U206-3080	System Owner Birmingham	
Drainage	Map 11	Survey Customer Birmingham			
P/O #		Date 2019/10/01	Time 12:09	Street WALLACE	
City	Birmingham	Further location details			
Up	MH36-2-126	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH36-2-135	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Sanitary	Direction Down	Flow control	Media No S7863	
Shape	Circular	Height 18 Width	ins Preclean H	Date Cleaned 2019/10/01	
Material	Vitrified Clay Pipe	Joint length 2.00Ft	Total length 464.0 Ft	Length Surveyed 166.0	Ft
Lining		Year laid 1960	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Yard				
Project	Birmingham Phase 2		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST	Start of Survey								
0.0			AMH	Manhole								MH36-2-126
0.0			MWL	Water Level			5					
15.1			DAE	Deposits Attached Encrustation			5	J	08	09		
19.3		S01	DAE	Deposits Attached Encrustation			5	J	08	04		
32.8			TFA	Tap Factory Active	6.000				12			
62.5		S02	DSF	Deposits Settled Fine			10		05	07		
87.5			TFC	Tap Factory Capped	6.000				12			
137.1			TFA	Tap Factory Active	6.000				12			
137.1			MWL	Water Level			10					
163.5		F02	DSF	Deposits Settled Fine			10		05	07		
163.5			DSF	Deposits Settled Fine			20		04	08		
166.0		F01	DAE	Deposits Attached Encrustation			5	J	08	04		
166.0			MSA	Abandoned Survey								debris

166.0 Ft Total Length Surveyed

Scores

Structural:	Pipe Rating 0	Pipe Ratings Index 0	Quick Rating 0000
O&M:	Pipe Rating 103	Pipe Ratings Index 2	Quick Rating 312I
Overall	Pipe Rating 103	Pipe Ratings Index 2	Quick Rating 312I

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

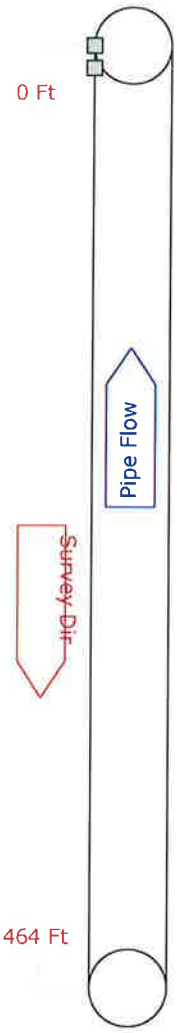
Pipe Graphic Report of PSR S7863R for Birmingham

Setup	433 Surveyor Gary	Certificate #	U206-3080	System Owner	Birmingham
Drainage	Map 11	Survey Customer	Birmingham		
P/O #		Date	2019/10/01	Time	13:23
Street	WALLACE				
City	Birmingham	Further location details	Wallace-Lincoln Easement		

Up	MH36-2-126	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH36-2-135	Rim to invert		Grade to invert	Rim to grade Ft

Use	Sanitary	Direction	Upstream	Flow control	Media No S7863R
Shape	Circular	Height	18 Width ins	Preclean H	Date Cleaned 2019/10/01
Material	Vitrified Clay Pipe	Joint length	2.0 Ft	Total length 464.0 Ft	Length Surveyed 11.00 Ft
Lining		Year laid	1960	Year rehabilitated	Weather Dry
Purpose	Pre-Rehabilitation Survey	Cat			

Additional info	Reverse	Structural	O & M	Constructional	
Location	Yard	Miscellaneous	Hydraulic		
Project	Birmingham Phase 2			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	



0.0 Ft
Start of Survey
Manhole [MH36-2-135]
Water Level 035%
Deposits Settled Fine 04 to 08 o'clock 030% OM: 4 [S01]

11.0 Ft
Deposits Settled Fine 04 to 08 o'clock 030% OM: 4 [F01]
Abandoned Survey [debris]

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S7863R for Birmingham

Setup	433	Surveyor Gary	Certificate # U206-3080	System Owner Birmingham	
Drainage	Map 11	Survey Customer Birmingham			
P/O #		Date 2019/10/01	Time 13:23	Street WALLACE	
City	Birmingham	Further location details Wallace-Lincoln Easement			
Up	MH36-2-126	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH36-2-135	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Sanitary	Direction Up	Flow control	Media No S7863R	
Shape	Circular	Height 18 Width	ins Preclean H	Date Cleaned 2019/10/01	
Material	Vitrified Clay Pipe	Joint length 2.00 Ft	Total length 464.0 Ft	Length Surveyed 11.0	Ft
Lining		Year laid 1960	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info	Reverse		Structural O & M Constructional Miscellaneous		
Location	Yard				
Project	Birmingham Phase 2		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST	Start of Survey								
0.0			AMH	Manhole								MH36-2-135
0.0			MWL	Water Level			35					
0.0		S01	DSF	Deposits Settled Fine			30		04	08		
11.0		F01	DSF	Deposits Settled Fine			30		04	08		
11.0			MSA	Abandoned Survey								debris

11.0 Ft Total Length Surveyed

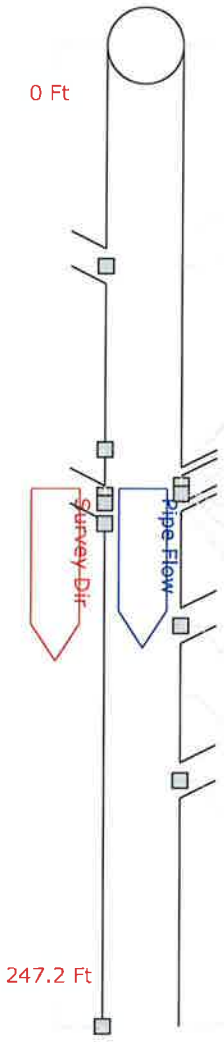
Scores

Structural:	Pipe Rating 0	Pipe Ratings Index 0	Quick Rating 0000
O&M:	Pipe Rating 8	Pipe Ratings Index 4	Quick Rating 4200
Overall	Pipe Rating 8	Pipe Ratings Index 4	Quick Rating 4200

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S7866 for Birmingham

Setup	209 Surveyor Gary	Certificate #	U206-3080	System Owner	Birmingham
Drainage	Map 11	Survey Customer	Birmingham		
P/O #		Date	2019/02/07	Time	12:30
Street	WALLACE				
City	Birmingham	Further location details			
Up	MH36-2-120	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH36-2-123	Rim to invert		Grade to invert	Rim to grade Ft
Use	Sanitary	Direction	Downstream	Flow control	Media No S7866
Shape	Circular	Height	18 Width	ins	Preclean H Date Cleaned 2019/02/07
Material	Vitrified Clay Pipe	Joint length	2.0 Ft	Total length	430.0 Ft Length Surveyed 257.00 Ft
Lining		Year laid	0	Year rehabilitated	Weather Light Rain
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural O & M Constructional Miscellaneous Hydraulic	
Location	Light Highway				
Project	Birmingham Phase 2			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	

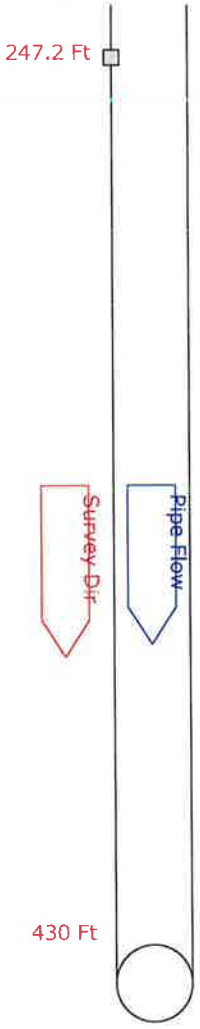


0.0 Ft	Start of Survey Manhole [MH36-2-120] Water Level 10%
45.0 Ft	Water Mark 075%
55.7 Ft	Tap Factory 6.000 02 o'clock
102.0 Ft	Infil Runner 03 o'clock OM: 4
111.0 Ft	Tap Factory Capped 10.000 09 o'clock
113.1 Ft	Tap Break-in Active 6.000 12 o'clock
113.5 Ft	Fracture Longitudinal 02 o'clock ST: 3
115.5 Ft	Tap Factory Capped 6.000 02 o'clock
120.7 Ft	Obstacle Other 06 o'clock 010% OM: 2 [sewer snake]
146.4 Ft	Tap Break-in Active 6.000 10 o'clock
163.9 Ft	General Observation [sewer snake]
185.3 Ft	Tap Factory Active 6.000 10 o'clock
247.2 Ft	Deposits Settled Gravel 06 o'clock 005% OM: 2 [S01]

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S7866 for Birmingham

Setup	209 Surveyor Gary	Certificate # U206-3080		System Owner Birmingham	
Drainage	Map 11	Survey Customer Birmingham			
P/O #		Date 2019/02/07	Time 12:30	Street WALLACE	
City	Birmingham	Further location details			
Up	MH36-2-120	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH36-2-123	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Sanitary	Direction Downstream	Flow control	Media No S7866	
Shape	Circular	Height 18 Width	ins Preclean H	Date Cleaned 2019/02/07	
Material	Vitrified Clay Pipe	Joint length 2.0 Ft	Total length 430.0 Ft	Length Surveyed 257.00 Ft	
Lining		Year laid 0	Year rehabilitated	Weather Light Rain	
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info			Structural O & M Constructional Miscellaneous Hydraulic		
Location	Light Highway				
Project	Birmingham Phase 2		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		



Deposits Settled Gravel 06 o'clock 005% OM: 2 [F01]
Deposits Settled Gravel 05 to 07 o'clock 015% OM: 3
Abandoned Survey [dirt/ gravel]

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S7866 for Birmingham

Setup 209	Surveyor Gary	Certificate # U206-3080	System Owner Birmingham	
Drainage Map 11	Survey Customer Birmingham			
P/O #	Date 2019/02/07	Time 12:30	Street WALLACE	
City Birmingham	Further location details			
Up MH36-2-120	Rim to invert	Grade to invert	Rim to grade	Ft
Down MH36-2-123	Rim to invert	Grade to invert	Rim to grade	Ft
Use Sanitary	Direction Down	Flow control	Media No S7866	
Shape Circular	Height 18 Width	ins Preclean H	Date Cleaned 2019/02/07	
Material Vitrified Clay Pipe	Joint length 2.00 Ft	Total length 430.0 Ft	Length Surveyed 257.0	Ft
Lining	Year laid 0	Year rehabilitated	Weather Light Rain	
Purpose Pre-Rehabilitation Survey	Cat		Pressure	
Additional info		Structural O & M Constructional Miscellaneous		
Location Light Highway				
Project Birmingham Phase 2		Work Order		
Northing	Easting	Elevation		
Coordinate System		GPS Accuracy		

Count	Video		CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0				ST	Start of Survey								
0.0				AMH	Manhole								MH36-2-120
0.0				MWL	Water Level			10					
45.0				MWM	Water Mark			75					
55.7				TF	Tap Factory	6.000				02			
102.0				IR	Infil Runner				J	03			
111.0				TFC	Tap Factory Capped	10.000				09			
113.1				TBA	Tap Break-in Active	6.000				12			
113.5				FL	Fracture Longitudinal				J	02			
115.5				TFC	Tap Factory Capped	6.000				02			
120.7				OBZ	Obstacle Other			10		06			sewer snake
146.4				TBA	Tap Break-in Active	6.000				10			
163.9				MGO	General Observation								sewer snake
185.3				TFA	Tap Factory Active	6.000				10			
247.2			S01	DSGV	Deposits Settled Gravel			5		06			
257.0			F01	DSGV	Deposits Settled Gravel			5		06			
257.0				DSGV	Deposits Settled Gravel			15		05	07		
257.0				MSA	Abandoned Survey								dirt/ gravel

257.0 Ft Total Length Surveyed

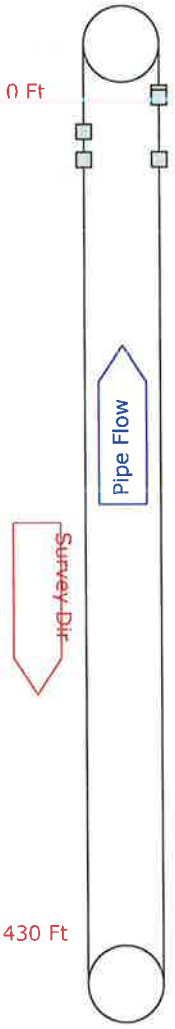
Scores

Structural:	Pipe Rating 3	Pipe Ratings Index 3	Quick Rating 3100
O&M:	Pipe Rating 18	Pipe Ratings Index 3	Quick Rating 5141
Overall	Pipe Rating 21	Pipe Ratings Index 6	Quick Rating 5141

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Pipe Graphic Report of PSR S7866R for Birmingham

Setup	210 Surveyor Gary	Certificate #	U206-3080	System Owner	Birmingham
Drainage	Map 11	Survey Customer	Birmingham		
P/O #		Date	2019/02/08	Time	8:52
Street	WALLACE				
City	Birmingham	Further location details			
Up	MH36-2-120	Rim to invert		Grade to invert	Rim to grade Ft
Down	MH36-2-123	Rim to invert		Grade to invert	Rim to grade Ft
Use	Sanitary	Direction	Upstream	Flow control	Media No S7866R
Shape	Circular	Height 18	Width ins	Preclean H	Date Cleaned 2019/02/07
Material	Vitrified Clay Pipe	Joint length	2.0 Ft	Total length 430.0 Ft	Length Surveyed 53.00 Ft
Lining		Year laid 0		Year rehabilitated	Weather Dry
Purpose	Pre-Rehabilitation Survey	Cat			
Additional info				Structural O & M Constructional Miscellaneous Hydraulic	
Location	Light Highway				
Project	Birmingham Phase 2			Work Order	
Northing		Easting		Elevation	
Coordinate System				GPS Accuracy	



0.0 Ft	Start of Survey Manhole [MH36-2-123] Water Level 10%
22.4 Ft	Infil Dripper 10 o'clock OM: 3 Deposits Attached Encrustation 08 to 10 o'clock 005% OM: 2
24.6 Ft	Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2 [S01] Infil Weeper 08 to 04 o'clock OM: 2 [S02]
40.2 Ft	Deposits Settled Fine 06 o'clock 010% OM: 2 [S03]
53.0 Ft	Deposits Settled Fine 05 to 07 o'clock 020% OM: 3 Deposits Attached Encrustation 08 to 04 o'clock 005% OM: 2 [F01] Infil Weeper 08 to 04 o'clock OM: 2 [F02] Deposits Settled Fine 06 o'clock 010% OM: 2 [F03] Abandoned Survey [debris]

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

Tabular Report of PSR S7866R for Birmingham

Setup	210	Surveyor Gary	Certificate # U206-3080	System Owner Birmingham	
Drainage	Map 11	Survey Customer Birmingham			
P/O #		Date 2019/02/08	Time 8:52	Street WALLACE	
City	Birmingham	Further location details			
Up	MH36-2-120	Rim to invert	Grade to invert	Rim to grade	Ft
Down	MH36-2-123	Rim to invert	Grade to invert	Rim to grade	Ft
Use	Sanitary	Direction Up	Flow control	Media No S7866R	
Shape	Circular	Height 18 Width	ins Preclean H	Date Cleaned 2019/02/07	
Material	Vitrified Clay Pipe	Joint length 2.00 Ft	Total length 430.0 Ft	Length Surveyed 53.0	Ft
Lining		Year laid 0	Year rehabilitated	Weather Dry	
Purpose	Pre-Rehabilitation Survey	Cat		Pressure	
Additional info			Structural O & M Constructional Miscellaneous		
Location	Light Highway				
Project	Birmingham Phase 2		Work Order		
Northing		Easting	Elevation		
Coordinate System			GPS Accuracy		

Count	Video	CD	Code		In1	In2	%	Jnt	Fr	To	ImRef	Remarks
0.0			ST	Start of Survey								
0.0			AMH	Manhole								MH36-2-123
0.0			MWL	Water Level			10					
22.4			ID	Infil Dripper				J	10			
22.4			DAE	Deposits Attached Encrustation			5	J	08	10		
24.6		S01	DAE	Deposits Attached Encrustation			5	J	08	04		
24.6		S02	IW	Infil Weeper				J	08	04		
40.2		S03	DSF	Deposits Settled Fine			10		06			
53.0			DSF	Deposits Settled Fine			20		05	07		
53.0		F01	DAE	Deposits Attached Encrustation			5	J	08	04		
53.0		F02	IW	Infil Weeper				J	08	04		
53.0		F03	DSF	Deposits Settled Fine			10		06			
53.0			MSA	Abandoned Survey								debris

53.0 Ft Total Length Surveyed

Scores

Structural:	Pipe Rating 0	Pipe Ratings Index 0	Quick Rating 0000
O&M:	Pipe Rating 38	Pipe Ratings Index 2.1	Quick Rating 322B
Overall	Pipe Rating 38	Pipe Ratings Index 2.1	Quick Rating 322B

Doetsch ENVIRONMENTAL SERVICES
Doetsch Environmental Services, Inc.
Phone:586-755-2090
Fax:586-755-2099

APPENDIX C

MH INSPECTION REPORTS

Bonnie Brier
MH25-3-115

Reconstruct Manhole – 1 VF

Photo 1

Photo 2

Photo 3

Ann
MH36-1-083

Reconstruct Manhole – 1 VF

Photo 1

Maple Road
MH34-4-084

Photo 1

Photo 2

Photo 3

Photo 4

Wallace Street
MH36-2-126

Reconstruct Manhole – 1 VF

Photo 1

Wallace Street
MH36-2-121

Reconstruct Manhole – 1 VF

Photo 1

Photo 2

Photo 3

FORM 6100-3
Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Performance Form

This form is intended to capture the DBE[1] subcontractor's[2] description of work to be performed and the price of the work submitted to the prime contractor. A Financial Assistance Agreement Recipient must require its prime contractor to have its DBE subcontractors complete this form and include all completed forms in the prime contractors bid or proposal package.

Subcontractor Name Advanced Underground Inspection		Project Name Birmingham - 2025-2026 Sewer Rehabilitation Program
Bid/ Proposal No. #4-25 (S)	Assistance Agreement ID No. (If known)	Point of Contact Steve Johnson
Address 39101 Webb Dr. Westland, MI 48185		
Telephone No. (734) 721-0081		Email Address N/A
Prime Contractor Name Pamar Enterprises, Inc.		Issuing/Funding Entity:

Contract Item Number	Description of Work Submitted to the Prime Contractor Involving Construction, Services, Equipment or Supplies	Price of Work Submitted to the Prime Contractor
#23 #24 #25 #26	Sewer Grouting Set Up Sewer Joint Grouting 8-12" Sewer Joint Grouting 15 to 21" Sewer Joint Grouting 24-36"	$9,000.00 $10,000.00 $8,000.00 $2,000.00

DBE Certified By: X DOT ___SBA ___Other: _____ ___Not certified	Meets/ exceeds EPA certification standards? ___YES ___NO X Unknown

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware of that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 (c).

Prime Contractor Signature	Title/ date
	Director 3-26-26
Subcontractor Signature	**Title/ date**
	Owner 3/26/2026

[1] A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202. [2] Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

FORM 6100-4
Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Utilization Form

This form is intended to capture the prime contractor's actual and/or anticipated use of identified certified DBE[1] subcontractors[2] and the estimated dollar amount of each subcontract. A Financial Assistance Agreement Recipient must require its prime contractors to complete this form and include it in the bid or proposal package. Prime contractors should also maintain a copy of this form on file.

~~Subcontractor Name~~ Prime Contractor Name Pamar Enterprises, Inc.		Project Name Birmingham - 2025-2026 Sewer Rehabilitation Program
Bid/ Proposal No. #4-25 (S)	Assistance Agreement ID No. (if known)	Point of Contact
Address 31604 Pamar Court, New Haven, MI 48048		
Telephone No. (586) 749-8593		Email Address N/A
Prime Contractor Name Pamar Enterprises, Inc.		Issuing/Funding Entity:

I have identified potential DBE certified subcontractors	X YES	__ NO
If yes, please complete the table below. If no, please explain:		

Company Name	Company Address/ Phone/ Email	Est. Dollar Amt	Currently DBE Certified?
Advanced Underground Inspection	39101 Webb Dr. Westland, MI 48185	29,000.00	Yes
All other DBE that were solicited were non responsive			
	Continue on back if needed		

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware of that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 (c).

Prime Contractor Signature	Title/ date
	Director 3-25-26

[1] A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202. [2] Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

Susan Mazza

From: MITA DBE <noreply@mitadbe.com>
Sent: Tuesday, March 17, 2026 5:14 PM
To: Susan Mazza
Subject: Invoice

DBE Ad number: 1000-7874
Posted on: Mar 17, 2026 5:13 PM
Advertisement fee: $0.00
Please remit payment to: MITA 2937 Atrium Drive P.O. Box 1640
Okemos, MI 48864

Advertisement submitted by:
Susan Mazza
Pamar Enterprises, Inc.
31604 Pamar Court
New Haven, MI 48048
5867498593

Project: 2025-2026 Sewer Rehabilitation Program
Owner: City of Birmingham
Open date: 3/26/2026
Highlights: Cleaning & Lining of various sewers in seven areas of the city.
9,557 LF of 8" through 24"

To view your advertisement, follow this link:
https://www.mitadbe.com/ad/7874

Thank you,
MITA SBE/DBE
www.mitadbe.com

mitai DBE

Pamar Enterprises, Inc. is soliciting cost proposals from qualified Disadvantaged Business Enterprises (DBE), which includes Minority Business Enterprises (MBE), Women Business Enterprises (WBE), and other entities defined as socially and/or economically disadvantaged.

Contact Information

Company: Pamar Enterprises, Inc.
Address: 31604 Pamar Court, New Haven, MI 48048
Contact name: Estimating
Contact phone: 5867498593
Contact fax: 5867498839
Contact email: estimating@pamarenterprises.com

Project Information

Project name: 2025-2026 Sewer Rehabilitation Program
Project owner: City of Birmingham
Project location:
Project highlights:

Cleaning & Lining of various sewers in seven areas of the city.
9,557 LF of 8" through 24"

Project categories:

TIB	Aggregates-Broker
TIR	Aggregates-Dealer
TIM	Aggregates-Manuf.
N4	Bridge Painting
N2	Clearing
TF3B	Concrete brck/blk/pipe-Broker
TF3R	Concrete brck/blk/pipe-Dealer
TF3M	Concrete brck/blk/pipe-Manuf.
TF1M	Concrete Manufacturer
B	Concrete Pavement
Ba	Concrete Pavement-Patching/Widening
TF2R	Concrete Products -Dealer
cnst	Construction Staking
cden	Density Inspection and Testing Services
N94A	Drainage-Sewer Cleanout
N94B	Drainage-Sewer Inspection
TGR	

Elect.Materials-Dealer

TGM

Elect.Materials-Manuf.

L

Electrical Construction

N96K

General-Attenuators

N96M

General-Fences

N96L

General-Guardrail

geot

Geotechnical Engineering Services

TAB

Geotextile Fabrics-Broker

TAR

Geotextile Fabrics-Dealer

TAM

Geotextile Fabrics-Manuf.

hma

Hot Mix Asphalt Inspection & Testing

H

Landscaping

J

Misc. Concrete Items

N3

Pavement Marking

N93A

Pavements-Cold Milling

N93C

Pavements-Concrete Sawing

N93D

Pavements-Grinding and Grooving

N93G

Pavements-Joint Repair

N93F

Pavements-Joint/Crack Fill

N6

Permanent Signs

Cb

Plant-Mix/Hot Mix Asph/Bituminous Paving

TVB

Rd Signs/Markers/Barricade-Broker

TVR

Rd Signs/Markers/Barricade-Dealer

TVM

Rd Signs/Markers/Barricade-Manuf.

N92D

Roadway-Crushing and Shaping

N92B

Roadway-Edge Drain

I

Seeding/Sodding/Turf Establishment

TWB

Steel Products-Broker

TWR

Steel Products-Dealer

TWM

Steel Products-Manufacturer

Ka

Tunneling and Jacking

Bid Information

Bid open: 3/26/2026 2:30pm
Link to bid documents: www.bidnetdirect.com/mitn
Document address:
Respond by: 3/25/2026 12:00pm

Additional Information

Posted date: 3/17/2026 5:13pm
Times viewed: 1

(home.htm)

Search for Certified Firms

Fill the parameter(s) and click on search button

Advanced Search

Firm Name

MDOT Codes

QB4 - Media/Marketing Video Service

NAICS Codes

search NAICS Codes

Work Location County

All

Certification Type

Disadvantaged Business Enterprise (DBE) ; MDOT Small Business Program (MDOT SBP)

Type of Business

All

Work Description

North American Industry Classification System (NAICS) codes assigned to firms are a description of the general character of the work the certified firm performs. NAICS codes are not a guarantee of the firm's work or endorsement of the firm's capabilities.

All firms certified as a DBE/ACDBE firm in Michigan are eligible to participate on MDOT contracts as an SBP.

Search Clear

Search Results
(Total 1 matching applications found)
Generated Results Date: March 17, 2026

Download Results

DBE Firm Name: New Generation Group LLC

Business Type: Other

Certifying Agency: Michigan Department of Transportation

Certification Type: Disadvantaged Business Enterprise (DBE)

Michigan Certified On: 06/11/2020

Generate Certificate (generateCertificate.htm?dbeId=6071&applId=1)

MDOT Work Codes: N94B, QB4

NAICS Codes: 512110, 541990, 512290

Work Description: All Other Professional, Scientific, and Technical Services, Motion Picture and Video Production, Other Sound Recording Industries MDOT Code: Drainage-Sewer Inspection. MDOT - Sewer Inspection. MDOT - Media/Marketing VIdeo Service. MDOT Vendor #02182

Primary Contact: Lester Lewis II

Address: 19236 Cameron
Detroit, MICHIGAN
48203

Contact Details

Phone: 313-888-0689, 313-770-1105
Fax:
Email: newgenerationgroup01@gmail.com (mailto:newgenerationgroup01@gmail.com)
lesterlewis13@gmail.com (mailto:lesterlewis13@gmail.com)
Website:

MI.gov (http://www.michigan.gov/) Home (home.htm)

Contact (https://www.michigan.gov/mdot/about/contact-mdot)

Policies (https://www.michigan.gov/som/footer/policies)

Copyright 2026 State of Michigan

Estimating Dept

From: Estimating Dept
Sent: Tuesday, March 17, 2026 5:42 PM
To: 'Newgenerationgroup01@gmail.com'
Cc: 'lesterlewis13@gmail.com'
Subject: 2025-2026 Sewer Rehabilitation Program

Pamar Enterprises Inc.
31604 Pamar Court
New Haven, MI 48048
estimating@pamarenterprises.com
(586) 749-8593 Phone
(586) 749-8839 Fax

Request for Pre-Construction Video Quotation

To:	Estimating / Lester Lewis II	**From:**	Estimating / Ron Lawrence
Company:	New Generation Group, LLC	**Date:**	03/17/26
Fax #	(313) 447-0556	**Phone #**	(313) 888-0689
E-Mail	Newgenerationgroup01@gmail.com	**Cell #**	(313) 770-1105
Project:	**2025-2026 Sewer Rehabilitation Program**	**Quote Due:**	**March 25, 2026**
Location:	**City of Birmingham**		
Plans:	**Available at https://www.bidnetdirect.com/ or a Dropbox can be provided upon request.**		

Pamar will be bidding this project, and is requesting a quote for the materials and/or work items which your company provides. Please provide your quote with pricing that reflects the requirements of the project plans & specifications.

Please reply ASAP ____Yes, we will be quoting. ____ No, we will not be quoting.

Send all email correspondence to: estimating@pamarenterprises.com

This section is for General Notes to all sub-contractors, and suppliers

Pamar welcomes, and encourages DBE Participation on all projects, even when it's not required. If your quote includes any DBE participation, please convey that, along with what the percentage is.

This section is for notes specific to your receiving this request

Solicitaion is based on DBE prequalification for the following MDOT Work Code:
QB4 - Media / Marketing Video Service

If you have questions, please call.

Thank you.

https://www.bidnetdirect.com/

New Generation Group, LLC

(home.htm)

Search for Certified Firms

Fill the parameter(s) and click on search button

Advanced Search

Firm Name

MDOT Codes

QB4 - Media/Marketing Video Service

NAICS Codes

search NAICS Codes

Work Location County

All

Certification Type

Disadvantaged Business Enterprise (DBE) ; MDOT Small Business Program (MDOT SBP)

Type of Business

All

Work Description

North American Industry Classification System (NAICS) codes assigned to firms are a description of the general character of the work the certified firm performs. NAICS codes are not a guarantee of the firm's work or endorsement of the firm's capabilities.

All firms certified as a DBE/ACDBE firm in Michigan are eligible to participate on MDOT contracts as an SBP.

Search Clear

Search Results
(Total 1 matching applications found)
Generated Results Date: March 17, 2026

Download Results

DBE Firm Name: New Generation Group LLC

Business Type: Other

Certifying Agency: Michigan Department of Transportation

Certification Type: Disadvantaged Business Enterprise (DBE)

Michigan Certified On: 06/11/2020

Generate Certificate (generateCertificate.htm?dbeId=6071&applId=1)

MDOT Work Codes: N94B, QB4

NAICS Codes: 512110, 541990, 512290

Work Description: All Other Professional, Scientific, and Technical Services, Motion Picture and Video Production, Other Sound Recording Industries MDOT Code: Drainage-Sewer Inspection. MDOT - Sewer Inspection. MDOT - Media/Marketing VIdeo Service. MDOT Vendor #02182

Primary Contact: Lester Lewis II

Address: 19236 Cameron
Detroit, MICHIGAN
48203

Contact Details

Phone: 313-888-0689, 313-770-1105
Fax:
Email: newgenerationgroup01@gmail.com (mailto:newgenerationgroup01@gmail.com)
lesterlewis13@gmail.com (mailto:lesterlewis13@gmail.com)
Website:

MI.gov (http://www.michigan.gov/) Home (home.htm)

Contact (https://www.michigan.gov/mdot/about/contact-mdot)

Policies (https://www.michigan.gov/som/footer/policies)

Copyright 2026 State of Michigan

Estimating Dept

From: Estimating Dept
Sent: Tuesday, March 17, 2026 5:42 PM
To: 'Newgenerationgroup01@gmail.com'
Cc: 'lesterlewis13@gmail.com'
Subject: 2025-2026 Sewer Rehabilitation Program

Pamar Enterprises Inc.

31604 Pamar Court
New Haven, MI 48048

estimating@pamarenterprises.com

(586) 749-8593 Phone
(586) 749-8839 Fax

Request for Pre-Construction Video Quotation

To:	Estimating / Lester Lewis II	**From:**	Estimating / Ron Lawrence
Company:	New Generation Group, LLC	**Date:**	03/17/26
Fax #	(313) 447-0556	**Phone #**	(313) 888-0689
E-Mail	Newgenerationgroup01@gmail.com	**Cell #**	(313) 770-1105
Project:	**2025-2026 Sewer Rehabilitation Program**	**Quote Due:**	**March 25, 2026**
Location:	**City of Birmingham**		
Plans:	**Available at https://www.bidnetdirect.com/ or a Dropbox can be provided upon request.**		

Pamar will be bidding this project, and is requesting a quote for the materials and/or work items which your company provides. Please provide your quote with pricing that reflects the requirements of the project plans & specifications.

Please reply ASAP ____Yes, we will be quoting. ____ No, we will not be quoting.

Send all email correspondence to: estimating@pamarenterprises.com

This section is for General Notes to all sub-contractors, and suppliers

Pamar welcomes, and encourages DBE Participation on all projects, even when it's not required. If your quote includes any DBE participation, please convey that, along with what the percentage is.

This section is for notes specific to your receiving this request.

Solicitaion is based on DBE prequalification for the following MDOT Work Code:
QB4 - Media / Marketing Video Service

New Generation Group, LLC

If you have questions, please call.

Thank you.

https://www.bidnetdirect.com/

(home.htm)

Search for Certified Firms

Fill the parameter(s) and click on search button

Advanced Search

Firm Name

MDOT Codes

Search MDOT Codes

NAICS Codes

search NAICS Codes

Work Location County

All

Certification Type

Disadvantaged Business Enterprise (DBE)

Type of Business

All

Work Description

grouting

North American Industry Classification System (NAICS) codes assigned to firms are a description of the general character of the work the certified firm performs. NAICS codes are not a guarantee of the firm's work or endorsement of the firm's capabilities.

All firms certified as a DBE/ACDBE firm in Michigan are eligible to participate on MDOT contracts as an SBP.

Search Clear

Search Results
(Total 1 matching applications found)
Generated Results Date: March 17, 2026

Download Results

DBE Firm Name: Advanced Underground Inspection, LLC

Business Type: Construction,Other

Certifying Agency: Michigan Department of Transportation

Certification Type: Disadvantaged Business Enterprise (DBE)

Michigan Certified On: 09/26/2002

Generate Certificate (generateCertificate.htm?dbeId=23&applId=1)

MDOT Work Codes: I, N94B, N94A, K

NAICS Codes: 562998

Work Description: Underground video inspection; Misc. underground manhole, sewer and pipe inspection, testing, repair & cleaning; Grouting/hydro excavating; GPS; Grading, drainage structures & aggregate construction; Landscaping; Seeding & Sodding. MDOT vendor #08892

Primary Contact: Kathy Dickey

Address: 39101 Webb Dr.
Westland, MICHIGAN
48185

Contact Details

Phone: 734-721-0081
Fax: 734-721-0082
Email: kathy@advui.com (mailto:kathy@advui.com)
chrystal@advui.com (mailto:chrystal@advui.com)
jeana_aui@yahoo.com (mailto:jeana_aui@yahoo.com)
Website: www.auinspection.com (http://www.auinspection.com)

MI.gov (http://www.michigan.gov/) Home (home.htm)

Contact (https://www.michigan.gov/mdot/about/contact-mdot)

Policies (https://www.michigan.gov/som/footer/policies)

Copyright 2026 State of Michigan

Estimating Dept

From: Estimating Dept
Sent: Tuesday, March 17, 2026 5:35 PM
To: 'stevejohnson3324@yahoo.com'
Cc: 'aaron@advui.com'; 'jeana_aui@yahoo.com'; 'dan@advui.com'
Subject: 2025-2026 Sewer Rehabilitation Program

Pamar Enterprises Inc.
31604 Pamar Court
New Haven, MI 48048
estimating@pamarenterprises.com
(586) 749-8593 Phone
(586) 749-8839 Fax

Request for Grouting Quotation

To:	Steve Johnson	**From:**	Estimating / Ron Lawrence
Company:	Advanced Underground Inspection, LLC	**Date:**	03/17/26
Fax #	(734) 721-0082	**Phone #**	(734) 721-0081
E-Mail	stevejohnson3324@yahoo.com	**Cell #**	(734) 748-0112
Project:	**2025-2026 Sewer Rehabilitation Program**	**Quote Due:**	**March 25, 2026**
Location:	**City of Birmingham**		
Plans:	**Available at https://www.bidnetdirect.com/ or a Dropbox can be provided upon request.**		

Pamar will be bidding this project, and is requesting a quote for the materials and/or work items which your company provides. Please provide your quote with pricing that reflects the requirements of the project plans & specifications.

Please reply ASAP ____Yes, we will be quoting. ____ No, we will not be quoting.

Send all email correspondence to: **estimating@pamarenterprises.com**

This section is for General Notes to all sub-contractors, and suppliers

Pamar welcomes, and encourages DBE Participation on all projects, even when it's not required.
If your quote includes any DBE participation, please convey that, along with what the percentage is.

This section is for notes specific to your receiving this request

Please see all Grouting Items

If you have questions, please call.

Thank you.

https://www.bidnetdirect.com/

Advanced Underground Inspection, LLC

(home.htm)

Search for Certified Firms

Fill the parameter(s) and click on search button

Advanced Search

Firm Name

MDOT Codes

N2 - Clearing

NAICS Codes

search NAICS Codes

Work Location County

All

Certification Type

Disadvantaged Business Enterprise (DBE)

North American Industry Classification System (NAICS) codes assigned to firms are a description of the general character of the work the certified firm performs. NAICS codes are not a guarantee of the firm's work or endorsement of the firm's capabilities.

All firms certified as a DBE/ACDBE firm in Michigan are eligible to participate on MDOT contracts as an SBP.

Search Clear

Search Results
(Total 4 matching applications found)
Generated Results Date: March 17, 2026

Download Results

DBE Firm Name: Audia Concrete Construction, Inc.

Business Type: Construction

Certifying Agency: Michigan Department of Transportation

Certification Type: Disadvantaged Business Enterprise (DBE)

Michigan Certified On: 11/01/2018

Generate Certificate (generateCertificate.htm?dbeId=3471&applId=3)

MDOT Work Codes: BA, N2, K, J, I, H, EA

NAICS Codes: 237110, 238990, 237310

Work Description: Highway, Street, and Bridge Construction, All Other Specialty Trade Contractors, Water and Sewer Line and Related Structures Construction MDOT Vendor #05082

Primary Contact: Ronetta Audia

Address: P.O. Box 72
Milford, MICHIGAN
48381

Contact Details

Phone: (248) 676-9570, (248) 431-0985
Fax: 248-676-9720
Email: raudia@audiaconstructioninc.com (mailto:raudia@audiaconstructioninc.com)
Website: www.audiaconstructioninc.com (http://www.audiaconstructioninc.com)

DBE Firm Name: Epic Excavating, Inc.

Business Type: Construction

Certifying Agency: Michigan Department of Transportation

Certification Type: Disadvantaged Business Enterprise (DBE)

Michigan Certified On: 05/25/2017

Generate Certificate (generateCertificate.htm?dbeId=3347&applId=1)

MDOT Work Codes: CB, N96M, N2, K, J, I, EA

NAICS Codes: 237990, 238910

Work Description: Site Preparation Contractors. Other Heavy and Civil Engineering Construction. General-Fences. Sewers/Watermains. Clearing. MDOT Vendor # 07743

Primary Contact: Linda Den Hartigh

Address: 1351 Briarcliff Drive SE
Grand Rapids, MICHIGAN
49546

Contact Details

Phone: 616-813-9596
Fax:

Email: linda@epicexcavating.net (mailto:linda@epicexcavating.net)
Website: www.epicexcavating.net (http://www.epicexcavating.net)

DBE Firm Name: Evergreen Tree & Restoration Inc.

Business Type: Construction

Certifying Agency: Michigan Department of Transportation

Certification Type: Disadvantaged Business Enterprise (DBE)

Michigan Certified On: 03/15/2019

Generate Certificate (generateCertificate.htm?dbeId=3488&applId=1)

MDOT Work Codes: EA, N2, I, H

NAICS Codes: 238910, 561730

Work Description: Landscaping. Site Preparation Contractors. MDOT Vendor #07782

Primary Contact: Ashley Ebling

Address: 21719 Springhill St.
Romulus, MICHIGAN
48174

Contact Details

Phone: 734-991-3046, 734-307-8611
Fax: 734-545-8664
Email: ashley.ebling@evergreentreerestoration.com (mailto:ashley.ebling@evergreentreerestoration.com)
Website: http://www.evergreentreerestoration.com (http://http://www.evergreentreerestoration.com)

DBE Firm Name: Farrow Group, Inc.

Business Type: Construction,Trucking

Certifying Agency: Michigan Department of Transportation

Certification Type: Disadvantaged Business Enterprise (DBE)

Michigan Certified On: 02/27/2002

Generate Certificate (generateCertificate.htm?dbeId=2946&applId=2)

MDOT Work Codes: EA, TI, RJ, N2, G

NAICS Codes: 238910

Work Description: Building, moving, and demolition. Snow removal, Trucking-heavy construction materials. MDOT vendor # 08902, Grading, Drainage Structures and Aggregate Construction, and Building moving and demolition, Clearing. MDOT - Aggregates

Primary Contact: Marja Farrow

Address: 601 Beaufait Ave.
Detroit, MICHIGAN
48207

Contact Details

Phone: 313-259-7910, 313-759-5146
Fax: 313-259-7920
Email: adminfarrow@comcast.net (mailto:adminfarrow@comcast.net)
Website: https://farrowgroup.us (http://https://farrowgroup.us)

MI.gov (http://www.michigan.gov/) Home (home.htm)

Contact (https://www.michigan.gov/mdot/about/contact-mdot)

Policies (https://www.michigan.gov/som/footer/policies)

Copyright 2026 State of Michigan

Estimating Dept

From: Estimating Dept
Sent: Tuesday, March 17, 2026 5:30 PM
To: 'raudia@audiaconstructioninc.com'
Subject: 2025-2026 Sewer Rehabilitation Program

Pamar Enterprises Inc.

31604 Pamar Court
New Haven, MI 48048

estimating@pamarenterprises.com

(586) 749-8593 Phone
(586) 749-8839 Fax

Request for Tree & Stump Removal Quotation

To:	Estimating / Ronetta Audia	**From:**	Estimating / Ron Lawrence
Company:	Audia Concrete Construction, Inc.	**Date:**	03/17/26
Fax #	(248) 676-9720	**Phone #**	(248) 676-9570, (248) 431-0985
E-Mail	raudia@audiaconstructioninc.com	**Cell #**	
Project	**2025-2026 Sewer Rehabilitation Program**	**Quote Due:**	**March 25, 2026**
Location:	**City of Birmingham**		
Plans:	**Available at https://www.bidnetdirect.com/ or a Dropbox can be provided upon request.**		

Pamar will be bidding this project, and is requesting a quote for the materials and/or work items which your company provides. Please provide your quote with pricing that reflects the requirements of the project plans & specifications.

Please reply ASAP ____Yes, we will be quoting. ____ No, we will not be quoting.

Send all email correspondence to: estimating@pamarenterprises.com

This section is for General Notes to all sub-contractors, and suppliers

Pamar welcomes, and encourages DBE Participation on all projects, even when it's not required. If your quote includes any DBE participation, please convey that, along with what the percentage is.

This section is for notes specific to your receiving this request.

Please see the following Bid List Items:
3) Brush Clearing and Grubbin (as-needed) - 5 Ea

Solicitaion is based on DBE prequalification for the following MDOT Work Code:
N2 - Clearing

If you have questions, please call.

Thank you.

https://www.bidnetdirect.com/

Audia Concrete Construction, Inc.

Estimating Dept

m: Estimating Dept
ent: Tuesday, March 17, 2026 5:31 PM
To: 'ashley.ebling@evergreentreerestoration.com'
Subject: 2025-2026 Sewer Rehabilitation Program

Pamar Enterprises Inc.
31604 Pamar Court
New Haven, MI 48048
estimating@pamarenterprises.com
(586) 749-8593 Phone
(586) 749-8839 Fax

Request for Tree & Stump Removal Quotation

To:	Estimating / Ashley Ebling	**From:**	Estimating / Ron Lawrence
Company:	Evergreen Tree & Restoration Inc.	**Date:**	03/17/26
Fax #	(734) 545-8664	**Phone #**	(734) 307-8611
E-Mail	ashley.ebling@evergreentreerestoration.com	**Cell #**	
Project	**2025-2026 Sewer Rehabilitation Program**	**Quote Due:**	**March 25, 2026**
Location:	**City of Birmingham**		
Plans:	**Available at https://www.bidnetdirect.com/ or a Dropbox can be provided upon request.**		

Pamar will be bidding this project, and is requesting a quote for the materials and/or work items which your company provides. Please provide your quote with pricing that reflects the requirements of the project plans & specifications.

Please reply ASAP ____Yes, we will be quoting. ____ No, we will not be quoting.

Send all email correspondence to: **estimating@pamarenterprises.com**

This section is for General Notes to all sub-contractors, and suppliers

Pamar welcomes, and encourages DBE Participation on all projects, even when it's not required. If your quote includes any DBE participation, please convey that, along with what the percentage is.

This section is for notes specific to your receiving this request.

Please see the following Bid List Items:
3) Brush Clearing and Grubbin (as-needed) - 5 Ea

Solicitaion is based on DBE prequalification for the following MDOT Work Code:
N2 - Clearing

If you have questions, please call.

Thank you.

https://www.dropbox.com/scl/fo/wylhu5elg1m6dkco86gy0/ACgjyJU5PejPZM087RW0-2Q?rlkey=64jld23w3t4hrjud0nt2hgw16

Evergreen Tree & Restoration Inc.

Estimating Dept

From: Estimating Dept
Sent: Tuesday, March 17, 2026 5:31 PM
To: 'adminfarrow@comcast.net'
Subject: 2025-2026 Sewer Rehabilitation Program

Pamar Enterprises inc.

31604 Pamar Court
New Haven, MI 48048

estimating@pamarenterprises.com

(586) 749-8593 Phone
(586) 749-8839 Fax

Request for Tree & Stump Removal Quotation

To:	Estimating / Marja Farrow	**From:**	Estimating / Ron Lawrence
Company:	Farrow Group, Inc.	**Date:**	03/17/26
Fax #	(313) 259-7920	**Phone #**	(313) 259-7910, (313) 759-5146
E-Mail	adminfarrow@comcast.net	**Cell #**	
Project:	**2025-2026 Sewer Rehabilitation Program**	**Quote Due:**	**March 25, 2026**
Location:	**City of Birmingham**		
Plans:	**Available at https://www.bidnetdirect.com/ or a Dropbox can be provided upon request.**		

Pamar will be bidding this project, and is requesting a quote for the materials and/or work items which your company provides. Please provide your quote with pricing that reflects the requirements of the project plans & specifications.

Please reply ASAP ____Yes, we will be quoting. ____ No, we will not be quoting.

Send all email correspondence to: estimating@pamarenterprises.com

This section is for General Notes to all sub-contractors, and suppliers

Pamar welcomes, and encourages DBE Participation on all projects, even when it's not required. If your quote includes any DBE participation, please convey that, along with what the percentage is.

This section is for notes specific to your receiving this request.

Please see the following Bid List Items:
3) Brush Clearing and Grubbin (as-needed) - 5 Ea

Solicitaion is based on DBE prequalification for the following MDOT Work Code:
N2 - Clearing

If you have questions, please call.

Thank you.

Farrow Group, Inc.

https://www.bidnetdirect.com/

PAMAR ENTERPRISES

Michigan Office
31604 Pamar Court
New Haven, MI 48048
Office 586-749-8593
Cell 810-217-3035

Trenchless Technologies

Cured-In-Place Pipe (CIPP) Wall Thickness Design, H20 Loading

Project: Birmingham 2025-2026 Sewer Rehabilitation Program
Location: All 8" less than 9' Deep
Owner: City of Birmingham
Line Segment(s):

Design Assumptions:

Variable Inputs for Wall Thickness Determination

Condition of host pipe		FD	PD = partially deteriorated, FD = fully deteriorated
Inside diameter of host pipe (in)	D =	8	
Depth of cover (ft)	H =	9.0	Ground surface to top of pipe
Height of groundwater (ft)	H_w =	4.0	Water table to top of pipe
Ovality of host pipe (%)	q =	2.0	Default value is 2%; range = 0%-10%
Constrained soil modulus of native soil in the pipe zone (psi)	M_{sn} =	700	See table below for recommended values
Flexural modulus of Elasticity of CIPP, initial (psi)	E =	250,000	Minimum value is 250,000 psi per ASTM F1216
Long-term retention of mechanical properties (%)		50%	Default value is 50%
Flexural modulus of elasticity of CIPP, long-term (psi)	E_L =	125,000	Determined from long-term retention %
Design safety factor	N =	2	Default value is 2.0
Unit weight of soil (pcf)	δ_s =	120	
Unit weight of water (pcf)	δ_w =	62.4	
Poisson's ratio of CIPP	v =	0.30	Average value for CIPP per ASTM F1216
Flexural strength of CIPP, initial (psi)	σ_i =	4,500	Minimum value is 4,500 psi per ASTM F1216
Flexural strength of CIPP, long-term (psi)	σ_L =	2,250	Determined from long-term retention %
Enhancement factor (dimensionless)	K =	7.0	Minimum value recommended per ASTM F1216

H20 Calculations (Highway Loads)

Impact factor for traffic load (dimensionless)	I_f =	1.0	*Depth <=1 = 1.3, <=2 = 1.2, <=3 = 1.1, >=3 = 1*
Distributed load area over pipe at depth H (ft^2)	A_{LL} =	440.8	See table below
Total applied surface wheel load (lb)	P_{LW} =	48,000	Based on critical loading configuration (see table below)
H20 live load transferred to pipe at depth H (psi)	w_{LH} =	0.8	$w_L = (P \cdot I_f)/(144 \cdot A_{LL})$

Critical Loading Configurations for H20 loads (per AASHTO)

Condition	H, ft	P, lbs	A_{LL}, ft^2
1	H < 1.33	16,000	(0.83 + 1.75H)(1.67 + 1.75H)
2	1.33 ≤ H < 4.10	32,000	(0.83 + 1.75)(5.67 + 1.75H)
3	4.10 ≤ H	48,000	(4.83 + 1.75H)(5.67 + 1.75H)

Wall Thickness Design

Partially Deteriorated Gravity Pipe Condition, Hydralic Loading

Ovality reduction factor (dimensionless) — C = 0.84

$$C = \left(\frac{1 - q/100}{[1 + q/100]^2}\right)^3$$

External hydrostatic pressure from groundwater (psi) — P_w = 2.02

$P_w = \gamma_w (H_w + D/12)/144$

Minimum thickness required, hydrostatic buckling — t_1 = 0.11 in = 2.73 mm

$$t_1 = \frac{D}{\left(\left[\frac{2 \cdot K \cdot E_L \cdot C}{(1-v^2) \cdot N \cdot (P_w + P_v)}\right]^{1/3} + 1\right)}$$ ASTM F1216, Equation X1.1

Minimum thickness required, ovality check — t_2 = 0.06 06 in = 1.50 mm; SDR_2 = 136

$$1.5 \cdot \frac{q}{100} \cdot \left(1 + \frac{q}{100}\right) \cdot SDR^2 - 0.5 \cdot \left(1 + \frac{q}{100}\right) \cdot SDR - \frac{\sigma_L}{P \cdot N} = 0$$ ASTM F1216, Equation X1.2

If $P_w = 0$, default SDR = 100

Fully Deteriorated Gravity Pipe Condition

Total live load transferred to pipe at depth H (psi) =	W_s =	0.76	From live load calculations
Water buoyancy factor (dimensionless)	R_w =	0.85	$R_w = 1 - 0.33(H_w/H)$ (min. value = 0.67)
Total external pressure on pipe (psi)	q_t =	9.18	$q_t = 0.433H_w + \delta_s HR_w/144 + W_s$
Coefficient of elastic support (in-lb)	B' =	0.293	$B' = 1/(1+4e^{-0.065H})$

Minimum thickness required — t_3 = 0.15 in = 3.87 mm

$$t = \left[\frac{(q_t \cdot N)^2 \cdot D^3 \cdot 12}{32 \cdot R_w \cdot B' \cdot M_{sn} \cdot E_L \cdot C}\right]^{1/3}$$ ASTM F1216, Equation X1.3

Minimum thickness required, pipe stiffness — t_4 = 0.13 in = 3.35 mm

$t = D/(E/0.093\,12)^{1/3}$ ASTM F1216, Equation X1.4

CIPP Wall Thickness Design Summary

Host pipe condition		Fully Deteriorated	
CIPP end use application		Gravity Flow	
CIPP outside diameter (host pipe inside diameter)	D =	8.00	in
Minimum CIPP thickness calculated	t_{calc} =	0.15	in
	=	3.87	mm
Nominal CIPP thickness to be supplied	t_{CIPP} =	**4.5**	mm

Greatest value calculated from ASTM F1216 Equations X1.1, X1.2, X1.3 and X1.4

May 15, 2019

PAMAR ENTERPRISES

Michigan Office
31604 Pamar Court
New Haven, MI 48048
Office 586-749-8593
Cell 810-217-3035

Trenchless Technologies

Cured-In-Place Pipe (CIPP) Wall Thickness Design, H20 Loading

Project: Birmingham 2025-2026 Sewer Rehabilitation Program
Location: All 10" less than 10' Deep
Owner: City of Birmingham
Line Segment(s):

Variable Inputs for Wall Thickness Determination

Design Assumptions:

Condition of host pipe		FD	PD = partially deteriorated, FD = fully deteriorated
Inside diameter of host pipe (in)	D =	10	
Depth of cover (ft)	H =	10.0	Ground surface to top of pipe
Height of groundwater (ft)	H_w =	5.0	Water table to top of pipe
Ovality of host pipe (%)	q =	2.0	Default value is 2%; range = 0%-10%
Constrained soil modulus of native soil in the pipe zone (psi)	M_{sn} =	700	See table below for recommended values
Flexural modulus of Elasticity of CIPP, initial (psi)	E =	250,000	Minimum value is 250,000 psi per ASTM F1216
Long-term retention of mechanical properties (%)		50%	Default value is 50%
Flexural modulus of elasticity of CIPP, long-term (psi)	E_L =	125,000	Determined from long-term retention %
Design safety factor	N =	2	Default value is 2.0
Unit weight of soil (pcf)	δ_s =	120	
Unit weight of water (pcf)	δ_w =	62.4	
Poisson's ratio of CIPP	v =	0.30	Average value for CIPP per ASTM F1216
Flexural strength of CIPP, initial (psi)	σ_I =	4,500	Minimum value is 4,500 psi per ASTM F1216
Flexural strength of CIPP, long-term (psi)	σ_L =	2,250	Determined from long-term retention %
Enhancement factor (dimensionless)	K =	7.0	Minimum value recommended per ASTM F1216

H20 Calculations (Highway Loads)

Impact factor for traffic load (dimensionless)	I_f =	1.0	*Depth <=1 = 1.3, <=2 = 1.2, <=3 = 1.1, >=3 = 1*
Distributed load area over pipe at depth H (ft^2)	A_{LL} =	517.4	See table below
Total applied surface wheel load (lb)	P_{LW} =	48,000	Based on critical loading configuration (see table below)
H20 live load transferred to pipe at depth H (psi)	w_{LH} =	0.6	$w_L = (P\ I_f)/(144\ A_{LL})$

Critical Loading Configurations for H20 loads (per AASHTO)

Condition	H, ft	P, lbs	A_{LL}, ft^2
1	H < 1.33	16,000	(0.83 + 1.75H)(1.67 + 1.75H)
2	1.33 ≤ H < 4.10	32,000	(0.83 + 1.75)(5.67 + 1.75H)
3	4.10 ≤ H	48,000	(4.83 + 1.75H)(5.67 + 1.75H)

Wall Thickness Design

Partially Deteriorated Gravity Pipe Condition, Hydralic Loading

Ovality reduction factor (dimensionless) — C = 0.84

$$C = \left(\frac{1 - q/100}{1 + q/100}\right)^2$$

External hydrostatic pressure from groundwater (psi) — P_w = 2.53

$P_w = \gamma_w(H_w + D/12)/144$

Minimum thickness required, hydrostatic buckling — t_1 = 0.14 in = 3.67 mm

$$t_1 = \frac{D}{\left(\frac{2 \cdot K \cdot E_L \cdot C}{(1-v^2) \cdot N \cdot (P_w + P_v)}\right)^{1/3} + 1}$$

ASTM F1216, Equation X1.1

Minimum thickness required, ovality check — t_2 = 0.08 in = 2.09 mm; SDR_2 = 121

$$1.5 \cdot \frac{q}{100} \cdot \left(1 + \frac{q}{100}\right) \cdot SDR^2 - 0.5 \cdot \left(1 + \frac{q}{100}\right) \cdot SDR - \frac{\sigma_L}{P \cdot N} = 0$$

ASTM F1216, Equation X1.2

If P_w = 0, default SDR = 100

Fully Deteriorated Gravity Pipe Condition

Total live load transferred to pipe at depth H (psi) =	W_s =	0.64	From live load calculations
Water buoyancy factor (dimensionless)	R_w =	0.84	$R_w = 1 - 0.33(H_w/H)$ (min. value = 0.67) **Note: If H_w<0, use H_w = 0**
Total external pressure on pipe (psi)	q_t =	10.13	$q_t = 0.433H_w + \delta_s HR_w/144 + W_s$ **Note: If H_w<0, use H_w = 0**
Coefficient of elastic support (in-lb)	B' =	0.304	$B' = 1/(1+4e^{-0.065H})$

Minimum thickness required — t_3 = 0.20 in = 5.14 mm

$$t = \left[\frac{(q_t \cdot N)^2 \cdot D^3 \cdot 12}{32 \cdot R_w \cdot B' \cdot M_{sn} \cdot E_L \cdot C}\right]^{1/3}$$

ASTM F1216, Equation X1.3

Minimum thickness required, pipe stiffness — t_4 = 0.16 in = 4.18 mm

$t = D/(E/0.093 \cdot 12)^{1/3}$ ASTM F1216, Equation X1.4

CIPP Wall Thickness Design Summary

Host pipe condition		Fully Deteriorated	
CIPP end use application		Gravity Flow	
CIPP outside diameter (host pipe inside diameter)	D =	10.00	in
Minimum CIPP thickness calculated	t_{calc} =	0.20	in
	=	5.14	mm
Nominal CIPP thickness to be supplied	t_{CIPP} =	**6.0**	mm

Greatest value calculated from ASTM F1216 Equations X1.1, X1.2, X1.3 and X1.4

May 15, 2019

PAMAR ENTERPRISES

Michigan Office
31604 Pamar Court
New Haven, MI 48048
Office 586-749-8593
Cell 810-217-3035

Trenchless Technologies

Cured-In-Place Pipe (CIPP) Wall Thickness Design, H20 Loading

Project: Birmingham 2025-2026 Sewer Rehabilitation Program
Location: 12" less than 9' Deep
Owner: City of Birmingham
Line Segment(s):

Design Assumptions:

Variable Inputs for Wall Thickness Determination

Condition of host pipe		FD	PD = partially deteriorated, FD = fully deteriorated
Inside diameter of host pipe (in)	D =	12	
Depth of cover (ft)	H =	9.0	Ground surface to top of pipe
Height of groundwater (ft)	H_w =	4.0	Water table to top of pipe
Ovality of host pipe (%)	q =	2.0	Default value is 2%; range = 0%-10%
Constrained soil modulus of native soil in the pipe zone (psi)	M_{sn} =	700	See table below for recommended values
Flexural modulus of Elasticity of CIPP, initial (psi)	E =	250,000	Minimum value is 250,000 psi per ASTM F1216
Long-term retention of mechanical properties (%)		50%	Default value is 50%
Flexural modulus of elasticity of CIPP, long-term (psi)	E_L =	125,000	Determined from long-term retention %
Design safety factor	N =	2	Default value is 2.0
Unit weight of soil (pcf)	δ_s =	120	
Unit weight of water (pcf)	δ_w =	62.4	
Poisson's ratio of CIPP	v =	0.30	Average value for CIPP per ASTM F1216
Flexural strength of CIPP, initial (psi)	σ_I =	4,500	Minimum value is 4,500 psi per ASTM F1216
Flexural strength of CIPP, long-term (psi)	σ_L =	2,250	Determined from long-term retention %
Enhancement factor (dimensionless)	K =	7.0	Minimum value recommended per ASTM F1216

H20 Calculations (Highway Loads)

Impact factor for traffic load (dimensionless)	I_f =	1.0	*Depth <=1 = 1.3, <=2 = 1.2, <=3 = 1.1, >=3 = 1*
Distributed load area over pipe at depth H (ft^2)	A_{LL} =	440.8	See table below
Total applied surface wheel load (lb)	P_{LW} =	48,000	Based on critical loading configuration (see table below)
H20 live load transferred to pipe at depth H (psi)	w_{LH} =	0.8	$w_L = (P \cdot I_f)/(144 \cdot A_{LL})$

Critical Loading Configurations for H20 loads (per AASHTO)

Condition	H, ft	P, lbs	A_{LL}, ft^2
1	H < 1.33	16,000	(0.83 + 1.75H)(1.67 + 1.75H)
2	1.33 ≤ H < 4.10	32,000	(0.83 + 1.75)(5.67 + 1.75H)
3	4.10 ≤ H	48,000	(4.83 + 1.75H)(5.67 + 1.75H)

Wall Thickness Design

Partially Deteriorated Gravity Pipe Condition, Hydralic Loading

Ovality reduction factor (dimensionless) — C = 0.84

$$C = \left(\frac{1 - q/100}{[1 + q/100]^2}\right)^3$$

External hydrostatic pressure from groundwater (psi) — P_w = 2.17

$P_w = \gamma_w (H_w + D/12)/144$

Minimum thickness required, hydrostatic buckling — t_1 = 0.16 in = 4.18 mm

$$t_1 = \frac{D}{\left(\left[\frac{2 \cdot K \cdot E_L \cdot C}{(1 - v^2) \cdot N \cdot (P_w + P_v)}\right]^{1/3} + 1\right)}$$ ASTM F1216, Equation X1.1

Minimum thickness required, ovality check — t_2 = 0.09 in = 2.33 mm; SDR_2 = 131

$$1.5 \cdot \frac{q}{100} \cdot \left(1 + \frac{q}{100}\right) \cdot SDR^2 - 0.5 \cdot \left(1 + \frac{q}{100}\right) \cdot SDR - \frac{\sigma_L}{P \cdot N} = 0$$ ASTM F1216, Equation X1.2

If P_w = 0, default SDR = 100

Fully Deteriorated Gravity Pipe Condition

Total live load transferred to pipe at depth H (psi) =	W_s =	0.76	From live load calculations
Water buoyancy factor (dimensionless)	R_w =	0.85	$R_w = 1 - 0.33(H_w/H)$ (min. value = 0.67) — **Note:** If H_w<0, use H_w = 0
Total external pressure on pipe (psi)	q_t =	9.32	$q_t = 0.433H_w + \delta_s H R_w/144 + W_s$ — **Note:** If H_w<0, use H_w = 0
Coefficient of elastic support (in-lb)	B' =	0.293	$B' = 1/(1+4e^{-0.065H})$

Minimum thickness required — t_3 = 0.23 in = 5.87 mm

$$t = \left[\frac{(q_t \cdot N)^2 \cdot D^3 \cdot 12}{32 \cdot R_w \cdot B' \cdot M_{sn} \cdot E_L \cdot C}\right]^{1/3}$$ ASTM F1216, Equation X1.3

Minimum thickness required, pipe stiffness — t_4 = 0.20 in = 5.02 mm

$t = D/(E/0.093\,12)^{1/3}$ ASTM F1216, Equation X1.4

CIPP Wall Thickness Design Summary

Host pipe condition		Fully Deteriorated Gravity Flow	
CIPP end use application			
CIPP outside diameter (host pipe inside diameter)	D =	12.00	in
Minimum CIPP thickness calculated	t_{calc} =	0.23	in
	=	5.87	mm
Nominal CIPP thickness to be supplied	t_{CIPP} =	**6.0**	mm

Greatest value calculated from ASTM F1216 Equations X1.1, X1.2, X1.3 and X1.4

May 15, 2019

PAMAR ENTERPRISES

Michigan Office
31604 Pamar Court
New Haven, MI 48048
Office 586-749-8593
Cell 810-217-3035

Trenchless Technologies

Cured-In-Place Pipe (CIPP) Wall Thickness Design, H20 Loading

Project: Birmingham 2025-2026 Sewer Rehabilitation Program
Location: 12" over 9.5' Deep
Owner: City of Birmingham
Line Segment(s):

Design Assumptions:

Variable Inputs for Wall Thickness Determination

Condition of host pipe		FD	PD = partially deteriorated, FD = fully deteriorated
Inside diameter of host pipe (in)	D =	12	
Depth of cover (ft)	H =	9.5	Ground surface to top of pipe
Height of groundwater (ft)	H_w =	4.5	Water table to top of pipe
Ovality of host pipe (%)	q =	2.0	Default value is 2%; range = 0%-10%
Constrained soil modulus of native soil in the pipe zone (psi)	M_{sn} =	700	See table below for recommended values
Flexural modulus of Elasticity of CIPP, initial (psi)	E =	250,000	Minimum value is 250,000 psi per ASTM F1216
Long-term retention of mechanical properties (%)		50%	Default value is 50%
Flexural modulus of elasticity of CIPP, long-term (psi)	E_L =	125,000	Determined from long-term retention %
Design safety factor	N =	2	Default value is 2.0
Unit weight of soil (pcf)	δ_s =	120	
Unit weight of water (pcf)	δ_w =	62.4	
Poisson's ratio of CIPP	ν =	0.30	Average value for CIPP per ASTM F1216
Flexural strength of CIPP, initial (psi)	σ_I =	4,500	Minimum value is 4,500 psi per ASTM F1216
Flexural strength of CIPP, long-term (psi)	σ_L =	2,250	Determined from long-term retention %
Enhancement factor (dimensionless)	K =	7.0	Minimum value recommended per ASTM F1216

H20 Calculations (Highway Loads)

Impact factor for traffic load (dimensionless)	I_f =	1.0	*Depth <=1 = 1.3, <=2 = 1.2, <=3 = 1.1, >=3 = 1*
Distributed load area over pipe at depth H (ft^2)	A_{LL} =	478.3	See table below
Total applied surface wheel load (lb)	P_{LW} =	48,000	Based on critical loading configuration (see table below)
H20 live load transferred to pipe at depth H (psi)	w_{LH} =	0.7	$w_L = (P \cdot I_f)/(144 \cdot A_{LL})$

Critical Loading Configurations for H20 loads (per AASHTO)

Condition	H, ft	P, lbs	A_{LL}, ft^2
1	H < 1.33	16,000	(0.83 + 1.75H)(1.67 + 1.75H)
2	1.33 ≤ H < 4.10	32,000	(0.83 + 1.75)(5.67 + 1.75H)
3	4.10 ≤ H	48,000	(4.83 + 1.75H)(5.67 + 1.75H)

Wall Thickness Design

Partially Deteriorated Gravity Pipe Condition, Hydraulic Loading

Ovality reduction factor (dimensionless): C = 0.84

$$C = \left(\frac{1 - q/100}{\left[1 + q/100\right]^2}\right)^3$$

External hydrostatic pressure from groundwater (psi): P_w = 2.38

$P_w = \gamma_w (H_w + D/12)/144$

Minimum thickness required, hydrostatic buckling: t_1 = 0.17 in = 4.32 mm

$$t_1 = \frac{D}{\left(\left[\frac{2 \cdot K \cdot E_L \cdot C}{(1-\nu^2) \cdot N \cdot (P_w + P_v)}\right]^{1/3} + 1\right)}$$ ASTM F1216, Equation X1.1

Minimum thickness required, ovality check: t_2 = 0.10 in = 2.44 mm

$$1.5 \cdot \frac{q}{100} \cdot \left(1 + \frac{q}{100}\right) \cdot SDR^2 - 0.5 \cdot \left(1 + \frac{q}{100}\right) \cdot SDR - \frac{\sigma_L}{P \cdot N} = 0$$ ASTM F1216, Equation X1.2

SDR_2 = 125 — If $P_w = 0$, default SDR = 100

Fully Deteriorated Gravity Pipe Condition

Total live load transferred to pipe at depth H (psi) =	W_s =	0.70	From live load calculations
Water buoyancy factor (dimensionless)	R_w =	0.84	$R_w = 1 - 0.33(H_w/H)$ (min. value = 0.67)
Total external pressure on pipe (psi)	q_1 =	9.76	$q_1 = 0.433H_w + \delta_s H R_w/144 + W_s$
Coefficient of elastic support (in-lb)	B' =	0.299	$B' = 1/(1+4e^{-0.065H})$

Note: If H_w<0, use H_w = 0

Note: If H_w<0, use H_w = 0

Minimum thickness required: t_3 = 0.24 in = 6.03 mm

$$t = \left[\frac{(q_1 \cdot N)^2 \cdot D^3 \cdot 12}{32 \cdot R_w \cdot B' \cdot M_{sn} \cdot E_L \cdot C}\right]^{1/3}$$ ASTM F1216, Equation X1.3

Minimum thickness required, pipe stiffness: t_4 = 0.20 in = 5.02 mm

$t = D/(E/0.093 \cdot 12)^{1/3}$ ASTM F1216, Equation X1.4

CIPP Wall Thickness Design Summary

Host pipe condition		Fully Deteriorated	
CIPP end use application		Gravity Flow	
CIPP outside diameter (host pipe inside diameter)	D =	12.00	in
Minimum CIPP thickness calculated	t_{calc} =	0.24	in
	=	6.03	mm
Nominal CIPP thickness to be supplied	t_{CIPP} =	**7.5**	mm

Greatest value calculated from ASTM F1216 Equations X1.1, X1.2, X1.3 and X1.4

May 15, 2019

PAMAR ENTERPRISES

Michigan Office
31604 Pamar Court
New Haven, MI 48048
Office 586-749-8593
Cell 810-217-3035

Trenchless Technologies

Cured-In-Place Pipe (CIPP) Wall Thickness Design, H20 Loading

Project: Birmingham 2025-2026 Sewer Rehabilitation Program
Location: 15" less than 9' Deep
Owner: City of Birmingham
Line Segment(s):

Design Assumptions:

Variable inputs for Wall Thickness Determination

Condition of host pipe		FD	PD = partially deteriorated, FD = fully deteriorated
Inside diameter of host pipe (in)	D =	15	
Depth of cover (ft)	H =	9.0	Ground surface to top of pipe
Height of groundwater (ft)	H_w =	4.0	Water table to top of pipe
Ovality of host pipe (%)	q =	2.0	Default value is 2%; range = 0%-10%
Constrained soil modulus of native soil in the pipe zone (psi)	M_{sn} =	700	See table below for recommended values
Flexural modulus of Elasticity of CIPP, initial (psi)	E =	250,000	Minimum value is 250,000 psi per ASTM F1216
Long-term retention of mechanical properties (%)		50%	Default value is 50%
Flexural modulus of elasticity of CIPP, long-term (psi)	E_L =	125,000	Determined from long-term retention %
Design safety factor	N =	2	Default value is 2.0
Unit weight of soil (pcf)	δ_s =	120	
Unit weight of water (pcf)	δ_w =	62.4	
Poisson's ratio of CIPP	v =	0.30	Average value for CIPP per ASTM F1216
Flexural strength of CIPP, initial (psi)	σ_i =	4,500	Minimum value is 4,500 psi per ASTM F1216
Flexural strength of CIPP, long-term (psi)	σ_L =	2,250	Determined from long-term retention %
Enhancement factor (dimensionless)	K =	7.0	Minimum value recommended per ASTM F1216

H20 Calculations (Highway Loads)

Impact factor for traffic load (dimensionless)	I_f =	1.0	*Depth <=1 = 1.3, <=2 = 1.2, <=3 = 1.1, >=3 = 1*
Distributed load area over pipe at depth H (ft^2)	A_{LL} =	440.8	See table below
Total applied surface wheel load (lb)	P_{LW} =	48,000	Based on critical loading configuration (see table below)
H20 live load transferred to pipe at depth H (psi)	w_{LH} =	0.8	$w_L = (P \cdot I_f)/(144 \cdot A_{LL})$

Critical Loading Configurations for H20 loads (per AASHTO)

Condition	H, ft	P, lbs	A_{LL}, ft^2
1	H < 1.33	16,000	(0.83 + 1.75H)(1.67 + 1.75H)
2	1.33 ≤ H < 4.10	32,000	(0.83 + 1.75)(5.67 + 1.75H)
3	4.10 ≤ H	48,000	(4.83 + 1.75H)(5.67 + 1.75H)

Wall Thickness Design

Partially Deteriorated Gravity Pipe Condition, Hydralic Loading

Ovality reduction factor (dimensionless) — C = 0.84

$$C = \left(\frac{1 - q/100}{\left[1 + q/100\right]^2}\right)^3$$

External hydrostatic pressure from groundwater (psi) — P_w = 2.28

$P_w = \gamma_w (H_w + D/12)/144$

Minimum thickness required, hydrostatic buckling — t_1 = 0.21 in = 5.31 mm

$$t_1 = \frac{D}{\left(\left[\frac{2 \cdot K \cdot E_L \cdot C}{(1 - v^2) \cdot N \cdot (P_w + P_v)}\right]^{1/3} + 1\right)}$$

ASTM F1216, Equation X1.1

Minimum thickness required, ovality check — t_2 = 0.12 in = 2.98 mm; SDR_2 = 128

$$1.5 \cdot \frac{q}{100} \cdot \left(1 + \frac{q}{100}\right) \cdot SDR^2 - 0.5 \cdot \left(1 + \frac{q}{100}\right) \cdot SDR - \frac{\sigma_L}{P \cdot N} = 0$$

ASTM F1216, Equation X1.2

If $P_w = 0$, default SDR = 100

Fully Deteriorated Gravity Pipe Condition

Total live load transferred to pipe at depth H (psi) =	W_s =	0.76	From live load calculations
Water buoyancy factor (dimensionless)	R_w =	0.85	$R_w = 1 - 0.33(H_w/H)$ (min. value = 0.67) **Note: If H_w<0, use H_w = 0**
Total external pressure on pipe (psi)	q_i =	9.43	$q_i = 0.433H_w + \delta_s HR_w/144 + W_s$ **Note: If H_w<0, use H_w = 0**
Coefficient of elastic support (in-lb)	B' =	0.293	$B' = 1/(1+4e^{-0.065H})$

Minimum thickness required — t_3 = 0.29 in = 7.39 mm

$$t = \left[\frac{(q_i \cdot N)^2 \cdot D^3 \cdot 12}{32 \cdot R_w \cdot B' \cdot M_{sn} \cdot E_L \cdot C}\right]^{1/3}$$

ASTM F1216, Equation X1.3

Minimum thickness required, pipe stiffness — t_4 = 0.25 in = 6.27 mm

$t = D/(E/0.093 \cdot 12)^{1/3}$ ASTM F1216, Equation X1.4

CIPP Wall Thickness Design Summary

Host pipe condition		Fully Deteriorated	
CIPP end use application		Gravity Flow	
CIPP outside diameter (host pipe inside diameter)	D =	15.00	in
Minimum CIPP thickness calculated	t_{calc} =	0.29	in
	=	7.39	mm
Nominal CIPP thickness to be supplied	t_{CIPP} =	**7.5**	mm

Greatest value calculated from ASTM F1216 Equations X1.1, X1.2, X1.3 and X1.4

May 15, 2019

PAMAR ENTERPRISES

Michigan Office
31604 Pamar Court
New Haven, MI 48048
Office 586-749-8593
Cell 810-217-3035

Trenchless Technologies

Cured-In-Place Pipe (CIPP) Wall Thickness Design, H20 Loading

Project: Birmingham 2025-2026 Sewer Rehabilitation Program
Location: 18" less than 9' Deep
Owner: City of Birmingham
Line Segment(s):

Design Assumptions:

Variable inputs for Wall Thickness Determination

Condition of host pipe		FD	PD = partially deteriorated, FD = fully deteriorated
Inside diameter of host pipe (in)	D =	18	
Depth of cover (ft)	H =	9.0	Ground surface to top of pipe
Height of groundwater (ft)	H_w =	4.0	Water table to top of pipe
Ovality of host pipe (%)	q =	2.0	Default value is 2%; range = 0%-10%
Constrained soil modulus of native soil in the pipe zone (psi)	M_{sn} =	700	See table below for recommended values
Flexural modulus of Elasticity of CIPP, initial (psi)	E =	250,000	Minimum value is 250,000 psi per ASTM F1216
Long-term retention of mechanical properties (%)		50%	Default value is 50%
Flexural modulus of elasticity of CIPP, long-term (psi)	E_L =	125,000	Determined from long-term retention %
Design safety factor	N =	2	Default value is 2.0
Unit weight of soil (pcf)	δ_s =	120	
Unit weight of water (pcf)	δ_w =	62.4	
Poisson's ratio of CIPP	ν =	0.30	Average value for CIPP per ASTM F1216
Flexural strength of CIPP, initial (psi)	σ_I =	4,500	Minimum value is 4,500 psi per ASTM F1216
Flexural strength of CIPP, long-term (psi)	σ_L =	2,250	Determined from long-term retention %
Enhancement factor (dimensionless)	K =	7.0	Minimum value recommended per ASTM F1216

H20 Calculations (Highway Loads)

Impact factor for traffic load (dimensionless)	I_f =	1.0	*Depth <=1 = 1.3, <=2 = 1.2, <=3 = 1.1, >=3 = 1*
Distributed load area over pipe at depth H (ft^2)	A_{LL} =	440.8	See table below
Total applied surface wheel load (lb)	P_{LW} =	48,000	Based on critical loading configuration (see table below)
H20 live load transferred to pipe at depth H (psi)	w_{LH} =	0.8	$w_L = (P\ I_f)/(144\ A_{LL})$

Critical Loading Configurations for H20 loads (per AASHTO)

Condition	H, ft	P, lbs	A_{LL}, ft^2
1	H < 1.33	16,000	(0.83 + 1.75H)(1.67 + 1.75H)
2	1.33 ≤ H < 4.10	32,000	(0.83 + 1.75)(5.67 + 1.75H)
3	4.10 ≤ H	48,000	(4.83 + 1.75H)(5.67 + 1.75H)

Wall Thickness Design

Partially Deteriorated Gravity Pipe Condition, Hydralic Loading

Ovality reduction factor (dimensionless): C = 0.84

$$C = \left(\frac{1 - q/100}{1 + q/100}\right)^2$$

External hydrostatic pressure from groundwater (psi): P_w = 2.38

$P_w = \gamma_w (H_w + D/12)/144$

Minimum thickness required, hydrostatic buckling: t_1 = 0.25 in = 6.48 mm

$$t_1 = \frac{D}{\left(\frac{2 \cdot K \cdot E_L \cdot C}{(1-\nu^2) \cdot N \cdot (P_w + P_v)}\right)^{1/3} + 1}$$

ASTM F1216, Equation X1.1

Minimum thickness required, ovality check: t_2 = 0.14 14 in = 3.66 mm; SDR_2 = 125

$$1.5 \cdot \frac{q}{100} \cdot \left(1 + \frac{q}{100}\right) \cdot SDR^2 - 0.5 \cdot \left(1 + \frac{q}{100}\right) \cdot SDR - \frac{\sigma_L}{P \cdot N} = 0$$

ASTM F1216, Equation X1.2

If P_w = 0, default SDR = 100

Fully Deteriorated Gravity Pipe Condition

Total live load transferred to pipe at depth H (psi) =	W_s =	0.76	From live load calculations
Water buoyancy factor (dimensionless)	R_w =	0.85	$R_w = 1 - 0.33(H_w/H)$ (min. value = 0.67)
Total external pressure on pipe (psi)	q_t =	9.54	$q_t = 0.433H_w + \delta_s HR_w/144 + W_s$
Coefficient of elastic support (in-lb)	B' =	0.293	$B' = 1/(1+4e^{-0.065H})$

Note: If H_w<0, use H_w = 0

Note: If H_w<0, use H_w = 0

Minimum thickness required: t_3 = 0.35 in = 8.94 mm

$$t = \left[\frac{(q_t \cdot N)^2 \cdot D^3 \cdot 12}{32 \cdot R_w \cdot B' \cdot M_{sn} \cdot E_L \cdot C}\right]^{1/3}$$

ASTM F1216, Equation X1.3

Minimum thickness required, pipe stiffness: t_4 = 0.30 in = 7.53 mm

$t = D/(E/0.093/12)^{1/3}$ ASTM F1216, Equation X1.4

CIPP Wall Thickness Design Summary

Host pipe condition		Fully Deteriorated	
CIPP end use application		Gravity Flow	
CIPP outside diameter (host pipe inside diameter)	D =	18.00	In
Minimum CIPP thickness calculated	t_{calc} =	0.35	in
	=	8.94	mm
Nominal CIPP thickness to be supplied	t_{CIPP} =	**9.0**	mm

Greatest value calculated from ASTM F1216 Equations X1.1, X1.2, X1.3 and X1.4

May 15, 2019

PAMAR ENTERPRISES

Michigan Office
31604 Pamar Court
New Haven, MI 48048
Office 586-749-8593
Cell 810-217-3035

Trenchless Technologies

Cured-In-Place Pipe (CIPP) Wall Thickness Design, H20 Loading

Project: Birmingham 2025-2026 Sewer Rehabilitation Program
Location: 18" 9-20' Deep
Owner: City of Birmingham
Line Segment(s):

Design Assumptions:

Variable Inputs for Wall Thickness Determination

Condition of host pipe		FD	PD = partially deteriorated, FD = fully deteriorated
Inside diameter of host pipe (in)	D =	18	
Depth of cover (ft)	H =	20.0	Ground surface to top of pipe
Height of groundwater (ft)	H_w =	15.0	Water table to top of pipe
Ovality of host pipe (%)	q =	2.0	Default value is 2%; range = 0%-10%
Constrained soil modulus of native soil in the pipe zone (psi)	M_{sn} =	700	See table below for recommended values
Flexural modulus of Elasticity of CIPP, initial (psi)	E =	250,000	Minimum value is 250,000 psi per ASTM F1216
Long-term retention of mechanical properties (%)		50%	Default value is 50%
Flexural modulus of elasticity of CIPP, long-term (psi)	E_L =	125,000	Determined from long-term retention %
Design safety factor	N =	2	Default value is 2.0
Unit weight of soil (pcf)	δ_s =	120	
Unit weight of water (pcf)	δ_w =	62.4	
Poisson's ratio of CIPP	ν =	0.30	Average value for CIPP per ASTM F1216
Flexural strength of CIPP, initial (psi)	σ_I =	4,500	Minimum value is 4,500 psi per ASTM F1216
Flexural strength of CIPP, long-term (psi)	σ_L =	2,250	Determined from long-term retention %
Enhancement factor (dimensionless)	K =	7.0	Minimum value recommended per ASTM F1216

H20 Calculations (Highway Loads)

Impact factor for traffic load (dimensionless)	I_f =	1.0	*Depth <=1 = 1.3, <=2 = 1.2, <=3 = 1.1, >=3 = 1*
Distributed load area over pipe at depth H (ft^2)	A_{LL} =	1619.9	See table below
Total applied surface wheel load (lb)	P_{LW} =	48,000	Based on critical loading configuration (see table below)
H20 live load transferred to pipe at depth H (psi)	w_{LH} =	0.2	$w_L = (P \cdot I_f)/(144 \cdot A_{LL})$

Critical Loading Configurations for H20 loads (per AASHTO)

Condition	H, ft	P, lbs	A_{LL}, ft^2
1	H < 1.33	16,000	(0.83 + 1.75H)(1.67 + 1.75H)
2	1.33 ≤ H < 4.10	32,000	(0.83 + 1.75)(5.67 + 1.75H)
3	4.10 ≤ H	48,000	(4.83 + 1.75H)(5.67 + 1.75H)

Wall Thickness Design

Partially Deteriorated Gravity Pipe Condition, Hydralic Loading

Ovality reduction factor (dimensionless)	C =	0.84		$C = \left(\frac{1 - q/100}{[1 + q/100]^2}\right)^3$
External hydrostatic pressure from groundwater (psi)	P_w =	7.15		$P_w = \gamma_w (H_w + D/12)/144$
Minimum thickness required, hydrostatic buckling	t_1 =	0.37	in	$t_1 = \frac{D}{\left(\left[\frac{2 \cdot K \cdot E_L \cdot C}{(1-\nu^2) \cdot N \cdot (P_w + P_I)}\right]^{1/3} + 1\right)}$ ASTM F1216, Equation X1.1
	=	9.28	mm	
Minimum thickness required, ovality check	t_2 =	0.25 25	in	$1.5 \cdot \frac{q}{100} \cdot \left(1 + \frac{q}{100}\right) \cdot SDR^2 - 0.5 \cdot \left(1 + \frac{q}{100}\right) \cdot SDR - \frac{\sigma_L}{P \cdot N} = 0$ ASTM F1216, Equation X1.2
	=	6.29	mm	
	SDR_2 =	73		If P_w = 0, default SDR = 100

Fully Deteriorated Gravity Pipe Condition

Total live load transferred to pipe at depth H (psi) =	W_s =	0.21		From live load calculations
Water buoyancy factor (dimensionless)	R_w =	0.75		$R_w = 1 - 0.33(H_w/H)$ (min value = 0.67) **Note: If H_w<0, use H_w = 0**
Total external pressure on pipe (psi)	q_t =	19.90		$q_t = 0.433H_w + \delta_s HR_w/144 + W_s$ **Note: If H_w<0, use H_w = 0**
Coefficient of elastic support (in-lb)	B' =	0.434		$B' = 1/(1+4e^{-0.065H})$
Minimum thickness required	t_3 =	0.53	in	$t = \left[\frac{(q_t \cdot N)^2 \cdot D^3 \cdot 12}{32 \cdot R_w \cdot B' \cdot M_{sn} \cdot E_L \cdot C}\right]^{1/3}$ ASTM F1216, Equation X1.3
	=	13.35	mm	
Minimum thickness required, pipe stiffness	t_4 =	0.30	in	
	=	7.53	mm	$t = D/(E/0.093 \cdot 12)^{1/3}$ ASTM F1216, Equation X1.4

CIPP Wall Thickness Design Summary

Host pipe condition		Fully Deteriorated Gravity Flow	
CIPP end use application			
CIPP outside diameter (host pipe inside diameter)	D =	18.00	in
Minimum CIPP thickness calculated	t_{calc} =	0.53	in
	=	13.35	mm
Nominal CIPP thickness to be supplied	t_{CIPP} =	**13.5**	mm

Greatest value calculated from ASTM F1216 Equations X1.1, X1.2, X1.3 and X1.4

May 15, 2019

PAMAR ENTERPRISES

Michigan Office
31604 Pamar Court
New Haven, MI 48048
Office 586-749-8593
Cell 810-217-3035

Trenchless Technologies

Cured-In-Place Pipe (CIPP) Wall Thickness Design, H20 Loading

Project: Birmingham 2025-2026 Sewer Rehabilitation Program
Location: 21" 11' Deep
Owner: City of Birmingham
Line Segment(s):

Design Assumptions:

Variable Inputs for Wall Thickness Determination

Condition of host pipe		FD	PD = partially deteriorated, FD = fully deteriorated
Inside diameter of host pipe (in)	D =	21	
Depth of cover (ft)	H =	11.0	Ground surface to top of pipe
Height of groundwater (ft)	H_w =	6.0	Water table to top of pipe
Ovality of host pipe (%)	q =	2.0	Default value is 2%; range = 0%-10%
Constrained soil modulus of native soil in the pipe zone (psi)	M_{sn} =	700	See table below for recommended values
Flexural modulus of Elasticity of CIPP, initial (psi)	E =	250,000	Minimum value is 250,000 psi per ASTM F1216
Long-term retention of mechanical properties (%)		50%	Default value is 50%
Flexural modulus of elasticity of CIPP, long-term (psi)	E_L =	125,000	Determined from long-term retention %
Design safety factor	N =	2	Default value is 2.0
Unit weight of soil (pcf)	δ_s =	120	
Unit weight of water (pcf)	δ_w =	62.4	
Poisson's ratio of CIPP	v =	0.30	Average value for CIPP per ASTM F1216
Flexural strength of CIPP, initial (psi)	σ_I =	4,500	Minimum value is 4,500 psi per ASTM F1216
Flexural strength of CIPP, long-term (psi)	σ_L =	2,250	Determined from long-term retention %
Enhancement factor (dimensionless)	K =	7.0	Minimum value recommended per ASTM F1216

H20 Calculations (Highway Loads)

Impact factor for traffic load (dimensionless)	I_f =	1.0	*Depth <=1 = 1.3, <=2 = 1.2, <=3 = 1.1, >=3 = 1*
Distributed load area over pipe at depth H (ft^2)	A_{LL} =	600.1	See table below
Total applied surface wheel load (lb)	P_{LW} =	48,000	Based on critical loading configuration (see table below)
H20 live load transferred to pipe at depth H (psi)	w_{LH} =	0.6	$w_L = (P \cdot I_f)/(144\ A_{LL})$

Critical Loading Configurations for H20 loads (per AASHTO)

Condition	H, ft	P, lbs	A_{LL}, ft^2
1	H < 1.33	16,000	(0.83 + 1.75H)(1.67 + 1.75H)
2	1.33 ≤ H < 4.10	32,000	(0.83 + 1.75)(5.67 + 1.75H)
3	4.10 ≤ H	48,000	(4.83 + 1.75H)(5.67 + 1.75H)

Wall Thickness Design

Partially Deteriorated Gravity Pipe Condition, Hydralic Loading

Ovality reduction factor (dimensionless) C = 0.84

$$C = \left(\frac{1 - q/100}{\left[1 + q/100\right]^2}\right)^3$$

External hydrostatic pressure from groundwater (psi) P_w = 3.36

$P_w = \gamma_w (H_w + D/12)/144$

Minimum thickness required, hydrostatic buckling t_1 = 0.33 in = 8.46 mm

$$t_1 = \frac{D}{\left(\left[\frac{2 \cdot K \cdot E_L \cdot C}{(1-v^2) \cdot N \cdot (P_w + P_v)}\right]^{1/3} + 1\right)}$$

ASTM F1216, Equation X1.1

Minimum thickness required, ovality check t_2 = 0.20 in = 5.06 mm, SDR_2 = 105

$$1.5 \cdot \frac{q}{100} \cdot \left(1 + \frac{q}{100}\right) \cdot SDR^2 - 0.5 \cdot \left(1 + \frac{q}{100}\right) \cdot SDR - \frac{\sigma_L}{P \cdot N} = 0$$

ASTM F1216, Equation X1.2

If $P_w = 0$, default SDR = 100

Fully Deteriorated Gravity Pipe Condition

Total live load transferred to pipe at depth H (psi) = W_s = 0.56 From live load calculations

Water buoyancy factor (dimensionless) R_w = 0.82 $R_w = 1 - 0.33(H_w/H)$ (min. value = 0.67) **Note: If H_w<0, use H_w = 0**

Total external pressure on pipe (psi) q_t = 11.43 $q_t = 0.433H_w + \delta_s H R_w/144 + W_s$ **Note: If H_w<0, use H_w = 0**

Coefficient of elastic support (in-lb) B' = 0.316 $B' = 1/(1+4e^{-0.065H})$

Minimum thickness required t_3 = 0.46 in = 11.62 mm

$$t = \left[\frac{(q_t \cdot N)^2 \cdot D^3 \cdot 12}{32 \cdot R_w \cdot B' \cdot M_{sn} \cdot E_L \cdot C}\right]^{1/3}$$

ASTM F1216, Equation X1.3

Minimum thickness required, pipe stiffness t_4 = 0.35 in = 8.78 mm

$t = D/(E/0.093 \cdot 12)^{1/3}$ ASTM F1216, Equation X1.4

CIPP Wall Thickness Design Summary

Host pipe condition		Fully Deteriorated	
CIPP end use application		Gravity Flow	
CIPP outside diameter (host pipe inside diameter)	D =	21.00	in
Minimum CIPP thickness calculated	t_{calc} =	0.46	in
	=	11.62	mm
Nominal CIPP thickness to be supplied	t_{CIPP} =	**12.0**	mm

Greatest value calculated from ASTM F1216 Equations X1.1, X1.2, X1.3 and X1.4

May 15, 2019

PAMAR ENTERPRISES

Michigan Office
31604 Pamar Court
New Haven, MI 48048
Office 586-749-8593
Cell 810-217-3035

Trenchless Technologies

Cured-In-Place Pipe (CIPP) Wall Thickness Design, H20 Loading

Project: Birmingham 2025-2026 Sewer Rehabilitation Program
Location: 24" 6' Deep
Owner: City of Birmingham
Line Segment(s):

Design Assumptions:

Variable Inputs for Wall Thickness Determination

Condition of host pipe		FD	PD = partially deteriorated, FD = fully deteriorated
Inside diameter of host pipe (in)	D =	24	
Depth of cover (ft)	H =	6.0	Ground surface to top of pipe
Height of groundwater (ft)	H_w =	4.0	Water table to top of pipe
Ovality of host pipe (%)	q =	2.0	Default value is 2%; range = 0%-10%
Constrained soil modulus of native soil in the pipe zone (psi)	M_{sn} =	700	See table below for recommended values
Flexural modulus of Elasticity of CIPP, initial (psi)	E =	250,000	Minimum value is 250,000 psi per ASTM F1216
Long-term retention of mechanical properties (%)		50%	Default value is 50%
Flexural modulus of elasticity of CIPP, long-term (psi)	E_L =	125,000	Determined from long-term retention %
Design safety factor	N =	2	Default value is 2.0
Unit weight of soil (pcf)	δ_s =	120	
Unit weight of water (pcf)	δ_w =	62.4	
Poisson's ratio of CIPP	v =	0.30	Average value for CIPP per ASTM F1216
Flexural strength of CIPP, initial (psi)	σ_I =	4,500	Minimum value is 4,500 psi per ASTM F1216
Flexural strength of CIPP, long-term (psi)	σ_L =	2,250	Determined from long-term retention %
Enhancement factor (dimensionless)	K =	7.0	Minimum value recommended per ASTM F1216

H20 Calculations (Highway Loads)

Impact factor for traffic load (dimensionless)	I_f =	1.0	*Depth <=1 = 1.3, <=2 = 1.2, <=3 = 1.1, >=3 = 1*
Distributed load area over pipe at depth H (ft^2)	A_{LL} =	247.9	See table below
Total applied surface wheel load (lb)	P_{LW} =	48,000	Based on critical loading configuration (see table below)
H20 live load transferred to pipe at depth H (psi)	w_{LH} =	1.3	$w_L = (P\ I_f)/(144\ A_{LL})$

Critical Loading Configurations for H20 loads (per AASHTO)			
Condition	H, ft	P, lbs	A_{LL}, ft^2
1	H < 1.33	16,000	(0.83 + 1.75H)(1.67 + 1.75H)
2	1.33 ≤ H < 4.10	32,000	(0.83 + 1.75)(5.67 + 1.75H)
3	4.10 ≤ H	48,000	(4.83 + 1.75H)(5.67 + 1.75H)

Wall Thickness Design

Partially Deteriorated Gravity Pipe Condition, Hydralic Loading

Ovality reduction factor (dimensionless) — C = 0.84

$$C = \left(\frac{1-q/100}{[1+q/100]^2}\right)^3$$

External hydrostatic pressure from groundwater (psi) — P_w = 2.60

$P_w = \gamma_w (H_w + D/12)/144$

Minimum thickness required, hydrostatic buckling — t_1 = 0.35 in = 8.88 mm

$$t_1 = \frac{D}{\left(\left[\frac{2 \cdot K \cdot E_L \cdot C}{(1-v^2) \cdot N \cdot (P_w + P_v)}\right]^{1/3} + 1\right)}$$ ASTM F1216, Equation X1.1

Minimum thickness required, ovality check — t_2 = 0.20 in = 5.09 mm; SDR_2 = 120

$$1.5 \cdot \frac{q}{100} \cdot \left(1 + \frac{q}{100}\right) \cdot SDR^2 - 0.5 \cdot \left(1 + \frac{q}{100}\right) \cdot SDR - \frac{\sigma_L}{P \cdot N} = 0$$ ASTM F1216, Equation X1.2

If $P_w = 0$, default SDR = 100

Fully Deteriorated Gravity Pipe Condition

Total live load transferred to pipe at depth H (psi) =	W_s =	1.34	From live load calculations
Water buoyancy factor (dimensionless)	R_w =	0.78	$R_w = 1 - 0.33(H_w/H)$ (min value = 0.67)
Total external pressure on pipe (psi)	q_t =	7.84	$q_t = 0.433H_w + \delta_s H R_w/144 + W_s$
Coefficient of elastic support (in-lb)	B' =	0.259	$B' = 1/(1+4e^{-0.065H})$

Note: If H_w<0, use H_w = 0

Note: If H_w<0, use H_w = 0

Minimum thickness required — t_3 = 0.44 in = 11.23 mm

$$t = \left[\frac{(q_t \cdot N)^2 \cdot D^3 \cdot 12}{32 \cdot R_w \cdot B' \cdot M_{sn} \cdot E_L \cdot C}\right]^{1/3}$$ ASTM F1216, Equation X1.3

Minimum thickness required, pipe stiffness — t_4 = 0.40 in = 10.04 mm

$t = D/(E/0.093\ 12)^{1/3}$ ASTM F1216, Equation X1.4

CIPP Wall Thickness Design Summary

Host pipe condition		Fully Deteriorated	
CIPP end use application		Gravity Flow	
CIPP outside diameter (host pipe inside diameter)	D =	24.00	In
Minimum CIPP thickness calculated	t_{calc} =	0.44	In
	=	11.23	mm
Nominal CIPP thickness to be supplied	t_{CIPP} =	**12.0**	mm

Greatest value calculated from ASTM F1216 Equations X1.1, X1.2, X1.3 and X1.4

May 15, 2019

Pamar Enterprises Inc.

PRECISION. STRENGTH. EXPERTS.

31604 Pamar Court, New Haven, MI 48048 www.PamarEnterprises.com (586) 749-8593 Office / (586) 749-8839 Fax

Styrene Odor Control Plan

Executive Summary

Styrene-based resin systems properly used in cured-in-place pipe (CIPP) produce a safe and environmentally sound solution to the challenges in restoring the nations failing infrastructure. Styrene is naturally occurring in many foods such as cinnamon, coffee, and strawberries and several studies have shown that styrene exposure, within the established acceptable limits, poses no risk to health. However, because styrene odor can be detected at concentrations as low as 0.16 ppm or even lower, depending on one's ability to detect odors, styrene's odor can be a nuisance to those not accustomed to working around it. Therefore, steps can be taken to inform residents/homeowners of the CIPP installation and what to expect.

Styrene Odor Control Procedures

To minimize odor concerns during installation of CIPP, residents/homeowners should be informed of the CIPP installation schedule and what to expect. A sample notification letter is attached with an accompanying flyer explaining what CIPP involves, what odor they may experience and what they can do to help prevent or minimize the styrene odor.

The CIPP materials are delivered to the project site on a refrigerated truck. Prior to employees entering the truck to access the pipe material, a PID gas detector will be used to verify that the atmosphere is safe to enter.

PID readings will be taken periodically to monitor the styrene levels in the work area. If the PID detector readings indicate that the environment in or around the refrigerated truck, or other areas such as the area surrounding a manhole is outside the standards deemed safe by MIOSHA, then our crews will proceed to a safe area away from the affected area. The crew will then ventilate the area further to reduce the level of vapors to a safe level for the workers and the general public.

If a complaint is received from a business or resident during the installation procedure, our foreman will enter the affected building, with permission from the resident, and measure the level of styrene utilizing the PID gas detector. If the PID meter detects levels within the acceptable limits, then our foreman will work with the resident to try and reduce the odor by ensuring that sewer traps have been properly filled and effective ventilation has been employed to reduce the odors. If the PID meter detects levels which exceed acceptable thresholds, then our foreman (utilizing proper PPE) will immediately evacuate the residence, ensure that the sewer traps have been properly filled, employee further ventilation measures, and monitor styrene levels until a safe level has been achieved. Affected residents will be provided alternate accommodations until the building is safe to return.

Pamar Enterprises Inc.

PRECISION. STRENGTH. EXPERTS.

31604 Pamar Court, New Haven, MI 48048 www.PamarEnterprises.com (586) 749-8593 Office / (586) 749-8839 Fax

Date

Re: Project Description

Dear Property Owner/Tennant,

The ---------- (City/County/Twp) is performing a sewer repair project on (location) using Cured-In-Place Pipe (CIPP) technology. This method allows for a trenchless repair of the sewer pipes, minimizing disruptions to the community and reducing the overall construction time. The (City/County/Twp) has hired Pamar Enterprises, Inc. to perform the CIPP.

The project will commence on ---------- and will take approximately ----------.

There will be temporary disruptions which may include temporary road closures, noise, and restricted access to certain areas. We apologize in advance for any inconvenience this may cause and appreciate your understanding as we work to improve the sewer infrastructure in our community.

Please review the attached flyer regarding the CIPP installation process and potential Styrene odor. If possible, fill all plumbing traps and fixtures with water before ---------- to prevent potential odor inside your home or building.

Please contact ---------- if you have any questions or concerns.

Sincerely,
Pamar Enterprises, Inc.

Virgil Klebba
Director of Trenchless Operations

What's that odor?

The sewer pipe is being replaced with Cured-In-Place Pipe (CIPP)

What is CIPP?

CIPP is a method used to replace damaged or deteriorated sewer pipe without digging up the existing pipe or disrupting roads, driveways, sidewalks, or landscaping. Since 1971, CIPP has been used to safely reduce construction time, cost and disruptions in sewer service, while minimizing the impact on homes, businesses, traffic, and the environment.

CIPP Installation Process

The process involves installing a resin-saturated felt tube into an existing sewer pipe. Once in place, the tube is inflated to fit tightly inside the original pipe and cured or hardened to create a new plastic pipe within the old pipe. During the process, a steam cloud coming from a 6-foot (minimum) vent stack at a manhole may be visible in the air and will dissipate quickly when the process is complete.

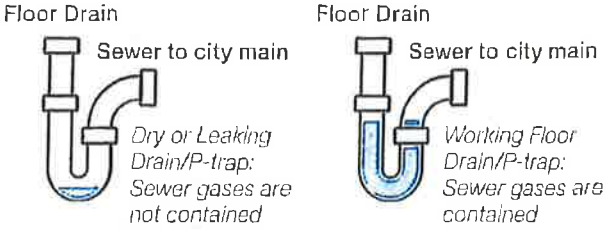
What is that odor and why can I smell it inside my house?

On occasion, there may be a "glue like" odor during the curing process that arises from the styrene component in the resin used in CIPP. Once the CIPP is fully cured or hardened, the odor will be eliminated.

If you detect an odor in your home, it is likely entering through the pipe that connects your home to the public sewer main. A "U" shaped pipe called a P-trap is located at all drains/plumbing fixtures and is designed to keep sewer gas and other vapors out of your home or building. Floor drains/plumbing fixtures may dry out at the P-trap and allow sewer vapors to enter your home or building.

What can I do to prevent or eliminate the odor?

Pour ½ gallon of water in all plumbing fixtures and drains to fill your P-traps prior to the start of the project. If you smell the odor in your home, ventilate the area by opening windows and doors. Adding more water to the P-traps and using a fan may help eliminate the smell faster. If the odor persists after ventilating, contact the project superintendent.

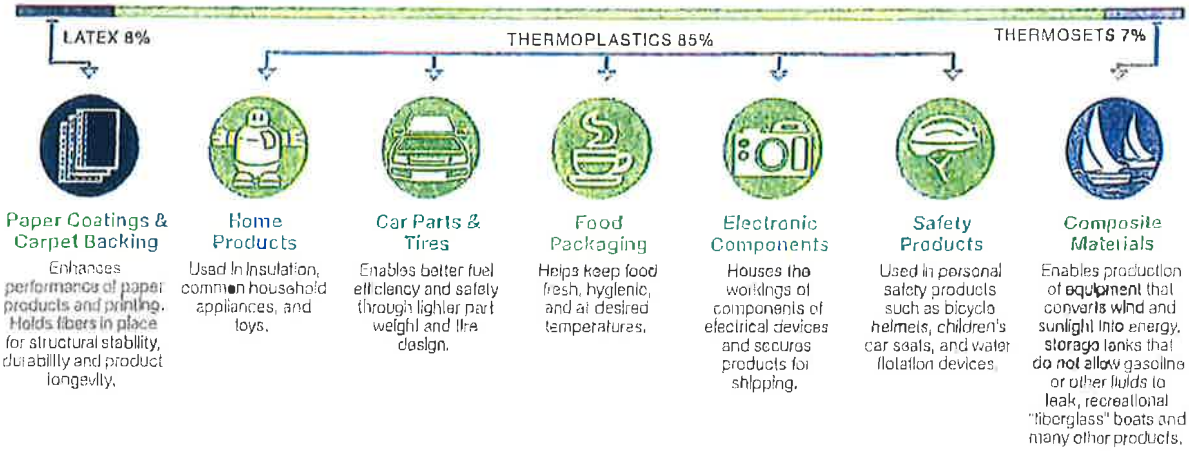


What is Styrene?

Styrene is a clear, colorless liquid that is synthesized for commercial use from petroleum and natural gas by-products. Styrene also occurs naturally in the environment and is an inherent component in small concentrations of many commonly consumed foods and beverages, such as coffee, strawberries, and cinnamon.

Styrene is frequently used for thermoplastics, and also latex and thermosets

Source: Styrene Information and Research Center



Why is the odor so strong?

Styrene has a very intense, distinctive odor and is detectable by the human nose at very low concentrations (0.1 parts per million). The presence of a styrene odor does not necessarily indicate a dangerous level.

Question: Is the odor harmful to my family and me?

For the general population in normal circumstances, measured environmental styrene concentrations from CIPP in the air are at levels too low to cause health effects. However, short-term exposure may cause eye irritation, headache, and discomfort. The EPA guideline for such an airborne concentration would list this as an Acute Exposure Guideline Level -1. EPA defines this as the airborne concentration of a substance above which it is predicted that the general population, including susceptible individuals, could experience notable discomfort, irritation, or certain asymptomatic, non-sensory effects. In most cases, however, the effects are reversible upon leaving the area of exposure.

To learn more about:

- **CIPP** visit NASSCO.org
- **Styrene** visit styrene.org, nassco.org, youknowstyrene.org, epa.gov

NASSCO

VENTIS® PRO5

Detect up to five gases simultaneously with the rugged, wireless, Ventis® Pro5 Multi-Gas Monitor. With Ventis Pro5, safety goes beyond the gas detector whether you need team-based alarm sharing, remote monitoring with location details, or both. The monitor is also backed by a Guaranteed for Life™ warranty.

- Eliminate the need for two pieces of equipment by using Ventis Pro5 for personal monitoring and confined space entry.
- Train workers on one, multi-purpose gas monitor and reduce the risk and investment of having different devices in the field.
- Improve team and site safety by locally sharing alarms and gas readings between wirelessly connected Ventis Pro5 monitors.
- Get real-time location and alarm data directly from Ventis Pro5 gas monitors to a designated safety contact with the optional cellular or wi-fi battery pack.
- Reinforce safe behavior with programmable alarm action messages like "EVACUATE" or "VENTILATE" based on alarm level.
- Simplify the user experience with the ability to hide unnecessary screens based on user needs, role, industry, or site.

Sensor & Configuration Options

The Ventis Pro5 offers sensor and configuration options for multiple industries and applications, including standard and non-standard 4-gas, 5-gas, and a methane IR sensor, making it a cost-effective option for personal protection and confined space applications.

LEL (CH_4% Vol)	CO	IR CO_2	HCN
LEL (Methane)	CO/H_2 Low	IR CO_2/CH_4	NH_3
LEL (Pentane)	CO/H_2S	IR CO_2/LEL	PH_3
O_2	SO_2	IR HC	PID
H_2S	NO_2	ULP IR CH4	
Cl_2	IR CH_4	ULP IR HC	

SPECIFICATIONS*

WARRANTY
Guaranteed for Life™. Warranted for as long as the instrument is supported by Industrial Scientific Corporation (Excludes sensors, batteries, and filters). Pump and O2, LEL, CO, and H2S sensors warranted for four years. PID sensor warranted for one year. All other sensors and batteries are warranted for two years.

KEYPAD
Two buttons for operation. Dedicated panic button.

DATA LOG
At least 3 months at 10-second intervals

EVENT LOGGING
60 alarm events

INGRESS PROTECTION
IP68 (submersion at 1.5 meters for 1 hour)

CASE MATERIAL
Polycarbonate with protective rubber overmold

DIMENSIONS
104 x 56 x 36 mm (4.1 x 2.3 x 1.4 in) without Pump
172 x 67 x 65 mm (6.8 x 2.6 x 2.6 in) with Pump
104 x 58 x 81 mm (4.1 x 2.3 x 2.4 in) with wi-fi and cellular battery

WEIGHT
200 g (7.05 oz) typical, without Pump
390 g (13.76 oz) typical, with Pump
243 g (8.5 oz) typical, with wi-fi battery
247 g (8.7 oz) typical, with cellular battery

HUMIDITY RANGE
15% to 95% non-condensing (continuous)

TEMPERATURE RANGE
-40 °C to 50 °C (-40 °F to 122 °F) **

DISPLAY/READOUT
Backlit liquid crystal display (LCD)

POWER SOURCE/RUN TIME
Rechargeable Slim Extended Lithium-ion battery (no Pump option)
(18 hours typical @ 20 °C) with LEL
(54 hours typical @ 20 °C) with IR

Rechargeable Lithium-ion battery (no Pump option)
(12 hours typical @ 20 °C) with LEL
(36 hours typical @ 20 °C) with IR

Rechargeable Extended-Range Lithium-ion battery with LEL
(23 hours typical @ 20 °C) without Pump
(18 hours typical @ 20 °C) with Pump

Rechargeable Extended-Range Lithium-ion battery with IR
(72 hours typical @ 20 °C) without Pump
(32 hours typical @ 20 °C) with Pump

Rechargeable wi-fi Lithium-ion battery (no Pump option)
(14 hours typical @ 20 °C) with LEL

Rechargeable Cellular Lithium-ion battery (no Pump option)
(14 hours typical @ 20 °C) with LEL

INDUSTRIAL SCIENTIFIC

Learn More about the Ventis Pro5:
www.indsci.com/ventispro

SPECIFICATIONS*

ALARMS
Four visual alarm LEDs (two red, two blue);
95 decibel (dB) audible alarm at a distance of 10 cm (3.94 in);
Vibration alarm

SENSORS
Combustible Gases/Methane – Catalytic Bead
O_2, CO, CO/H_2 low, H_2S, HCN, NH_3, NO_2, PH_3, SO_2, Cl_2 – Electrochemical
CO_2, CH_4, CO_2/LEL, CO_2/CH_4, HC – Infrared, PID, ULP IR CH_4, ULP IR HC

MEASURING RANGES
CATALYTIC BEAD

Combustible Gases:	0-100% LEL in 1% increments
Methane (CH_4):	0-5% of vol in 0.01% increments

ELECTROCHEMICAL

Ammonia (NH_3):	0-500 ppm in 1 ppm increments
Carbon Monoxide (CO):	0-2,000 ppm in 1 ppm increments
Carbon Monoxide (CO/H_2 low):	0-1,000 ppm in 1 ppm increments
Carbon Monoxide/Hydrogen Sulfide:	CO: 0-1,500 ppm in 1 ppm increments H_2S: 0-500 ppm in 0.1 ppm increments
Chlorine (Cl_2)	0-50 ppm in 0.1 ppm increments
Hydrogen Sulfide (H_2S):	0-500 ppm in 0.1 ppm increments
Hydrogen Cyanide (HCN):	0-30 ppm in 0.1 ppm increments
Nitrogen Dioxide (NO_2):	0-150 ppm in 0.1 ppm increments
Oxygen (O_2) (Standard/Long-Life):	0-30% of vol in 0.1% increments
Phosphine (PH_3):	0-10 ppm in 0.01 ppm increments
Sulfur Dioxide (SO_2):	0-150 ppm in 0.1 ppm increments

INFRARED

Carbon Dioxide (CO_2):	0-5% vol in 0.01% increments
Methane (CH_4):	0-5% vol in 0.01% increments 5-100% vol in 0.1% increments
Carbon Dioxide/Combustible	CO_2: 0-5% vol in 0.01% increments LEL: 0-100% LEL in 1% increments
Carbon Dioxide/Methane:	CO_2: 0-5% vol in 0.01% increments CH_4: 0-5% vol in 0.01% increments CH_4: 5-100% vol in 0.1% increments
Hydrocarbons	0-100% LEL in 1% increments
Hydrocarbon (HC ULP)	0-100% LEL in 1% increments
Methane (CH_4 ULP)	0-100% LEL in 0.1% increments 5.1-100% vol in 0.1% increments

PHOTOIONIZATION
Volatile Organic Compounds (10.6 eV) 0-2,000 ppm in 0.1 ppm increments

CERTIFICATIONS
INGRESS PROTECTION IP68

ANZEx:	Ex ia I Ma/Ex ia IIC T4 Ga, -40 °C ≤ Ta ≤ 50 °C Ex d ia I Mb/Ex d ia IIC T4 Gb IR sensor, -20 °C ≤ Ta ≤ 50 °C IR sensor
ATEX:	Equipment Group and Category II 1G, Ex ia IIC, Ga, T4 Equipment Group and Category II 2G, Ex d ia IIC, Gb, T4, IR sensor
China CPC:	CPA 2017-C103
China Ex:	Ex ia IIC T4 Ga, -40 °C ≤ Ta ≤ 50 °C; Ex d ia IIC T4 Gb IR sensor, -20 °C ≤ Ta ≤ 50 °C IR sensor
CSA:	Cl I, Div 1, Gr A-D, T4; Cl I, Zone 1, Ex d ia IIC, T4 | C22.2 No. 152 for % LEL reading only | 70046111
IECEx:	Cl I, Zone 0, Ex ia IIC, Ga, T4; Cl I, Zone 1, Ex d ia IIC, Gb, T4, IR sensor
INMETRO:	Ex ia IIC T4 Ga, -40 °C ≤ Ta ≤ 50 °C Ex d ia IIC T4 Gb IR sensor, -20 °C ≤ Ta ≤ 50 °C IR sensor
KC:	Ex d ia IIC T4
MSHA:	30 CFR Part 22; Permissible for underground mines
NCC:	NCC/TSNI/WN/TA/CERT/3139/2019
PA-DEP:	BFE 46-12 Permissible for PA Bituminous underground mines
UL:	Cl I, Div 1, Gr A-D, T4; Cl II, Div 1, Gr E-G, T4 Cl I, Zone 0, AEx ia IIC, T4; Cl I, Zone 1, AEx d ia II C, T4, IR sensor

See www.indsci.com/ventispro for the product manual with the full certification list.

LANGUAGE
English, French, Spanish, German, Italian, Dutch, Portuguese, Polish

SUPPLIED WITH MONITOR
Calibration Cup (without Pump), Sample Tubing (with Pump), Reference Guide

COMMUNICATIONS

Lens™ Wireless Mesh Network	Frequency: ISM license-free band (2.405 - 2.480 GHz) Max Peers: 25 devices per network group Range: 100 m (300 ft) line of sight, face-to-face Encryption: AES-128
Cellular	United States: LTE CAT M1 (AT&T, Verizon) Canada: LTE CAT M1 (Bell, Rogers, Telus) EMEA: LTE CAT M1 (Tele2) UAE: LTE CAT M1 (Etisalat - E&)
Wi-fi	802.11 b/g/n 2.4GHz wi-fi with WPA2 security

CERTIFICATIONS

AMERICAS	EUROPE	***UAE
Cellular: FCC, ISED – Canada, PTCRB, AT&T and Verizon	Cellular: Radio Equipment Directive (R.E.D.)	Cellular: TORA
Wi-fi: FCC, ISED – Canada	Wi-fi: Radio Equipment Directive (R.E.D.)	Wi-fi: TORA
LENS: FCC, ISED – Canada	LENS: Radio Equipment Directive (R.E.D.)	LENS: TORA

* These specifications are based on performance averages and may vary by instrument.
** Operating temperatures above 50 °C (122 °F) may cause reduced instrument accuracy. Operating temperatures below -20 °C (-4 °F) may cause reduced instrument accuracy and affect display and alarm performance. See Product Manual for details.
*** Coming soon
† Contact sales representative for country-specific wireless approvals and certifications.

Build and price your Ventis Pro5 online with the Instrument Builder
www.indsci.com/VentisProBuilder

INDUSTRIAL SCIENTIFIC
www.indsci.com REV 5 0623

AMERICAS
Phone: +1-412-788-4353
1-800-DETECTS (338-3287) | info@indsci.com

ASIA PACIFIC
Phone: +65-6561-7377
Fax: +65-6561-7787 | info@ap.indsci.com

EMEA
Phone: +33 (0)1 57 32 92 61
Fax: +33 (0)1 57 32 92 67 | info@eu.indsci.com

DANIEL EDE
SITE SUPERVISOR

Pamar Enterprises

Daniel is a highly experienced professional in the construction and pipe rehabilitation industry, having held key roles such as estimator, project manager, superintendent, CIPP installer, and boiler operator. He was instrumental in building the CIPP division for Tele-Vac Environmental, prior to joining Pamar. He has led complex projects that include notable installations over 36 inches in diameter. Some of his major accomplishments feature work in the City of Detroit near the Ambassador Bridge, the Joe Louis Arena area, large-scale projects in Dayton and Cincinnati, and significant installations at Vicksburg's International Paper, Willow Run Airport, and Hines Park in Westland. Daniel's expertise and leadership have consistently driven successful outcomes on challenging infrastructure projects.

PROJECT EXPERIENCE

Hines Park CIPP Project, Westland, Michigan: Site supervisor for this project that involved 7,000-feet of 72-inches over the hole wet out.

Willow Run Airport CIPP Project, Van Buren Township, Michigan: Site supervisor for this project that involved 300-feet of 36-inches.

City of Detroit Near Ambassador Bridge CIPP Project, Detroit, Michigan: Trenchless specialist for this project that involved 1,000-feet of 103-inches over the hole wet out.

City of Detroit Near Joe Louis Arena CIPP Project, Detroit, Michigan: Trenchless specialist for this project that involved 800-feet double barrel of 72-inches.

Downtown Dayton CIPP Project, Dayton, Ohio: Trenchless specialist for this project that involved 7,000-feet of 42-inches.

Downtown Dayton CIPP Project, Dayton, Ohio: Trenchless specialist for this project that involved 2,000-feet of 54-inches.

Downtown Cincinnati CIPP Project, Cincinnati, Ohio: Trenchless specialist for this project that involved 3,000-feet of 72-inches.

International Paper CIPP Project, Vicksburg, Mississippi: Trenchless specialist for this project that involved 3,500-feet of 36-inches.

WHY DANIEL?

- Has extensive experience in the construction and pipe rehabilitation industry, serving in roles such as estimator, project manager, superintendent, CIPP installer, and boiler operator, and has led installations over 36-inches in diameter.
- Has successfully led large-diameter pipe installation projects in major cities such as Detroit, Dayton, Cincinnati, and Vicksburg.

1
Year with Pamar

25
Years of Experience

20172 Garden Court
Roseville, MI 48066

Phone (586) 524-2292
dale@pamarenterpises.com

Dale Ede

Professional Experience

January 2025 – Present Pamar Enterprises, Inc. New Haven, MI

Foreman

Responsible for managing the Safety, Planning, Setup and Materials, Trucking, Subcontractors, Productivity and Public Relations of multiple projects. Performing Sewer Cleaning and CCTV Sewer Surveys for CIPP installations and any and all related work.

April 2015-December 2024 DVM Utilities, Inc. Sterling Heights, MI

Foreman

Responsible for managing the Safety, Planning, Setup and Materials, Trucking, Subcontractors, Productivity and Public Relations of multiple projects. Performing Sewer Cleaning and CCTV Sewer Surveys for CIPP installations and any and all related work.

May 2010-March 2015 Inland Waters Pollution Control Detroit, MI

Operator

Operating TV Trucks/Vacuum Trucks/Boilers for CIPP Installations.

April 2008-April 2010 Pipeline Management, Milford, MI

Operator

Operating TV Trucks/Vacuum Trucks/Boilers for CIPP Installations

Notable Projects

- SCS, Sewer Lining, SS Cleaning & CCTV 8"-24" -Current work
- Shelby Township, SS Cleaning & CCTV 8"-36 - 100,000LF
- Sterling Heights, SS Cleaning & CCTV 8"-36"
- New Haven, SS Cleaning & CCTV 8"-36"
- Clinton Twp, SS Cleaning & CCTV 8"-36" Concrete & Clay Pipe
- Willow Run, Emergency SS Cleaning & CCTV, 72" Concrete 1200LF
- Chesterfield Township, Cleaning & CCTV 8"-36"
- Inkster, Cleaning & CCTV 8"-60" Concrete
- MDOT Mound Rd 750LF 18"/21" Thread-lock Pipe Lining

ITCP-CIPP Version 5

CERTIFICATE

OF COMPLETION

PROUDLY PRESENTED TO

Josh Rinke

Certification Number: C0052719-022025

Expiration Date: 2/25/2028

Sheila Joy

Sheila Joy
Executive Director

CIPP

Note: The individual is not an employee or partner of NASSCO. The individual acknowledges and agrees that NASSCO does not supervise or control the individual and that NASSCO shall not be responsible for any acts or omissions of the individual.

ITCP-CIPP Version 5

CERTIFICATE

OF COMPLETION

PROUDLY PRESENTED TO

Neil Stevenson

Certification Number: C0052721-022025

Expiration Date: 2/25/2028

Sheila Joy

Sheila Joy
Executive Director

CIPP

Note: The individual is not an employee or partner of NASSCO. The individual acknowledges and agrees that NASSCO does not supervise or control the individual and that NASSCO shall not be responsible for any acts or omissions of the individual.

Information about WinCan VX

System management

Manages your WinCan VX system, update catalogs and default templates

Manage system

License management

Review your current license, update with new license file, transfer licenses

Manage license

License information

License ID	#04477
License type	NetTime10 key (Local)
License mode	Valid

Other Features

NASSCO

PACP | LACP | MACP Version 8

CERTIFICATE

OF COMPLETION

PROUDLY PRESENTED TO

Daniel Ede

Certification Number: U-414-060211993

Expiration Date: 10/7/2028

Sheila Joy

Sheila Joy
Executive Director

NASSCO · PIPELINE ASSESSMENT CERTIFICATION PROGRAM · PACP

NASSCO · LATERAL ASSESSMENT CERTIFICATION PROGRAM · LACP

NASSCO · MANHOLE ASSESSMENT CERTIFICATION PROGRAM · MACP

Note: The individual is not an employee or partner of NASSCO. The individual acknowledges and agrees that NASSCO does not supervise or control the individual and that NASSCO shall not be responsible for any acts or omissions of the individual

NASSCO

PACP | LACP | MACP Version 8

CERTIFICATE

OF COMPLETION

PROUDLY PRESENTED TO

Dale Ede

Certification Number: P0055276-062025

Expiration Date: 6/20/2028

Sheila Joy

Sheila Joy
Executive Director

Note: The individual is not an employee or partner of NASSCO. The individual acknowledges and agrees that NASSCO does not supervise or control the individual and that NASSCO shall not be responsible for any acts or omissions of the individual.

NASSCO

PACP | LACP | MACP Version 8

CERTIFICATE

OF COMPLETION

PROUDLY PRESENTED TO

Jerry Gilbert

Certification Number: P0041641-032023

Expiration Date: 1/20/2029

Sheila Joy

Sheila Joy
Executive Director

NASSCO · PIPELINE ASSESSMENT CERTIFICATION PROGRAM · PACP

NASSCO · LATERAL ASSESSMENT CERTIFICATION PROGRAM · LACP

NASSCO · MANHOLE ASSESSMENT CERTIFICATION PROGRAM · MACP

Note: The individual is not an employee or partner of NASSCO. The individual acknowledges and agrees that NASSCO does not supervise or control the individual and that NASSCO shall not be responsible for any acts or omissions of the individual.

NASSCO

PACP | LACP | MACP Version 8

CERTIFICATE

OF COMPLETION

PROUDLY PRESENTED TO

Samuel Rabb

Certification Number: P0055275-062025

Expiration Date: 6/20/2028

Sheila Joy

Sheila Joy
Executive Director

Note: The individual is not an employee or partner of NASSCO. The individual acknowledges and agrees that NASSCO does not supervise or control the individual and that NASSCO shall not be responsible for any acts or omissions of the individual.

From: Neil Stevenson
To: Neil Stevenson
Subject: William Ritchie PACP Cert.
Date: Thursday, May 22, 2025 1:57:11 PM

Sent from my iPhone

William Ritchie

Certificate # U-614-06021537

Exp. Date July 14, 2028

NASSCO

PACP | LACP | MACP Version 8

CERTIFICATE

OF COMPLETION

PROUDLY PRESENTED TO

Neil Stevenson

Certification Number: P0049574-082024

Expiration Date: 8/5/2027

Sheila Joy

Sheila Joy
Executive Director

Note: The Individual is not an employee or partner of NASSCO. The individual acknowledges and agrees that NASSCO does not supervise or control the Individual and that NASSCO shall not be responsible for any acts or omissions of the Individual.

Liner Products, LLC
1468 West Hospital Road
Paoli, Indiana 47454

phone: 812-723-0244
fax: 812-723-0405
www.linerproducts.com

July 29, 2025

Mr. Virgil Klebba
Pamar Enterprises, Inc.
31604 Pamar Court
New Haven, Michigan 48048

Dear Virgil:

Pursuant to your request, this letter certifies that all polyester felt cured-in-place pipe lining tubes manufactured by Liner Products, LLC meet or exceed all applicable industry and ASTM standards, including ASTM D5813, ASTM F1216 and ASTM F1743.

Liner Products is ISO 9001:2015 certified for the design and manufacture of cured-in-place pipe materials for the pipeline rehabilitation industry. A copy of our Certificate of Registration is attached.

Since 1999, Liner Products has manufactured over 60 million feet of cured-in-place pipe lining tubes, in diameters from 3 inches to 102 inches, used in successful pipe reconstruction projects throughout North America.

Pamar Enterprises is a qualified installer of Liner Products cured-in-place pipe (CIPP) lining tubes.

Please contact me at (812) 723-0244 if you have any questions or require additional information.

Best Regards,

Brent Buckalew
Vice President of Manufacturing

PERRY JOHNSON REGISTRARS, INC.

Certificate of Registration

Perry Johnson Registrars, Inc., has audited the Quality Management System of:

Liner Products
1468 West Hospital Road, Paoli, IN 47454 United States

(Hereinafter called the Organization) and hereby declares that Organization is in conformance with:

ISO 9001:2015

This Registration is in respect to the following scope:

Design and Manufacture of Cured-In-Place Pipe Materials for the Pipeline Rehabilitation Industry

This Registration is granted subject to the system rules governing the Registration referred to above, and the Organization hereby covenants with the Assessment body duty to observe and comply with the said rules.

PERRY JOHNSON REGISTRARS, INC.

ANAB ACCREDITED MANAGEMENT SYSTEMS CERTIFICATION BODY

Terry Boboige

Terry Boboige, President
Perry Johnson Registrars, Inc. (PJR)
755 West Big Beaver Road, Suite 1340
Troy, Michigan 48084
(248) 358-3388

The validity of this certificate is dependent upon ongoing surveillance.

Effective Date:	Expiration Date:	Certificate No.:
May 31, 2025	May 30, 2028	C2025-00678

MTC
An azuria Water Solutions Company

We Know Water

July 11, 2024

Re: **Pamar Enterprises, Inc. Certified Installer**

To whom it may concern:

I am writing this letter on behalf of Manufactured Technologies Corporation (MTC), an azuria company, in its 19th year of operation as a material supplier for the cure-in-place-pipe (CIPP) industry.

Our CIPP Felt tubes are manufactured by Insituform Technologies, LLC in accordance with specifications outlined by the American Society for Testing and Materials (ASTM) to meet or exceed all the guidelines outlined for gravity sanitary sewer and storm per ASTM F-1216 and ASTM F-1743 . Furthermore, MTC CIPP felt tubes are manufactured in an ISO 9001:2015 certified factory.

Since our inception, we have supplied more than 22 million linear feet of coated felt tube to certified installers across North America such as **Pamar Enterprises, Inc. of New Havin, MI 48084**. Pamar Enterprises is authorized to sell, install, and service MTC Cure-In-Place-Pipe Liners.

If you have any additional questions, please do not hesitate to contact me directly.

Thank you,

If you have any questions, please feel free to contact me directly.

Sincerely,

Andrew Dietsch

Andrew Dietsch | Business Development
Manufactured Technologies Corporation
17988 Edison Avenue | Chesterfield, MO 63005
MTC: 662-578-7797 | Cell: 813-614-1618
www.manufacturedtechnologies.com

DISCLAIMER OF WARRANTY: AS INSTALLATION CONDITIONS (INCLUDING, AMONG OTHERS, PIPE TYPE & CONDITION, GROUNDWATER DEPTH & TEMPERATURE, DEPTH OF COVER & SOIL TYPE, LIVE LOADS, SITE ACCESS AND WEATHER) AND INSTALLER EXPERIENCE, TECHNIQUES AND TYPE OF EQUIPMENT VARY GREATLY, MTC EXCLUDES ANY WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, WITH RESPECT TO THE GOODS SOLD HEREUNDER AS TO MERCHANTABILITY, FITNESS FOR PARTICULAR USE OR ANY OTHER MATTER WITH RESPECT TO THE GOODS WHETHER USED ALONE OR IN COMBINATION WITH OTHER PRODUCTS. MTC HAS NOT PROVIDED ANY DESIGN SPECIFICATIONS OR COMPUTATIONS, AND ACCORDINGLY, MTC DOES NOT WARRANT THE DESIGN.

636.530.8000
580 Goddard Ave
Chesterfield, MO 63005

UNITED FELTS
A VORTEX COMPANY

July 25, 2024

To: Whom It May Concern

RE: Approved Installer

I am writing this on behalf of United Felts (formally Applied Felts, FerraTex Solutions and Maxliner). a liner manufacturer and provider of wetout services of Cured-In-Place Pipe systems used in the rehabilitation of failing infrastructure worldwide.

As a material supplier for the CIPP industry, we trust our product to approved installers such as Pamar Enterprises, Inc., which we are proud to call a customer.

United Felts (formally Applied Felts, FerraTex Solutions and Maxliner) as a registered ISO 9001:2015 company we certifies that our material will meet or exceed the material requirements of ASTM F1216-22 and ASTM F 1743-21 as well as meet the minimum strength requirements of ASTM-D5813-04 (2018). All materials and finished product are tested to ensure suitability to application. Each liner is typically tested in 28 different ways and traceable test data is available.

If you should have any additional questions, please do not hesitate to contact me at your convenience. I am available at (615)417-0946 or via email at Sdunn@Unitedfelts.com

Sincerely

Stacey Dunn

Stacey Dunn
Director of Quality

450 College Drive | Martinsville, Virginia 24112 | (973)609-5449
Unitedfelts.com

ISO 9001 Certificate

Preferred Registrar Group Inc.

Preferred Registrar Group, Inc.

30561 Dequindre Rd. Madison Heights, MI 48071

certifies that

FerraTex Solutions

(HQ) Corporate- 450 College Drive, Martinsville, VA 24112
Leadership/ Sales /Control of External Providers
Greenpond-1650 Greenpond Rd, Newfoundland, NJ 07435
Ft. Pierce-4750 Magnum Drive, Fort Pierce, FL 34981
Lebanon-1420 East Toshiba Drive, Lebanon, TN 37087
Martinsville-901 Hollie Drive, Martinsville, VA 24112
Houston- 14151 Interdrive West Houston, TX 77032
Wet Out Process/ Inspection & Test

has implemented a Quality Management System scope in accordance with:

ISO 9001:2015

The scope of this Quality Management System Governs:

Manufacture of wet out (resin impregnated) liners used for Cured In Place Pipe Technology, for the underground infrastructure rehabilitation for governments, cities and municipalities.

Certificate Registration Number:

17-R5998

Certified Date:
12/20/2017

~❖~

This certificate was issued on:
12/19/2023

~❖~

It is valid until:
12/20/2026

Denis Pecar, President

ANAB ACCREDITED

IAF

SOURCE ONE ENVIRONMENTAL
300 South Dayton Street | Davison, MI 48423
PHONE: (810) 412-4740 **FAX:** (810) 412-4743

To whom it may concern,

This letter confirms that the Source One Environmental customer Pamar Enterprises is a certified installer of PipePatch products as well as CIPP Trenchless Technologies including lining and coating insulation. Pamar Enterprises was trained and certified in January of 2025.

Thank you,

Lacy Prentice
Customer Service Representative
Source One Environmental

Pamar Enterprises Inc. : LINING Equipment

Unit #	Year	Make	Model	Plate (if Needed)	Description	S/N
		Talpa	FSR 1330		12 Pin Robot	
	2025	Schwalm		None	Control Unit for Camera Trucks	2HEI9C-2824-358
BT-1	2015	Kenworth	T800	BD88509	Utility/Boiler Truck/Rush Heater W/Work Platform	1NKDL40X5FJ426720
BT-2	2015	Kenworth	T800	BD88510	Utility/Boiler Truck/Rush Heater W/Work Platform	1NKDL40X7FJ426721
CT-4	2022	Ford	F550	BD88501	Utility/16' HIC TV Cutter CCTV Inspection System from CT-2 ($80,000)	1FDUF5GT4NDA13679
CT-5	2025	Ford	F550		Utility/16' HIC TV Cutter CCTV Inspection Syste	1FDUF5HT1NEE42898
JT-1	2007	Sterling	Acterra	BE30634	Jetter Utility Truck	2FZACGDC67AY73133
ST-1	2008	Ford	S-DTY F-750	BD88507	Van/Rush Steam Unit	3FRXF75H78V644136
ST-2	2008	Ford	F-750 / RSU 000	BD88503	Van/Rush Steam Unit	3FRXF75H58V644135
T-207	2018	International	4300	BE11246	Refridgeration Truck	1HTMMMMN4JH526141
T-212	2019	International			Van	1HTMMMML7KH496844
TR-125	2006	We Haul		F092631	Tandem Axle Trailer	5NHUWE6266N057057
TR-126	2005	Pace	LM714TA2	F092633	Safety Trailer	4FPUB14235G092534
TR-127	2007	Great Dane	7011TZ-1-48	F092634	Trailer	1GRAA96287S702778
TR-131	2019	Sure -Trac	TRAILER 5X10	F092641	Trailer	5JW1U1010K3256139
TR-135	2013	Utility Trailer		F339844	Refrigerated Trailer	1UYVS2481DM690417
VT-1	2015	Kenworth	T800	BD88508	VACTOR 2115 - MI VACTOR	1NKDL40X2FJ431616
VT-2	2025	Vactor	2100l		Vactor Truck	1NKZL40X1TJ183831
W-1	2015	Hammerhead	HG5	F092628	Hammerhead HG5 Winch	9WE07199C196158
W-2	2015	Hammerhead	HG12	F092629	Hammerhead HG12 Winch	9WC1424EL196317
W-3	2015	Hammerhead	HG12	F092630	Hammerhead HG12 Winch	1E9WC1421EC196299
W-4	2015	Hammerhead	HG20	F092626	Hammerhead HG20 Winch	1E9WD1423CC196266
W-5	2015	Hammerhead	HG20	F092627	Hammerhead HG20 Winch	1E9WD1429CC196241

BIRMINGHAM

NOTICE OF INTENTION TO APPOINT TO THE CITY COMMISSION

At the regular meeting of Monday, April 13, 2026, the Birmingham City Commission intends to appoint a member to fill a vacancy to serve the remainder of a four-year term on the City Commission to expire in November 2027.

Interested citizens may submit an application available at the City Clerk's office or online at www.bhamgov.org/boardopportunities. Applications must be submitted to the City Clerk's office on or before noon on Wednesday, April 8, 2026. These documents will appear in the public agenda for the regular meeting at which time the City Commission may make nominations and vote on appointments.

Duties

Conduct of Business
Commission Meetings shall be governed by the rules contained in the most recent edition of Robert's Rules of Order, Newly Revised in all instances in which they are applicable and not inconsistent with the statutes of the United States or the State of Michigan, or with the Charter or adopted of the City of Birmingham or these Rules of Procedure. Commissioners should be recognized by the presiding officer before speaking.

Commissioners' Attendance at Boards and Committees
It is the decision of the Commission that to avoid the appearance of or a possibility of potential influence or duress upon appointees, or to avoid the possibility of violating the OMA, commissioners shall refrain from appearing at various boards and committees in person or with their names addressed upon remote attendance. Exceptions may occur upon presentation and vote of the entire Commission.

Voting
Birmingham's City Charter states that four members of the City Commission shall constitute a quorum; that the Commission shall act only by ordinance or resolution, that is, an official action in the form of a motion; and that a minimum of four votes shall be required to adopt any such motion.

A Commission member may abstain from voting on a motion if he or she: 1) has a conflict of interest; or 2) lacks sufficient information about the issue to be decided. Any Commissioner who abstains from voting on a motion shall state, for the record, at the outset of the discussion both his or her intention to abstain and reason for doing so. Should the need to abstain become clear during discussion, the member shall state his or her intention at that time. The Commissioner shall then be prohibited from participating in any further discussion or debate on the issue.

Applicant(s) Presented for City Commission Consideration:

Applicant Name	Criteria/Qualifications Applicants must be residents of the City of Birmingham for at least one year and be a registered elector.
Richard Wetherhold	10-year resident and registered elector who works as a strategy manager.
Ilir Doresi	30-year resident and registered elector who works as a sales manager.
Beth Correa	35-year resident and registered elector who is a retired financial executive.
Gordon Thompson	3-year resident and registered elector who works as a teacher.
Brian Gordon	5-year resident and registered elector who works in real estate.
Debra Horner	34-year resident and registered elector who works as a research program manager and lecturer.
Mary E. Jaye	33-year resident and registered elector who is a retired automotive executive.
Richard Yardley	Did not meet qualifications.
Doug White	21-year resident and registered elector who works in the automotive industry.

SUGGESTED COMMISSION ACTION:

To appoint _____ to the City Commission to serve the remainder of a four-year term to expire November 2027.

NOTE: All members of boards and commissions are subject to the provisions of City of Birmingham City Code Chapter 2, Article IX, Ethics and the filing of the Affidavit and Disclosure Statement.

BIRMINGHAM
A WALKABLE CITY

OFFICE USE ONLY
Meets Requirements? Yes No

Will Attend / Unable to Attend

APPLICATION FOR VACANT CITY COMMISSION SEAT

Thank you for your interest in serving on the City Commission. This application is to fill the vacant Commission seat until the November 2, 2027 general municipal election.

The purpose of this form is to provide the City Commission with basic information about applicants considered for appointment. NOTE: Completed applications are included in the City Commission agenda packets. The information included on this form is available to the public. City Commissioners are subject to the provisions of the Ethics Ordinance (Chapter 2, Article IX of the City Code).

Applications must be submitted to the City Clerk's Office at or before noon on the Wednesday, April 8, 2026. The appointment will be made at the Monday, April 13, 2026 regular meeting of the City Commission.
(Please print clearly)

Name Richard Wetherhold

Phone (313)720-9528

Residential Address 2083 Sheffield Rd.

Email rwetherh@gmail.com

Residential City, Zip Birmingham, MI 48009

Length of Residence 10+ years

Business Address

Occupation Strategy Manager

Business City, Zip

List your related employment experience

Current Strategy Manager at Ford Motor Company. 14+ years professional work experience. Serving roles in Strategy and Planning, Operations, Marketing, and Quality.

List your related community activities

- Family man (father of 3)
- Local parish member
- Participant in local fundraising events in support of children's school
- Volunteer soccer coach
- Local musician (perform locally)

List your related educational experience

Education focused both in business & technical leadership. Masters of Business Administration (UM-Ann Arbor) and Masters in Product Development (Detroit Mercy). Bachelor's in Engineering (UM-Ann Arbor), Bachelor's in Economics (UM-Ann Arbor), and Bachelor's in Music (UM-Ann Arbor).

What skills, experiences, or perspectives do you bring to the role that would benefit the City and its residents?

Rich background in Strategy, Operations, Planning, Project Management, Scoping, and Marketing. An experienced servant leader with experiences in forming, managing, and leading cross-functional teams. Incredibly resourceful, exceptional problem solver, a true listener, not afraid to think outside the box. Someone who consistently delivers on objectives.

What is your vision for the City's future, and how does it align with the Commission's strategic goals?

- "Engaged and Connected Community" – Better connect the city (E and W) to increase community bonds and engagement.
- "Environmental Sustainability" – Birmingham is beautiful and historic. I believe this creates an interesting opportunity to modernize sustainably while at the same time working to preserve its historic and natural charm.
- "Efficient and Effective Services" – I am an advocate in the value of new technology to improve transportation, flow of information, and safety. I believe we should explore how we can leverage technology in new ways to reduce cost and enhance the experiences for our residents.

What do you see as the biggest challenges facing the City, and how would you address them as a Commissioner?

- Aging sewer infrastructure – Increase transparency of present challenges and efforts to address. Prioritize sewer system upgrades for the purposes of modernization and increased development and usage.
- Budget forecasting (schools et al)- Increased rigor in forecasting to ensure most efficient and effective allocation of resources, while maintaining leadership amongst our neighboring communities.

What opportunities do you think the City should prioritize in the next 1-5 years?

- Taking on a "growth mindset" to increase community engagement across all age groups – connecting all areas of Birmingham.
- Exploring collaboration opportunities with neighboring communities.
- Enhancing services through the leveraging of new technologies.

To the best of your knowledge, do you or a member of your immediate family have any direct financial or business relationships with any supplier, service provider or contractor of the City of Birmingham from which you or they derive direct compensation or financial benefit? If yes, please explain:

No

Do you currently have a relative serving on the City Commission? No

Per the City Charter: "No person shall be eligible to the office of commissioner who shall not be an elector in the city and who has not been a resident of the city for at least one (1) year immediately prior to his election."
Are you an elector (registered voter) in the City of Birmingham and have you been a resident for at least 1 year prior to your application? Yes

Richard Wetherall

Signature of Applicant

3-22-2026

Date

RECEIVED
APR 01 2026
8:50 AM
CLERK'S OFFICE

BIRMINGHAM
A WALKABLE CITY

OFFICE USE ONLY
Meets Requirements? Yes No
Will Attend / Unable to Attend

APPLICATION FOR VACANT CITY COMMISSION SEAT

Thank you for your interest in serving on the City Commission. This application is to fill the vacant Commission seat until the November 2, 2027 general municipal election.

The purpose of this form is to provide the City Commission with basic information about applicants considered for appointment. NOTE: Completed applications are included in the City Commission agenda packets. The information included on this form is available to the public. City Commissioners are subject to the provisions of the Ethics Ordinance (Chapter 2, Article IX of the City Code).

Applications must be submitted to the City Clerk's Office at or before noon on the Wednesday, April 8, 2026. The appointment will be made at the Monday, April 13, 2026 regular meeting of the City Commission.
(Please print clearly)

Name Ilir Doresi
Phone 248-835-7400
Residential Address 1312 Haynes ST
Email idoresi@yahoo.com
Residential City, Zip Birmingham, 48009
Length of Residence 30 yr
Business Address 38700 Grand River AVE
Occupation Sales manager
Business City, Zip Farmington Hills, 48335

List your related employment experience
Managing, Booking, Account and Budgeting

List your related community activities
charity Youths/Seniors

List your related educational experience
managment traing/meetings

What skills, experiences, or perspectives do you bring to the role that would benefit the City and its residents?
I Know How to Budget
I've Been with the Birmingham community for a long time
I can Bring back people to the city, I Feel its changed too much

What is your vision for the City's future, and how does it align with the Commission's strategic goals?
I would like to keep it a safe and family oriented city
get more shops in Downtown we Have too many
closing and need to get people Back in

What do you see as the biggest challenges facing the City, and how would you address them as a Commissioner?

we need to start watching the Budget closer, too much spending in unnecessary places, we need to Hire right people for the projects and not over paying for their services

What opportunities do you think the City should prioritize in the next 1-5 years?

Find a way to uncap yr Home taxes, Bring a more Youthful Homeowners to the city that are willing to pay

To the best of your knowledge, do you or a member of your immediate family have any direct financial or business relationships with any supplier, service provider or contractor of the City of Birmingham from which you or they derive direct compensation or financial benefit? If yes, please explain: NO

Do you currently have a relative serving on the City Commission? NO

Per the City Charter: "No person shall be eligible to the office of commissioner who shall not be an elector in the city and who has not been a resident of the city for at least one (1) year immediately prior to his election."
Are you an elector (registered voter) in the City of Birmingham and have you been a resident for at least 1 year prior to your application? Yes

Signature of Applicant

3-30-26
Date

APR 07 2026
1:55 PM

BIRMINGHAM
A WALKABLE CITY

OFFICE USE ONLY
Meets Requirements? Yes No

Will Attend / Unable to Attend

RECEIVED
CLERK'S OFFICE

APPLICATION FOR VACANT CITY COMMISSION SEAT

Thank you for your interest in serving on the City Commission. This application is to fill the vacant Commission seat until the November 2, 2027 general municipal election.

The purpose of this form is to provide the City Commission with basic information about applicants considered for appointment. NOTE: Completed applications are included in the City Commission agenda packets. The information included on this form is available to the public. City Commissioners are subject to the provisions of the Ethics Ordinance (Chapter 2, Article IX of the City Code).

Applications must be submitted to the City Clerk's Office at or before noon on the Wednesday, April 8, 2026. The appointment will be made at the Monday, April 13, 2026 regular meeting of the City Commission.
(Please print clearly)

Name **Beth Correa**

Phone **586-663-6700**

Residential **Address 315 W Lincoln St**

Email **bethcorrea@aol.com**

Residential City, Zip **Birmingham, MI 48009**

Length of Residence **35 years**

Business Address N/A

Occupation **Retired Financial Executive**

Business City, Zip N/A

List your related employment experience

Recently retired Executive Vice President and Director of Corporate Responsibility at Flagstar Bank, where I led enterprise-wide strategy across community investment, stakeholder engagement, and governance. I oversaw a $22 million foundation and a $6 million annual community investment budget, ensuring disciplined allocation of resources and measurable outcomes aligned with organizational priorities.

Previously, I served as Senior Vice President overseeing community affairs, CRA programs, customer experience, and operational quality. Earlier in my career, I held leadership roles at Flagstar, Comerica, and JPMorgan Chase, managing large retail banking networks and leading initiatives focused on operational efficiency, regulatory compliance, and growth.

This experience has strengthened my ability to evaluate complex budgets, oversee large-scale operations, and make balanced, data-driven decisions—skills directly applicable to municipal governance.

List your related community activities

Current

- Past Board Chair and Board Member, Detroit Public Schools Foundation (led strategic initiatives supporting educational outcomes and community impact)
- Coach and Judge, Michigan Women Forward WomanUp & Pitch Competition
- Advisory Board Member, The Unity Collaborative

Past

- Board Member, Inforum

APR 07 2026
1:55 PM
RECEIVED
CLERK'S OFFICE

- Executive Committee Member and Treasurer, Metropolitan Affairs Coalition (oversaw financial governance and regional initiatives)
- Committee Member, Sustainable Business Network Detroit
- Board Member, Michigan Humane
- PreK–12 Education Workgroup Member, State of Michigan
- Capstone Advisor, ABA Stonier Graduate School of Banking

List your related educational experience

- Sustainability Management Certificate – Yale School of Management
- ABA–Wharton Stonier Graduate School of Banking
- Wharton Leadership Certificate
- BS in Finance, Magna Cum Laude – Walsh College

What skills, experiences, or perspectives do you bring to the role that would benefit the City and its residents?

I bring more than three decades of executive leadership experience in financial services, community development, and governance. I have overseen multi-million-dollar budgets, led complex organizations through change, and built partnerships across public, private, and nonprofit sectors.

My work has consistently focused on translating strategy into measurable outcomes—whether improving service delivery, strengthening community investment, or ensuring accountability in decision-making. I bring a practical, disciplined approach to evaluating trade-offs and making decisions that balance fiscal responsibility with community impact.

As a long-time resident of Birmingham, I also bring a deep appreciation for the city's character, high standards, and the expectations residents have for quality services, thoughtful planning, and strong governance. With my recent retirement, I have the time and flexibility to be fully engaged and accessible in serving the community.

What is your vision for the City's future, and how does it align with the Commission's strategic goals?

My vision is for Birmingham to remain a vibrant, walkable community that balances thoughtful growth with preservation of its unique character. As the city continues to evolve, it will be important to carefully manage downtown development, maintain strong neighborhoods, and ensure infrastructure and public services keep pace with demand.

I believe in transparent decision-making, active community engagement, and disciplined financial stewardship. My experience developing organizational strategy and working across sectors aligns with the Commission's priorities around responsible growth, economic vitality, and maintaining the high quality of life residents expect.

What do you see as the biggest challenges facing the City, and how would you address them as a Commissioner?

Key challenges include balancing continued development with preservation of Birmingham's character, maintaining long-term financial discipline, and ensuring infrastructure keeps pace with growth.

I would approach these challenges by combining data-driven analysis with meaningful community engagement—ensuring decisions reflect both fiscal realities and resident priorities. My experience leading complex initiatives has prepared me to evaluate trade-offs, ask the right questions, and build alignment around solutions that are practical, balanced, and sustainable over the long term.

What opportunities do you think the City should prioritize in the next 1-5 years?

Over the next several years, Birmingham has an opportunity to:

- Strengthen its downtown as a destination while continuing to support local businesses

APR 07 2026 1:56 PM

- Enhance walkability, mobility, and the quality of public spaces
- Invest in infrastructure to support long-term growth and service reliability
- Expand community engagement and transparency in decision-making
- Maintain strong financial stewardship with clear priorities and accountability

My experience leading strategic initiatives, managing resources responsibly, and building partnerships would allow me to contribute meaningfully to these priorities and help ensure they are executed effectively.

To the best of your knowledge, do you or a member of your immediate family have any direct financial or business relationships with any supplier, service provider or contractor of the City of Birmingham from which you or they derive direct compensation or financial benefit? If yes, please explain:

To the best of my knowledge, neither I nor any member of my immediate family has a direct financial or business relationship with any supplier, service provider, or contractor of the City of Birmingham from which we derive compensation or financial benefit.

Do you currently have a relative serving on the City Commission? No

Per the City Charter: "No person shall be eligible to the office of commissioner who shall not be an elector in the city and who has not been a resident of the city for at least one (1) year immediately prior to his election."
Are you an elector (registered voter) in the City of Birmingham and have you been a resident for at least 1 year prior to your application? Yes

Signature of Applicant

4.6.2026
Date

RECEIVED CLERK'S OFFICE

CLERK'S OFFICE
RECEIVED
APR 07 2026
4:00 PM

A WALKABLE CITY

OFFICE USE ONLY
Meets Requirements? Yes No

Will Attend / Unable to Attend

APPLICATION FOR VACANT CITY COMMISSION SEAT

Thank you for your interest in serving on the City Commission. This application is to fill the vacant Commission seat until the November 2, 2027 general municipal election.

The purpose of this form is to provide the City Commission with basic information about applicants considered for appointment. NOTE: Completed applications are included in the City Commission agenda packets. The information included on this form is available to the public. City Commissioners are subject to the provisions of the Ethics Ordinance (Chapter 2, Article IX of the City Code).

Applications must be submitted to the City Clerk's Office at or before noon on the Wednesday, April 8, 2026. The appointment will be made at the Monday, April 13, 2026 regular meeting of the City Commission.
(Please print clearly)

Name Gordon Thompson

Phone (810) 571-1776

Residential Address 171 N Worth St

Email gthompso43@yahoo.com

Residential City, Zip Birmingham

Length of Residence 3 years

Business Address P.O. Box 801

Occupation teacher

Business City, Zip Bloomfield Hills, MI. 48303-0801

List your related employment experience

teacher, dorm advisor, Wilderness leader, literary magazine advisor, class advisor at Cranbrook School from 2003 to present

List your related community activities

I am a denizen of the farmers' market, library, local businesses, parks. I sing with the Detroit Concert Choir, which rehearses and performs throughout the metro area, including in Birmingham. I have volunteered extensively with Kiva.org, a microfinance organization, and am looking for more local volunteer opportunities.

List your related educational experience

MFA: University of Florida, 2000
BA: Swarthmore College, 1995

What skills, experiences, or perspectives do you bring to the role that would benefit the City and its residents?

Having worked, studied, and traveled in some 50 countries and 45 states, I bring a rich and varied perspective on what a city can and should be, a "fresh face" who loves Birmingham and understands its place in the wider world.

What is your vision for the City's future, and how does it align with the Commission's strategic goals?

Balance business development with preservation of green space and livability initiatives (movie nights, shopping events, e.g.). Maintain a balanced budget while supporting needed investments in infrastructure and other issues. Support sustainability in both the financial and environmental sense.

What do you see as the biggest challenges facing the City, and how would you address them as a Commissioner?

Rising cost of living. Population loss and demographic shifts. Representation that reflects the population. I would explore new ways of engaging residents such as more interactive newsletters and website, surveys about pending issues.

What opportunities do you think the City should prioritize in the next 1-5 years?

Maintaining affordability for a range of residents and businesses. Promoting status as "a walkable city" and the crown jewel of Oakland County. Increasing accessibility in physical access to city amenities as well as more robust and varied communication.

To the best of your knowledge, do you or a member of your immediate family have any direct financial or business relationships with any supplier, service provider or contractor of the City of Birmingham from which you or they derive direct compensation or financial benefit? If yes, please explain:

No.

Do you currently have a relative serving on the City Commission? No.

Per the City Charter: "No person shall be eligible to the office of commissioner who shall not be an elector in the city and who has not been a resident of the city for at least one (1) year immediately prior to his election."
Are you an elector (registered voter) in the City of Birmingham and have you been a resident for at least 1 year prior to your application? Yes.

Signature of Applicant

March 21, 2026
Date

CLERK'S OFFICE

RECEIVED

APR 07 2026
4:19 PM

OFFICE USE ONLY
Meets Requirements? Yes No

Will Attend / Unable to Attend

APPLICATION FOR VACANT CITY COMMISSION SEAT

Thank you for your interest in serving on the City Commission. This application is to fill the vacant Commission seat until the November 2, 2027 general municipal election.

The purpose of this form is to provide the City Commission with basic information about applicants considered for appointment. NOTE: Completed applications are included in the City Commission agenda packets. The information included on this form is available to the public. City Commissioners are subject to the provisions of the Ethics Ordinance (Chapter 2, Article IX of the City Code).

Applications must be submitted to the City Clerk's Office at or before noon on the Wednesday, April 8, 2026. The appointment will be made at the Monday, April 13, 2026 regular meeting of the City Commission.
(Please print clearly)

Name BRIAN GORDON

Phone 248.229.1300

Residential Address 645 W BROWN ST

Email EMAILBG@AOL.COM

Residential City, Zip BIRMINGHAM

Length of Residence 5 YEARS

Business Address

Occupation REAL ESTATE

Business City, Zip

List your related employment experience
45 Years commercial real estate investor/broker/developer.
Numerous interactions with various municipalities in SE Michigan re zoning, development, site plan, ZBA, etc.
Also extensive business and retail manangment

List your related community activities
10 years council Trustee Franklin Village, including election to President Pro Tem.
Served on FBFD Fire Commision, legal committee, finance committee.
Drafted ballot language for the successful implementation of first ever sidewalk and streetscape program

List your related educational experience
BS MSU 1979, with Honors, Geography
Course work in appraisal

What skills, experiences, or perspectives do you bring to the role that would benefit the City and its residents?
Experianced fiscally conservative manager. Not political by nature, but by necessity, to serve the community
Experiance in municipal budget process, legislative process, Roberts rules of Order, purchasing process, etc
Ability to hit the ground running on all matters before the Council.

What is your vision for the City's future, and how does it align with the Commission's strategic goals?
Maintaining and improving Birmingham's high quality city services while conserving tax payers' dollars when and where appropriate and possible.
Improving and expanding, walkability, neighborhood connectivity and recreational and cultural opportunity

What do you see as the biggest challenges facing the City, and how would you address them as a Commissioner?

As always, the biggest challange is budget, taxes, and expenses.

I have many years of direct experiance to bring to the deliberations on these matters

Intelligent expansion of housing stock, in compliance with existing Zonng and Master Plan

What opportunities do you think the City should prioritize in the next 1-5 years?

The matters listed above are Council's priorities as well as Continued improvement of public space, parks and trails.

To the best of your knowledge, do you or a member of your immediate family have any direct financial or business relationships with any supplier, service provider or contractor of the City of Birmingham from which you or they derive direct compensation or financial benefit? If yes, please explain:

No

Do you currently have a relative serving on the City Commission? No

Per the City Charter: "No person shall be eligible to the office of commissioner who shall not be an elector in the city and who has not been a resident of the city for at least one (1) year immediately prior to his election."
Are you an elector (registered voter) in the City of Birmingham and have you been a resident for at least 1 year prior to your application? Yes

Signature of Applicant

March 31, 2026

Date

Village of Franklin 1825

32325 Franklin Road, Franklin, Michigan 48025

FAX: (248) 626-0538 (248) 626-9666

www.franklin.mi.us

PROCLAMATION

Village Council President Pro-Tem Brian Gordon
In Appreciation of his Public Service to the Village of Franklin

WHEREAS Brian Gordon has served as Village Trustee from July 2012 until January 2022; and,

WHEREAS Brian Gordon has served as a Village Council President Pro-Tem from November 2020 until January 2022; and,

WHEREAS Brian Gordon was an active participant as a Village Trustee, exuding his building experience, asking purposeful questions to provoke well-rounded discussions, committed to representing the Village residents fairly; and,

WHEREAS Brian Gordon was an active proponent of the Village Streetscape Project and an author of the Ballot Language Initiative; and,

WHEREAS Brian Gordon was also an active proponent of the Village Downtown Lighting Initiative and,

WHEREAS Brian Gordon was a member of the Final Design Committee for the Village Streetscape Project and was instrumental in the process of acquiring the desired aesthetic of the Village residents; and,

WHEREAS Brian Gordon has served as the Village Council Appointed Liaison for the Legal Committee; and,

WHEREAS Brian Gordon has served as the Village Council Appointed Liaison to the Franklin – Bingham Farms Fire Department and was instrumental in the purchase of two (2) Fire Apparatus; and,

WHEREAS Brian Gordon along with his wife, Julie Gordon have resided in the Village for thirty-one (31) years; and,

NOW THEREFORE BE IT RESOLVED, on this 14th day of February 2022, that the Franklin Village Council hereby publicly recognizes, commends, and thanks Village Council President Pro-Tem Brian Gordon for his service to the Village.

BE IT FURTHER RESOLVED that a copy of this resolution and expression of civic appreciation be presented to Brain Gordon on behalf of the undersigned.

William Lamott, President

Kathrine Ehlich

Mark Hanke

Edward Saenz

Michael Seltzer

Pamela Hansen

David Goldberg

Brian S Gordon
BERT GORDON REALTY COMPANY
GORDON REALTY CORPORATION

Bert Gordon Realty Company (MI License # 6505003169) and Gordon Realty Corporation are Michigan Corporations founded by Bert Gordon (1924-1996) in 1950. Bert Gordon was a licensed real estate broker in the State of Michigan since 1950 and was appointed to the State Board of Real Estate Brokers and Salespersons in 1987 where he served continuously until 1994. Brian Gordon, President and owner, has been with Gordon Realty Corporation since 1983.

In 2012 Brian Gordon was appointed, in 2016 elected and in 2020 reelected Trustee of the Village Council, Franklin Michigan, where he served until relocating to Birmingham in 2022; on the Council Legal and Finance Committees, and Commissioner of the Franklin Bingham Fire Department throughout his Council tenure, and elected to President Pro Tem after the 2020 election.

Brian Gordon has been a licensed real estate salesperson in the state of Michigan since 1977 and was licensed as a broker in 1982 (MI License #6502121855). He has also been licensed in the states of Illinois and New York. Prior to joining Gordon Realty, Brian Gordon was a Vice President with Michigan National Bank (now Bank of America) where he specialized in real estate construction and development financing. He holds an honors degree from Michigan State University with a major in Geography, concentrating his course work on Real Estate and related subjects. In addition he has successfully completed course work offered by the Society of Real Estate Appraisers and Continuing Education as required by the State of Michigan.

In 1987 Brian Gordon formed Gordon Management, Inc., a company specializing in the management of commercial buildings, related businesses and real estate syndication.

Brian Gordon has acted as Managing Member/Partner in numerous commercial real estate deals, purchasing, managing, and selling performing properties profitably. This work has included site analysis, conceptualization, promotion, evaluation, lease negotiation and working on financing arrangements. In the course of this type work, he has had extensive dealings with attorneys, accountants, architects, bankers, engineers and store designers as well as local and chain tenants and developers, both on a local and national level.

Brian Gordon has engaged in all facets of the commercial real estate brokerage business handling purchases and sales of all types of income property as well as the assemblage of vacant parcels for developers. Additionally, he has extensive experience leasing commercial spaces in shopping centers of all types and descriptions including storefronts strip shopping centers, community sized shopping centers, regional shopping centers, enclosed malls and freestanding buildings. Brian Gordon has dealt with tenants of all types ranging from independents and franchisees to regional and national Big Box users.

Brian S Gordon

Brian Gordon has acted as agent for landlords and tenants, and buyers and sellers of all types of shopping center and commercial properties.

Brian Gordon has acted as exclusive agent for financial institutions and Bankruptcy Court appointed trustees in the successful sale of numerous properties. These properties have consisted of vacant parcels, commercial buildings, medical buildings, multi tenant and mixed-use properties. Some of the properties have been leased and were performing economically while in other instances the properties were vacant and nonperforming.

Brian Gordon and Gordon Realty have dealt extensively in recycling older, unproductive commercial spaces to newer uses and to productivity. Instances where this was done include buildings vacated by Federal Department Stores, Chatham Grocery Stores, Kmart, and many others.

Integral in these efforts was knowledge of all types of lease arrangements, net, gross and percentage as well as land leases and leasebacks.

Further experience includes knowledge of and familiarity with various laws and ordinances, state, local and federal, which has necessitated working with governmental agencies and local units of government on matters from banking and mortgages and land usage to local zoning and land use restrictions.

Naturally, a thorough knowledge of the constantly changing current market conditions is vital to these efforts. Also necessary, of course, is a constant awareness of ever changing demographic information. Brian Gordon has engaged in these efforts extensively in Wayne, Oakland, Macomb, Washtenaw, Livingston and Ingham Counties, all of southern Michigan and selected metropolitan areas of Ohio and Indiana.

Brian Gordon has been admitted as expert witnesses testifying in U.S. Federal Court and arbitration proceedings regarding historical and current real estate values and leasehold values.

Gordon Realty offers its clients a full range of commercial real estate services in an atmosphere of personal service. Gordon Realty staff and sales/broker associates are all highly trained and specialized in the field of commercial real estate. This specialization gives Gordon Realty's clients comfort in the knowledge that their transactions are all handled in a professional manner and typically with very successful results.

CLERK'S OFFICE

RECEIVED

APR 07 2026
4:56 PM

OFFICE USE ONLY
Meets Requirements? Yes No

Will Attend / Unable to Attend

APPLICATION FOR VACANT CITY COMMISSION SEAT

Thank you for your interest in serving on the City Commission. This application is to fill the vacant Commission seat until the November 2, 2027 general municipal election.

The purpose of this form is to provide the City Commission with basic information about applicants considered for appointment. NOTE: Completed applications are included in the City Commission agenda packets. The information included on this form is available to the public. City Commissioners are subject to the provisions of the Ethics Ordinance (Chapter 2, Article IX of the City Code).

Applications must be submitted to the City Clerk's Office at or before noon on the Wednesday, April 8, 2026. The appointment will be made at the Monday, April 13, 2026 regular meeting of the City Commission.
(Please print clearly)

Name **Debra Horner**

Phone **248-854-4411**

Residential Address **1800 Pine Street**

Email **dhorner@umich.edu**

Residential City, Zip **Birmingham 48009**

Length of Residence **34 years**

Business Address **735 S. State Street, Suite 5312**

Occupation **U-M research program manager and lecturer**

Business City, Zip **Ann Arbor 48109**

List your related employment experience

Center for Local, State, and Urban Policy, Gerald R. Ford School of Public Policy - *Fall 2008- present*

I'm the Senior Program Manager for the Michigan Public Policy Survey (MPPS), overseeing the administration of a statewide census survey of 1,856 Michigan local governments (https://closup.umich.edu/michigan-public-policy-survey)

List your related community activities

Birmingham Environmental Sustainability Committee chair – *Jan 2026-present*

Birmingham Environmental Sustainability Committee and original Ad Hoc Committee vice chair – *March 2023- Jan 2026*

League of Women Voters Oakland Area (LWVOA) Voter Guide and VOTE411 Coordinator - *2004-present*

List your related educational experience

PhD, University of Michigan, Ann Arbor, Michigan, Department of Political Science, August 2007

Master's in Political Science, Florida State University, Tallahassee, Florida, December 1992

Bachelor of Arts in Political Science and History, Duke University, Durham, MC, May 1991

What skills, experiences, or perspectives do you bring to the role that would benefit the City and its residents?

I have spent my career at the University of Michigan conducting research on Michigan local government policymaking, including cities like Birmingham. I have co-written over 100 policy reports (https://closup.umich.edu/michigan-public-policy-survey) on a wide variety of topics that the Birmingham City Commission grapples with, from fiscal health and budgeting, roads, water and sewer, resident engagement, planning and zoning, housing, workforce issues, and more. I've worked closely with Michigan state agencies and with organizations like the Michigan Municipal League to help understand the challenges Michigan municipalities face, the resources they need, and the policy solutions different communities across the state are pursuing.

In addition, in 2023 I was selected as a member of Birmingham's Ad Hoc Environmental Sustainability Committee and now chair the permanent Committee, working with city staff and other residents to develop and promote Green policies that benefit our community and region.

I am a 34-year resident whose family roots in Birmingham are deep. I live next door to the home my husband's grandparents bought when it was built in the 1950s and lived in for the next fifty years. His father and uncle, he himself, and all three of our children went to Seaholm High School. Birmingham is our forever home. I'm committed to helping the City continue to promote and manage growth, our neighborhoods to stay interconnected and to flourish, and to preserve Birmingham as an aspirational community where people want to live, visit, work, start businesses, raise families, and age in place.

What is your vision for the City's future, and how does it align with the Commission's strategic goals?

As might be expected from my choice of committee position, I feel the Commission's goal of **environmental sustainability** and protecting our natural environment is absolutely critical for Birmingham's long-term success. I believe we should push to be among the leading communities in the state in adopting policies that shrink our dependence on fossil fuels, clean our air and water, build resilience against extreme weather and flooding, cultivate flourishing biodiversity and expand the tree canopy in the city's landscapes.

The City must work in partnership with our residents and businesses to make all of this work on sustainability successful, which ties into the larger aim of expanding resident participation in city governance overall, to meet the goal of an **engaged and connected community**. I believe the strengthening of our democracy begins at the local level, and we can work diligently to bring residents to the table before decisions are made, to be welcoming to their perspectives, and to make sure the Commission's choices are informed by the preferences of residents across the entire city. Engage Birmingham is a terrific tool we already have for communicating with a self-selected group of residents, and I've been helping to develop the citywide resident survey that will hopefully reveal some additional insights about the people and groups we don't always hear from. Getting people to pay attention and possibly even show up takes work, but I believe that effort on our part will pay off in greater trust and better policymaking.

I also want to maintain and expand Birmingham's legacy reputation as an excellent community for residents, with a focus on both foundational services such as public safety and infrastructure improvements to quality-of-life amenities like our high-quality parks, walkable Downtown, and community events that bring residents together. The backbone of this is our amazing city workforce. In order to continue to provide **efficient and effective service**, we need to prioritize recruiting and retaining the highest quality personnel and then providing them with a workplace environment that promotes innovation, mission-driven work, competitive pay, and work flexibility where possible.

What do you see as the biggest challenges facing the City, and how would you address them as a Commissioner?

In the short term, I am concerned about an economic downturn in the state and nationwide. I have confidence in the City's financial risk management, but I am interested in learning more about our budget and long-range planning for revenues, expenditures, capital costs, and any liability we carry. In addition, I only know (at best!) what the average resident does about the debates around funding and potential funding for large-scale projects like 400 East Lincoln, The Community House, Derby Bridge replacement, or City Hall/Police Station renovation, but as a Commissioner I want to ensure the city is prepared to weather a potential recession or other economic turbulence.

In the long-term, I'm similarly concerned about funding, but specifically in our need to focus on road, water and sewer, and stormwater maintenance and improvements in a sustainable, data-driven way that reduces the burden of these recurring costs as much as possible. I'd love to see us integrate resilience into city projects (use of public easements to manage stormwater and create naturalized areas, permeable surfaces where feasible, etc.), and also discuss how to make long-term planning and funding decisions that could help reduce lifecycle costs and minimize disruption to residents and businesses.

What opportunities do you think the City should prioritize in the next 1-5 years?

I'm excited about the upcoming Zoning Ordinance update and the effort to bring our zoning into alignment with the Birmingham Plan 2040 Master Plan and to make it clearer and more predictable so that development and investment is encouraged but also in line with community expectations and long-term City goals.

I'd like to see the City and individual departments have a consistent and dedicated approach to seeking out state and federal grant opportunities. It takes a certain amount of capacity, particularly staff time, to find and apply for external funding, but now that large-scale funding like that which came from ARPA or IIJA has been phased out, looking for other funding sources for new or innovative projects could be fruitful.

Finally, we should institute carbon reduction and climate resilience programming and policies into municipal operations. Environmental sustainability in Birmingham starts with leadership and action by City government, and we can enact both small-scale (e.g., anti-idling policy for municipal vehicles) and larger-scale (e.g., transitioning to electric and alternative-fuel equipment, phasing out the use of all chemical pesticides, herbicides and fertilizers on City property and in park maintenance operations) to inspire buy-in and commensurate action by the broader community.

To the best of your knowledge, do you or a member of your immediate family have any direct financial or business relationships with any supplier, service provider or contractor of the City of Birmingham from which you or they derive direct compensation or financial benefit? **No**

Do you currently have a relative serving on the City Commission? **No**

Per the City Charter: "No person shall be eligible to the office of commissioner who shall not be an elector in the city and who has not been a resident of the city for at least one (1) year immediately prior to his election."
Are you an elector (registered voter) in the City of Birmingham and have you been a resident for at least 1 year prior to your application? yes

Signature of Applicant

4/7/26
Date

BIRMINGHAM
A WALKABLE CITY

OFFICE USE ONLY
Meets Requirements? Yes No

Will Attend / Unable to Attend

APPLICATION FOR VACANT CITY COMMISSION SEAT

Thank you for your interest in serving on the City Commission. This application is to fill the vacant Commission seat until the November 2, 2027 general municipal election.

The purpose of this form is to provide the City Commission with basic information about applicants considered for appointment. NOTE: Completed applications are included in the City Commission agenda packets. The information included on this form is available to the public. City Commissioners are subject to the provisions of the Ethics Ordinance (Chapter 2, Article IX of the City Code).

Applications must be submitted to the City Clerk's Office at or before noon on the Wednesday, April 8, 2026. The appointment will be made at the Monday, April 13, 2026 regular meeting of the City Commission.
(Please print clearly)

Name Mary E. Jaye

Phone 248 760-9638

Residential Address 288 Ravine

Email mejaye@gmail.com

Residential City, Zip Birmingham 48009

Length of Residence 33 years

Business Address

Occupation Retired Automotive Executive

Business City, Zip

List your related employment experience

As an executive for Chrysler/DaimlerChrysler/FCA/Stellantis, I was involved in all aspects of product and commercial development and had extensive decision-making responsibility on business proposals. I also have experience developing and reviewing legal agreements (technical, operational, distribution/franchise).
My recent time on the HDC has provided some perspective into the functioning of the city and the responsibilities of the commissions.

List your related community activities Most current, relevant:

- Commissioner (Alt), Birmingham Historic Districts Commission (2023-present)
- Board Member, "SAIL" - Solutions for Adult Interdependent Living (2023-present)
- 4H Volunteer, Wayne County – Pingree Farms, Viticulture Program (2022 -2025)
- Board Member, MSU Broad School of Business Advisory Board (2010-2017)

List your related educational experience

- MBA – Strategic Planning and International Business, University of Michigan
- BA – Marketing, Michigan State University

What skills, experiences, or perspectives do you bring to the role that would benefit the City and its residents?

Throughout my 40-year automotive career, I was known as a strong decision-maker, with the ability to consider a broad array of factors to determine what actions were consistent with our corporate strategy, and then ensured we implemented those actions efficiently and effectively.
I bought my first home in Little San Francisco and have lived in it for 33 years. I have seen many changes in Birmingham and the neighborhoods. I believe we can support growth and modern living in the city, while still maintaining the unique character, charm of its older homes and the other strengths that first attracted me to the city.

What is your vision for the City's future, and how does it align with the Commission's strategic goals?

I believe Birmingham can continue to grow and thrive, but we need to not lose perspective of its core strengths: a charming, tree-lined, walkable city with great schools, and amazing resources and services. We need to protect these core strengths, especially as we implement the vision set in the Master Plan 2040.

What do you see as the biggest challenges facing the City, and how would you address them as a Commissioner?

- Implementing the 2040 Master Plan. We have an impressive and far-reaching plan that was originally intended to focus on the neighborhoods. We need to ensure we are considering the input of the residents and prioritizing their interests.
- Availability of affordable housing. As our population ages, we need to attract young families and a wider demographic, as well as allow options for seniors. This problem has become even more challenging in Birmingham due to the high price of homes/land and the interest in developing new, large structures. We need to explore more options.
- Aged and over-stressed infrastructure – With costs continuing to rise, the challenge to replace our aging roads, sewers and bridge becomes even greater. Improvement projects need to be scrutinized and prioritized, and we need to ensure projects are delivered on a timely basis and within budget. It's important we focus on the "must haves," not the "nice to haves."
- Street noise. In the past 5 years, increased road noise has greatly impacted the quality of life for those living near Woodward. While this is a complex challenge, we need to work with the legislature for speedy resolution.

What opportunities do you think the City should prioritize in the next 1-5 years?

- Birmingham provides residents and visitors great walkability on tree lined streets and wonderful parks and greenspace. We need to protect our core strengths of being a walkable city and having Tree City status.
- We are blessed with a strong tax base; we need to ensure we spend wisely.
- Coming from the HDC, I am concerned about losing the historic homes and buildings that help make our city so charming and attractive. Like with the affordable housing challenge, increasing purchase prices and the interest in residential development make this challenging. We should work with the Historic District Commission and their recently publish Historic Preservation Master Plan to identify ways to move forward to prioritize preservation.

To the best of your knowledge, do you or a member of your immediate family have any direct financial or business relationships with any supplier, service provider or contractor of the City of Birmingham from which you or they derive direct compensation or financial benefit? If yes, please explain:

None

Do you currently have a relative serving on the City Commission? No

Per the City Charter: "No person shall be eligible to the office of commissioner who shall not be an elector in the city and who has not been a resident of the city for at least one (1) year immediately prior to his election."
Are you an elector (registered voter) in the City of Birmingham and have you been a resident for at least 1 year prior to your application? Yes

Signature of Applicant

4/7/2026
Date

APR 08 2026
11:19 AM

BIRMINGHAM
A WALKABLE CITY

OFFICE USE ONLY
Meets Requirements? Yes No

Will Attend / Unable to Attend

APPLICATION FOR VACANT CITY COMMISSION SEAT

RECEIVED
CLERK'S OFFICE

Thank you for your interest in serving on the City Commission. This application is to fill the vacant Commission seat until the November 2, 2027 general municipal election.

The purpose of this form is to provide the City Commission with basic information about applicants considered for appointment. NOTE: Completed applications are included in the City Commission agenda packets. The information included on this form is available to the public. City Commissioners are subject to the provisions of the Ethics Ordinance (Chapter 2, Article IX of the City Code).

Applications must be submitted to the City Clerk's Office at or before noon on the Wednesday, April 8, 2026. The appointment will be made at the Monday, April 13, 2026 regular meeting of the City Commission.
(Please print clearly)

Name Doug White

Phone 248-825-2223

Residential Address 1342 Holland Street

Email dwhite10@peoplepc.com

Residential City, Zip Birmingham, 48009

Length of Residence 21 years

Business Address

Occupation Automotive

Business City, Zip

List your related employment experience

+ Hino Trucks
+ Ford Motor Company - Retired
+ United States Army Officer

List your related community activities

Multi-Modal Transportation Board: Two Full Terms / Past Chairman
Birmingham Tory Community Association: Past President & Vice-President

List your related educational experience

BA Business Administration - Washington & Jefferson College

What skills, experiences, or perspectives do you bring to the role that would benefit the City and its residents?

I bring a unique perspective having served at the grass roots level as Birmingham's Tory Community Association President and Chairman of Multi-Modal Transportation Board. I bring extremely valuable experience and a desire for collaboration, compassion and understanding along with a sincere goal of best serving the citizens and businesses in the City of Birmingham.

What is your vision for the City's future, and how does it align with the Commission's strategic goals?

My vision for the City is to remain a safe, walkable, vibrant and adaptable community where families want to move to and stay for years ensuring infrastructure, services and atmosphere appeal to residents across all stages of life. I want all our residents to feel proud, invested and engaged in our wonderfull community.

What do you see as the biggest challenges facing the City, and how would you address them as a Commissioner?

I believe the biggest challenge facing the City is our aging infrastructiure and how to address it with timely, cost effective and equitable solutions.
I don't beleive there is one single solution. Rather, it will require investigating a myriad of opportunities for funding, regulation modifications, potential public/private partnerships and prioritization. I think expanded benchmarking of some of the hundreds of very similar cities in Michigan and beyond facing like challenges can garner new and workable ideas.

What opportunities do you think the City should prioritize in the next 1-5 years?

+ Infrastructure needs
+ Building / property issues, including, but not limited to Community House, 400 East Lincoln, parking structures and a new police station.
+ Street safety including parking, speed & noise control, especially on Woodward Avenue.

To the best of your knowledge, do you or a member of your immediate family have any direct financial or business relationships with any supplier, service provider or contractor of the City of Birmingham from which you or they derive direct compensation or financial benefit? If yes, please explain:

No

Do you currently have a relative serving on the City Commission? No

Per the City Charter: "No person shall be eligible to the office of commissioner who shall not be an elector in the city and who has not been a resident of the city for at least one (1) year immediately prior to his election."
Are you an elector (registered voter) in the City of Birmingham and have you been a resident for at least 1 year prior to your application? Yes

Doug White
Signature of Applicant

4/7/2026
Date

Doug White

RECEIVED
CLERK'S OFFICE

BIRMINGHAM
A WALKABLE CITY

CITY COMMISSION

Last Name Home Address	First Name	Personal Phone Work Cell E-Mail	Appointed	Term Expires
Baller	**Clinton**	*cballer@bhamgov.org*	11/11/2019	11/1/2027 Mayor
Haig	**Andrew**	*ahaig@bhamgov.org*	11/8/2021	11/2/2029
Host	**Brad**	*bhost@bhamgov.org*	11/11/2019	11/1/2027
Kolb	**Bill (William)**	*bkolb@bhamgov.org*	11/10/2025	11/1/2029
Kozlowski	**Kevin**	*kkozlowski@bhamgov.org*	11/10/2025	11/1/2029
Vacant		*along@bhamgov.org*	11/13/2023	11/1/2027
Longe	**Therese**	*tlonge@bhamgov.org*	11/11/2019	11/1/2027

City Attorney: **Beier Howlett**
3001 W. Big Beaver Road, Suite 200
Troy, MI 48084
645-9400 – FAX 645-9344

BIRMINGHAM
A WALKABLE CITY

RULES OF PROCEDURE FOR THE CITY COMMISSION

Open Meetings

Regular meetings and special meetings of the Birmingham City Commission, which are normally held in the Commission Room of the Municipal Building, 151 Martin Street, shall be open to the public, in compliance with the Michigan Open Meetings Act.

It is the desire of the city commission to conclude all business not later than 11:00 PM. The commission will consider this goal during their deliberations.

Closed Sessions

All meetings of the Commission shall be open to the public and shall be held in a place available to the general public. A closed session, a meeting or part of a meeting that is closed to the public, may be called for the permissible purposes included in the Open Meetings Act (Act 267 of 1976 as amended). Examples of such purposes include personnel evaluation, collective bargaining, purchase or lease of real property, and pending litigation.

Agenda

The Commission Meeting Agenda, including minutes, warrants, correspondence and reports shall be distributed to the City Commission on or before the Friday prior to the meeting date. Agendas shall also be made available for public review in the City Clerk's Office and on the City website. Minutes shall not normally be read as part of the meeting.

Minutes

The minutes shall include the mandatory information as required by the Open Meetings Act 267 of 1976; Section 15.269. The minutes shall reflect an overview or brief summary of the subject matter and any Commission comments that may have had an effect on the outcome. Commission comments may include a summary in support or opposed and discussion which may be relevant for future reference.

The minutes shall include a participating citizen’s name and position on an issue when there is public comment during the commission meeting in all of the following instances: (1) a public hearing, (2) an agenda item or (3) recognition of citizens in the audience.

Presiding Officer

On the second Monday of November annually, the City Commission shall meet at a special workshop prior to the regular City Commission meeting, in order to discuss the selection of one of its members to serve as Mayor, who shall be the presiding officer of the Commission. At the workshop, the City Commission will discuss the qualifications, characters, willingness and abilities of particular commissioners to serve as Mayor. At the regular meeting, the City Commission shall enter into a motion and vote as to the election of the Mayor. The Mayor shall preside at all meetings of the City Commission, and be the Chief Executive head of the City and shall have other powers and perform other duties as are or may be imposed or authorized by the laws of the State, by the City Charter, or by the Commission. He or she shall be the conservator of the peace and may exercise within the City the powers conferred to suppress disorder.

At the same workshop the City Commission shall discuss the qualifications, characters, willingness, and abilities to elect another member of the Commission as Mayor Pro-Tem. At the regular meeting, the City Commission shall enter into a motion and vote as to the election of the Mayor Pro-Tem, who in the absence or disability of the Mayor shall act in his or her stead and shall during the time of such absence or disability exercise all of the duties and possess all of the powers of the Mayor.

In the absence or disability of the Mayor Pro-Tem, the City Commission may temporarily appoint one of its members to that office.

The Mayor and Mayor Pro-Tem, as a member of the City Commission, shall have the right to vote on all matters before the Commission; however, he or she shall not have the right to veto.

Conduct of Business

Commission Meetings shall be governed by the rules contained in the most recent edition of Robert's Rules of Order, Newly Revised in all instances in which they are applicable and not inconsistent with the statutes of the United States or the State of Michigan, or with the Charter or adopted of the City of Birmingham or these Rules of Procedure.

Commissioners should be recognized by the presiding officer before speaking.

Commissioners' Attendance at Boards and Committees

It is the decision of the Commission that to avoid the appearance of or a possibility of potential influence or duress upon appointees, or to avoid the possibility of violating the OMA, commissioners shall refrain from appearing at various boards and committees in person or with their names addressed upon remote attendance. Exceptions may occur upon presentation and vote of the entire Commission.

Voting

Birmingham's City Charter states that four members of the City Commission shall constitute a quorum; that the Commission shall act only by ordinance or resolution, that is, an official action in the form of a motion; and that a minimum of four votes shall be required to adopt any such motion.

For all Boards, Commissions or Committees appointed by the City Commission the minimum number of votes shall be the same as the quorum number for that body. State statute, City of Birmingham Charter or ordinance may require a larger number of affirmative votes to approve certain actions for either the City Commission or appointed Boards.

The City Commission may take action on any motion either by voice or by roll-call vote. A roll-call vote shall be taken if requested by any Commissioner, the City Clerk, or any member of the public in attendance.

A motion may be amended or modified by combining the original motion and the modifications in one motion, provided all City Commission Members agree to include the "friendly amendment" in the original motion.

A Commission member may abstain from voting on a motion if he or she: 1) has a conflict of interest; or 2) lacks sufficient information about the issue to be decided. Any Commissioner who abstains from voting on a motion shall state, for the record, at the outset of the discussion both his or her intention to abstain and reason for doing so. Should the need to abstain become clear during discussion, the member shall state his or her intention at that time. The Commissioner shall then be prohibited from participating in any further discussion or debate on the issue.

After a motion has been voted upon, any Commissioner who voted on the prevailing side may move to "reconsider" said motion at the same meeting, or at the next regularly scheduled meeting, provided no action has been taken as a result of the previous vote.

General consent or consensus (in lieu of a motion) may be used to give direction. In this case, the minutes shall indicate that a majority consented.

Citizen Participation

During any City Commission meeting, any person may question or comment upon any specific agenda item at the time the City Commission considers that item.

The public shall also be invited to make comments on any item not on the meeting agenda under the agenda item, "Meeting Open To The Public For Items Not On The Printed Agenda."

No person shall address the City Commission without first having been recognized by the presiding officer. Once recognized, the member of the public shall go to one of the available microphones, and state his or her name and community of residence before speaking.

Speakers may be requested to limit their comments so as to provide opportunities for comments from all interested persons. In particular, no member of the public shall normally be permitted to speak a second time on the same issue until all others wishing to make a presentation on the subject have had an opportunity to do so.

If any person becomes loud or unruly, the presiding officer may rule that person out of order and may forfeit that person's opportunity to speak further. A person may also be expelled from the meeting for breach of the peace.

Commission Vacancies

If a vacancy occurs on the City Commission, it shall be filled by a vote of the remaining Commissioners (not including the member who is vacating his or her seat). The vote to fill a vacancy shall be taken during a public meeting held within the time prescribed by State Law. Candidates for a vacant seat need not have previously served on, nor sought election to, the Commission.

The person selected to fill a vacancy shall serve only until the next following general election, at which time any remaining unexpired term shall be filled by the voters.

Appointment Procedures

No member of the City Commission shall serve on any Board of the City of Birmingham, except the Retirement System, unless membership is required by Michigan Statute or the Birmingham City Charter.

When the City Commission desires to fill a vacancy on an appointed City of Birmingham Board, Commission or Committee, the City Clerk shall give notice to the public by publishing the intent to fill the vacancy on the City website.

If the number of persons nominated for appointment to a City Board, Commission or Committee does not exceed the number of positions to be filled, the City Commission may use a voice vote. If the number of nominations exceeds the number of positions to be filled, nominees shall be voted upon in the order in which they were nominated, either by voice or by roll-call vote.

If no nominee receives the required four votes for appointment, the process of nomination and voting may be repeated either at the same meeting or at a subsequent meeting. If the Commission desires, the position may be re-noticed.

Requests for members of the City Commission to serve on non-city bodies shall be given to the Mayor, who shall make such information available to all Commissioners. Members shall indicate their interest in such positions to the Mayor and the appointment shall officially be made at a public meeting.

Amendment or Suspension of the Rules of Procedure

These rules may be changed at any meeting of the City Commission by a majority vote with notice at the previous meeting or by a 2/3 vote (5) without notice.

Drafted by Eleanor A. Siewert, Birmingham City Commissioner - June, 1991

Revised June 28, 2004, April 8, 2013, August 26, 2013, December 13, 2021, May 18, 2023

Sec. 2-26. - Regular meetings.

Regular meetings of the city commission shall be held not less than twice a month on such days as the city commission shall determine. If a regular meeting should fall on a legal holiday, the city commission may cancel the meeting or hold the meeting on the next day that is not a legal holiday. For purposes of this section, legal holiday means any day designated as a state or national holiday and those days so designated by resolution of the city commission.

(Code 1963, § 1.700; Ord. No. 1524, 6-22-92; Ord. No. 2135, 8-26-13)

Sec. 2-27. - Annual schedule of meetings.

At the beginning of each calendar year, the city clerk shall prepare, post in city hall, and make available to the public a notice containing the schedule of regular city commission meetings for the year.

(Code 1963, § 1.701; Ord. No. 1524, 6-22-92)

Sec. 2-28. - Cancellation of meetings.

The city commission may cancel a future meeting by a majority vote.

(Code 1963, § 1.702; Ord. No. 1524, 6-22-92)

Sec. 2-29. - Time and location of meetings.

City commission meetings shall be held in the commission room of city hall at 7:30 p.m., unless another location or time has previously been designated for a particular meeting and notice provided in accordance with the requirements of the Open Meetings Act (MCL 15.261 et seq.), as amended.

(Code 1963, § 1.703; Ord. No. 1524, 6-22-92; Ord. No. 1837, 6-28-04)

Secs. 2-30—2-50. - Reserved.

MEMORANDUM

City Attorney

DATE: April 13, 2026

TO: Jana Ecker, City Manager

FROM: Mary Kucharek, City Attorney
Tracy Gaudenzi, City Attorney

SUBJECT: Request for Closed Session Under MCL § 15.268, Sec.8(1)(d) of the Open Meetings Act

---

INTRODUCTION:
The City Attorney is requesting to meet with the City Commission in closed session to discuss pending litigation pursuant to MCL § 15.268, Sec.8(1)(d) of the Open Meetings Act.

BACKGROUND:
Pursuant to MCL § 15.268 Sec. 8(1)(d) of the Open Meetings Act the City Attorney wishes to discuss the possible purchase or lease of real property up to the time an option to purchase or lease that real property is obtained.

LEGAL REVIEW:
I am requesting a closed session on Monday, April 13, 2026 pursuant to MCL § 15.268, Sec.8(1)(d) of the Open Meetings Act to consider the purchase or lease of real property up to the time an option to purchase or lease that real property is obtained.

FISCAL IMPACT:
To be discussed in closed session.

SUSTAINABILITY:
N/A

DESIGN CONSIDERATIONS:
N/A

PUBLIC COMMUNICATIONS:
N/A

SUMMARY:

The City Commission is asked to conduct a closed session on Monday, April 13, 2026 pursuant to MCL § 15.268, Sec.8(1)(d) of the Open Meetings Act to consider the purchase or lease of real property up to the time an option to purchase or lease that real property is obtained.

ATTACHMENTS:

1. Open Meetings Act, MCL § 15.268 Closed sessions; permissible purposes, Sec. 8(1)(d).

SUGGESTED COMMISSION ACTION:

Make a motion to meet in closed session pursuant to MCL § 15.268, Sec.8(1)(d) of the Open Meetings Act to consider the purchase or lease of real property up to the time an option to purchase or lease that real property is obtained.

OPEN MEETINGS ACT (EXCERPT)
Act 267 of 1976

15.268 Closed sessions; permissible purposes; applicability to independent citizens redistricting commission.

Sec. 8. (1) Except as otherwise provided in subsection (2), a public body may meet in a closed session only for the following purposes:

(a) To consider the dismissal, suspension, or disciplining of, or to hear complaints or charges brought against, or to consider a periodic personnel evaluation of, a public officer, employee, staff member, or individual agent, if the named individual requests a closed hearing. An individual requesting a closed hearing may rescind the request at any time, in which case the matter at issue must be considered after the rescission only in open sessions.

(b) To consider the dismissal, suspension, or disciplining of a student if the public body is part of the school district, intermediate school district, or institution of higher education that the student is attending, and if the student or the student's parent or guardian requests a closed hearing.

(c) For strategy and negotiation sessions connected with the negotiation of a collective bargaining agreement if either negotiating party requests a closed hearing.

(d) To consider the purchase or lease of real property up to the time an option to purchase or lease that real property is obtained.

(e) To consult with its attorney regarding trial or settlement strategy in connection with specific pending litigation, but only if an open meeting would have a detrimental financial effect on the litigating or settlement position of the public body.

(f) To review and consider the contents of an application for employment or appointment to a public office if the candidate requests that the application remain confidential. However, except as otherwise provided in this subdivision, all interviews by a public body for employment or appointment to a public office must be held in an open meeting pursuant to this act. This subdivision does not apply to a public office described in subdivision (j).

(g) Partisan caucuses of members of the state legislature.

(h) To consider material exempt from discussion or disclosure by state or federal statute.

(i) For a compliance conference conducted under section 16231 of the public health code, 1978 PA 368, MCL 333.16231, before a complaint is issued.

(j) In the process of searching for and selecting a president of an institution of higher education established under section 4, 5, or 6 of article VIII of the state constitution of 1963, to review the specific contents of an application, to conduct an interview with a candidate, or to discuss the specific qualifications of a candidate if the particular process of searching for and selecting a president of an institution of higher education meets all of the following requirements:

(*i*) The search committee in the process, appointed by the governing board, consists of at least 1 student of the institution, 1 faculty member of the institution, 1 administrator of the institution, 1 alumnus of the institution, and 1 representative of the general public. The search committee also may include 1 or more members of the governing board of the institution, but the number does not constitute a quorum of the governing board. However, the search committee must not be constituted in such a way that any 1 of the groups described in this subparagraph constitutes a majority of the search committee.

(*ii*) After the search committee recommends the 5 final candidates, the governing board does not take a vote on a final selection for the president until at least 30 days after the 5 final candidates have been publicly identified by the search committee.

(*iii*) The deliberations and vote of the governing board of the institution on selecting the president take place in an open session of the governing board.

(k) For a school board to consider security planning to address existing threats or prevent potential threats to the safety of the students and staff. As used in this subdivision, "school board" means any of the following:

(*i*) That term as defined in section 3 of the revised school code, 1976 PA 451, MCL 380.3.

(*ii*) An intermediate school board as that term is defined in section 4 of the revised school code, 1976 PA 451, MCL 380.4.

(*iii*) A board of directors of a public school academy as described in section 502 of the revised school code, 1976 PA 451, MCL 380.502.

(*iv*) The local governing board of a public community or junior college as described in section 7 of article VIII of the state constitution of 1963.

(*l*) For a county veteran services committee to interview a veteran or a veteran's spouse or dependent regarding that individual's application for benefits or financial assistance and discuss that individual's

© Courtesy of www.legislature.mi.gov

application for benefits or financial assistance, if the applicant requests a closed hearing. This subdivision does not apply to a county veteran services committee voting on whether to grant or deny an individual's application for benefits or financial assistance. As used in this subdivision, "county veteran services committee" means a committee created by a county board of commissioners under section 1 of 1953 PA 192, MCL 35.621, or a soldiers' relief commission created under section 2 of 1899 PA 214, MCL 35.22.

(2) This act does not permit the independent citizens redistricting commission to meet in closed session for any purpose. As used in this subsection, "independent citizens redistricting commission" means the independent citizens redistricting commission for state legislative and congressional districts created in section 6 of article IV of the state constitution of 1963.

History: 1976, Act 267, Eff. Mar. 31, 1977;—Am. 1984, Act 202, Imd. Eff. July 3, 1984;—Am. 1993, Act 81, Eff. Apr. 1, 1994;—Am. 1996, Act 464, Imd. Eff. Dec. 26, 1996;—Am. 2018, Act 467, Eff. Mar. 27, 2019;—Am. 2021, Act 31, Imd. Eff. June 24, 2021;—Am. 2021, Act 166, Imd. Eff. Dec. 27, 2021.

Compiler's note: Enacting section 1 of Act 166 of 2021 provides:

"Enacting section 1. This amendatory act is intended to clarify that the independent citizens redistricting commission for state legislative and congressional districts, since its establishment under section 6 of article IV of the state constitution of 1963, has been required to conduct all of its business at open meetings, without exception and in a manner that invites wide public participation throughout this state, as provided in section 6(10) of article IV of the state constitution of 1963, and that the commission continues to be subject to this unqualified open meetings requirement."

© Courtesy of www.legislature.mi.gov

MEMORANDUM

City Attorney

DATE: April 13, 2026

TO: Jana Ecker, City Manager

FROM: Mary Kucharek, City Attorney
Tracy Gaudenzi, City Attorney

SUBJECT: Request for Closed Session Under MCL § 15.268, Sec.8(1)(e) of the Open Meetings Act

---

INTRODUCTION:
The City Attorney is requesting to meet with the City Commission in closed session to discuss pending litigation pursuant to MCL § 15.268, Sec.8(1)(e) of the Open Meetings Act.

BACKGROUND:
Pursuant to MCL § 15.268 Sec. 8(1)(e) of the Open Meetings Act the City Attorney wishes to discuss pending litigation for *The City of Birmingham v The Community House Association, Birmingham, Michigan,* Oakland County Circuit/Business Court Case No.: 2025-219218 CB Honorable Michael Warren.

LEGAL REVIEW:
I am requesting a closed session on Monday, April 13, 2026 pursuant to MCL § 15.268, Sec.8(1)(e) of the Open Meetings Act to discuss pending litigation entitled *The City of Birmingham v The Community House Association, Birmingham, Michigan,* Oakland County Circuit/Business Court Case No.: 2025-219218 CB Honorable Michael Warren.

FISCAL IMPACT:
To be discussed in closed session.

SUSTAINABILITY:
N/A

DESIGN CONSIDERATIONS:
N/A

PUBLIC COMMUNICATIONS:
N/A

SUMMARY:

The City Commission is asked to conduct a closed session on Monday, April 13, 2026 pursuant to MCL § 15.268, Sec.8(1)(e) of the Open Meetings Act to discuss pending litigation entitled *The City of Birmingham v The Community House Association, Birmingham, Michigan,* Oakland County Circuit/Business Court Case No.: 2025-219218 CB Honorable Michael Warren.

ATTACHMENTS:

1. Open Meetings Act, MCL § 15.268 Closed sessions; permissible purposes, Sec. 8(1)(e).

SUGGESTED COMMISSION ACTION:

Make a motion to meet in closed session pursuant to MCL § 15.268, Sec.8(1)(e) of the Open Meetings Act to discuss pending litigation entitled *The City of Birmingham v The Community House Association, Birmingham, Michigan,* Oakland County Circuit/Business Court Case No.: 2025-219218 CB Honorable Michael Warren.

OPEN MEETINGS ACT (EXCERPT)
Act 267 of 1976

15.268 Closed sessions; permissible purposes; applicability to independent citizens redistricting commission.

Sec. 8. (1) Except as otherwise provided in subsection (2), a public body may meet in a closed session only for the following purposes:

(a) To consider the dismissal, suspension, or disciplining of, or to hear complaints or charges brought against, or to consider a periodic personnel evaluation of, a public officer, employee, staff member, or individual agent, if the named individual requests a closed hearing. An individual requesting a closed hearing may rescind the request at any time, in which case the matter at issue must be considered after the rescission only in open sessions.

(b) To consider the dismissal, suspension, or disciplining of a student if the public body is part of the school district, intermediate school district, or institution of higher education that the student is attending, and if the student or the student's parent or guardian requests a closed hearing.

(c) For strategy and negotiation sessions connected with the negotiation of a collective bargaining agreement if either negotiating party requests a closed hearing.

(d) To consider the purchase or lease of real property up to the time an option to purchase or lease that real property is obtained.

(e) To consult with its attorney regarding trial or settlement strategy in connection with specific pending litigation, but only if an open meeting would have a detrimental financial effect on the litigating or settlement position of the public body.

(f) To review and consider the contents of an application for employment or appointment to a public office if the candidate requests that the application remain confidential. However, except as otherwise provided in this subdivision, all interviews by a public body for employment or appointment to a public office must be held in an open meeting pursuant to this act. This subdivision does not apply to a public office described in subdivision (j).

(g) Partisan caucuses of members of the state legislature.

(h) To consider material exempt from discussion or disclosure by state or federal statute.

(i) For a compliance conference conducted under section 16231 of the public health code, 1978 PA 368, MCL 333.16231, before a complaint is issued.

(j) In the process of searching for and selecting a president of an institution of higher education established under section 4, 5, or 6 of article VIII of the state constitution of 1963, to review the specific contents of an application, to conduct an interview with a candidate, or to discuss the specific qualifications of a candidate if the particular process of searching for and selecting a president of an institution of higher education meets all of the following requirements:

(*i*) The search committee in the process, appointed by the governing board, consists of at least 1 student of the institution, 1 faculty member of the institution, 1 administrator of the institution, 1 alumnus of the institution, and 1 representative of the general public. The search committee also may include 1 or more members of the governing board of the institution, but the number does not constitute a quorum of the governing board. However, the search committee must not be constituted in such a way that any 1 of the groups described in this subparagraph constitutes a majority of the search committee.

(*ii*) After the search committee recommends the 5 final candidates, the governing board does not take a vote on a final selection for the president until at least 30 days after the 5 final candidates have been publicly identified by the search committee.

(*iii*) The deliberations and vote of the governing board of the institution on selecting the president take place in an open session of the governing board.

(k) For a school board to consider security planning to address existing threats or prevent potential threats to the safety of the students and staff. As used in this subdivision, "school board" means any of the following:

(*i*) That term as defined in section 3 of the revised school code, 1976 PA 451, MCL 380.3.

(*ii*) An intermediate school board as that term is defined in section 4 of the revised school code, 1976 PA 451, MCL 380.4.

(*iii*) A board of directors of a public school academy as described in section 502 of the revised school code, 1976 PA 451, MCL 380.502.

(*iv*) The local governing board of a public community or junior college as described in section 7 of article VIII of the state constitution of 1963.

(*l*) For a county veteran services committee to interview a veteran or a veteran's spouse or dependent regarding that individual's application for benefits or financial assistance and discuss that individual's

© Courtesy of www.legislature.mi.gov

application for benefits or financial assistance, if the applicant requests a closed hearing. This subdivision does not apply to a county veteran services committee voting on whether to grant or deny an individual's application for benefits or financial assistance. As used in this subdivision, "county veteran services committee" means a committee created by a county board of commissioners under section 1 of 1953 PA 192, MCL 35.621, or a soldiers' relief commission created under section 2 of 1899 PA 214, MCL 35.22.

(2) This act does not permit the independent citizens redistricting commission to meet in closed session for any purpose. As used in this subsection, "independent citizens redistricting commission" means the independent citizens redistricting commission for state legislative and congressional districts created in section 6 of article IV of the state constitution of 1963.

History: 1976, Act 267, Eff. Mar. 31, 1977;—Am. 1984, Act 202, Imd. Eff. July 3, 1984;—Am. 1993, Act 81, Eff. Apr. 1, 1994;—Am. 1996, Act 464, Imd. Eff. Dec. 26, 1996;—Am. 2018, Act 467, Eff. Mar. 27, 2019;—Am. 2021, Act 31, Imd. Eff. June 24, 2021;—Am. 2021, Act 166, Imd. Eff. Dec. 27, 2021.

Compiler's note: Enacting section 1 of Act 166 of 2021 provides:

"Enacting section 1. This amendatory act is intended to clarify that the independent citizens redistricting commission for state legislative and congressional districts, since its establishment under section 6 of article IV of the state constitution of 1963, has been required to conduct all of its business at open meetings, without exception and in a manner that invites wide public participation throughout this state, as provided in section 6(10) of article IV of the state constitution of 1963, and that the commission continues to be subject to this unqualified open meetings requirement."

© Courtesy of www.legislature.mi.gov

MEMORANDUM

City Attorney

DATE: April 13, 2026

TO: Jana Ecker, City Manager

FROM: Mary Kucharek, City Attorney
Tracy Gaudenzi, City Attorney

SUBJECT: Request for Closed Session Under MCL § 15.268, Sec.8(1)(e) of the Open Meetings Act

---

INTRODUCTION:
The City Attorney is requesting to meet with the City Commission in closed session to discuss pending litigation pursuant to MCL § 15.268, Sec.8(1)(e) of the Open Meetings Act.

BACKGROUND:
Pursuant to MCL § 15.268 Sec. 8(1)(e) of the Open Meetings Act the City Attorney wishes to discuss pending litigation for *Paul Wells v City of Birmingham, et al,* U.S. District Court, Eastern District of Michigan, Court Case No. 2:25-cv-13640-TGB-APP.

LEGAL REVIEW:
I am requesting a closed session on Monday, April 13, 2026 pursuant to MCL § 15.268, Sec.8(1)(e) of the Open Meetings Act to discuss pending litigation entitled *Paul Wells v City of Birmingham, et al,* U.S. District Court, Eastern District of Michigan, Court Case No. 2:25-cv-13640-TGB-APP.

FISCAL IMPACT:
To be discussed in closed session.

SUSTAINABILITY:
N/A

DESIGN CONSIDERATIONS:
N/A

PUBLIC COMMUNICATIONS:
N/A

SUMMARY:

The City Commission is asked to conduct a closed session on Monday, April 13, 2026 pursuant to MCL § 15.268, Sec.8(1)(e) of the Open Meetings Act to discuss pending litigation entitled *Paul Wells v City of Birmingham, et al,* U.S. District Court, Eastern District of Michigan, Court Case No. 2:25-cv-13640-TGB-APP.

ATTACHMENTS:

1. Open Meetings Act, MCL § 15.268 Closed sessions; permissible purposes, Sec. 8(1)(e).

SUGGESTED COMMISSION ACTION:

Make a motion to meet in closed session pursuant to MCL § 15.268, Sec.8(1)(e) of the Open Meetings Act to discuss pending litigation entitled *Paul Wells v City of Birmingham, et al,* U.S. District Court, Eastern District of Michigan, Court Case No. 2:25-cv-13640-TGB-APP.

OPEN MEETINGS ACT (EXCERPT)
Act 267 of 1976

15.268 Closed sessions; permissible purposes; applicability to independent citizens redistricting commission.

Sec. 8. (1) Except as otherwise provided in subsection (2), a public body may meet in a closed session only for the following purposes:

(a) To consider the dismissal, suspension, or disciplining of, or to hear complaints or charges brought against, or to consider a periodic personnel evaluation of, a public officer, employee, staff member, or individual agent, if the named individual requests a closed hearing. An individual requesting a closed hearing may rescind the request at any time, in which case the matter at issue must be considered after the rescission only in open sessions.

(b) To consider the dismissal, suspension, or disciplining of a student if the public body is part of the school district, intermediate school district, or institution of higher education that the student is attending, and if the student or the student's parent or guardian requests a closed hearing.

(c) For strategy and negotiation sessions connected with the negotiation of a collective bargaining agreement if either negotiating party requests a closed hearing.

(d) To consider the purchase or lease of real property up to the time an option to purchase or lease that real property is obtained.

(e) To consult with its attorney regarding trial or settlement strategy in connection with specific pending litigation, but only if an open meeting would have a detrimental financial effect on the litigating or settlement position of the public body.

(f) To review and consider the contents of an application for employment or appointment to a public office if the candidate requests that the application remain confidential. However, except as otherwise provided in this subdivision, all interviews by a public body for employment or appointment to a public office must be held in an open meeting pursuant to this act. This subdivision does not apply to a public office described in subdivision (j).

(g) Partisan caucuses of members of the state legislature.

(h) To consider material exempt from discussion or disclosure by state or federal statute.

(i) For a compliance conference conducted under section 16231 of the public health code, 1978 PA 368, MCL 333.16231, before a complaint is issued.

(j) In the process of searching for and selecting a president of an institution of higher education established under section 4, 5, or 6 of article VIII of the state constitution of 1963, to review the specific contents of an application, to conduct an interview with a candidate, or to discuss the specific qualifications of a candidate if the particular process of searching for and selecting a president of an institution of higher education meets all of the following requirements:

(*i*) The search committee in the process, appointed by the governing board, consists of at least 1 student of the institution, 1 faculty member of the institution, 1 administrator of the institution, 1 alumnus of the institution, and 1 representative of the general public. The search committee also may include 1 or more members of the governing board of the institution, but the number does not constitute a quorum of the governing board. However, the search committee must not be constituted in such a way that any 1 of the groups described in this subparagraph constitutes a majority of the search committee.

(*ii*) After the search committee recommends the 5 final candidates, the governing board does not take a vote on a final selection for the president until at least 30 days after the 5 final candidates have been publicly identified by the search committee.

(*iii*) The deliberations and vote of the governing board of the institution on selecting the president take place in an open session of the governing board.

(k) For a school board to consider security planning to address existing threats or prevent potential threats to the safety of the students and staff. As used in this subdivision, "school board" means any of the following:

(*i*) That term as defined in section 3 of the revised school code, 1976 PA 451, MCL 380.3.

(*ii*) An intermediate school board as that term is defined in section 4 of the revised school code, 1976 PA 451, MCL 380.4.

(*iii*) A board of directors of a public school academy as described in section 502 of the revised school code, 1976 PA 451, MCL 380.502.

(*iv*) The local governing board of a public community or junior college as described in section 7 of article VIII of the state constitution of 1963.

(*l*) For a county veteran services committee to interview a veteran or a veteran's spouse or dependent regarding that individual's application for benefits or financial assistance and discuss that individual's

© Courtesy of www.legislature.mi.gov

application for benefits or financial assistance, if the applicant requests a closed hearing. This subdivision does not apply to a county veteran services committee voting on whether to grant or deny an individual's application for benefits or financial assistance. As used in this subdivision, "county veteran services committee" means a committee created by a county board of commissioners under section 1 of 1953 PA 192, MCL 35.621, or a soldiers' relief commission created under section 2 of 1899 PA 214, MCL 35.22.

(2) This act does not permit the independent citizens redistricting commission to meet in closed session for any purpose. As used in this subsection, "independent citizens redistricting commission" means the independent citizens redistricting commission for state legislative and congressional districts created in section 6 of article IV of the state constitution of 1963.

History: 1976, Act 267, Eff. Mar. 31, 1977;—Am. 1984, Act 202, Imd. Eff. July 3, 1984;—Am. 1993, Act 81, Eff. Apr. 1, 1994;—Am. 1996, Act 464, Imd. Eff. Dec. 26, 1996;—Am. 2018, Act 467, Eff. Mar. 27, 2019;—Am. 2021, Act 31, Imd. Eff. June 24, 2021;—Am. 2021, Act 166, Imd. Eff. Dec. 27, 2021.

Compiler's note: Enacting section 1 of Act 166 of 2021 provides:

"Enacting section 1. This amendatory act is intended to clarify that the independent citizens redistricting commission for state legislative and congressional districts, since its establishment under section 6 of article IV of the state constitution of 1963, has been required to conduct all of its business at open meetings, without exception and in a manner that invites wide public participation throughout this state, as provided in section 6(10) of article IV of the state constitution of 1963, and that the commission continues to be subject to this unqualified open meetings requirement."

© Courtesy of www.legislature.mi.gov

FOR YOUTH DEVELOPMENT®
FOR HEALTHY LIVING
FOR SOCIAL RESPONSIBILITY

April 6, 2026

Jana Ecker, City Manager
City of Birmingham
151 Martin Street
Birmingham, MI 48009

Dear Ms. Ecker,

I am writing to follow up on our recent discussions regarding the potential for the YMCA to serve as the pool operator at 400 E. Lincoln.

Over the past several months, our team has given this opportunity careful and thoughtful consideration. We have explored multiple operating scenarios and worked diligently to determine whether we could sustainably deliver this service in a manner consistent with both our mission and our organizational standards.

After thorough evaluation, we have come to the difficult conclusion that we are not in a position to pursue pool operations at this location.

A key factor in this decision is the current labor environment, which continues to present meaningful challenges in attracting and retaining the level of qualified staff necessary to consistently deliver the high-quality member experience that the YMCA is known for. This has been further compounded by the previously announced facility closure, which led many of our team members to pursue other opportunities and has made it difficult to re-establish a stable, long-term staffing model.

While we have made considerable efforts in this area, we do not have sufficient confidence that we could sustain the staffing structure required to meet both YMCA standards and the expectations of the Birmingham community. In addition, based on our analysis, we do not have sufficient confidence that we could attract the level of membership and program participation necessary to responsibly cover the ongoing operating costs.

This is not a decision we have arrived at lightly.

For over 100 years, 70 of which have been at 400 E. Lincoln, the YMCA has been proud to serve the Birmingham community, and we have remained deeply committed to exploring every viable path that would allow us to continue that service at the current location. Our desire to remain present and engaged in Birmingham remains strong.

YMCA OF METROPOLITAN DETROIT
1401 Broadway, Suite 3A, Detroit, Michigan 48226
P 313 267 5300 F 313 267 5330 www.ymcadetroit.org

We are sincerely grateful for the partnership, openness, and extraordinary level of commitment demonstrated by you, City leadership, elected officials, the City Attorney's office, and Mayor Clinton Baller throughout this process. Especially in our recent discussions, it was clear that each of you went above and beyond in a genuine effort to explore every possible path forward for the YMCA. The time, care, and creativity invested in these conversations reflect the very best of Birmingham's leadership and community spirit. We are deeply appreciative of the opportunity to have engaged in such a thoughtful and collaborative process.

While this decision marks the end of our exploration of operating the pool and providing services at 400 E. Lincoln at the end of August, it does not mark the end of our commitment to the Birmingham community. We will continue to explore meaningful ways to serve residents in the future, even as we recognize that our path forward will extend beyond this particular location.

Thank you again for your leadership, partnership, and continued collaboration.

With appreciation,

Parrish Underwood
President & CEO

cc: Gail von Staden
Board Chair

BIRMINGHAM
A WALKABLE CITY

Alex Bingham <abingham@bhamgov.org>

Birmingham needs a community pool

1 message

Maureen Field <maureen.b.field@gmail.com> Sun, Mar 29, 2026 at 12:25 PM
To: city-commission@bhamgov.org

Dear City Commissioners,

The city of Birmingham needs a community pool. Please work with the YMCA or another organization to keep the pool at 400 E Lincoln St. open. There are many reasons why this is important for the city.

- Swimming is great heart healthy, low impact exercise both for the elderly and for the young people in the community. Kids have lots of fun in a pool and when the Y officially closes, there will be no place in Birmingham for that activity. Community members will lose a place to congregate and bond together.

- The city leaders must care for the well-being of its citizens and should be interested in the health and welfare of its citizens.

- Next is renting only 1/3 of the building. That means the taxpayers will be funding the rest of the building. The city needs other tenants for 400 E. Lincoln St and a tenant to run the pool is ideal. This will help to keep Birmingham taxes which are already high from rising further.

- Pools are very expensive to build. If the pool is mothballed, it will soon lose its value and it will be more expensive to start it up again and even much more expensive to build a new one.

- When the Y closes the businesses in the city will lose the patronage of those who came to the Y for exercise. After working out people like to go out to breakfast or lunch and businesses will lose these customers. People will be swimming in Royal Oak, Beverly Hills, Farmington, Bloomfield Township and will be taking their shopping and eating out to those communities. Keeping the pool open helps the Birmingham business community.

Please do everything in your power to keep the pool at 400 E Lincoln St operating before everyone finds other places to exercise and will not come back.

Sincerely,

Maureen Bell Field
David A. Field
1732 Norfolk St.
Birmingham, Mi 48009

-

--
You received this message because you are subscribed to the Google Groups "City Commission" group.
To unsubscribe from this group and stop receiving emails from it, send an email to city-commission+unsubscribe@bhamgov.org.
To view this discussion visit https://groups.google.com/a/bhamgov.org/d/msgid/city-commission/CAG5PtWdYvf3%3D5GrbaSJ13xr7H%3DsaScETDga0TwbYdgWYTa%2BnQg%40mail.gmail.com.

BIRMINGHAM
A WALKABLE CITY

Alex Bingham <abingham@bhamgov.org>

Join us Tuesday, March 31st at the YMCA

1 message

LP Marketing Services Inc. <lpeterson@lpmsinc.onmicrosoft.com> Sun, Mar 29, 2026 at 6:49 AM
To: Kevin Kozlowski <kkozlowski@bhamgov.org>, City Commission <city-commission@bhamgov.org>

Good morning, City Commissioner's,

The YMCA in Birmingham is scheduled to close permanently on April 30, 2026. However, the final exercise classes for members will take place this Tuesday, March 31st. Lynda Scott, who has dedicated over 35 years to teaching aerobics at the Birmingham YMCA, will be transitioning to NEXT on April 1st, and some of her students may choose to follow her there.

Many YMCA members remain uncertain about their next steps. Their decisions are influenced by factors such as convenience, proximity, cost, disappointment, lack of available exercise facilities, familiarity, loyalty, or hesitation to start anew. For many, adapting to change becomes increasingly difficult with age, especially when the value of a safe and familiar environment grows. The strong sense of community and daily routines established at the Birmingham YMCA have provided members with stability and purpose, and their absence will be deeply felt.

I believe this moment presents a valuable opportunity for you, as a city commissioner, to visit the YMCA and experience its vibrant atmosphere firsthand. If you come around 11:00 AM this Tuesday, March 31st, you will witness the conclusion of the exercise classes and see the YMCA at its busiest.

I recognize that the decision to close the YMCA involved the YMCA administration, city funds, and NEXT, creating a situation where no single party bears sole responsibility. Nevertheless, this decision occurred during your term as city commissioner. For this reason, I believe it is important for you to understand the profound impact this closure has had on our members. I also hope that, following NEXT's redesign, the rest of the building will be reconsidered for future community use.

My request is not for you to be formally recognized during your visit. Rather, I hope you will come and observe what our 75-year-old institution has meant to so many in the community. I strongly encourage you to join us at the Birmingham YMCA this Tuesday March 31st at 11 am.

Thank you!

Linda Peterson

1532 E. Melton

Birmingham, MI 48009

248-894-9010

(Resident and YMCA member)

From: Kevin Kozlowski <kkozlowski@bhamgov.org>
Sent: Friday, March 27, 2026 8:37 AM
To: Lindapete <Lpeterson02@comcast.net>
Subject: Re: Stop by the YMCA

Hi Linda,

Thanks for your email. I don't think I'll have the opportunity to stop by. Between work and kids, mornings are usually very busy for me. Is there something in particular you'd like me to know or someone you'd like me to speak with? Happy to listen, but I'm afraid my schedule probably won't allow a visit.

Best,

Kevin

On Thu, Mar 26, 2026 at 5:58 AM 'Lindapete' via City Commission <city-commission@bhamgov.org> wrote:

> Why don't each of you stop by the Birmingham YMCA this week. Best time would be in the morning before 10:30 am.
>
> I am a resident and been a member of the YMCA for over 35 years.
>
> Thank you - hope to see you soon.
>
> Sent from my iPhone
> Linda Peterson
> 1532 E. Melton
> Birmingham, MI 48009
> 248-894-9010
>
> --
> You received this message because you are subscribed to the Google Groups "City Commission" group.
> To unsubscribe from this group and stop receiving emails from it, send an email to city-commission+unsubscribe@bhamgov.org.
> To view this discussion visit https://groups.google.com/a/bhamgov.org/d/msgid/city-commission/993F9206-7D86-40B8-9205-24D1214FE2E6%40comcast.net.

--
You received this message because you are subscribed to the Google Groups "City Commission" group.
To unsubscribe from this group and stop receiving emails from it, send an email to city-commission+unsubscribe@bhamgov.org.
To view this discussion visit https://groups.google.com/a/bhamgov.org/d/msgid/city-commission/PH7PR10MB6555DC7045E12CB8373EC588E055A%40PH7PR10MB6555.namprd10.prod.outlook.com.

YMCA closure- City commisioner invite.docx
15K

Closure of the Birmingham YMCA: Community Impact and Invitation

March 29, 2026

Birmingham City Commissioners

Linda Peterson – Birmingham resident and member of YMCA

The YMCA in Birmingham is scheduled to close permanently on April 30, 2026. However, the final exercise classes for members will take place this Tuesday, March 31st. Lynda Scott, who has dedicated over 35 years to teaching aerobics at the Birmingham YMCA, will be transitioning to NEXT on April 1st, and some of her students may choose to follow her there.

Many YMCA members remain uncertain about their next steps. Their decisions are influenced by factors such as convenience, proximity, cost, disappointment, lack of available exercise facilities, familiarity, loyalty, or hesitation to start anew. For many, adapting to change becomes increasingly difficult with age, especially when the value of a safe and familiar environment grows. The strong sense of community and daily routines established at the Birmingham YMCA have provided members with stability and purpose, and their absence will be deeply felt.

I believe this moment presents a valuable opportunity for you, as a city commissioner, to visit the YMCA and experience its vibrant atmosphere firsthand. If you come around 11:00 AM this Tuesday, March 31st, you will witness the conclusion of the exercise classes and see the YMCA at its busiest.

I recognize that the decision to close the YMCA involved the YMCA administration, city funds, and NEXT, creating a situation where no single party bears sole responsibility. Nevertheless, this decision occurred during your term as city commissioner. For this reason, I believe it is important for you to understand the profound impact this closure has had on our members. I also hope that, following NEXT's redesign, the rest of the building will be reconsidered for future community use.

My request is not for you to be formally recognized during your visit. Rather, I hope you will come and observe what our 75-year-old institution has meant to so many in the community.

BIRMINGHAM
A WALKABLE CITY

Alex Bingham <abingham@bhamgov.org>

YMCA Closure

1 message

'Carolyn Slone' via City Commission <city-commission@bhamgov.org> Fri, Mar 27, 2026 at 10:51 AM
Reply-To: Carolyn Slone <carolynslone@comcast.net>
To: "city-commission@bhamgov.org" <city-commission@bhamgov.org>

Dear Birmingham Commissioners,

I am a regular user of the pool at the Birmingham YMCA. I implore you to find a way to keep it open to the public.

As I understand it, NEXT will use about 35% of the usable square footage of the building. Why can't the city lease the remainder of the building to the YMCA to generate revenue for the ongoing operation and maintenance of the building?

If the city proceeds with ejecting the YMCA, and then moves NEXT into tthe building, they are still on the hook to either decommission the pool or maintain the water in it. Either route takes money. Pool users will pay money.

I also spend money in Birmingham at the grocery store restaurants that will in the future be spent wherever I go to swim. It makes sense, especially with the price of gas: I am out, I need a few things, I stop on my way home, or, my friends and I are hungry and go for a bite. These trips will look different if am going elsewhere to swim.

I truly believe that the Birmingham YMCA is one one of the things that makes our town an attractive, first class place to live and work.

Kind Regards,
Carolyn Slone

--
You received this message because you are subscribed to the Google Groups "City Commission" group.
To unsubscribe from this group and stop receiving emails from it, send an email to city-commission+unsubscribe@bhamgov.org.
To view this discussion visit https://groups.google.com/a/bhamgov.org/d/msgid/city-commission/805155302.358525.1774623115799%40connect.xfinity.com.

BIRMINGHAM
A WALKABLE CITY

Alex Bingham <abingham@bhamgov.org>

Possible keeping the Y open along side with NEXT

1 message

Susan Victor <susans2aussies@gmail.com> Sat, Mar 28, 2026 at 2:00 PM
To: city-commission@bhamgov.org

Dear Birmingham Council,
Please consider leasing the remaining portion back to the Y.
The closure of the Y in Birmingham will send large number of members to other facilities, including Royal Oak Y which may have a difficult time with excess member in a smaller facility. Everyone there is very nice, but it's not the Birmingham Y- and the friendships that will be lost with no home base for us. I would think having a YMCA/Next building would be a nice lure in the community. For health as well as fiscally helpful.

Next plans to use about one third of the building at 400 east Lincoln- the lease with the city will charge them for what they use. Should the city eat this money or pass it on to the taxpayers? The best solution would be to combine the facilties and make it total community old and young- Children would not go to the special events of Next. Next membership is less then 40% Birmingham residents. Joining together could really be the logical choice so the city treasury can get more money from the YMCA members- and not absorb 60% of costs. A pool is a beneficial part of many city entities, (including Southfield is building). Pool activities help all Birmingham residents- They are heart healthy and low impact good for seniors as well as all Y members .
When the Y was in full swing there were programs such as BBD swimmers,
Please consider the financial part of this suggestion - YMCA members can help defray some of the costs. Please consider the joining of the two groups. It's a healthier choice for all as well as fiscally much more helpful.
Thank you for your time, Please let me know your thoughts…….
Susan Victor

--
You received this message because you are subscribed to the Google Groups "City Commission" group.
To unsubscribe from this group and stop receiving emails from it, send an email to city-commission+unsubscribe@bhamgov.org.
To view this discussion visit https://groups.google.com/a/bhamgov.org/d/msgid/city-commission/93ADC81F-87BC-418C-9785-41D0D310842E%40gmail.com.

BIRMINGHAM
A WALKABLE CITY

Alex Bingham <abingham@bhamgov.org>

pool at NEXT

1 message

Gerry Anders <ra6684105@gmail.com> Fri, Mar 27, 2026 at 8:11 AM
To: City-commission@bhamgov.org

I am a NEXT member. I was so excited about having a pool at Next like the pickleball players have a decent court now.

It is a disservice to NEXT members and all Birmingham citizens not to have the pool.(we understand membership fees may go up). Aquatic programs are low impact, heart healthy opportunities to maintain good health. You, too, will need these programs soon. These programs should not be squelched.

Hoping you have the foresight in this matter.
Gerry Anders

--
You received this message because you are subscribed to the Google Groups "City Commission" group.
To unsubscribe from this group and stop receiving emails from it, send an email to city-commission+unsubscribe@bhamgov.org.
To view this discussion visit https://groups.google.com/a/bhamgov.org/d/msgid/city-commission/CAHOQEc1sfC2mzgj2FvRAcaduTqtwAt%2BKx_xaiLH9hRf6KZvujA%40mail.gmail.com.

BIRMINGHAM
A WALKABLE CITY

Alex Bingham <abingham@bhamgov.org>

Fwd: Preserving the ECC

1 message

Kristen Janick Boundy <kejanick@gmail.com> Mon, Apr 6, 2026 at 1:32 PM
To: City Commission <city-commission@bhamgov.org>

Dear Mayor and Members of the City Commission,

I'm forwarding this email chain (see below) to make you aware of a situation involving the Community House and its Early Childhood Center (ECC) that is having a real impact on local families, including my own.

A group of parents, myself included, came together to try to find a path forward that would allow the ECC to stay open during this transition. We proposed taking over operations through a lease arrangement. We believed this would interest the Community House as it would relieve them of the day-to-day responsibilities, while keeping things stable for the kids and teachers and provide revenue back to the Community House Organization.

Unfortunately, despite the effort that went into putting together what we believed was a thoughtful and workable solution, it was declined without much opportunity for deeper conversation.

I'll be honest...this outcome is really upsetting, and I know many other families feel the same way. Part of why I'm sharing this is because the Community House has a "mission & promise" declared on their website and these actions directly contradict their stated mission/promise:

- *Mission: "To impact lives through exceptional educational, cultural and social experiences that provide the means to fund programs that help others."*
- *Promise: "We promise that those with whom we connect will experience the unique combination of heightened learning, camaraderie, and the satisfaction of knowing they are helping others in need."*

I'm not asking for anything specific in this email, just hoping to make sure you're aware of what's happening. If it would be helpful to talk more or hear directly from parents, I'd be more than willing to connect.

Sincerely,
Kristen Boundy

---------- Forwarded message ---------
From: **Alison Gaudreau** <AGaudreau@communityhousehelps.org>
Date: Mon, Mar 23, 2026 at 9:24 AM
Subject: RE: Preserving the ECC
To: kejanick@gmail.com <kejanick@gmail.com>

Dear Kristen,

Thank you for following up. I know the uncertainty is difficult and I appreciate the work you've done to bring a group of parents together to support Sarah and the teachers. On behalf of the Board of Directors, I want to share that during our meeting on March 20, we discussed the ECC and your groups' desire for continuity of care for your children during this transition. Unfortunately, a lease arrangement will not be feasible.

We do appreciate the parents' efforts to think creatively and explore potential solutions.

Thank you again for your engagement.

Best,
Alison

From: Kristen Janick Boundy <kejanick@gmail.com>
Sent: Sunday, March 22, 2026 8:02 PM
To: Alison Gaudreau <AGaudreau@communityhousehelps.org>
Subject: Re: Preserving the ECC

Dear Alison,

I wanted to follow up on the note I shared regarding the ECC proposal, as I haven't received a response yet.

We're at a point where we need to understand whether this is something the Board is open to discussing. When you have a moment, could you please reply to confirm receipt and share any initial thoughts?

I know this is a busy and complex time, and I appreciate your consideration. A timely response would mean a lot to our group as we navigate next steps.

Thank you,

Kristen Boundy

On Tue, Mar 17, 2026 at 8:15 PM Kristen Janick Boundy <kejanick@gmail.com> wrote:

> Dear Members of the Board,
>
> I'm writing as both a parent and someone who cares deeply about this community and the role the Early Childhood Center plays in it. I know the Board is focused on its next chapter, and I wanted to share a potential path that could support that while also preserving something that means so much to so many families.
>
> At its core, this is about continuity for our kids and teachers. The relationships and stability they have at the ECC are incredibly meaningful, especially at this stage in their lives. Our hope is to keep that intact while things evolve more broadly.
>
> One idea we'd love to explore is a partnership where a parent-led group takes on operating the ECC through a lease agreement. This would allow the Board to step away from the day-to-day responsibilities of running the school, while still ensuring it continues to serve the community. We had started organizing around a similar path earlier on, but paused those efforts once the purchase agreement with JFD was in place.
>
> From an operational standpoint, we're prepared to take on running the daycare, supporting the teachers, managing day-to-day needs, and keeping things stable. The goal would be to create a straightforward arrangement that provides the TCH Board with lease income while you focus on the bigger picture.
>
> We also understand that the long-term future of the building may change. If that happens, we see ourselves as temporary stewards of the ECC, committed to making sure that when the time comes, there's a smooth transition to whatever comes next. Most importantly, we'd want to hand off a school that's still thriving.

> The Community House has always been a place that brings people together. This feels like an opportunity to carry that forward, finding a way through a complicated moment that reflects the strength of the community around it.
>
> We care deeply about keeping the ECC going, and we're ready to put in the work to make that happen. If the Board is open to discussing this further, I'd welcome the opportunity to connect with you to talk through the details of a potential lease and next steps.
>
> Thank you again for your time and consideration. Please reply at your earliest convenience.
>
> With appreciation,
> Kristen Boundy
> On behalf of the ECC Parent Group

--
You received this message because you are subscribed to the Google Groups "City Commission" group.
To unsubscribe from this group and stop receiving emails from it, send an email to city-commission+unsubscribe@bhamgov.org.
To view this discussion visit https://groups.google.com/a/bhamgov.org/d/msgid/city-commission/CAEJjfX_PVuRqqBo4zqbhME8XjpW%2BZ77v-tY6rQemJ01e05aNSQ%40mail.gmail.com.

BIRMINGHAM
A WALKABLE CITY

Alex Bingham <abingham@bhamgov.org>

Community House Bankruptcy

1 message

Kathleen Devereaux <kcdevereaux@yahoo.com> Wed, Apr 8, 2026 at 8:29 AM
To: "city-commission@bhamgov.org" <city-commission@bhamgov.org>
Cc: Alex Bingham <abingham@bhamgov.org>

TO THE CITY COMMISSION

The Community House Association (a.k.a The Debtor) has launched their most outrageous gambit yet by filing for bankruptcy protection. They are forum-shopping for a court which will let them carry out their plan, in defiance of the Deed Restrictions, their fiduciary duty as a non-profit board, and their original charitable purpose.

The Association's Bankruptcy pleadings disclose they are hoping to reorganize via Chapter 11, subchapter V, (streamlined bankruptcy for small business). The Debtor intends to continue business as usual, but only until the Community House closes June 30, 2026, as was the Association's original plan, stated in its November 3, 2025 announcement.

Before filing their petition, the Association had turned down an offer by a group representing the parents of ECC enrollees, to lease the premises, retain the current employees and take over operations of the ECC to ensure it would continue to run without interruption.

This offer was turned down the day before the Bankruptcy Petition was filed on March 26, 2026.

The ECC parents were told their offer was "unfeasible."

I seriously question whether this bankruptcy filing was in good faith. I suspect it was undertaken solely, or mainly, to block progress of the City's lawsuit in Oakland County, pursuant to the automatic stay.

The Association has also refused to negotiate in good faith with the City.

After June 30, the pleadings (and statements of Alison Gaudreau to the press) indicate that the Association intends to pursue a form of liquidation.

The form the liquidation would take is selling the real estate, and possibly personal property, such as donated Marshall Fredericks sculptures on the premises, for in excess of $7,040,000, so the Association can carry out their new mission of serving other charities within a ten-mile radius of Birmingham. In other words, so they can continue the second prong of their original plan, which the City sued to enjoin.

According to their bankruptcy pleadings (Case number 26-43351-tjt, Docket # 6 DECLARATION OF ALISON GAUDREAU PARENS 18) the Association seeks Chapter 11 protection in order to "a) preserve its ongoing operations b) pursue a sale of its assets and c) through its restructuring, continue its philanthropic mission to serve the community after the conclusion of Chapter 11."

A mission that entails selling the building is not a "continued" mission; it is a new mission not in the Board's power to adopt. The very sale of the building in violation of the deed restrictions subverts the actual mission of the Community House Association as decreed by its founders, its articles of incorporation and bylaws.

A non-profit association in bankruptcy is still bound by state law, and cannot be excused from carrying out its original purpose as stated in its founding documents. Transfers of property of the bankruptcy estate can only be done in accordance with state law. See: 11 USC 363 Section (d) (1) and 11 USC section 1129 (16). The founding documents spell out the purpose as running a Community House for the City of Birmingham. Whether or not the Association was dissolved, and/or has abandoned its purpose, are major issues in the Oakland County lawsuit, which has now been stayed.

I venture to say most non-profits that file for Chapter 11 do so in order to stay in business, not to sell their main asset and use the proceeds to start an entirely different business.

I continue to marvel at the Association's arrogance in refusing to litigate or even discuss these matters in good faith, and to seek bankruptcy in order to avoid doing so. It also seems arrogant to seek bankruptcy on the basis of "cash flow and liquidity issues" while incurring even more expense, (e.g **$65,223** paid to bankruptcy attorneys so far). Especially when their own motion for Summary Disposition, the first hearing on the merits of Oakland County case 2025-219218-CB, was due to be heard as early as June 2026. (Their

attorneys in that case are scheduled as unsecured creditors owed the amount of **$115,672.42**). (Official Form 204, # 2).

Detailed financial disclosures, filed by the Debtor itself, fail to portray an organization teetering on the brink of insolvency.

See schedules filed April 2, 2026, Official Forms 206, (Docket # 27) and 206 Summary.(#26) Also Form 207, Statement of Financial Affairs. (#28)

From Official Form 206 Summary:

Real property:

Copy line 88 from *Schedule A/B*..... ..... $**7,040,000.00**

1b.**Total personal property:**

Copy line 91A from *Schedule A/B*..... .... $**3,010,183.02**

1c.**Total of all property:**

Copy line 92 from *Schedule A/B*..... $**10,050,183.02**

Their total liabilities, secured and unsecured, scheduled or not, are reported as **2,284,681.36**

Recall that the Association's FY 2023 and 2024 form 990s disclosed that they spent down virtually their entire endowment by the amount of **$1,222,433**.

But now, Schedule 206, line 78, discloses that the Association has an endowment of **$1,591,160.28** held by the Community Foundation of Southeast Michigan.

The Community House's revenue generating activities continue apace, with many events planned through the anticipated closing date. The only reason its business model is "unfeasible" is because the Association has decided to shut it down, in order to pursue a completely new and unprecedented business model that does not require a building. In fact, the decision to close operations by a date certain has led to more expense: deposits to be returned, "retention bonuses" paid to several employees to ensure that they will remain and continue operations despite knowing their jobs will end by a date certain.

The ECC has lost enrollment, as Allison Gaudreau's Declaration points out, not due to ebbing interest, but because parents needed to make other arrangements in the face of all the uncertainty. (Apparently the Association did not offer parents a retention bonus.)

Once again, the Association is trying to dress a self-inflicted wound as fortune's adversity.

What are actually discretionary expenditures are being portrayed as necessary and urgent only because the debtor itself has chosen to cease operations, and is hoping to exploit the bankruptcy process to walk away with a profit.

I ask again: Can they do that? And will we let them?

The City and the Attorney General's office, Corporate Oversight division, are named parties in interest in this case.

As such, both should aggressively pursue objections to the the bankruptcy filing itself and to the Association's reorganization plan. They must represent the interests of the many donors, past and present, who gave to support the Community House and its true mission.

Kathleen Devereaux

Birmingham resident since 1979

BIRMINGHAM
A WALKABLE CITY

Alex Bingham <abingham@bhamgov.org>

No ICE on city property

1 message

Sandra Thake <sandra@thake.net> Sun, Mar 22, 2026 at 5:19 PM
To: city-commission@bhamgov.org

Dear City Commissioners

I am writing in support of Ms. Mallon's and Ms. Schreiber's appearance at the commission meeting on March 9.

I urge the Commission to pass a resolution prohibiting DHS, CBP, and ICE activities on any Birmingham city property without a valid judicial warrant. I furthermore ask you to commit that the city will not enter into a 287(g) agreement with DHS in the future.

This is about public safety. The presence of heavily armed and masked military-style federal agents hunting down neighbors and employees in our city would heavily deteriorate our sense of safety and community.

Thank you for your consideration.

Sandra Thake

784 Shepardbush St
Birmingham

--
You received this message because you are subscribed to the Google Groups "City Commission" group.
To unsubscribe from this group and stop receiving emails from it, send an email to city-commission+unsubscribe@bhamgov.org.
To view this discussion visit https://groups.google.com/a/bhamgov.org/d/msgid/city-commission/BB01C7A4-251A-4AF2-9BE8-7E7127B3E536%40thake.net.

BIRMINGHAM
A WALKABLE CITY

Alex Bingham <abingham@bhamgov.org>

Re: Improvements to the Oak Boulevard Bike Lane

2 messages

Clinton Baller <cmballer@avidpays.com> Thu, Mar 26, 2026 at 5:21 PM
To: Trevor Sullivan <tsullivan111315@gmail.com>, Jana Ecker <Jecker@bhamgov.org>, lblizinski@bhamgiv.org, City Commission <city-commission@bhamgov.org>

Trevor,

I'm going to include City Manager Jana Ecker and City Planner Leah Blizinski in this response. We just amended the duties of our Multi Modal Transportation Board, which Leah oversees, to deal with questions like this. Whether she chooses to bring it to them, or the commission thinks it is worthy of assigning it to them, remains to be seen. You have taken a decent first step in bringing awareness to your concern, and your offer to petition and, better yet, raise money for the cause are interesting. Anything we do usually comes down to dollars and cents, after all.

I would ask Leah to keep you in the loop on any response.

Thanks.

Clinton Baller
Mayor

On Thu, Mar 26, 2026 at 2:41 PM Trevor Sullivan <tsullivan111315@gmail.com> wrote:

> Hey everyone, I wanted to reach out to voice my concerns, what we can do to fix them, and ask what I can do to help get physical barriers installed on the bike lane along Oak Boulevard.
>
> As we start to get glimpses of spring kids are out again riding their bikes around. I personally use the entire stretch of the bike lane to get to and from work everyday Monday through Friday. On my rides I'll notice kids see me riding in the bike lane and they follow leaving the sidewalk for the bike lane. That's great and what we strive for as bike advocates. The problem with oak boulevard is it's not really safe. While I appreciate the use of paint and signs it's not really solving the issue of making a physical barrier between bicyclist and vehicle.
>
> It's been proven protected bike lanes bring more users, make those users feel more comfortable, and even make drivers feel more comfortable. (https://www.peopleforbikes.org/statistics/economic-benefits). The difference between the bike lane on Eton and the bike lane on oak boulevard is a worlds of difference. I personally feel so much more at ease and comfortable on the Eton bike lane than oak boulevards. And I always bring it back to kids, would you feel comfortable with your own child riding in an unprotected bike lane? I personally wouldn't want mine to.
>
> So what can we do to get physical barriers installed? Do we need the community to sign a petition or do we need to fundraise? I want to do anything I can to help get the process moving an happen. Please let me know what I can do and I'll get working on it. Thanks for hearing me out and I look forward to hearing back form some of you soon .
>
> -Trevor

--
You received this message because you are subscribed to the Google Groups "City Commission" group.
To unsubscribe from this group and stop receiving emails from it, send an email to city-commission+unsubscribe@bhamgov.org.
To view this discussion visit https://groups.google.com/a/bhamgov.org/d/msgid/city-commission/CAG8Vh9EqhfQ_NUK1FimOAy9%3Dxcq7UJtRjUyy0JNNgha3t-vmig%40mail.gmail.com.

Trevor Sullivan <tsullivan111315@gmail.com> Thu, Mar 26, 2026 at 6:28 PM
To: Clinton Baller <cmballer@avidpays.com>
Cc: Jana Ecker <Jecker@bhamgov.org>, lblizinski@bhamgiv.org, City Commission <city-commission@bhamgov.org>

I really appreciate the response, including the right people for this job, and the pat on the back.
I look forward to hearing a response from Jana or Leah.

I am curious if you would know how much the cost was for the bike lane on Eton or who would have that information? Like you said everything comes down to dollars and I'm wondering if I could do some research, even if it's just for my own personal curiosity, to make the theoretical protected oak boulevard bike lane cheaper than what was done on Eton.

-Trevor

> On Mar 26, 2026, at 5:21 PM, Clinton Baller <cmballer@avidpays.com> wrote:
>
> Trevor,
>
> I'm going to include City Manager Jana Ecker and City Planner Leah Blizinski in this response. We just amended the duties of our Multi Modal Transportation Board, which Leah oversees, to deal with questions like this. Whether she chooses to bring it to them, or the commission thinks it is worthy of assigning it to them, remains to be seen. You have taken a decent first step in bringing awareness to your concern, and your offer to petition and, better yet, raise money for the cause are interesting. Anything we do usually comes down to dollars and cents, after all.
>
> I would ask Leah to keep you in the loop on any response.
>
> Thanks.
>
> Clinton Baller
> Mayor
>
> On Thu, Mar 26, 2026 at 2:41 PM Trevor Sullivan <tsullivan111315@gmail.com> wrote:
>> Hey everyone, I wanted to reach out to voice my concerns, what we can do to fix them, and ask what I can do to help get physical barriers installed on the bike lane along Oak Boulevard.
>>
>> As we start to get glimpses of spring kids are out again riding their bikes around. I personally use the entire stretch of the bike lane to get to and from work everyday Monday through Friday. On my rides I'll notice kids see me riding in the bike lane and they follow leaving the sidewalk for the bike lane. That's great and what we strive for as bike advocates. The problem with oak boulevard is it's not really safe. While I appreciate the use of paint and signs it's not really solving the issue of making a physical barrier between bicyclist and vehicle.
>>
>> It's been proven protected bike lanes bring more users, make those users feel more comfortable, and even make drivers feel more comfortable. (https://www.peopleforbikes.org/statistics/economic-benefits). The difference between the bike lane on Eton and the bike lane on oak boulevard is a worlds of difference. I personally feel so much more at ease and comfortable on the Eton bike lane than oak boulevards. And I always bring it back to kids, would you feel comfortable with your own child riding in an unprotected bike lane? I personally wouldn't want mine to.
>>
>> So what can we do to get physical barriers installed? Do we need the community to sign a petition or do we need to fundraise? I want to do anything I can to help get the process moving an happen. Please let me know what I can do and I'll get working on it. Thanks for hearing me out and I look forward to hearing back form some of you soon .
>>
>> -Trevor

--
You received this message because you are subscribed to the Google Groups "City Commission" group.
To unsubscribe from this group and stop receiving emails from it, send an email to city-commission+unsubscribe@bhamgov.org.
To view this discussion visit https://groups.google.com/a/bhamgov.org/d/msgid/city-commission/17BF451F-FF0C-4B8A-A734-F2F9F31C3D75%40gmail.com.

BIRMINGHAM
A WALKABLE CITY

Alex Bingham <abingham@bhamgov.org>

Survey Draft feedback; "Dollar Bill" Graphic

1 message

'Kristy Barrett' via City Commission <city-commission@bhamgov.org> Mon, Mar 23, 2026 at 1:53 PM
Reply-To: Kristy Barrett <kristybarrett1@yahoo.com>
To: "city-commission@bhamgov.org" <city-commission@bhamgov.org>, "cballer@bhamgov.org" <cballer@bhamgov.org>, "along@bhamgov.org" <along@bhamgov.org>, "ahaig@bhamgov.org" <ahaig@bhamgov.org>, "bhost@bhamgov.org" <bhost@bhamgov.org>, "bkolb@bhamgov.org" <bkolb@bhamgov.org>, "kkozlowski@bhamgov.org" <kkozlowski@bhamgov.org>, "tlonge@bhamgov.org" <tlonge@bhamgov.org>
Cc: "Kristy H. Barrett" <kristybarrett1@yahoo.com>

City Commissioners attached is feedback regarding the Birmingham Residents Survey – Draft 9, in the agenda tonight.

Q. 8. Consider including an estimate cost of unimproved roads related to an annual millage or bond total. This is a necessary expense due to 100 years old infrastructure. Given the vast amount of aging infrastructure requirements (including City Hall and police station restoration), illuminating the annual cost or total cost add perspective to responders.

Q.11. Consider adding “costs” of utilities option. Given water/sewer charges have increased an average 17% annually these last many years – this is an important metric. One assumes this charge-for-service in part is due to the 100 years old infrastructure in addition to the cost of water. Although the charge for service is not a city tax, the annual increasing cost to taxpayers, already financially stressed, is important. Would a taxpayer rather have the infrastructure replaced and lower service fees or bathrooms in the parks? One is a necessity the other is not, when weighing where personal resources are allocated.

Consider correcting this graph – *picture and the data are not consistent:*

*****WHERE DO YOUR TAX DOLLARS GO?*****

The commonly used “dollar bill” graphic is misleading regarding direct Birmingham Public Schools (BPS) millages. The 6-mill **State Education Tax** is **not** distributed directly to BPS; it is collected by the State of Michigan, deposited into the State School Aid Fund, and then redistributed statewide. As a result, BPS is considered a “donor” district, meaning those 6 mills do not return to Birmingham in full.

This graphic should be corrected. It currently shows 12.8 mills going directly to BPS, however according to the City’s own information, direct to BPS is 8.4 mills. Birmingham voters have **no local control** over the 6-mill state tax. Voters only directly approve local school taxes, such as the **2.3-mill supplemental levy** and the **3.8-mill bond,** equaling 8.4mills. In the dollar graph versus the narrative detail chart, it depicts both the State Education at 0.14 (6 mills) and the same 6 mills attributed to BPS.

It’s understood the State needs make significant changes to K-12 school funding. However, Birmingham taxpayers need to understand taxes they do and do not have local control and choice. The graphic needs to show BPS at 8.4 mills and State of MI at 6.14 with the corresponding per dollar amount.

Tax Rate

You can calculate your tax bill by dividing the taxable value of your property by 1,000 and multiplying that number times the millage rate.

Where do your tax dollars go?

Have you ever wondered what happens to your tax dollars? The city acts as a collection point for various taxing authorities so residents only have to submit one payment. Your payment is then distributed by the city to various taxing authorities on your behalf. The city does not have control over how the other taxing authorities set their tax rates or how they spend your tax dollars. The image above shows how tax dollars are projected to be distributed for the city's fiscal year 2025-2026 (July 1, 2025 through July 1, 2026).

$.31 is retained by City of Birmingham (13.1041 total millage)

- Operating Millage (10.6121). This millage is used to pay for the general operations of the city including police, fire, road improvements, parks, museum and water and sewer improvements.
- Refuse Millage (.6623). This millage is used to pay for residential garbage and recycling collection.
- Library Millage (1.2789). This millage is used to pay for the Baldwin Public Library's operations and capital improvements.
- Senior Services Millage (.3246). This millage is used to fund interim property improvements associated with moving Next from Midvale Elementary to the city-owned YMCA building, and to assist with a portion of the cost of permanent facility improvements.
- Debt Service Millage (.2262). This millage is used to pay the city's long-term debt on bonds approved by Birmingham residents.

$.30 is distributed to Birmingham Public Schools (12.8000 total millage)

These taxes are used to pay for school operations and debt on capital improvements.

$.25 is distributed to Oakland County (10.6175 total millage)

These taxes are used to pay for county operations, county parks, SMART transportation, zoo operations, art museum operations, Huron-Clinton Metropolitan Authority operations, Oakland Schools operations and Oakland Community College operations.

$.14 is distributed to the State of Michigan (6.0000 total millage)

These taxes are collected by the state for the purpose of funding public schools. The taxes are distributed to schools based primarily on the number of students in a school district.

View 2025 Tax Rate Information

Birmingham Homeowner's Principal Residence Tax Rates

The information shown below represents the principal residence millage rates as adopted for 2025. For additional information about the specific millage rates for a property, including special assessments and non-homestead millage rates, please contact the Treasurer's Office at 248.530.1890.

			Summer 2025	Winter 2025
City of Birmingham	Operating		10.6121	-
	Debt		0.2262	-
	Refuse		0.6623	-
	Library		1.2789	-
	Senior Services		0.3246	-
		Total City	13.1041	
Birmingham Public Schools	Supplemental		2.3191	-
	Debt		3.8000	2.3014
		Total Schools	6.1191	2.3014
Oakland County Community College			1.4747	-
Oakland County Intermediate Schools			3.1349	-
State Education Tax			6.0000	-
Oakland County			3.9301	-
Zoo Authority			-	-
Oakland Transit			-	-
Art 9851			-	-
		Total	33.7629	-

Should I have misinterpreted this please let me know
https://bhamgov.org/about_birmingham/city_departments/treasurer_s_office/property_tax_information/index.php

Kristy Barrett

Harmon St. Birmingham

--
You received this message because you are subscribed to the Google Groups "City Commission" group.
To unsubscribe from this group and stop receiving emails from it, send an email to city-commission+unsubscribe@bhamgov.org.
To view this discussion visit https://groups.google.com/a/bhamgov.org/d/msgid/city-commission/77619108.47856.1774288385792%40mail.yahoo.com.

BIRMINGHAM

NOTICE OF INTENTION TO APPOINT TO THE HISTORIC DISTRICT STUDY COMMITTEE

At the regular meeting of Monday, June 22, 2026, the Birmingham City Commission intends to appoint the following positions to the Historic District Study Committee:

- Two regular members to serve three year terms to expire June 25, 2029

Interested citizens may submit an application available at the City Clerk's office or online at www.bhamgov.org/boardopportunities. Applications must be submitted to the City Clerk's office on or before noon on Wednesday, June 17, 2026. These documents will appear in the public agenda for the regular meeting at which time the City Commission may make nominations and vote on appointments.

Duties

The goal of the Historic District Study Committee is to conduct historical research regarding the proposed designation of historic landmarks or districts in the City of Birmingham.
A majority of the members shall have a clearly demonstrated interest in or knowledge of historic preservation, although city residency is not required if an expert on the potential historic district topic is not available among city residents. The Historic District Study Committee shall include representation of at least one member appointed from one or more duly organized local historic preservation organizations. The meetings are held by resolution of the City Commission.

Criteria/Qualifications	**Date Applications Due (by noon)**	**Date of Interview**
Members shall have a clearly demonstrated interest in or knowledge of historic preservation.	6/17/2026	6/22/2026

NOTE: All members of boards and commissions are subject to the provisions of City of Birmingham City Code Chapter 2, Article IX, Ethics and the filing of the Affidavit and Disclosure Statement.

Birmingham Police Department

2025 ANNUAL REPORT

Chief of Police

Scott A. Grewe

Professionalism *Integrity* *Courage*

Our Annual Police Open House is scheduled for Saturday, July 25, 2026, from 10am to 1pm

Table of Contents

1. Chief's Message.....pg. 3
2. Mission and Vision Statement.....pg. 5
3. Core Values.....pg. 6
4. Organizational Chart.....pg. 7
5. Police Executive Command.....pg. 8
6. Personnel Changes..... pg. 9
7. Personnel Distribution and Dept. Seniority.....pg. 10
8. MACP Accreditation Program.....pg. 11
9. Investigations Division.....pg. 12
10. Community Engagement.....pg. 17
11. Auxiliary Officer Unit.....pg. 20
12. CoRe Program.....pg. 21
13. Services Division.....pg. 22
14. Patrol Operations.....pg. 26
15. Contact Information.....pg. 32

Chief's Message

Dear Mayor Baller, City Commissioners, City Manager Ecker, Birmingham residents, community leaders, business representatives, and visitors,

It is my pleasure to present the 2025 edition of the Birmingham Police Department's Annual Report. This report provides an overview of departmental initiatives, crime statistics, community outreach efforts, and operational achievements. It also reflects the continued support we receive from city leadership, which allows us to maintain the resources, training, and technology necessary to meet the evolving needs of our community. The men and women of the Birmingham Police Department work tirelessly each day to serve our community with professionalism, integrity, and courage. I could not be prouder of the dedication and accomplishments demonstrated by our team over the past year.

In 2025, we continued progress on replacing the aging camera system that monitors activity in and around the Police Department, City Hall, and throughout the downtown area. This project began in 2024 and was approximately 50 percent complete by the end of 2025. As the project moves forward, we are expanding coverage to include additional locations such as the intersection of Maple and Adams and Shain Park. During 2025, we also began addressing several safety and security improvements within the police facility. The department partnered with an architectural firm to develop plans to enhance secure prisoner transport, a dedicated interview room, expanded storage capacity, and the dispatch center to increase operational efficiency. We anticipate breaking ground on the first phase of this project in the spring of 2026.

Recruitment and staffing remained a priority in 2025. Through extensive recruitment efforts, the department successfully hired three police officers, one dispatcher, and three parking enforcement assistants. During the year, we also experienced the retirement of an officer, a lieutenant, and a captain, while recognizing the advancement of five members through promotions. I am proud to report that our supervisor training program, first launched in 2023 to prepare and mentor personnel for leadership roles, has continued to prove highly successful in equipping newly promoted members with the skills necessary to lead effectively.

The department is also pleased to report that crime rates in Birmingham remain low. Notable reductions occurred in fraud and larceny incidents, as illustrated in the Three-Year Summary of Incidents chart on page 13 of this report. Additionally, page 16 highlights a steady increase in adult arrests, reflecting proactive enforcement efforts by our patrol and investigative personnel. These positive trends are not solely the result of police efforts but also reflect the strength of an engaged and supportive community. The partnership among our residents, businesses, and police personnel continues to play a critical role in keeping Birmingham a safe place to live, work, and visit.

Chief's Message Cont.

To ensure the highest level of service, the Birmingham Police Department actively participates in several multi-jurisdictional task forces established through cooperative agreements with neighboring agencies. These partnerships enhance our ability to address complex crimes, share resources, and respond effectively to specialized investigations. Throughout this report, you will find additional information about these collaborative efforts and the work accomplished in 2025.

The department currently participates in the following task forces and cooperative initiatives:

·Consolidated PSAP (Public Safety Answering Point)
·MCAT – Major Case Assistance Team
·NET – Narcotics Enforcement Team
·SIU – Special Investigations Unit
·OAKTAC – Oakland County Tactical Unit
·Federal Bureau of Investigation Financial Crimes Task Force
·SOCCIT – South Oakland County Crash Investigation Team
·CoRe – Co-Response Program for People in Crisis
·SWAT – Special Weapons and Tactics

I hope you find this annual report informative and reflective of the hard work and dedication of our department members. I look forward to the opportunities ahead in 2026 as we continue our commitment to providing exceptional service to this outstanding community. Thank you for the continued support our department receives from city leadership, residents, community partners, and business leaders as we work together to uphold the highest standards of policing.

Respectfully Submitted,
Chief Scott A. Grewe
Birmingham Police Department

Mission Statement

The Birmingham Police Department is dedicated to serving with Professionalism, Integrity, and Courage to protect life and property through compassionate and equitable police services.

Vision Statement

The Birmingham Police Department, together with our community, will continue working to make Birmingham the safest city in Michigan.

Core Values

Core values are the fundamental beliefs of a person or organization. These guiding principles dictate behavior and can help people understand the differences between right and wrong. The following core values are upheld every day by the staff of the Birmingham Police Department, both personally and throughout the course of their duties.

Professionalism

The Birmingham Police Department strives to provide the highest standard in policing to serve all people within our community. We value professional excellence and civility by rendering services with courtesy and respect. We are committed to the elimination of bias and divisiveness within the criminal justice system, ensuring equitable, effective, and efficient resolutions for our community.

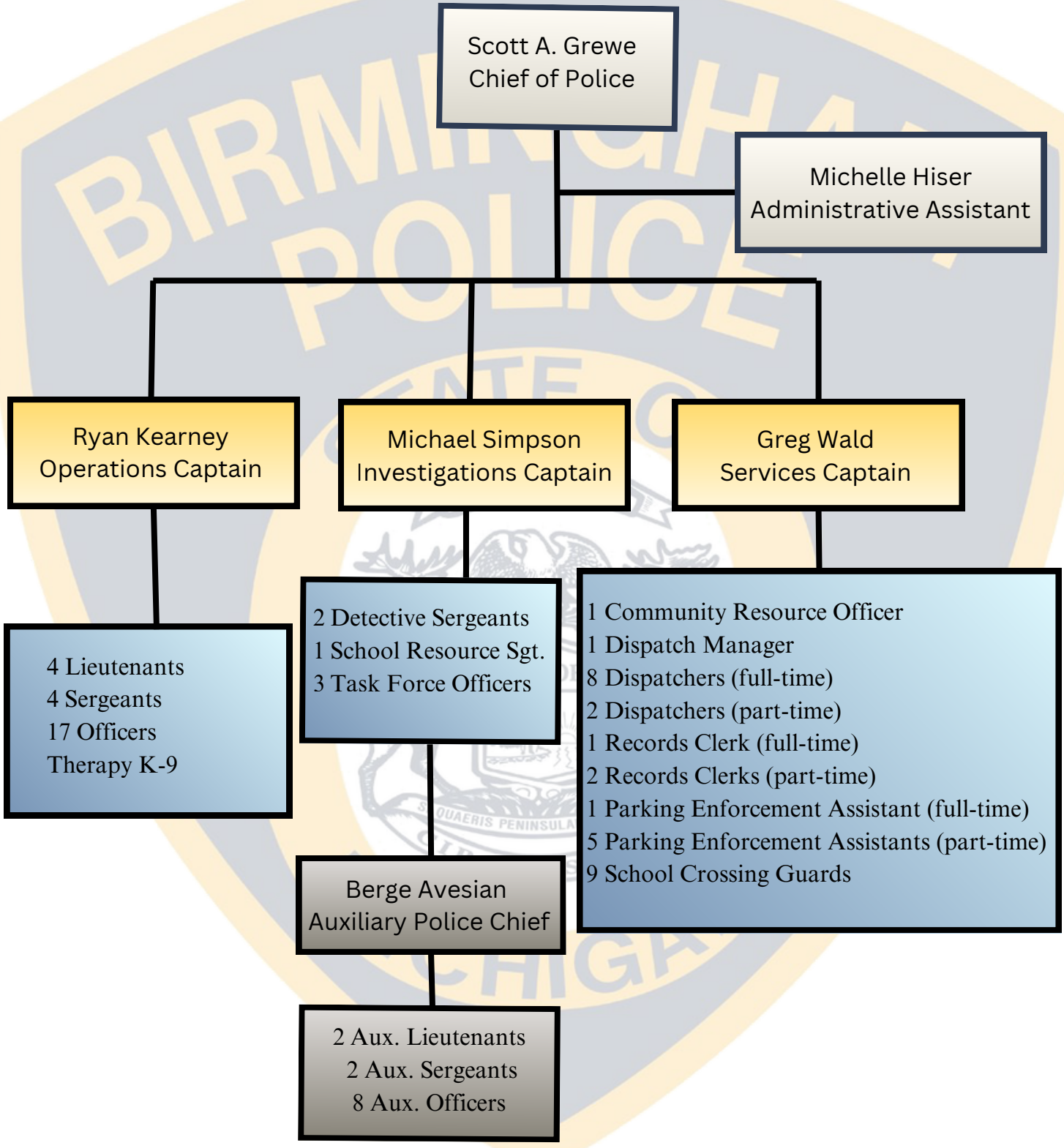
Integrity

Strong moral values and professional ethics are the backbone of the Birmingham Police Department. We are accountable to each other and the citizens we serve. We will always act with honor and honesty without compromising the truth. We will perform our duties in a manner that respects all citizens' rights, and our integrity will be the foundation for building public trust and confidence.

Courage

We hold that courage is the mental, moral, and physical strength to overcome fear, and to do what is right. To have the ability and courage to make tough decisions under stress, pressure and danger. To serve our community guided by a strong sense of fairness and righteousness, in a manner that promotes the well-being of all.

Birmingham Police Department
Organizational Chart



POLICE EXECUTIVE COMMAND

Scott A. Grewe, Chief of Police

Chief Grewe began his career with the Birmingham Police Department in 1999 after completing his law enforcement training at Ferris State University. During his career, he was promoted through the ranks, supervising every aspect of the department, and was appointed Chief in December of 2022.

- M.S. in Public Safety, University of Virginia
- B.S. in Criminal Justice, Ferris State University
- Eastern Michigan University School of Staff and Command
- F.B.I. National Academy Graduate (Session #283)
- Senior Management Institute for Police (Session #95)

Captain Greg Wald, Services Division

Serving since 2000, B.S. in Criminal Justice, Ferris State University. Eastern Michigan University School of Police Staff and Command, 2019. Oversees the Police Department Budget, Training, Records, Property & Evidence, Fleet Management & Accreditation.

Captain Ryan Kearney, Operations Division

Serving since 2003, B.A. in Criminal Justice, Western Michigan University, Eastern Michigan University School of Police Staff and Command, 2021. Supervises the Patrol Division, oversees the City's special events, and is the Police Department's liaison for the Multi-Modal Transportation Board.

Captain Michael Simpson, Investigations Division

Serving since 2013, B.A. in Sociology with a Criminal Justice Concentration from Oakland University. Attended Eastern Michigan University School of Police Staff and Command in 2023, earning academic excellence recognition. Supervises the Investigative Division and oversees departmental Response to Resistance Training, Active Shooter Response Training, and the Auxiliary Police Officer Unit.

Personnel Changes - Promotions, Retirements, New Hires

In 2025, the Police Department had 5 internal promotions, 3 retirements and 7 new staff members hired.

Promotions

Lt. Michael Simpson was promoted to Captain
Sgt. Rebekah Springer was promoted to Lieutenant
Sgt. David Buttigieg was promoted to Lieutenant
Ofc. Stefan Syts was promoted to Sergeant
Ofc. Christopher Bukoski was promoted to Sergeant

Retirements

Capt. Christopher Koch - 25 years with BIPD
Lt. Raymond Faes - 20 years with BIPD
Ofc. Jeffrey Whipple - 25 years with BIPD

New Hires

Ofc. George Toma
Ofc. Spencer Buchman
Ofc. Kayla Whelchel
Disp. Kateryna Shcherbata
PEA Gary Kashouty
PEA Jocelyn Jimenez
PEA Jason Simpson

Personnel Distribution and Sworn Seniority Distribution

Full Time Sworn Positions

Chief of Police
3 Captains
4 Lieutenants
7 Sergeants
21 Police Officers
36 Total Sworn Officers

Full Time Civilian Positions

1 Parking Enforcement Assistant
9 Dispatchers
1 Records Clerk
11 Total Full Time Civilian Positions

Part Time Civilian Positions

2 Dispatchers
9 School Crossing Guards
3 Clerk / Secretaries
6 Parking Enforcement Assistants
20 Total Part Time Civilian Positions

Aux. Officer Volunteers

12 Auxiliary Officers

79 Total Positions in the Police Department

2025 Seniority

Chief

25 + years of service	1

Lieutenant / Captain

05-09 years of service	1
10-14 years of service	4
15-19 years of service	0
20-24 years of service	1
25-30 years of service	1

Officer / Sergeant

00-04 years of service	17
05-09 years of service	6
10-14 years of service	4
15-19 years of service	0
20-24 years of service	1
25-30 years of service	0

Average Sworn Seniority = 7.4 Years

Dispatchers

00-04 years of service	8
05-09 years of service	2
10-14 years of service	1
15-19 years of service	0
20-24 years of service	0
25-35 years of service	0

1 Vacant Position

Average Dispatcher Seniority = 4 Years

MACP
Accreditation Program

Accreditation is a proactive and ongoing "health check" of our organization's defined processes and their execution. It supports a culture of continuous improvement through our voluntary commitment to reviewing best practices and how we apply them. It identifies areas of professional excellence and where organizational growth is needed. Clearly defining organizational expectations supports strong service delivery and creates sustainability during succession. Internal reviews and the external validation by outside parties increase trust and transparency with those you serve and your team.

The Birmingham Police Department was first accredited in July 2021 and completed the re-accreditation process in 2024. To be approved for re-accreditation, the department demonstrated compliance with over 120 standards for each of the last three years.

Accreditation is a progressive and time-proven way of helping law enforcement agencies calculate and improve their overall performance. The foundation of accreditation lies in the adoption of standards containing a clear statement of professional objectives, while ensuring transparency and accountability.

"The accreditation process opens our department up to intense scrutiny by outside assessors to determine if our current policies and procedures are patterned after nationally accepted best practices. Our certification program through the Michigan Association of Chiefs of Police is validation that the high standards we hold our staff to are aligned with national best practices."

~Chief Scott A. Grewe

Investigations Division

A Message from Investigations Captain, Michael Simpson

The Birmingham Police Department is thankful for our investigative agency partners, who have contributed to the successful conclusion of several cases with Birmingham roots. Collaboration with the Troy Special Investigations Unit (SIU), Oakland County Narcotics Enforcement Team (NET), and the Federal Bureau of Investigation Financial Crimes Task Force is critical to the day-to-day operations of our investigative division.

In 2025, NET Detectives made over 100 arrests, resulting in a total of 364 charges and seized approximately $1.3 million worth of illegal drugs and over 90 firearms. Officers assigned to this unit also receive advanced training in search warrants, investigations, and surveillance.

In 2025, Troy Special Investigations Unit (SIU) Detectives were responsible for the arrests of at least ten vehicle theft suspects connected to Birmingham cases, as well as several suspects responsible for various other crimes in Birmingham and surrounding jurisdictions, including larceny from auto, home invasion, breaking and entering, and retail fraud. In some cases, these suspects were ultimately linked to more serious violent crimes such as armed robbery and shootings that occurred in other jurisdictions.

The FBI's Detroit Fraud and Financial Crimes Task Force (DFFACT) members participated in Operation Level Up - the FBI's proactive initiative of identifying and notifying victims who are currently investing in cryptocurrency scams to prevent further loss. In 2025, DFFACT contacted 160 Michigan victims, 33 in Oakland County, saving Michigan residents an estimated $9.3 million in potential loss. Birmingham PD and the FBI coordinated to convict one suspect of conspiracy to commit bank fraud for orchestrating an interstate credit union account takeover scheme. This suspect was sentenced to a 63-month prison term. In another case, Birmingham PD, along with our investigative partners, collaborated to secure convictions of two suspects on federal charges for theft of a $1.5 million U.S. Treasury check. These suspects received sentences of 41 months and 30 months, respectively. DFFACT also provided training to the Birmingham Police Department on scam trends, best investigative practices, and resources available to offer victims of financial crimes.

The Birmingham Police Department's investigative division works diligently every day to ease the burden of those residents who have been victimized by criminal incidents. We remain committed to providing justice and closure to those residents seeking our assistance. For more information regarding the investigative division's efforts, please contact me directly at 248-530-1770 or by email at msimpson@bhamgov.org.

Investigations Division

The following chart is a three-year summary of offenses:

OFFENSES	2025	2024	2023	3 YEAR AVERAGE
Criminal Homicide	0	0	0	0
Criminal Sexual Conduct I, III	3	0	1	1.33
Robbery	2	2	3	2.33
Assault All	52	66	54	57.33
Burglary	12	10	12	11.33
Larceny	107	92	136	111.67
Motor Vehicle Theft	28	9	31	22.67
Arson	0	0	0	0
Criminal Sexual Conduct II, IV	4	2	1	2.33
Forgery / Counterfeiting	9	9	5	7.67
Fraud	92	99	129	106.67
Embezzlement	2	1	5	2.67
Vandalism	20	29	51	33.33
Operating While Intoxicated	47	55	65	55.67
TOTALS	378	374	493	415

Total Case Reports Assigned for Investigation

2025	**2024**	**2023**
646	655	703

Identity theft is a significant concern, and being proactive about protecting your personal information is crucial. Here are some tips to help safeguard against identity theft: use strong passwords, enable two-factor authentication, monitor your accounts, and secure your devices. If you believe you have been a victim of identity theft, contact us at (248) 644-3405.

Investigations Division

Agency Partnerships

School Resource Officer

The Birmingham Police Department and Birmingham Public Schools continue to collaborate on the placement of a full-time school resource officer. This position has enhanced school safety and has built positive relationships with students, staff, and the community.

Narcotics Enforcement Team

The Oakland County Narcotics Team plays a crucial role in addressing drug-related issues. This team involves officers from different jurisdictions pooling resources to investigate and combat drug-related crime, enhancing the overall effectiveness of law enforcement efforts.

FBI Task Force

Collaboration between local police departments and federal agencies, such as the FBI, in financial crimes task forces aims to enhance the investigation and prosecution of complex financial offenses. Working within the task force has expanded the department's investigative capabilities, enabling us to delve deeper into these criminal activities.

Special Investigations Unit

The Troy Police Department heads up a multijurisdictional investigative unit. Birmingham Police, along with several other agencies, make up this unit. Participating across jurisdictions in a special investigation unit enhances efficiency, resource allocation, and overall effectiveness in addressing cases, benefiting not only the citizens and the City of Birmingham but also neighboring departments.

Investigations Division

Statistics

Our officers and detectives strive to deliver the best possible police service in a professional, courteous manner to the residents of the City and to those who work, travel, and shop here, providing a safe environment for all. As a resident, you have a low probability of being a victim of a crime. However, crimes do exist, and the following information compares the number of reported incidents to the number of arrests in each category.

Group A includes: Robbery, forcible sexual assaults, larceny, burglary, damage to property, etc.

Group A incidents up 7.53%
2024=385
2025=414

Group A arrests were up 15%
2024=60
2025=69

Group B includes: Operating While Intoxicated (OWI), disorderly conduct, liquor law violations, misdemeanor sex offenses, non-violent family offenses, etc.

Group B incidents down 3.70%
2024=189
2025=182

Group B arrests down 12.77%
2024=94
2025=82

Group C includes: Traffic offenses, traffic crashes, juvenile offenses, warrants arrests, general patrol activity, etc.

Group C incidents up 38.43%
2024=22,268
2025=28,057

Group C arrests were up 20.31%
2024=64
2025=77

Investigations Division
Statistics Cont.

ADULT
IN CUSTODY ARRESTS
BY MONTH

MONTH	2025	2024	2023
January	10	12	9
February	19	12	11
March	22	21	14
April	13	17	15
May	20	24	13
June	22	20	15
July	19	19	11
August	20	20	19
September	14	16	16
October	26	11	22
November	24	16	15
December	20	16	17
TOTAL	**229**	**204**	**177**

JUVENILE ARREST
DISPOSITIONS

ARREST	2025	2024	2023
Male	13	46	28
Female	15	8	12
TOTAL	28	54	40
Felony*	4	4	2
Misdemeanor*	21	17	38
DISPOSITIONS			
Parental Conference	5	34	15
Youth Assistance	4	5	7
Juvenile Court	18	21	18

***May Represent Multiple Charges**

Community Engagement

The Birmingham Police Department is grateful for the relationship it shares with the community it serves. To maintain positive communication and interaction with our residents, the Police Department encourages officers to engage the community in different ways. Officers on patrol are often found in our neighborhoods to deter illegal activity and reassure citizens that we are in the area and available for service.

Officers regularly stop by block parties, sporting events, parks, community gatherings, and other activities to engage with the public and ensure the safety and well-being of our residents and visitors.

Block party permits can be obtained through the Police Department by contacting Administrative Assistant Michelle Hiser at (248)530-1863.

2025 Community Engagement Statistics

Public Relations: 71

Community Resource Officer Requests: 47

Community Resource Officer

The Community Resource Officer (CRO) works with businesses, religious venues, and educational programs within the City by providing Active Assailant training and security assessments of their facilities. The CRO also assists with youth education presentations and works with senior programs and parent groups to educate them on topics such as personal safety, home security, online threats, and any trending crimes.

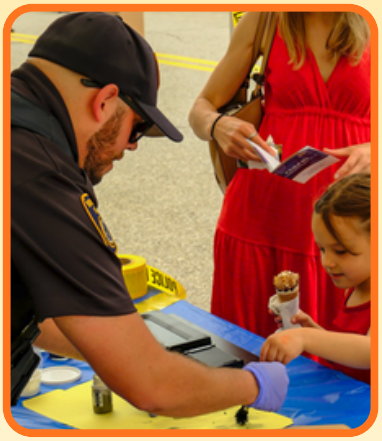
If you are interested in any of these services, you can email CRO Gina Moody at gmoody@bhamgov.org

Since July 2023, Therapy K-9 Maple has been an important part of the Birmingham Police Department's community outreach efforts. Maple creates a welcoming environment that enhances connections between officers and residents.

Community Engagement

Our officers participate in many events that provide opportunities to meet residents, including Touch-a-Truck events, Santa Walk, and Skate with a Cop, which takes place in the spring at the Birmingham Ice Arena. This year, our department added a few new activities to our event calendar. Bites with the Badges, a casual coffee-talk with our administrators, and Donuts and Decks, a chance to kick tricks with officers at our Skate Park.

In July 2025, the Police Department hosted its third annual Open House. Police staff were on hand to provide demonstrations and share the department's various resources and community partnerships.



Birmingham also co-hosted the 3rd Annual Regional Youth Police Academy, which offers high school-aged youth a weeklong opportunity to learn about various aspects of police work and gain hands-on experience.

Community Engagement

Officers and dispatchers volunteer their time for many different community events and activities. One of the events is Shop with a Cop, a collaborative effort by local agencies and businesses to support families in need through the holiday season.

Each year, department members participate in the Law Enforcement Torch Run (LETR) for Special Olympics Michigan to raise awareness for their athletes.

The Adopt-A-Senior program was initiated in 1997 to help residents who had no assistance at home, either financially or physically. Officers and dispatchers may support seniors with projects such as leaf and snow removal, as well as smaller tasks like changing lightbulbs, setting up electronics, and taking out trash.

For more information on our Adopt-A-Senior program, contact Dispatcher Joe Misiak at jmisiak@bhamgov.org.

Auxiliary Unit

The Birmingham Auxiliary Unit is a 12-member team that supplements officers at special events, high school sporting events, and major incidents requiring additional police presence. In 2025, this resulted in 668 hours worked by our Auxiliary Officers. The Auxiliary Unit is led by the Auxiliary Chief, Berge Avesian.

Aux. Ofc. Tony Sanfillipo was selected as the 2025 Auxiliary Officer of the year for volunteering over 220 hours to serve the City of Birmingham.

Auxiliary Officers are volunteers and are required to complete an accredited Reserve Officer training academy conducted at an accredited police academy prior to assuming duties, as well as additional monthly in-service training to be determined by the Services Captain.

In 2025, Auxiliary Officers participated in 118 hours of training.

The Birmingham Auxiliary unit is currently accepting applications. For those interested in applying, please contact Capt. Michael Simpson at msimpson@bhamgov.org.

CoRe Program

The Birmingham Police Department has partnered with the Oakland Community Health Network (OCHN), and police departments from Bloomfield Township, Auburn Hills, and Rochester to provide two certified social work clinicians to co-respond to calls for service involving persons dealing with a mental health or substance abuse crisis.

The CoRe program continues to be a valuable asset to the Police Department, providing a level of service for those experiencing a crisis we otherwise would not have. When available, our social workers co-respond to calls involving someone in crisis. They also provide follow-up services to those individuals and their families.

Total CoRe Contacts Resulting from Birmingham Police Calls for Service

2025	2024	2023
117	127	136

Oakland Community Health Network
Developmental Disabilities • Mental Health • Substance Recovery

Services Division

A message from Services Captain, Greg Wald

If it doesn't fall under investigations or frontline operations, it's the Services Division. Services are responsible for many of the nuances in law enforcement that the public doesn't see or isn't aware of.

Budget- Creates and executes an $11,000,000 annual police budget
Equipment & Fleet- Acquires and maintains department equipment and fleet
911 Center- Oversees 11 Dispatchers and the Dispatch Manager
Records- Responsible for managing FOIA and other records requests. Liaison to local, state, and federal law enforcement partners. General office and front desk management.
Accreditation- Ensures the department meets 126 annual accreditation standards
Training- Ensures all staff exceed the minimum required annual training

Technology

The department recently upgraded its body camera and in-car camera systems to Axon, the industry leader in law enforcement technology. The new cameras "talk" to each other and weapon systems to automatically activate recordings. Our drone program has already captured wanted suspects and located missing children.

Services Division

Training and Records

Trainings include such topics as firearms, active shooters, precision driving, legal updates, bias training, physical and defensive tactics, response to resistance, Staff and Command, Crisis Intervention Team (CIT-mental health response), domestic violence, suicidal individuals and more.

In 2025, Birmingham officers completed a total of 3,425 hours of advanced police training. 355 of those hours were health- and wellness-based training, and 592 were supervisor- or leadership-specific, an increase in both categories.

The records department is responsible for processing all necessary court documents along with completing Freedom of Information Act (FOIA) requests, discovery requests, gun permits, parking permits, sex offender registry and assisting with Operation Medicine Cabinet. In 2025, 382 FOIA requests were completed.

Services Division

Dispatch Center

Public Safety Answering Point

The Services Division monitors the dispatch center, including ensuring that all equipment is functioning properly and that all dispatchers have completed the required annual training. To maintain certification, dispatchers must complete 24 hours of annual training.

Our dispatch center provides emergency dispatch services for the City of Birmingham and the Village of Beverly Hills.

The dispatch center is staffed around the clock by nine full-time and two part-time dispatchers. In 2025, our dispatchers received the following number of incoming calls:

Non emergency phone calls - **33,580**
911 calls - **8,166**
Text to 911 - **80**
Total Incoming Calls = 41,826

Of all the information received, our dispatchers processed **37,697** incidents entered into our Computer-Aided Dispatch (CAD) system for response by the Birmingham Police Department, Birmingham Fire Department, and the Beverly Hills Public Safety Department.

Services Division

Property and evidence management falls under the Services Division. Property and evidence inventories are completed biannually. Property maintained may include criminal evidence, safekeeping of property when an owner cannot be identified or by request of a civilian or court, and any property found by a civilian or police officer. All property is preserved according to a schedule set by state law.

The Services Division also plays a significant role in preparing and managing the department's annual budget. While the majority of the budget is for personnel costs, operational costs, and equipment, budget planning also includes projecting revenues from grants and fees collected through processes such as FOIA requests. In 2025, the Police Department applied for and received funding from multiple grants, including the Traffic Improvement Association (TIA), the National Highway and Traffic Safety Administration (NHTSA), and the High Intensity Drug Trafficking Administration (HIDTA).

Parking Enforcement

The Birmingham Police Department has one full-time and five part-time Parking Enforcement Assistants (PEAs). They patrol the City's 1,257 metered spaces and handicap parking spaces, timed parking zones, permit parking areas, and all other parking violations.

2025 Parking Violations Summary

Meter Violations	28,965
Non-Meter Violations	6,009
Total Parking Violations Issued	34,974

Previous Years Totals

2024	2023	2022	2021
28,897	34,037	40,403	35,825

PATROL OPERATIONS

A Message from Operations Captain, Ryan Kearney

Throughout the year, our officers and professional staff focused on proactive policing, high-visibility patrols, and strong partnerships that keep Birmingham safe and welcoming. From responding to calls for service and conducting thorough investigations to supporting community events and engaging with our schools and neighborhoods, our mission has remained constant: to serve with professionalism, integrity, and courage.

Traffic enforcement is essential to the safety and quality of life of Birmingham residents, helping to prevent crashes, protect pedestrians and cyclists, and address ongoing concerns such as speeding and excessive vehicle noise. We take a proactive approach by conducting targeted enforcement in high-traffic and problem areas and using grant-funded initiatives to increase officer presence.

Beyond daily patrol and enforcement responsibilities, Birmingham police officers are actively engaged in the community they serve. They proudly participated in community events such as the Law Enforcement Torch Run for the Special Olympics and the City's Memorial Day ceremony, honoring those who have made the ultimate sacrifice. In addition, the Department provides comprehensive safety planning, traffic control, and security for major City events, including the Village Fair, the Hometown Parade, and the Woodward Dream Cruise.

PATROL OPERATIONS

Birmingham uniformed patrol officers interact with the community, answer calls for service, conduct traffic enforcement, issue citations, write reports, investigate crimes and traffic accidents, make arrests, and perform a variety of other tasks. Our officers conduct proactive patrols of neighborhoods, businesses, parks, and schools to deter crime and improve visibility. Officers are trained in a variety of specializations to further their expertise.

Special Assignments	Specializations
FBI - Financial Crimes Task Force	Mountain Bike
Special Investigations Unit (SIU)	Motorcycle Operator
Narcotics Enforcement Team (NET)	Evidence Technician
Community Resource Officer (CRO)	Field Training Officer (FTO)
School Resource Officer (SRO)	Training Instructor
Detective Bureau	Drone Operator

The Operations Captain oversees the patrol division, which consists of four platoons: two day-shifts (7am-7pm) and two night-shifts (7pm-7am). Each platoon consists of six uniformed patrol personnel, consisting of four officers, supervised by a lieutenant and a sergeant.

PATROL OPERATIONS

CALLS FOR SERVICE

2022	2023	2024	2025
20,022	22,712	20,421	28,611

A "call for service" is a request or notification received by law enforcement agencies from the community or individuals seeking assistance, intervention, or investigation of a specific incident. These calls can encompass a wide range of situations, including but not limited to emergencies, criminal activities, accidents, disturbances, or concerns requiring police attention. Each call for service prompts a response from police officers, who assess the situation and take appropriate action to address the issue.

The men and women of the Birmingham Police Department pride themselves on Service-Oriented Policing, a proactive and community-focused approach to law enforcement that prioritizes building positive relationships between police officers and the community for crime prevention and public safety. Through a collaborative effort, we aim to create a safer and more resilient City for all.

PATROL OPERATIONS

The Birmingham Police Department is dedicated to serving with Professionalism, Integrity, and Courage to protect life and property through compassionate and equitable police services. We safeguard our community through proactive patrol, thorough investigations, traffic safety, emergency response, and strong partnerships with residents, businesses, and community organizations. By emphasizing prevention, education, and trust, we strive to enhance public safety and preserve the quality of life for all who live, work, and visit Birmingham.

2025 PROACTIVE PATROLS

Crime Prevention	13,559
Radar Enforcement	1,221
Traffic Enforcement	2,377
Foot Patrol	581
Assist Citizen	481
Assist Fire Department	137
Extra Patrol	497
Assist Motorist	271
Assist other Law Enforcement Agency	189
Therapy Dog Engagement	26

PATROL OPERATIONS

Birmingham police officers proactively work traffic enforcement and respond to many citizen traffic complaints. Specific enforcement areas are selected based on a combination of factors, including but not limited to accident hotspots, complaints and requests, school zones and residential areas, traffic data analysis, special events, time of day, preventative measures, and community policing strategies. Officers wrote 5,131 tickets and handled 776 traffic crash reports in 2025. The presence and diligence of police officers in traffic enforcement contribute to creating safer roadways, protecting lives, and maintaining order within the community.

TICKETS	Hazardous Moving Violations	Non-Hazardous Moving Violations	Total Violations
2025	3,589	1,542	5,131
2024	4,072	1,762	5,834
2023	4,070	1,825	5,895
2022	3,722	2,165	5,877
2021	2,225	1,310	3,535

VEHICLE CRASHES	Property Damage Accidents	Personal Injury Accidents	Fatal Injury Accidents	Total Accidents
2025	731	45	0	776
2024	692	58	0	768
2023	670	58	0	728

PATROL OPERATIONS

Responding to resistance is an inevitable aspect of a law enforcement officer's job and integral to maintaining public safety. In the course of their duties, officers may encounter individuals who resist lawful commands or engage in unlawful activities, necessitating a measured and appropriate response. The dynamic nature of law enforcement situations requires officers to make split-second decisions, often in high-stress environments. While the goal is to resolve incidents peacefully, the unpredictable nature of human behavior means that resistance can arise, compelling officers to use force within legal and ethical boundaries. Training, adherence to departmental policies, and a commitment to de-escalation techniques are essential components of preparing officers to navigate such scenarios responsibly. Effectively managing resistance is crucial for safeguarding not only the officers themselves but also the broader community they serve.

RESPONSE TO RESISTANCE

Reporting and Review Process

When an officer uses force to gain compliance from a person, he or she is required to complete and submit a Response to Resistance Report and each instance is comprehensively reviewed.

- **Initiating officer completes report**
- **Reviewed by on-duty supervisor**
- **Reviewed by Operations Captain**
- **Reviewed by Chief of Police**
- **Appropriate determination made**
- **Annual review of all incidents**

The Birmingham Police Department recognizes the value of human life and is committed to protecting those the department serves. Officers regularly complete training in de-escalation and response to resistance to ensure officers understand and appropriately analyze interactions with the public. Training includes classroom instruction, policy review, and practical, scenario-based exercises.

.0838% OF ALL CALLS FOR SERVICE RESULTED IN A RESPONSE TO RESISTANCE

28,611 CALLS FOR SERVICE
5,131 TRAFFIC CITATIONS
310 ARREST CHARGES
24 RESPONSE TO RESISTANCE INCIDENTS

Police Department Contact Information and Informational Links

For All Emergencies
Dial 911

Police Dispatch - Non-Emergency
(248)530-1870

Chief Scott A. Grewe
(248)530-1867
sgrewe@bhamgov.org

Operations Capt. Ryan Kearney
(248)530-1768
rkearney@bhamgov.org

Services Capt. Greg Wald
(248)530-1775
gwald@bhamgov.org

Investigations Capt. Michael Simpson
(248)530-1770
msimpson@bhamgov.org

Police Department Records/Clerical
policeforms@bhamgov.org
Hours:
Monday - Friday
8:00 a.m. to 4:00 p.m.

Facebook.com/BirminghamMiPD

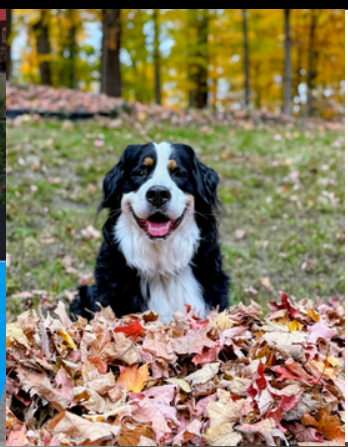
@BirminghamMi_PD

@birmingham_police_mi

For general information and questions, please email birminghampolice@bhamgov.org.

Police Department Website
https://www.bhamgov.org/police

The men and women of the Birmingham Police Department thank you for your continued support.



APR 06 2026
12:20 PM
RECEIVED
CLERK'S OFFICE

CHARTER TOWNSHIP OF BLOOMFIELD

NOTICE OF RESCHEDULED PUBLIC HEARING
PLANNING COMMISSION

NOTICE IS HEREBY GIVEN that the public hearing to be held by the Planning Commission of the Charter Township of Bloomfield, Oakland County, Michigan on Monday, April 6, 2026, at 6:30 P.M., has been moved to **MONDAY, APRIL 20, 2026, at 6:30 P.M.,** due to the Passover holiday. The meeting will be held at the Bloomfield Township Hall, 4200 Telegraph Road to consider a site plan and special land use request for pickleball courts at 1750 Saxon Dr. If you would like to submit a public comment please do so by email at PC-publiccomment@bloomfieldtwpmi.gov or by mail to the Bloomfield Township's Planning, Building and Ordinance Department, 4200 Telegraph Road, Bloomfield, MI. 48302. Telephone: (248) 433-7795 or Fax: (248) 433-7729. **(Birmingham Country Club, 1750 Saxon Dr., 19-35-376-001)**

The Township Board of Trustees will consider the site plan and special land use proposal upon receiving a recommendation from the Planning Commission.

Andrea Bibby, Director
Planning, Building, and Ordinance

To view the meeting live, go to Comcast Channel 15 or AT&T Channel 99 or via the internet: Bloomfield Twp., MI – Public Meetings

To view the Planning Commission packet posted on Documents on Demand by the end of business **Thursday, April 16, 2026** you can use the QR code to the right.

SCAN ME

NOTE: The Charter Township of Bloomfield will provide necessary, reasonable auxiliary aids and services at all meetings to individuals with disabilities. All such requests must be made at least five days prior to said meeting. Individuals with disabilities requiring auxiliary aids or services should contact the Bloomfield Township Planning Division by writing or calling the following: Planning Division, P.O. Box 489, Bloomfield Hills, MI 48303-0489 - Telephone: (248) 433-7795 - Fax: (248) 433-7729.

Dated: March 31, 2026