

# REQUEST FOR PROPOSAL

**RFP # 23-34**

## **Pittsfield Village Improvements Project**

City of Ann Arbor

Public Services Area / Engineering Unit



**Due Date: July 20, 2023 by 2:00 p.m. (local time)**

Issued By:

City of Ann Arbor  
Procurement Unit  
301 E. Huron Street  
Ann Arbor, MI 48104

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## **SECTION I - GENERAL INFORMATION**

### **A. OBJECTIVE**

The City of Ann Arbor is seeking professional consulting services to design, permit, and prepare bid construction documents for the ***Pittsfield Village Improvements Project***. The ***Pittsfield Village Improvements Project*** includes a new roadway section in some areas, sanitary sewer and stormwater system upgrades, stormwater quantity and quality improvements, water main(s) replacement, replacement of curb and gutter, and the construction of new sidewalk and/or the filling in of sidewalk gaps within the project limits.

### **B. QUESTIONS AND CLARIFICATIONS / DESIGNATED CITY CONTACTS**

All questions regarding this Request for Proposal (RFP) shall be submitted via e-mail. Questions will be accepted and answered in accordance with the terms and conditions of this RFP.

**All questions shall be submitted on or before June 30, 2023 at 10:00 a.m., and should be addressed as follows:**

Scope of Work/Proposal Content questions shall be e-mailed to Igor Kotlyar, P.E., Project Manager - [ikotlyar@a2gov.org](mailto:ikotlyar@a2gov.org)

RFP Process and Compliance questions shall be e-mailed to Colin Spencer, Buyer - [CSpencer@a2gov.org](mailto:CSpencer@a2gov.org)

Should any prospective offeror be in doubt as to the true meaning of any portion of this RFP, or should the prospective offeror find any ambiguity, inconsistency, or omission therein, the prospective offeror shall make a written request for an official interpretation or correction by the due date for questions above.

All interpretations, corrections, or additions to this RFP will be made only as an official addendum that will be posted to [a2gov.org](http://a2gov.org) and [MITN.info](http://MITN.info) and it shall be the prospective offeror's responsibility to ensure they have received all addenda before submitting a proposal. Any addendum issued by the City shall become part of the RFP, and must be incorporated in the proposal where applicable.

### **C. PRE-PROPOSAL MEETING**

No pre-proposal meeting will be held for this RFP. Please contact staff indicated above with general questions regarding the RFP.

### **D. PROPOSAL FORMAT**

To be considered, each firm must submit a response to this RFP using the format provided in Section III. No other distribution of proposals is to be made by the

prospective offeror. An official authorized to bind the offeror to its provisions must sign the proposal. Each proposal must remain valid for at least ninety days from the due date of this RFP.

Proposals should be prepared simply and economically providing a straightforward, concise description of the offeror's ability to meet the requirements of the RFP. No erasures are permitted. Mistakes may be crossed out and corrected and must be initialed in ink by the person signing the proposal.

#### **E. SELECTION CRITERIA**

Responses to this RFP will be evaluated using a point system as shown in Section III. A selection committee comprised of staff from the City will complete the evaluation. The fee proposals will not be reviewed at the initial evaluation. After initial evaluation, the City will determine top proposals, and open only those fee proposals. The City will then determine which, if any, firms will be interviewed. During the interviews, the selected firms will be given the opportunity to discuss their proposal, qualifications, past experience, and their fee proposal in more detail. The City further reserves the right to interview the key personnel assigned by the selected offeror to this project. If the City chooses to interview any respondents, the interviews will be tentatively held the **week of July 31, 2023**. Offeror must be available on these dates.

All proposals submitted may be subject to clarifications and further negotiation. All agreements resulting from negotiations that differ from what is represented within the RFP or in the proposal response shall be documented and included as part of the final contract.

#### **F. SEALED PROPOSAL SUBMISSION**

**All proposals are due and must be delivered to the City on or before, July 20, 2023 at 2:00 p.m. (local time).** Proposals submitted late or via oral, telephonic, telegraphic, electronic mail or facsimile **will not** be considered or accepted.

**Each respondent must submit in a sealed envelope**

- **one (1) original proposal**
- **three (3) additional proposal copies**
- **one (1) digital copy of the proposal preferably on a USB/flash drive as one file in PDF format**

**Each respondent must submit in a single separate sealed envelope marked Fee Proposal**

- **two (2) copies of the fee proposal**

**The fee proposal and all costs must be separate from the rest of the proposal.**

Proposals submitted should be clearly marked: **“RFP # 23-34 - Pittsfield Village Improvements Project”** and list the offeror’s name and address.

Proposals must be addressed and delivered to:  
City of Ann Arbor  
c/o Customer Service  
301 East Huron Street  
Ann Arbor, MI 48104

All proposals received on or before the due date will be publicly opened and recorded on the due date. No immediate decisions will be rendered.

Hand delivered bids may be dropped off in the Purchasing drop box located in the Ann Street (north) vestibule/entrance of City Hall which is open to the public Monday through Friday from 8am to 5pm (except holidays). The City will not be liable to any prospective offeror for any unforeseen circumstances, delivery, or postal delays. Postmarking on the due date will not substitute for receipt of the proposal. Offerors are responsible for submission of their proposal. Additional time will not be granted to a single prospective offeror. However, additional time may be granted to all prospective offerors at the discretion of the City.

**A proposal may be disqualified if the following required forms are not included with the proposal:**

- **Attachment C - City of Ann Arbor Non-Discrimination Declaration of Compliance**
- **Attachment D - City of Ann Arbor Living Wage Declaration of Compliance**
- **Attachment E - Vendor Conflict of Interest Disclosure Form of the RFP Document**

***Proposals that fail to provide these forms listed above upon proposal opening may be deemed non-responsive and may not be considered for award.***

***Please provide the forms outlined above (Attachments C, D and E) within your narrative proposal, not within the separately sealed Fee Proposal envelope.***

***All proposed fees, cost or compensation for the services requested herein should be provided in the separately sealed Fee Proposal envelope only.***

## **G. DISCLOSURES**

Under the Freedom of Information Act (Public Act 442), the City is obligated to permit review of its files, if requested by others. All information in a proposal is subject to disclosure under this provision. This act also provides for a complete disclosure of contracts and attachments thereto.

## **H. TYPE OF CONTRACT**

A sample of the Professional Services Agreement is included as Appendix A. Those who wish to submit a proposal to the City are required to review this sample agreement carefully. **The City will not entertain changes to its Professional Services Agreement.**

The City reserves the right to award the total proposal, to reject any or all proposals in whole or in part, and to waive any informality or technical defects if, in the City's sole judgment, the best interests of the City will be so served.

This RFP and the selected offeror's response thereto, shall constitute the basis of the scope of services in the contract by reference.

## **I. NONDISCRIMINATION**

All offerors proposing to do business with the City shall satisfy the contract compliance administrative policy adopted by the City Administrator in accordance with the Section 9:158 of the Ann Arbor City Code. Breach of the obligation not to discriminate as outlined in Attachment C shall be a material breach of the contract. Contractors are required to post a copy of Ann Arbor's Non-Discrimination Ordinance attached at all work locations where its employees provide services under a contract with the City.

## **J. WAGE REQUIREMENTS**

The Attachments provided herein outline the requirements for payment of prevailing wages or of a "living wage" to employees providing service to the City under this contract. The successful offeror must comply with all applicable requirements and provide documentary proof of compliance when requested.

## **K. CONFLICT OF INTEREST DISCLOSURE**

The City of Ann Arbor Purchasing Policy requires that the consultant complete a Conflict of Interest Disclosure form. A contract may not be awarded to the selected offeror unless and until the Procurement Unit and the City Administrator have reviewed the Disclosure form and determined that no conflict exists under applicable federal, state, or local law or administrative regulation. Not every relationship or situation disclosed on the Disclosure Form may be a disqualifying conflict. Depending on applicable law and regulations, some contracts may awarded on the recommendation of the City Administrator after full disclosure, where such action is allowed by law, if demonstrated competitive pricing exists and/or it is determined the award is in the best interest of the City. A copy of the Conflict of Interest Disclosure Form is attached.

## L. COST LIABILITY

The City of Ann Arbor assumes no responsibility or liability for costs incurred by the offeror prior to the execution of a Professional Services Agreement. The liability of the City is limited to the terms and conditions outlined in the Agreement. By submitting a proposal, offeror agrees to bear all costs incurred or related to the preparation, submission, and selection process for the proposal.

## M. DEBARMENT

Submission of a proposal in response to this RFP is certification that the Respondent is not currently debarred, suspended, proposed for debarment, and declared ineligible or voluntarily excluded from participation in this transaction by any State or Federal departments or agency. Submission is also agreement that the City will be notified of any changes in this status.

## N. PROPOSAL PROTEST

All proposal protests must be in writing and filed with the Purchasing Manager within five (5) business days of any notices of intent. The offeror must clearly state the reasons for the protest. If an offeror contacts a City Service Area/Unit and indicates a desire to protest an award, the Service Area/Unit shall refer the offeror to the Purchasing Manager. The Purchasing Manager will provide the offeror with the appropriate instructions for filing the protest. The protest shall be reviewed by the City Administrator or designee, whose decision shall be final.

Any inquiries or requests regarding this procurement should be only submitted in writing to the Designated City Contacts provided herein. Attempts by the offeror to initiate contact with anyone other than the Designated City Contacts provided herein that the offeror believes can influence the procurement decision, e.g., Elected Officials, City Administrator, Selection Committee Members, Appointed Committee Members, etc., may lead to immediate elimination from further consideration.

## O. SCHEDULE

The proposals submitted should define an appropriate schedule in accordance with the requirements of the Proposed Work Plan in Section III.

The following is the schedule for this RFP process.

<b>Activity/Event</b>	<b>Anticipated Date</b>
Written Question Deadline	June 30, 2023, 10:00 a.m.
Addenda Published (if needed)	Week of July 3, 2023
Proposal Due Date	July 20, 2023, 2:00 p.m. (Local Time)
Tentative Interviews (if needed)	Week of July 31, 2023
Selection/Negotiations	August 2023
Expected City Council Authorizations	September 2023

The above schedule is for information purposes only and is subject to change at the City's discretion.

**P. IRS FORM W-9**

The selected offeror will be required to provide the City of Ann Arbor an IRS form W-9.

**Q. RESERVATION OF RIGHTS**

1. The City reserves the right in its sole and absolute discretion to accept or reject any or all proposals, or alternative proposals, in whole or in part, with or without cause.
2. The City reserves the right to waive, or not waive, informalities or irregularities in of any proposal if determined by the City to be in its best interest.
3. The City reserves the right to request additional information from any or all offerors.
4. The City reserves the right to reject any proposal that it determines to be unresponsive and deficient in any of the information requested within RFP.
5. The City reserves the right to determine whether the scope of the project will be entirely as described in the RFP, a portion of the scope, or a revised scope be implemented.
6. The City reserves the right to select one or more consultants to perform services.
7. The City reserves the right to retain all proposals submitted and to use any ideas in a proposal regardless of whether that proposal is selected. Submission of a proposal indicates acceptance by the firm of the conditions contained in this RFP, unless clearly and specifically noted in the proposal submitted.
8. The City reserves the right to disqualify proposals that fail to respond to any requirements outlined in the RFP, or failure to enclose copies of the required documents outlined within RFP.

**R. ENVIRONMENTAL COMMITMENT**

The City of Ann Arbor recognizes its responsibility to minimize negative impacts on human health and the environment while supporting a vibrant community and economy. The City further recognizes that the products and services the City buys have inherent environmental and economic impacts and that the City should make procurement decisions that embody, promote, and encourage the City's commitment to the environment.

The City encourages potential vendors to bring forward emerging and progressive products and services that are best suited to the City's environmental principles.



## **SECTION II - SCOPE OF SERVICES**

## BACKGROUND AND SCOPE OF WORK

### BACKGROUND

The City of Ann Arbor is seeking professional consulting services to design, permit, and prepare bid construction documents for the ***Pittsfield Village Improvements Project***. The ***Pittsfield Village Improvements Project*** includes a new roadway section in some areas, sanitary sewer and stormwater system upgrades, stormwater quantity and quality improvements, water main(s) replacement, replacement of curb and gutter, and the construction of new sidewalk and/or the filling in of sidewalk gaps within the project limits. Key elements of the project include:

#### Water Main (UT-WS-20-09)

- Upsizing of approximately 9,100 LF of aging asbestos cement water main where applicable (see map in Attachment A). A small portion of water mains within Pittsfield Village were replaced in 2007.

#### Sanitary Sewer (UT-SN-20-01; UT-SN-18-07)

- Upsizing of approximately 1,700 LF of existing 8" to 12" in Norwood to improve wet weather capacity.
- Rehabilitation of aging sanitary sewers and manholes as identified in the 2023 Pittsfield Village Sanitary Sewer and Stormwater Evaluation Survey (Att. A).

#### Street Construction and/or Resurfacing (TR-SC-24-10)

- Address pavement condition; determine whether roads need resurfacing or reconstruction
- Consider filling sidewalk gap on Whitewood Street
- Implement All Ages and Abilities (A3) bike corridor Edgewood to Pittsfield to Washtenaw

#### Stormwater Improvements (UT-ST-22-02; UT-ST-18-06)

- Rehabilitation of aging storm sewers and structures as identified in the 2023 Pittsfield Village Sanitary Sewer and Stormwater Evaluation Survey (Att. A).
- Evaluate stormwater improvements to improve street/surface flooding in Parkwood/Pittsfield area as identified in the 2015 Stormwater Hydraulic Model Calibration and Analysis Project.
- Incorporate recently constructed (2015) stormwater detention at 3500 Washtenaw into evaluation of stormwater management opportunities.
- Evaluate green infrastructure opportunities where possible to reduce surface flooding to the maximum extent practicable. Green Streets Policy will be required in areas with new road construction.
- Installation of curb drains for private sump pump discharge.

Our current CIP shows the construction of this project in 2 phases, however we expect consultant to evaluate the extend of work, it's impact on community and propose a phasing plan. The Consultant shall staff and schedule their work in order to meet the required submission deadlines.

## INFORMATION AVAILABLE

- Record drawings of the existing streets, stormwater, water main and sanitary sewers
- InfoSWMM (EPA SWMM 5.0) sanitary and stormwater hydraulic model (will be available to the selected consultant upon execution of a Non-Disclosure Agreement)
- 2023 – WCWRC Swift Run Watershed Study (on-going)
- 2023 - Pittsfield Village Sanitary Sewer and Stormwater Evaluation Survey (SSES)
  - Includes a condition assessment and recommended repair plan of all sanitary and stormwater pipes and manholes within Pittsfield Village
- 2023 - Pittsfield Village Curb Drain Study
  - Provides planning level curb drain layout and sizing for needed curb drain extensions within the project area
- 2022 – June 25-26 2021 Storm Event Analysis <https://www.a2gov.org/junestorm>
- 2017 – Sanitary Sewer Improvements Preliminary Engineering (SSIPE) – Norwood Sanitary Improvements recommendations  
<https://www.a2gov.org/departments/systems-planning/Documents/2018%20SSIPE%20Final%20Report.pdf>
- 2015 – Stormwater Hydraulic Model Calibration and Analysis Project (SWMM) – Parkwood/Pittsfield Stormwater Improvements recommendations  
[https://www.a2gov.org/departments/systems-planning/planning-areas/water-resources/Documents/A2\\_SWM\\_Report\\_20150601\\_with\\_Appendices.pdf](https://www.a2gov.org/departments/systems-planning/planning-areas/water-resources/Documents/A2_SWM_Report_20150601_with_Appendices.pdf)
- CIP Project Data Sheets <https://www.a2gov.org/cip>
- Historical soil boring logs
- Historical water main break and water quality complaint records
- Available City GIS Layers:
  - 1-foot contours (LiDAR Based)
  - Wetlands
  - Woodlands
  - Aerial Photography
  - City Utility Systems
  - Parcels
  - Soil Survey
  - Historical Soil Boring Records (from 2006)
  - Impervious and Pervious Areas

## SCOPE OF WORK

The Consultant shall perform the necessary design work and prepare construction plans and specifications suitable for bidding purposes for all elements of the project which include road improvements, sanitary sewer and stormwater system upgrades, stormwater quantity and quality improvements, installation of new curb drain, water main(s) replacement, replacement of curb and gutter, and the construction of new sidewalk and/or the filling in of sidewalk gaps within the project limits. The Consultant is expected to work with City Staff to develop the full scope for the road improvements, which could include complete reconstruction of the subgrade, replacement of curb & gutter, and adjustments to the vertical alignment. With the reconstruction of any existing streets, the project must provide stormwater management improvements as outlined by WCWRC and City stormwater rules and design standards, including the City Green Streets Policy.

In general, the following items will need to be addressed by the consulting firm, as part of the requested services to be provided on this project:

- 1) Prepare a Stormwater Improvements Plan including reviewing the existing studies and previous consultant's investigation to alleviate surface flooding, when possible, within the project area. The Plan should include design of stormwater improvements such as but not limited to bioretention areas with native plantings and grasses (rain gardens), hydrodynamic separators (pre-cast, swirl chamber type systems), oversized conveyance/detention pipes, and storm structures with internal overflow weirs or other applicable best management practices.
  - a) Develop rehabilitation plan and construction bid documents for any needed improvements to the existing stormwater system within the project area. The city recently completed a sanitary sewer and stormwater evaluation survey (SESC) which should be the basis for this work. The consultant shall review and validate the recommendations from this previous work. Supplemental inspection data for any structures will be required to be performed by the consultant. City will provide supplemental CCTV data on any needed storm sewers.
  - b) Implement recommendations from the **2023 Curb Drain Plan** for addressing lack of available stormwater system for sump pump discharge. Funding for any work (design and construction) related to curb drain improvements may come from the Developer's Offset Mitigation Program. Consultant shall track and prepare cost estimates separately for these improvements.
  - c) Evaluate and recommend green and/or gray infrastructure opportunities to alleviate surface flooding issues as reported by residents.
  - d) Evaluate road drainage and determine if expansion of existing stormwater system is needed within the project area.
  - e) Validate stormwater improvements to improve street/surface flooding in Parkwood/Pittsfield area as identified in the **2015 Stormwater Hydraulic Model Calibration and Analysis Project**

- a. Incorporate recently constructed (2015) stormwater detention at 3500 Washtenaw into evaluation of stormwater management opportunities.
  - f) Consultant shall coordinate with Swift Run Watershed Study (currently underway) to align with recommendations that may come out of this study.
  - g) Review and utilize information from the **June 25-26 2021 Storm Event Analysis** to inform the overall Stormwater Improvements Plan.
  - h) Perform hydraulic analyses and prepare written report for the proposed stormwater improvements. Consultant shall update the city's hydraulic model (InfoSWMM) reflecting the final stormwater design.
  - i) The proposed stormwater improvements shall provide both water quality improvements during smaller more frequent storm events and, peak flow attenuation during larger storm design events.
- 2) Prepare a Sanitary Sewer Improvements Plan including reviewing the existing studies and the recent SESC report. The Plan should include design of sanitary sewer improvements to address the sewer issues found in the studies.
- a) Prepare all necessary construction bid documents for the **Norwood (Bellwood to East of Whitewood) Sanitary Upsizing (UT-SN-20-01)** project. This includes upsizing approximately 1,700 LF of existing 8" to 12" sanitary sewer in Norwood to improve wet weather capacity as identified in the **2018 Sanitary Sewer Improvements Preliminary** project.
  - b) Develop rehabilitation plan and construction bid documents for any needed improvements to the existing sanitary sewer system within the project area. The city recently completed a SESC analysis which should be the basis for this work. The consultant shall review and validate the recommendations from this previous work. Supplemental inspection data for any manholes will be required to be performed by the consultant. City will provide supplemental CCTV data on any needed sanitary sewers. Maintenance concerns caused by flat pipe slopes/poor manhole channel slopes have been raised by staff in the past. Consultant shall carefully review these items and include any improvements in the rehabilitation plan.
  - c) Funding for any work (design and construction) related to sanitary wet weather improvements may come from the Developer's Offset Mitigation Program. Consultant shall track and prepare cost estimates separately for any work related to wet weather capacity improvements. Examples of these wet weather improvements would be rehabilitation to eliminate inflow and infiltration or pipe upsizing (UT-SN-20-01).
- 3) Prepare a Water Main Improvements Plan for the project area. Areas of needed water main replacement are shown in Attachment A.
- a) Replace and upsize as needed aging existing water mains which are

Asbestos Cement (AC).

- b) Pittsfield Village is currently serviced with water through 3 master meters. The city has been installing individual water meters within buildings as the opportunity rises with the goal of ultimately eliminating the need for the master meters. Consultant shall consider this with the design of the new water mains.
  - c) Replace galvanized service leads (city side) as needed. Eligible service lead replacements on the homeowner's side will be coordinated prior to construction.
- 4) Prepare a Road Improvements Plan for the project area.
- a) As part of the City's pre-design investigations, it was discovered that the existing road cross-sections in some areas are inadequate and may require reconstruction.
  - b) Consultant to address pavement condition; determine whether roads need resurfacing or reconstruction and prepare plans for necessary improvements
- 5) Prepare a Pedestrian/Mobility Improvements Plan for the project area.
- a) Investigate existing sidewalk along Whitewood Street and prepare plans to fill in any gaps.
  - b) Implement All Ages and Abilities (A3) bike corridor Edgewood to Pittsfield to Washtenaw
- 6) Prepare complete, detailed, and accurate construction drawings and specifications in accordance with City/WCWRC or other appropriate design standards. The format of the drawings shall be completely compatible with the City's drawing preparation standards and layout(s). It is expected that all drawings will be provided in a compatible format without the need to reconfigure drawings for plotting or other purposes.
- 7) Preparation of plans and specifications for all public utilities, sidewalk and road construction plans shall be in compliance with the Public Services Area Standard Specifications.
- 8) Preparation of plans and specifications shall include preliminary reports, identification of alternatives, cost estimates, and contract documents. The consultants shall also secure all necessary permits from all approving agencies including but not limited to the EGLE and WCWRC.
- 9) Prepare phasing plan (it is expected that this project will be completed in two phases).
- 10) The Consultant shall coordinate their efforts with the City to ensure the timely and cost-effective submittal of the project deliverables. The Consultant's Project Manager shall provide oversight, review, and coordination of their project deliverables with that of the City's so that a seamless product is provided and all deadlines are met.
- 11) Obtain all required permits from outside agencies. This includes but not limited to the water and sanitary permits from EGLE.

- 12) The Consultant shall attend project progress meetings as needed to ensure that proper coordination of their work and that of the City's is taking place throughout the entire design process and provide meeting minutes and action items for these meetings. Also, the Consultant shall coordinate their efforts with any other needed agency(ies), various City service units, private utility companies, other formal and informal committees, and the public in general.
- 13) Perform topographical surveying tasks as necessary for the preparation of civil engineering construction plans. The desired surveying services will include but not be limited to the gathering of topographical survey data for the project area and providing digital submissions. It is understood that the final work product will be a complete survey that will contain all known site features and will be ready for use as a base drawing for final engineering plans for all three phases and potentially future phases.

a) Data collection:

- i. Topographic data for 1" = 20' scale plans.
- ii. Digital copies of all files used to generate the topography data (i.e. breaklines, points and control files).
- iii. All Right-of-Way (ROW) lines and monumentation to be located and shown.
- iv. Location of all planimetric features within ROW, and 10' outside of the ROW
- v. Minimum of 1 on-site benchmark for every 600' of utility shall be shown and described (minimum of 2 per project).
- vi. All (public and private) utilities shall be located (overhead and underground).
  - Overhead information shall include:
    - location and type of utility
  - Underground information shall include:
    - type of structure
    - location and type of utility
    - size of structure
    - measured casting elevation
    - measured invert(s) elevation of pipe/top of pipe elevation
- vii. All trees within the project area, are to be located and include trunk diameter at breast height (DBH) and canopy diameter. There will be no minimum tree size limits within the ROW, however, outside of the ROW only trees 6" DBH or greater need be located along with trees whose canopy may impact the project area.

- viii. Datum to be in the City's official vertical datum of NAVD88 and horizontal datum of NAD83 (Michigan State Plane coordinates, international feet).
- ix. Sufficient ground elevations for digital terrain model (DTM) generation for 1' contours, including around curb radii and through intersections. Curb ramps should have all 4 corners of the "level landing" and 10 adjacent flags of the walk transition located.
- x. Where there is the potential of utilities crossing the project area, obtain utility information outside the project limits (i.e. locate downstream/upstream sanitary manholes that tie into manholes within project area).

14) Establishment of all needed pay items and specifications for the proposed work. This will include unique pay items that properly detail all required work to be performed by the Contractor so that best management practices are followed in all areas of the proposed work. The City reserves the right of final determination regarding specific Items of Work and if Detailed Specifications will be required to the satisfactorily detail and describe the work.

15) Complete quantity take-offs and earthwork calculations of all items of work for which the Consultant is responsible (i.e. and "Engineer's Estimate"). This information shall be provided to the City in Excel spreadsheet format.

16) Preparation of written specifications meeting the requirements of the City, WCWRC and EGLE for all work which the Consultant has prepared plans.

17) Any other items that the Consultant feels are necessary so that when the design is 100% complete, all needed work is detailed on the drawings and fully described in the project specifications.

18) Develop and implement a communication strategy that meets the following objectives:

- Communicate complex issues in an easy-to-understand and relatable way
- Inform stakeholders and residents about the project's progress on the design and implementation process

City staff has already completed the Engagement Toolkit to assess the level of engagement needed for this project. Below are the City's communication expectations for this project. The consultant may also provide additional ideas in the proposal.

a. Kick-off meeting: Prior to any work on the above scope items, the consultant shall convene a communication's kick-off meeting to learn about the history of the project's engagement efforts, start developing appropriate messaging, and determine the appropriate timeline, format, and distribution methods to inform the relevant groups impacted by this project.

a) Present project material: At a minimum the City expects the following:

- i. Use community input collected in earlier studies as a consideration for



developing improvements within the project area

- ii. Develop regular public updates through a variety of channels
- iii. Prepare for at least three presentations during the design and implementation process. If it is believed that this project will require more than three presentations, please include a cost per additional meeting estimate in the budget. The consultant will deliver presentation content at in-person meetings/events and prepare a single-page flier or infographic to be distributed in coordination with the in-person events. The presentation should include the following content:
  - 1. The design and implementation processes
  - 2. Design options and associated impacts on community members
  - 3. A summary of community comments
  - 4. How the design process incorporates community comments, when it doesn't (and why not), and the rationale behind the selected option
  - 5. Community resources

b) Target audience: The residents most impacted by this project represent a mix of demographic groups, some of which are considered more vulnerable populations such as low-income households. Consider area demographics in selecting communication tools; this may include less reliance on virtual meetings as compared to leveraging existing community meetings/events to access a broader audience and translation of materials if deemed necessary. Consultant shall at a minimum work with the following pre-determined groups throughout the project:

- i. A Working Group consisting of City of Ann Arbor staff, other public agencies, and the Consultant
- ii. The residents, likely through the Pittsfield Condominium Association
- iii. Presentations to various boards, commissions, and City Council on an as needed basis.

c) Consultants should work with the City's Communications Department and Community Engagement Specialist to consider all of the necessary channels to promote public informational sessions.

- i. Consultant may utilize a third party communication vehicle at the discretion of the City. It is expected that the Consultant will provide the content for these channels and for the City to finalize and approve the final message.

d) Documentation: Document all outreach and engagement activities in a written, summary document that includes a FAQ.

19) The City may ask the Consultants to provide construction engineering services including construction staking and full-time inspection during construction for Phases. Consultants are asked to include these options tasks in their work plans and sealed fee proposals.

## **SECTION III - MINIMUM INFORMATION REQUIRED**

### **PROPOSAL FORMAT**

Offerors should organize Proposals into the following Sections:

- A. Professional Qualifications
- B. Past Involvement with Similar Projects
- C. Proposed Work Plan
- D. Fee Proposal (include in a separate sealed envelope clearly marked "Fee Proposal")
- E. Authorized Negotiator
- F. Attachments

The following describes the elements that should be included in each of the proposal sections and the weighted point system that will be used for evaluation of the proposals.

#### A. Professional Qualifications – 20 points

1. State the full name and address of your organization and, if applicable, the branch office or other subsidiary element that will perform, or assist in performing, the work hereunder. Indicate whether it operates as an individual, partnership, or corporation. If as a corporation, include whether it is licensed to operate in the State of Michigan.
2. Include the name of executive and professional personnel by skill and qualification that will be employed in the work. Show where these personnel will be physically located during the time they are engaged in the work. Indicate which of these individuals you consider key to the successful completion of the project. Identify only individuals who will do the work on this project by name and title. Resumes and qualifications are required for all proposed project personnel, including all subcontractors. Qualifications and capabilities of any subcontractors must also be included.
3. State history of the firm, in terms of length of existence, types of services provided, etc. Identify the technical details that make the firm uniquely qualified for this work.

#### B. Past involvement with Similar Projects – 20 points

The written proposal must include a list of specific experience in the project area and indicate proven ability in implementing similar projects for the firm **and** the individuals to be involved in the project. A complete list of client references must be provided for similar projects recently completed. The list shall include the firm/agency name, address, telephone number, project title, and contact person.

C. Proposed Work Plan – 40 points

Provide a detailed and comprehensive description of how the offeror intends to provide the services requested in this RFP. This description shall include, but not be limited to: how the project(s) will be managed and scheduled, how and when data and materials will be delivered to the City, communication and coordination, the working relationship between the offeror and City staff, and the company's general philosophy in regards to providing the requested services.

Offerors shall be evaluated on the clarity, thoroughness, and content of their responses to the above items.

D. Fee Proposal - 20 points

Fee schedules shall be submitted in a separate, sealed, envelope as part of the proposal. Fee quotations are to include the names, title, hourly rates, overhead factors, and any other relevant details. The proposal should highlight key staff and positions that would likely be involved with projects. Offerors shall be capable of justifying the details of the fee proposal relative to personnel costs, overhead, how the overhead rate is derived, material and time.

E. Authorized Negotiator

Include the name, phone number, and e-mail address of persons(s) in your organization authorized to negotiate the agreement with the City

F. Attachments

Legal Status of Offeror, Conflict of Interest Form, Living Wage Compliance Form, and the Non-Discrimination Form should be returned with the proposal. These elements should be included as attachments to the proposal submission.

**PROPOSAL EVALUATION**

1. The selection committee will evaluate each proposal by the above-described criteria and point system (A through C) to select a short-list of firms for further consideration. The City reserves the right to reject any proposal that it determines to be unresponsive and deficient in any of the information requested for evaluation. A proposal with all the requested information does not guarantee the proposing firm to be a candidate for an interview. The committee may contact references to verify material submitted by the offerors.
2. The committee then will schedule interviews with the selected firms if necessary. The selected firms will be given the opportunity to discuss in more detail their qualifications, past experience, proposed work plan and fee proposal.

3. The interview must include the project team members expected to complete a majority of work on the project, but no more than six members total. The interview shall consist of a presentation of up to thirty minutes (or the length provided by the committee) by the offeror, including the person who will be the project manager on this contract, followed by approximately thirty minutes of questions and answers. Audiovisual aids may be used during the oral interviews. The committee may record the oral interviews.
4. The firms interviewed will then be re-evaluated by the above criteria (A through D), and adjustments to scoring will be made as appropriate. After evaluation of the proposals, further negotiation with the selected firm may be pursued leading to the award of a contract by City Council, if suitable proposals are received.

The City reserves the right to waive the interview process and evaluate the offerors based on their proposals and fee schedules alone and open fee schedules before or prior to interviews.

The City will determine whether the final scope of the project to be negotiated will be entirely as described in this RFP, a portion of the scope, or a revised scope.

Work to be done under this contract is generally described through the detailed specifications and must be completed fully in accordance with the contract documents.

Any proposal that does not conform fully to these instructions may be rejected.

## **PREPARATION OF PROPOSALS**

Proposals should have no plastic bindings but will not be rejected as non-responsive for being bound. Staples or binder clips are acceptable. Proposals should be printed double sided on recycled paper. Proposals should not be more than 30 sheets (60 sides), not including required attachments and resumes.

Each person signing the proposal certifies that they are a person in the offeror's firm/organization responsible for the decisions regarding the fees being offered in the Proposal and has not and will not participate in any action contrary to the terms of this provision.

## **ADDENDA**

If it becomes necessary to revise any part of the RFP, notice of the addendum will be posted to Michigan Inter-governmental Trade Network (MITN) [www.mitn.info](http://www.mitn.info) and/or the City of Ann Arbor web site [www.A2gov.org](http://www.A2gov.org) for all parties to download.

Each offeror must acknowledge in its proposal all addenda it has received. The failure of an offeror to receive or acknowledge receipt of any addenda shall not relieve the offeror of the responsibility for complying with the terms thereof. The City will not be bound by oral responses to inquiries or written responses other than official written addenda.

## **SECTION IV - ATTACHMENTS**

Attachment A – Project Specific Attachments

Attachment B - Legal Status of Offeror

Attachment C – Non-Discrimination Ordinance Declaration of Compliance Form

Attachment D – Living Wage Declaration of Compliance Form

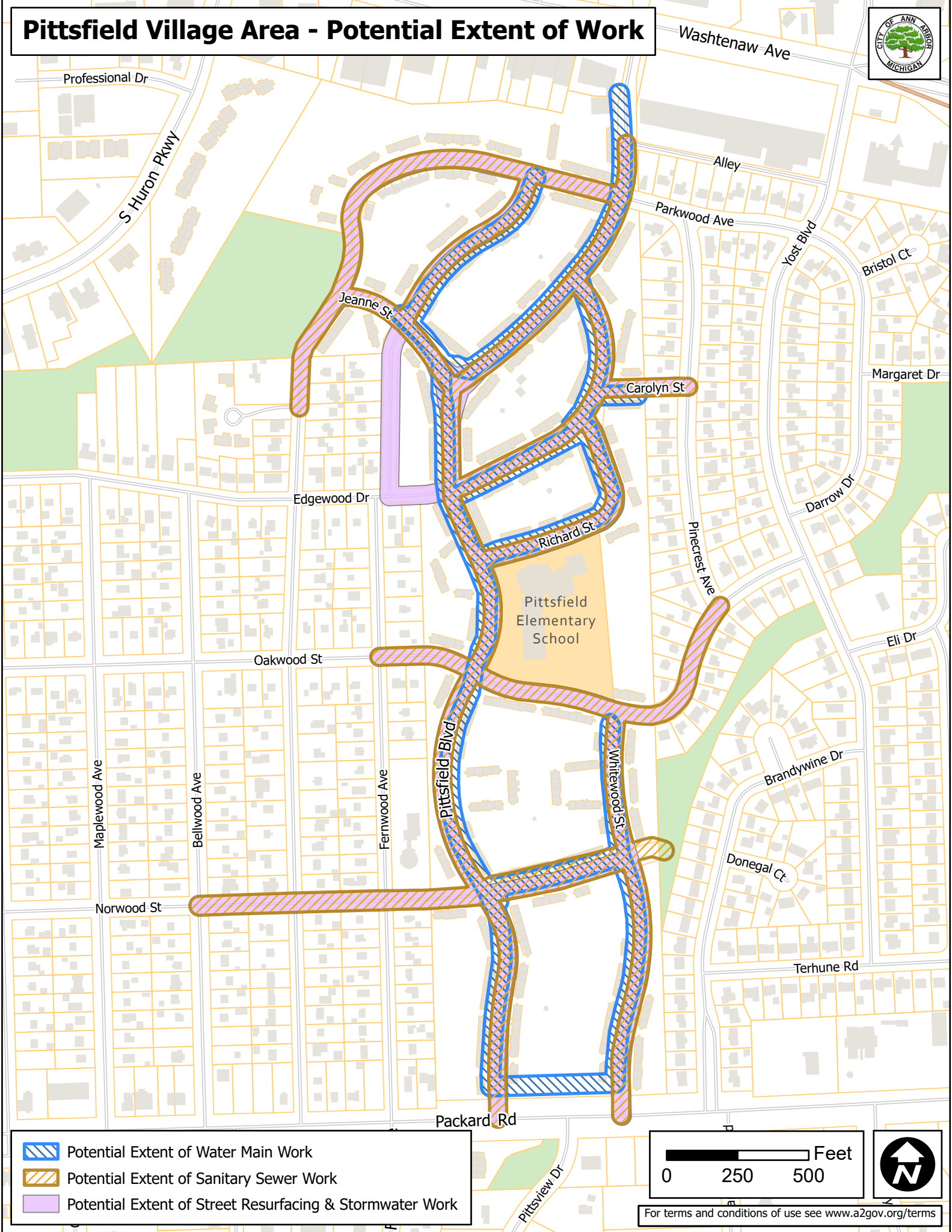
Attachment E – Vendor Conflict of Interest Disclosure Form




Attachment F – Non-Discrimination Ordinance Poster

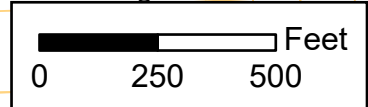
Attachment G – Living Wage Ordinance Poster

## ATTACHMENT A

# Pittsfield Village Area - Potential Extent of Work



-  Potential Extent of Water Main Work
-  Potential Extent of Sanitary Sewer Work
-  Potential Extent of Street Resurfacing & Stormwater Work



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## memorandum

**Date:** May 24, 2023

**To:** Troy Baughman, City of Ann Arbor

**cc:** George Tsakoff, OHM Advisors  
Robert Czachorski, OHM Advisors

**From:** Mackenzie Johnson, OHM Advisors

**Re:** Pittsfield Village Sanitary Sewer and Stormwater Evaluation Survey

### Project Background

A large rain event occurred on the evening of June 25, 2021 into the early morning hours of June 26, 2021 resulting in numerous reports of flooding and basement backups in Washtenaw and Wayne Counties including portions of the City of Ann Arbor. The Pittsfield Village neighborhood and surrounding streets were the most impacted areas within the City of Ann Arbor.

In response to the flooding and basement backups, the City of Ann Arbor requested OHM Advisors to perform a sanitary sewer analysis to better understand the cause of the basement backups in this area and to provide recommendations on system improvements that would minimize the potential for similar occurrences in the future. One of the recommendations from that analysis was to perform a sanitary sewer evaluation survey to identify sources of inflow and infiltration into the sanitary sewer system such that they can be addressed. A significant amount of inflow and infiltration into the sanitary sewer system could contribute to sanitary sewer surcharges and basement backups during wet weather events.

Inflow and infiltration (I&I) is the occurrence of stormwater and groundwater entering into the sanitary sewer system. The amount of I&I into the sanitary sewer system typically increases during wet weather events. Sources of inflow and infiltration may include connected footing drains or roof drains, illicit connections from the stormwater system, and cracks and fractures in sanitary sewer pipes and manholes that allow groundwater and surface water to enter. I&I should be minimized to reduce the amount of stormwater that is conveyed by the sanitary sewer system and is unnecessarily treated at the wastewater treatment plant. This technical memorandum details the sanitary sewer and stormwater evaluation survey field investigations and findings and provides sanitary sewer and stormwater pipe and manhole rehabilitation recommendations.

### Sanitary Sewer Evaluation Survey Field Services

#### Pipeline Inspections

Pipeline inspections are performed using closed-circuit televising (CCTV). This process involves pushing a small robotic device with a television camera through a pipeline to identify defects and sources of water entering the system. Both the sanitary sewer and storm sewer pipes within the Pittsfield Village neighborhood were inspected over the past several years, and the inspection reports and videos were provided by the City of Ann Arbor for review. The inspection reports utilize the National Association of Sewer Service Companies (NASSCO) Pipeline Assessment Certification Program (PACP) coding system.





Under the PACP program, each pipe defect is assigned a grade based on its severity. Defects are graded on a 1 to 5 scale with Grade-5 being the most severe. Some common pipe defects include cracks, fractures, roots, broken pipe, and grease buildup among many others. Descriptions of the high-grade pipe defects found in the Pittsfield Village neighborhood are provided in Appendix D.

It should be noted that in some cases, there are more pipes with rehabilitation recommended than pipes with high-grade defects. There are a couple reasons for this anomaly. In several cases, some pipes have medium-grade defects that will likely soon become high-grade defects, so rehabilitation is recommended now. In other cases, pipes may contain the code “Miscellaneous Survey Abandon (MSA)” or “Miscellaneous General Observation (MGO)”. These codes are used when something unusual is found in the pipe that another code cannot describe. These codes do not trigger a defect grade; however, comments are documented and manual review of the inspection video is required. Sometimes, manual review reveals a problem with the pipe that requires repair or replacement, thus rehabilitation is recommended even if the pipe does not technically contain a high-grade defect. The same applies to manholes as well.

### **Manhole Inspections**

Manhole inspections were conducted on both sanitary and stormwater manholes throughout the Pittsfield Village neighborhood by televising the manhole using a camera on an extendable pole. Defects were then identified and coded based on NASSCO’s Manhole Assessment Certification Program (MACP). MACP employs the same defect coding and grading scale as PACP; however, some manhole defects differ from pipeline defects. Some common manhole defects include broken, offset, and loose frames, infiltration runners, deposits attached ragging, and missing brickwork among many others. Descriptions of the high-grade manhole defects found in the Pittsfield Village neighborhood are provided in Appendix D.

### **Smoke Testing**

Smoke testing involves blowing a non-toxic mist through the sanitary sewer system to identify locations where groundwater and stormwater can enter the system. Water can enter into the sanitary sewer system wherever the smoke exits. Some common smoke sources include leaks, uncapped or broken cleanouts, manhole bolt holes, and connected roof downspouts. The smoke sources identified in Pittsfield Village are shown in Appendix A.

## **Sanitary Sewer and Stormwater Evaluation Survey Findings**

### **Sanitary Sewer Pipeline Inspections**

The City has inspected 77 sanitary sewer pipes, totaling about 17,775 linear feet, within and around the Pittsfield Village neighborhood over the past several years. The data collected by the City was sent to OHM for review and analysis. Of the 77 pipes inspected, 30 pipes have at least one Grade-4 or Grade-5 defect (39%). These pipes contain a total of 132 Grade-4 defects and 16 Grade-5 defects.

The fracture multiple and fracture hinge defect codes as well as holes and broken pipes account for the majority of the Grade-4 defects. The surface damage missing wall defect code as well as holes and broken pipes with soil or voids visible account for the majority of the Grade-5 defects. Deformed pipe and surface damage missing wall defect codes are serious defects that may eventually lead to the pipe collapsing.

A complete list of defects and their associated pipes are shown in Table 1 below, and Figure 1 in Appendix B depicts the locations of these high-grade defects. As can be seen from the table, pipes 74-074681 and 74-62953 have many high-grade defects.



**Table 1: Pittsfield Village Sanitary Sewer High-Grade Defects**

Pipe ID	Defect	Grade
74-074681	Hole Soil Visible (x2); Broken Soil Visible; Patch Repair Defective; Hole (x2); Fracture Hinge; Fracture Multiple (x6)	5; 5; 4; 4
74-61539	Fracture Multiple (x8); Infiltration Runner	4; 4
74-61540	Surface Damage Missing Wall; Hole	5; 4
74-62060	Deformed; Hole Void Visible; Fracture Multiple	5; 5; 4
74-62061	Fracture Multiple	4
74-62062	Hole Void Visible; Tap Break-In Intruding; Deposits Attached Encrustation	5; 5; 4
74-62063	Fracture Multiple (x2)	4
74-62066	Fracture Multiple	4
74-62068	Deposits Settled Fine (x2); Camera Underwater	5; 4
74-62072	Fracture Hinge; Broken	4; 4
74-62075	Fracture Hinge (x3); Fracture Multiple (x7)	4; 4
74-62076	Fracture Hinge	4
74-62077	Broken	4
74-62107	Deposits Settled Other	4
74-62108	Fracture Hinge; Fracture Multiple (x3)	4; 4
74-62590	Infiltration Runner	4
74-62877	Broken Soil Visible; Broken (x2); Hole	5; 4; 4
74-62878	Joint Offset Large; Hole (x2); Fracture Multiple (x4); Deposits Attached Encrustation	5; 4; 4; 4
74-62879	Root Ball Barrel; Hole; Broken (x2); Fracture Multiple (x5)	5; 4; 4; 4
74-62881	Fracture Multiple (x11)	4
74-62927	Crack Hinge	4
74-62928	Broken (x2)	4
74-62930	Fracture Hinge	4
74-62931	Miscellaneous Water Level Sag	4
74-62933	Fracture Hinge (x5); Fracture Multiple (x2)	4; 4
74-62935	Fracture Hinge	4
74-62936	Hole Void Visible; Miscellaneous Water Level Sag	5; 4
74-62953	Surface Damage Missing Wall; Hole Void Visible; Broken (x3); Fracture Hinge (x11); Fracture Multiple (x23); Miscellaneous Water Level Sag	5; 5; 4; 4; 4; 4
74-62958	Hole Soil Visible; Broken	5; 4
74-62959	Fracture Hinge (x2)	4



### Stormwater Pipeline Inspections

The City has inspected 73 stormwater pipes, totaling about 10,146 linear feet, within and around the Pittsfield Village neighborhood over the past several years. The data collected by the City was sent to OHM for review and analysis. Of the 73 pipes inspected, 32 pipes have at least one Grade-4 or Grade-5 defect (44%). These pipes contain a total of 67 Grade-4 defects and 9 Grade-5 defects.

The fracture multiple and fracture hinge defect codes as well as holes and broken pipes account for the majority of the Grade-4 defects. The surface damage missing wall defect code as well as holes and broken pipes with soil or voids visible account for the majority of the Grade-5 defects. Upon further review of the pipe inspections, there were also five (5) pipes that were deformed but did not have a “deformed pipe” defect coded. These deformed pipes are noted in Table 4 below. Deformed pipe and surface damage missing wall defect codes are serious defects that may eventually lead to the pipe collapsing.

A complete list of the stormwater pipe defects are shown in Table 4 below, and Figure 2 in Appendix B depicts the locations of these high-grade defects. As can be seen from the table, pipes 95-51509 and 95-51511 have many high-grade defects.

**Table 2: Pittsfield Village Stormwater High-Grade Pipeline Defects**

Pipe ID	Defect	Grade
95-065651	Fracture Hinge (x2); Deformed	4; 5
95-50780	Line Right	4
95-50781	Fracture Multiple	4
95-51253	Hole	4
95-51268	Fracture Multiple	4
95-51287	Hole	4
95-51474	Fracture Multiple	4
95-51476	Fracture Multiple (x7)	4
95-51481	Hole (x3); Joint Offset Large; Line Left	4; 4; 4
95-51482	Deposits Settled Fine	5
95-51502	Fracture Hinge; Fracture Multiple (x2); Deformed	4; 4; 5
95-51504	Infiltration Runner	4
95-51505	Fracture Hinge	4
95-51507	Deposits Settled Other	4
95-51509	Hole Void Visible; Hole Soil Visible; Hole; Fracture Hinge; Fracture Multiple (x4); Broken	5; 5; 4; 4; 4; 4
95-51511	Hole Soil Visible; Broken Soil Visible; Broken Void Visible; Fracture Multiple	5; 5; 5; 4
95-51517	Crack Hinge; Broken; Deformed	4; 4; 5
95-51541	Fracture Multiple; Joint Offset Large	4; 4
95-51542	Fracture Hinge; Deformed	4; 5
95-68257	Fracture Hinge; Fracture Multiple (x2)	4; 4
95-70490	Line Right	4
95-70572	Broken	4
95-70829	Deposits Settled Fine	4



95-70830	Surface Damage Missing Wall; Deposits Settled Fine	5; 5
95-70838	Fracture Multiple	4
95-70870	Fracture Multiple	4
95-71213	Fracture Multiple; Deformed	4; 5
95-71231	Deposits Settled Other	5
95-71339	Broken Soil Visible; Hole; Joint Offset Large (x2)	5; 5; 4
95-71360	Deposits Settled Gravel; Fracture Hinge; Broken (x2)	5; 4; 4
95-71459	Miscellaneous Camera Underwater	4
95-71460	Deposits Settled Fine	5

### Sanitary Manhole Inspections

OHM field crews inspected 56 sanitary manholes within the Pittsfield Village neighborhood. Of the 56 inspected manholes, 17 manholes were found to have at least one Grade-4 or Grade-5 defect (30%). A total of fourteen (14) Grade-4 defects and four (4) Grade-5 defects were identified. Manholes with fractures, missing mortar, and missing brickwork account for the majority of the Grade-4 defects. The Grade-5 defects consist of bench and channel collapses as well as surface damage. Table 3 below provides a complete list of the sanitary manholes with high grade defects, and Figure 1 in Appendix B shows the locations of the sanitary manholes with high-grade defects.

**Table 3: Pittsfield Village Sanitary Manhole High-Grade Defects**

Manhole ID	Defect	Grade
71-61796	Deposits Attached Ragging	4
71-61797	Missing Mortar Large	4
71-61798	Missing Mortar Large	4
71-61817	Cracked Frame	4
71-61827	Fracture Multiple	4
71-62269	Missing Brickwork	4
71-62670	Channel Collapse	5
71-62271	Missing Mortar Large	4
71-62275	Fracture Multiple; Surface Damage Aggregate Missing	4; 4
71-62276	Fracture Multiple	4
71-62277	Surface Damage Reinforcement Visible	5
71-62278	Surface Damage Reinforcement Projecting	5
71-62279	Fracture Multiple	4
71-62280	Fracture Multiple	4
71-62283	Bench Collapse	5
71-62671	Fracture Multiple	4
71-62672	Missing Brickwork	4



### Stormwater Manhole Inspections

All 28 public stormwater manholes in Pittsfield Village were inspected by OHM field crews. Of the 28 inspected manholes, ten (10) manholes were found to have at least one Grade-4 or Grade-5 defect (36%). A total of nine (9) Grade-4 defects and five (5) Grade-5 defects were identified. Manholes with fractures, missing brickwork, and infiltration account for the majority of the Grade-4 defects. The Grade-5 defects consist of bench collapses, holes, and surface damage. Table 4 below provides a complete list of the stormwater manholes with high grade defects, and Figure 2 in Appendix B shows the locations of the stormwater manholes with high-grade defects.

**Table 4: Pittsfield Village Stormwater Manhole High-Grade Defects**

Manhole ID	Defect	Grade
92-50199	Missing Brickwork (x2)	4; 4
92-50211	Bench Collapse; Hole Soil Visible	5; 5
92-50996	Surface Damage Reinforcement Visible	5
92-51029	Infiltration Runner	4
92-51062	Bench Collapse	5
92-51066	Joint Separated Medium; Fracture Multiple	5; 4
92-51068	Fracture Multiple; Missing Brickwork	4; 4
92-51069	Surface Damage Aggregate Missing	4
92-51074	Fracture Multiple	4
92-63218	Missing Brickwork	4

### Smoke Testing

Smoke testing was completed throughout the Pittsfield Village neighborhood. The testing revealed multiple sources where groundwater and stormwater could enter into the sanitary sewer system. Smoke sources included cleanouts, the ground, manhole frame seals, vented manhole lids, and catch basins and storm inlets. The smoking storm inlets and catch basins are most likely the result of cracks and defects in the pipes and manhole structures that allow smoke to migrate from the sanitary sewer system through the ground and into the storm sewer system. After further investigation, it was determined that these catch basins do not have direct connections to the sanitary sewer system. However, it is suspected that the smoke indicates that stormwater may be able to migrate from the catch basin leads to the sanitary sewer.

Table 5 below lists the smoke sources identified, and the locations of the smoke sources are shown in Appendix A. There was also one smoke source at storm catch basin 88-56152 that did not have a picture associated with it.

**Table 5: Pittsfield Village Smoke Sources**

Smoke Source	Quantity
Uncapped Cleanout	3
Ground	1
Manhole Frame Seal	3
Vented Manhole Lid	3
Catch Basin/Storm Inlet	8
<b>Total Smoke Sources =</b>	<b>18</b>



## Water Budget

There can be many sources of inflow and infiltration (I&I) into a sanitary sewer system. Some common sources include manhole defects, pipeline defects, smoke sources, and connected footing drains.

The sanitary sewer evaluation survey results were used to estimate the I&I flow rates from each source type by assigning each defect and smoke source an I&I flow value in order to create a water budget. A water budget quantifies the percentage of inflow and infiltration entering the sanitary sewer system via these various sources.

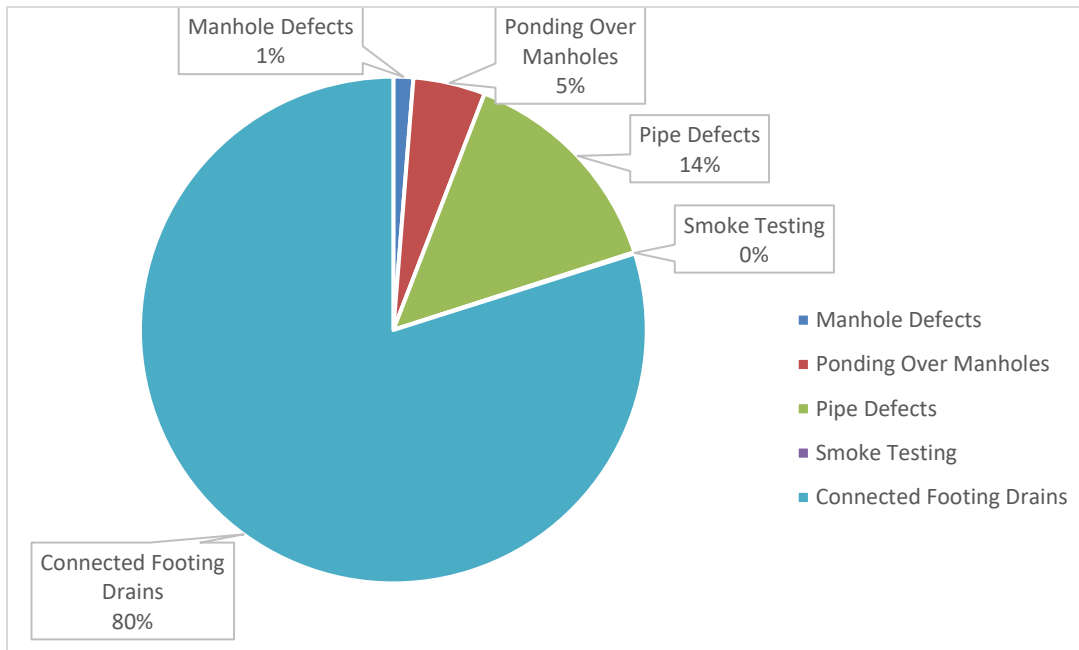
Typically, it can be assumed that each connected footing drain would discharge approximately 5 gpm of flow to the sanitary sewer system during wet weather events. However, it was discovered that the footing drains in the Pittsfield Village neighborhood may contribute more flow into the sanitary sewer system than expected during wet weather events as detailed in the *June 25-26, 2021 Storm Event Analysis* report completed in April 2022. That report states the following:

*“The typical flow per connected footing drain is 1 gallon per minute (gpm) per 1-inch of rain. Considering that the June rain event produced approximately 5 inches of rain, it would be expected that each connected footing drain would normally contribute about 5 gpm to the sanitary sewer system. However, an additional flow equal to approximately 15 gpm per connected footing drain had to be added to this area in the model to produce similar results to what were witnessed...”*

The analysis completed as a part of that study suggested that the Pittsfield Village neighborhood may contribute flow *equivalent* to an additional 15 gpm per connected footing drain during wet weather events from both public I&I sources and footing drains. The water budget analysis estimated the flow contributions from public sources of I&I so that the flow contribution from footing drains could be calculated. From the hydraulic model analysis that included the increased flow in the Pittsfield Village area to mimic observed basement backup and flooding conditions, the total flow contributed by the Pittsfield Village neighborhood during the June Storm event is estimated to be about 9.9 cfs. If the I&I flow estimates from the public sources are subtracted from the total I&I flow, then the I&I contributed solely by footing drains is estimated to be about 7.9 cfs or 3550 gpm. With 356 connected footing drains in the Pittsfield Village neighborhood, this translates to a flow of about 10 gpm per footing drain. A flow contribution of 10 gpm per connected footing drain in Pittsfield Village is substantially higher than the typical flow contribution of 5 gpm per footing drain.

It should also be noted that inflow from water ponding over sanitary manholes was included in the water budget. Ponding over manholes was observed in the greenspace area bounded to the north by Norwood St., the south by Packard St., the east by Whitewood St., and the west by Pittsfield Blvd during the June 2021 rain event. There are five sanitary sewer manholes located in this greenspace area, each of which had two unplugged pick holes at the time of the rain event. According to the *June 25-26, 2021 Storm Event Analysis* report completed in April 2022, approximately 2.2 feet of water was ponded over these manholes. Using the orifice equation with a head of 2.2 feet above the manhole rim and assuming a pick hole diameter of one inch, approximately 204 gpm (0.45 cfs) of flow was estimated to have entered into the sanitary sewer system via the open pick holes in these five manholes (assuming two pick holes per manhole).

Figure 1 below depicts the water budget for Pittsfield Village, and Table 6 tabulates the results. As can be seen from Figure 1, connected footing drains account for the majority (80%) of the inflow and infiltration into the system.



**Figure 1: Pittsfield Village Water Budget**

**Table 6: Pittsfield Village Water Budget**

I&I Sources	I&I (cfs)	Percent of Total I&I
Manhole Defects	0.13	1.27%
Ponding Over Manholes	0.45	4.60%
Pipe Defects	1.40	14.17%
Smoke Testing	0.01	0.09%
Connected Footing Drains	7.90	79.88%
<b>Total I&amp;I</b>	<b>9.89</b>	



### Rehabilitation Recommendations

Tables 7 and 8 below provide recommended rehabilitation methods for both sanitary sewer and stormwater pipes based on their inspection reports. Tables 9 and 10 below provide recommended rehabilitation methods for both sanitary sewer and stormwater manholes based on their inspection reports. Figures 1 and 2 in Appendix C show which sanitary and stormwater pipes and manholes have rehabilitation recommended. An estimated construction cost is associated with each asset’s rehabilitation method. Table 11 provides a total estimated project cost for the rehabilitation of the sanitary and stormwater pipe and manhole assets.

**Table 7: Sanitary Sewer Pipe Recommended Rehabilitation**

Pipe ID	Recommended Rehabilitation	Cost
74-074676	Heavy Cleaning	\$958
74-074681	Complete Remove and Replace	\$46,878
74-61539	Full Liner	\$30,962
74-61540	Full Liner	\$20,109
74-61566	Grouting	\$6,615
74-62060	Complete Remove and Replace	\$26,220
74-62061	Grouting; Spot Liner	\$4,277
74-62062	Full Liner	\$16,822
74-62063	Spot Liner; Cutting and Grouting	\$11,506
74-62072	Partial Remove and Replace; Spot Liner	\$36,250
74-62075	Full Liner	\$25,280
74-62076	Full Liner	\$7,088
74-62077	Full Liner	\$8,179
74-62081	Grouting	\$6,522
74-62108	Complete Remove and Replace	\$33,180
74-62122	Cleaning	\$902
74-62590	Cutting and Grouting	\$18,602
74-62877	Grouting	\$7,464
74-62878	Partial Remove and Replace; Grouting	\$40,284
74-62879	Partial Remove and Replace; Spot Liner; Grouting	\$37,618
74-62880	Grouting	\$9,338
74-62881	Full Liner	\$25,949
74-62900	Cutting and Grouting	\$17,432
74-62905	Cutting and Grouting	\$43,289
74-62927	Spot Liner; Cutting and Grouting	\$13,115
74-62928	Full Liner	\$9,368
74-62930	Full Liner	\$9,125
74-62931	Full Liner	\$19,361
74-62933	Complete Remove and Replace	\$138,582
74-62935	Full Liner	\$2,365
74-62936	Cutting and Grouting	\$13,430





74-62937	Cutting and Grouting	\$13,120
74-62938	Cleaning	\$156
74-62952	Full Liner	\$7,671
74-62953	Complete Remove and Replace	\$160,560
74-62958	Partial Remove and Replace; Full Liner	\$96,482
74-62959	Full Liner	\$18,316
<b>Total Estimated Sanitary Pipe Rehabilitation Cost =</b>		<b>\$983,375</b>

**Table 8: Stormwater Pipe Recommended Rehabilitation**

<b>Pipe ID</b>	<b>Recommended Rehabilitation</b>	<b>Cost</b>
95-065651	Complete Remove and Replace	\$42,864
95-50780	Full Liner	\$12,446
95-50781	Full Liner	\$17,438
95-50782	Re-inspect Pipe Segment; Cutting and Grouting	\$1,277
95-51253	Spot Liner; Grouting	\$86,253
95-51266	Spot Liner	\$12,000
95-51267	Re-inspect Pipe Segment; Cleaning	\$598
95-51268	Spot Liner	\$8,000
95-51287	Spot Liner; Grouting	\$88,670
95-51472	Grouting	\$4,752
95-51473	Spot Liner	\$4,000
95-51474	Grouting	\$8,507
95-51475	Spot Liner	\$4,000
95-51476	Full Liner	\$10,727
95-51481	Full Liner	\$10,006
95-51482	Cutting and Grouting	\$3,168
95-51502	Partial Remove and Replace; Full Liner	\$58,168
95-51503	Spot Liner	\$6,000
95-51504	Grouting	\$20,052
95-51505	Complete Remove and Replace	\$10,026
95-51507	Heavy Cleaning	\$534
95-51509	Complete Remove and Replace	\$97,943
95-51511	Full Liner	\$3,134
95-51517	Complete Remove and Replace	\$73,334
95-51541	Full Liner	\$1,767
95-51542	Partial Remove and Replace; Full Liner	\$281,246
95-51686	Spot Liner	\$8,000
95-68257	Full Liner	\$8,731
95-68699	Re-inspect Pipe Segment; Heavy Cleaning	\$316



95-70572	Full Liner	\$1,288
95-70769	Cleaning	\$87
95-70829	Heavy Cleaning	\$169
95-70830	Full Liner	\$1,572
95-70838	Spot Liner	\$4,000
95-70865	Grouting	\$2,957
95-70870	Full Liner	\$10,367
95-71016	Full Liner	\$2,368
95-71213	Complete Remove and Replace	\$17,057
95-71339	Complete Remove and Replace	\$8,012
95-71360	Complete Remove and Replace	\$13,622
95-71363	Heavy Cleaning	\$191
95-71454	Cleaning	\$60
95-71459	Heavy Cleaning	\$206
95-71460	Cleaning	\$164
	<b>Total Estimated Stormwater Pipe Rehabilitation Cost =</b>	<b>\$946,077</b>

**Table 9: Sanitary Sewer Manhole Recommended Rehabilitation**

<b>Pipe ID</b>	<b>Recommended Rehabilitation</b>	<b>Cost</b>
71-61794	Minor Point Repair	\$250
71-61796	Major Point Repair, Rebuild Bench	\$1,250
71-61797	Rebuild Bench, Full Manhole Liner	\$5,750
71-61798	Full Manhole Liner	\$5,000
71-61817	Major Point Repair	\$500
71-61827	Reset Frame, Full Manhole Liner	\$6,650
71-62269	Rebuild Bench, Full Manhole Liner	\$5,750
71-62271	Replace Chimney, Wall Liner	\$4,000
71-62275	Replace Chimney, Wall Liner, Rebuild Bench	\$5,200
71-62276	Full Manhole Liner	\$5,000
71-62277	Major Point Repair	\$500
71-62278	Major Point Repair, Reset Frame	\$1,350
71-62279	Full Manhole Liner	\$5,000
71-62280	Reset Frame, Full Manhole Liner	\$6,650
71-62283	Major Point Repair, Chimney Liner, Rebuild Bench	\$1,800
71-62670	Major Point Repair	\$500
71-62671	Chimney Liner	\$550
71-62672	Rebuild Bench, Full Manhole Liner	\$5,750
	<b>Total Estimated Sanitary Manhole Rehabilitation Cost =</b>	<b>\$61,450</b>



**Table 10: Stormwater Manhole Recommended Rehabilitation**

Pipe ID	Recommended Rehabilitation	Cost
92-50181	Root Treatment, Chimney Liner	\$700
92-50186	Replace Chimney	\$1,950
92-50199	Major Point Repairs	\$1,000
92-50200	Minor Point Repair	\$250
92-50211	Minor Point Repairs, Rebuild Bench	\$1,500
92-50996	Replace Manhole	\$10,150
92-51003	Monitor Closely	\$0
92-51029	Minor Point Repair	\$250
92-51030	Chimney Liner	\$550
92-51034	Sewer Cleaning/Vactoring, Chimney Liner	\$1,050
92-51035	Monitor Closely, Sewer Cleaning/Vactoring, Replace Frame	\$2,200
92-51036	Root Treatment	\$150
92-51039	Replace Frame, Cone Liner	\$2,075
92-51040	Monitor Closely	\$0
92-51062	Monitor Closely, Chimney Liner, Rebuild Bench	\$1,300
92-51066	Sewer Cleaning/Vactoring, Replace Frame, Full Manhole Liner	\$7,200
92-51068	Full Manhole Liner	\$5,000
92-51069	Monitor Closely	\$0
92-51074	Minor Point Repair	\$250
92-63117	Sewer Cleaning/Vactoring	\$500
92-63218	Major Point Repair	\$500
	<b>Total Estimated Stormwater Manhole Rehabilitation Cost =</b>	<b>\$36,575</b>

**Table 11: Total Estimated Project Cost**

<b>Pittsfield Village Rehabilitation Cost</b>	
Sanitary Pipeline Construction Cost =	\$983,375
Stormwater Pipeline Construction Cost =	\$946,077
Sanitary Manhole Construction Cost =	\$61,450
Stormwater Manhole Construction Cost =	\$36,575
<b>Total Estimated Construction Cost =</b>	<b>\$2,027,477</b>
Engineering and Contingency (40%) =	\$810,991
<b>Total Estimated Project Cost =</b>	<b>\$2,838,500</b>

Estimated project costs were developed based on bid tabulation data from 2019 and 2020. Given the market volatility due to the COVID-19 pandemic and recent inflationary increases, the City may wish to consider applying a larger contingency to the estimated construction costs for budgeting purposes.

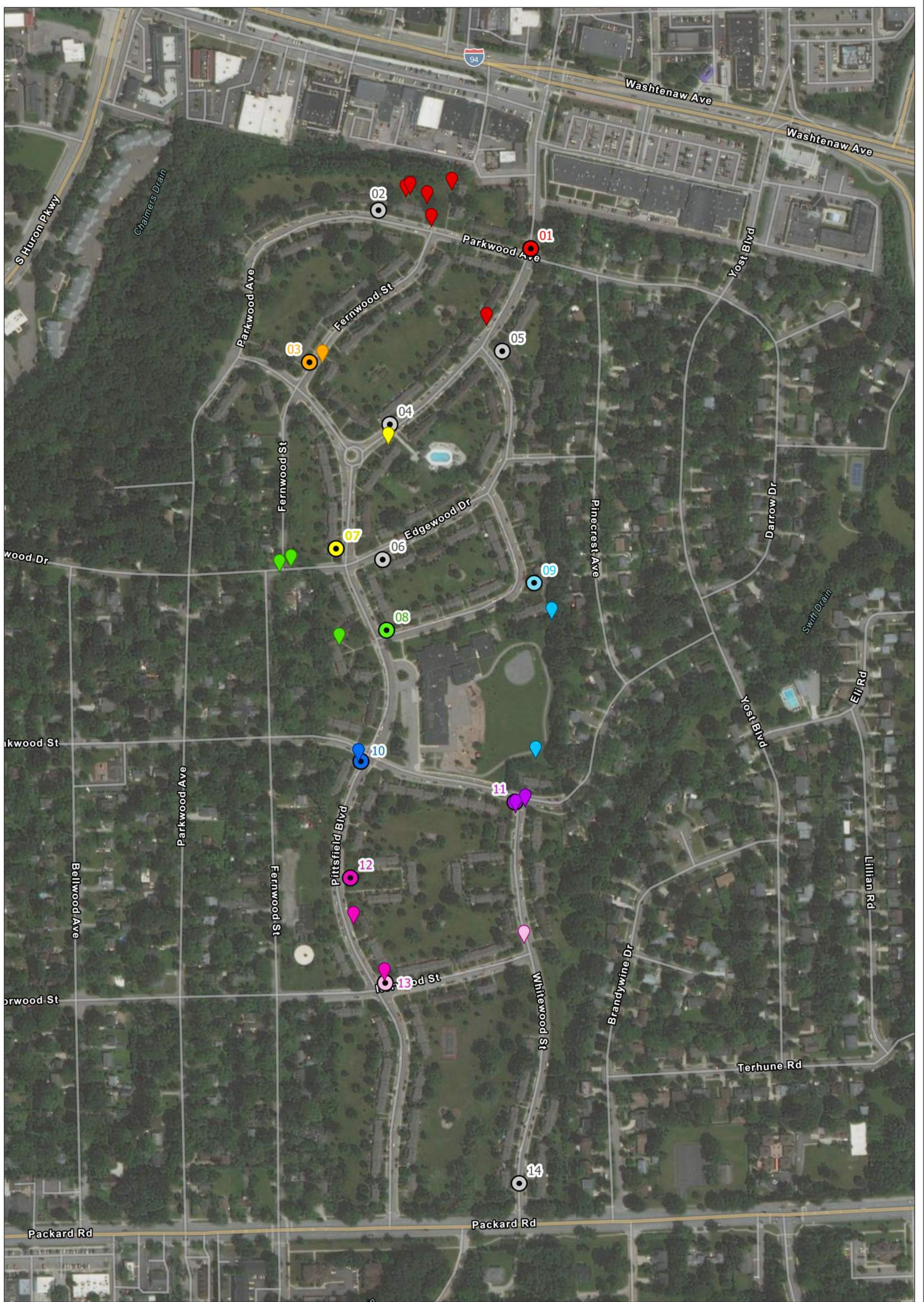


## Recommendations

1. Disconnect footing drains in the Pittsfield Village neighborhood.
  - a. The water budget showed that a majority (approximately 80%) of the I&I flow from Pittsfield Village is attributable to connected footing drains. Disconnection of footing drains would reduce the risk for basement backups in this area in the future.
2. Repair the pipes with high-grade defects.
  - a. 37 sanitary sewer pipes have rehabilitation recommended.
    - i. The estimated construction cost for repairing the 37 pipes is \$983,375.
  - b. 44 stormwater pipes have rehabilitation recommended.
    - i. The estimated construction cost for repairing the 44 pipes is \$946,077.
3. Repair the manholes with high-grade defects.
  - a. 18 sanitary manholes have rehabilitation recommended.
    - i. The estimated construction cost for repairing the 18 manholes is \$61,450.
  - b. 21 stormwater manholes have rehabilitation recommended.
    - i. The estimated construction cost for repairing the 21 manholes is \$36,575.
4. Complete the necessary rehabilitation for the smoke sources.
  - a. Uncapped cleanouts at 2265 Parkwood, 2345 Fernwood, and 2401 Pittsfield should be replaced by the resident.
  - b. Completing the recommended rehabilitation for the pipes and manholes should resolve the smoking catch basin issues as the smoking catch basins are likely a result of cracks and holes in the sanitary sewer pipes and manhole structures that allow smoke (and water) to migrate from the sanitary sewer system through the ground and into the stormwater system. No direct connections from the catch basins to the sanitary sewer system were found during field investigation.
  - c. Several smoke source locations require additional action by the City, as noted in Appendix A. Recommended actions include the following:
    - i. City to replace manhole cover at 2272 Pittsfield with solid cover.
    - ii. City to suggest to the resident at 2276 Parkwood that the private sanitary sewer (74-62087) be inspected to determine needed repairs.
    - iii. City to inspect sanitary manhole 71-62272 to determine needed repairs.

# **Appendix A**

## Smoke Testing Results



- Smoking Source**
- Smoke Test Number
  - 1
  - 3
  - 7
  - 8
  - 9
  - 10
  - 11
  - 12
  - 13

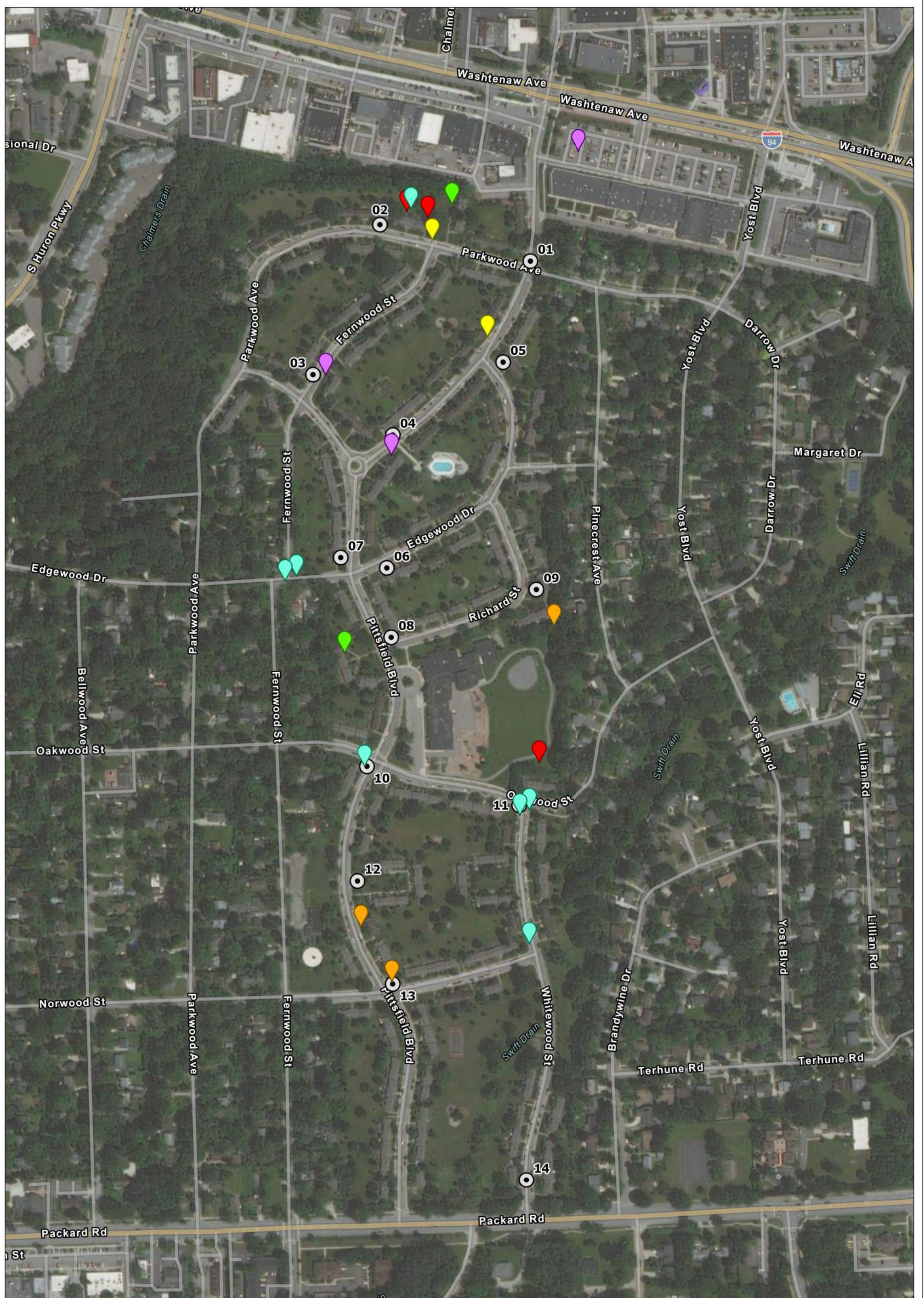
- Blower Setup**
- Smoke Test Number
  - 01
  - 03
  - 07
  - 08
  - 09
  - 10
  - 11
  - 12
  - 13
  - 14



Source: Data provided by Esri and OHM Advisors. OHM Advisors does not warrant the accuracy of the data and/or the map. This document is intended to depict the approximate spatial location of the mapped features within the Community and all use is strictly at the user's own risk.

Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere  
 Map Published: July 7, 2022

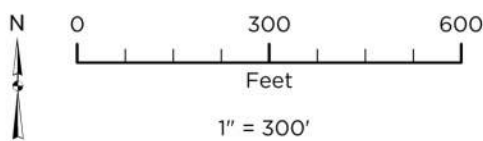




Smoking Source

- Storm Inlet
- Catch Basin
- Cleanout
- Manhole Frame Seal
- Vented Manhole Lid
- Ground
- Blower Setup

## Ann Arbor Smoke Testing Smoke Sources



Source: Data provided by Esri and OHM Advisors. OHM Advisors does not warrant the accuracy of the data and/or the map. This document is intended to depict the approximate spatial location of the mapped features within the Community and all use is strictly at the user's own risk.

Coordinate System: NAD 1983 2011 StatePlane Michigan South FIPS 2113 FIPS Int'l

Map Published: July 13, 2022





Private Action Required

PHOTO #1 - CLEAN OUT WITH MISSING  
CAP IN FRONT OF 2265 PARKWOOD





Location was field verified. A manhole exists in front of 2272 Pittsfield, but does not appear in GIS. See photo at left.

City Action - GIS does not show san MH in front of 2272 Pittsfield. Closest MH (71-61803) located in front of 2278. Field verify. Replace with solid cover.

**PHOTO #2 - SANITARY MANHOLE  
LOCATED AT 2272 PITTSFIELD  
Structure/Facility ID not shown in GIS**



PHOTO #3 - STORM INLET BEHIND  
2304 PARKWOOD  
Structure/Facility ID not shown in GIS



PHOTO #4 - SANITARY STRUCTURE  
IN FRONT OF 2304 PARKWOOD  
Facility ID 71-61798



PHOTO #5 - STORM INLET LOCATED  
BEHIND 2304 PARKWOOD  
Structure/Facility ID not shown in GIS



PHOTO #6 - SANITARY STRUCTURE  
LOCATED BEHIND 2304 PARKWOOD  
Facility ID 71-61817



Private responsibility.  
Recommend private sanitary  
sewer (74-62087) be inspected  
to determine needed repairs.

PHOTO #7a - SIDEWALK IN FRONT  
OF 2276 PARKWOOD



Private responsibility. Recommend private sanitary sewer (74-62087) be inspected to determine needed repairs.

PHOTO #7b - SIDEWALK IN FRONT  
OF 2276 PARKWOOD



Private responsibility.

PHOTO #8 - CLEAN OUT WITHOUT  
CAP IN FRONT OF 2345 FERNWOOD





Private responsibility.

PHOTO #9 - CLEAN OUT FRONT OF  
2401 PITTSFIELD



PHOTO #10 -STORM CB IN FRONT  
OF 3345 EDGEWOOD  
Facility ID 88-55036



PHOTO #11 -SANITARY STRUCTURE LOCATED  
ON SCHOOL PROPERTY BEHIND 2445 RICHARD  
Facility ID 71-62667



PHOTO #12 - STORM CB AT PITTSFIELD  
AND OAKWOOD INTERSECTION  
Facility ID 88-55849



PHOTO #13 - STORM CB AT 2603  
WHITEWOOD NEAR OAKWOOD  
Facility ID 88-55820



PHOTO #14 - STORM CB AT 3430  
WHITEWOOD NEAR OAKWOOD  
Facility ID 88-55821



PHOTO #15 - SANITARY STRUCTURE  
AT 2651 PITTSFIELD  
Facility ID 71-62271



City MH 71-62272.

City to inspect MH condition.  
Make necessary repairs if  
necessary.

PHOTO #16a - SANITARY  
STRUCTURE NEAR 2667 PITTSFIELD  
Facility ID 71-62272





City MH 71-62272.  
City to inspect MH condition. Make necessary repairs if necessary.

PHOTO #16b - SANITARY  
STRUCTURE NEAR 2667 PITTSFIELD  
Facility ID 71-62272



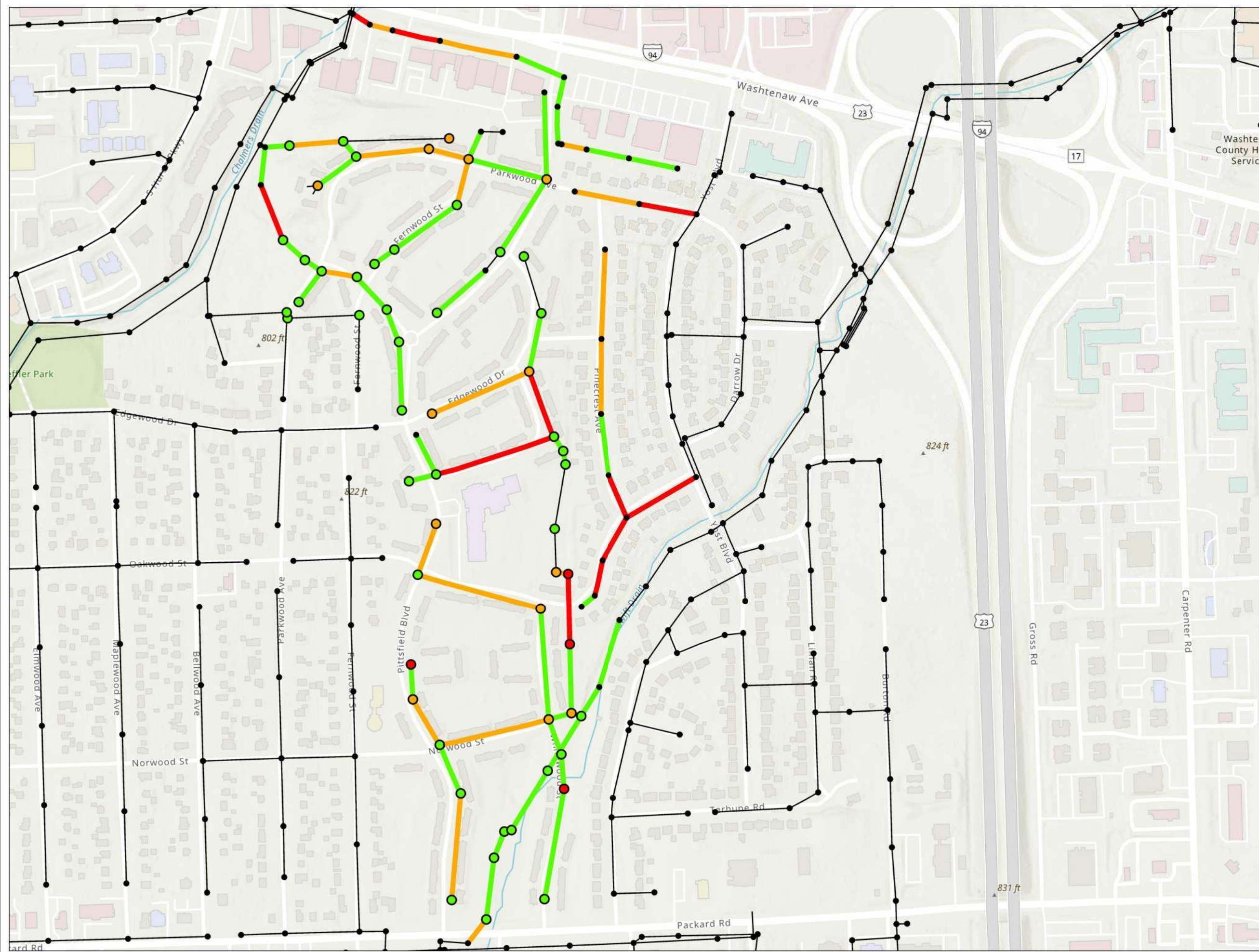
PHOTO #17 - STORM CB AT NW CORNER  
OF NORWOOD AND WHITEWOOD  
Facility ID 88-55819

# **Appendix B**

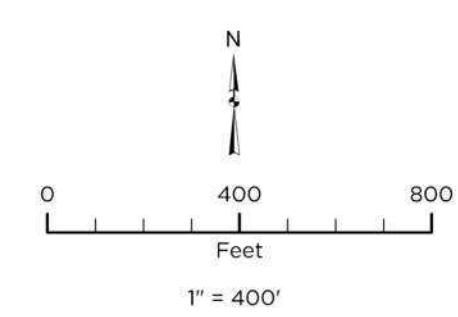
Sanitary and Stormwater  
Pipe and Manhole Defect Maps



# Pittsfield Village SSES- Sanitary High-Grade Defects Figure 1



- Manholes Inspected
- Manholes Defect Grade 5
- Manholes Defect Grade 4
- Manholes
- Sanitary Gravity Mains Inspected
- Sanitary Gravity Mains Defect Grade 5
- Sanitary Gravity Mains Defect Grade 4
- Sanitary Gravity Mains



Source: Data provided The City of Ann Arbor, ESRI and OHM Advisors. OHM Advisors does not warrant the accuracy of the data and/or the map. This document is intended to depict the approximate spatial location of the mapped features within the Community and all use is strictly at the user's own risk.

Coordinate System: NAD 1983 2011 StatePlane Michigan South FIPS 2113 Ft. Int'l

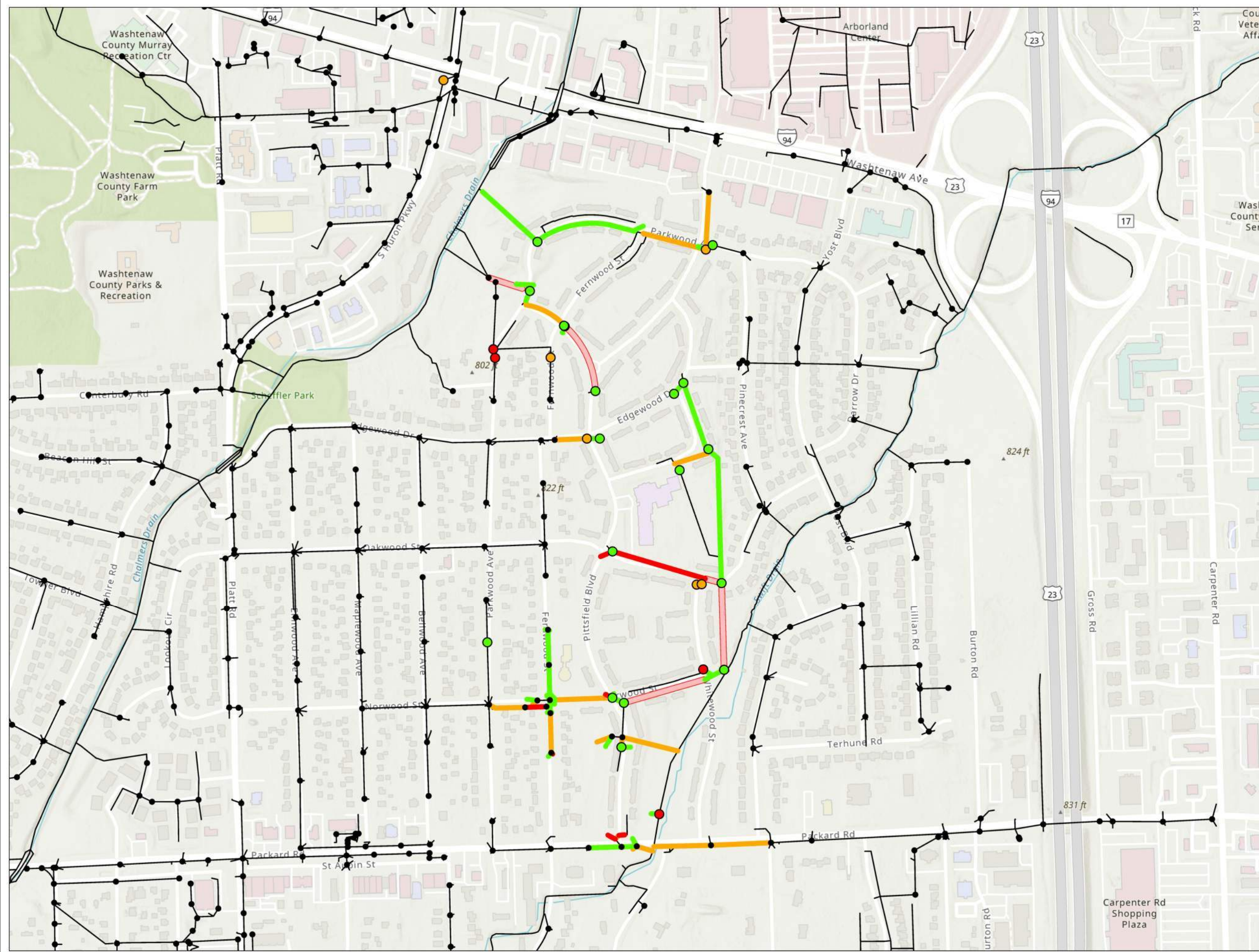
Map Published: April 26, 2023



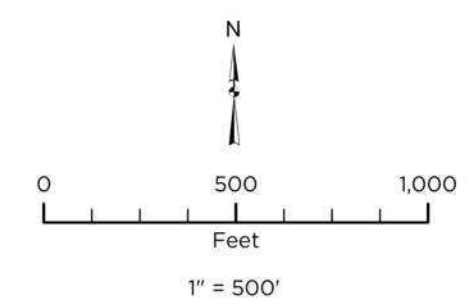


# Pittsfield Village SSES-Stormwater High-Grade Defects

## Figure 2



- Manholes Inspected
- Manholes Defect Grade 5
- Manholes Defect Grade 4
- Manholes
- Stormwater Mains Inspected
- Stormwater Mains Deformed
- Stormwater Mains Defect Grade 5
- Stormwater Mains Defect Grade 4
- Stormwater Mains



Source: Data provided The City of Ann Arbor, ESRI and OHM Advisors. OHM Advisors does not warrant the accuracy of the data and/or the map. This document is intended to depict the approximate spatial location of the mapped features within the Community and all use is strictly at the user's own risk.

Coordinate System: NAD 1983 2011 StatePlane Michigan South FIPS 2113 Ft. Int'l

Map Published: April 19, 2023



# **Appendix C**

Sanitary and Stormwater

Pipe and Manhole

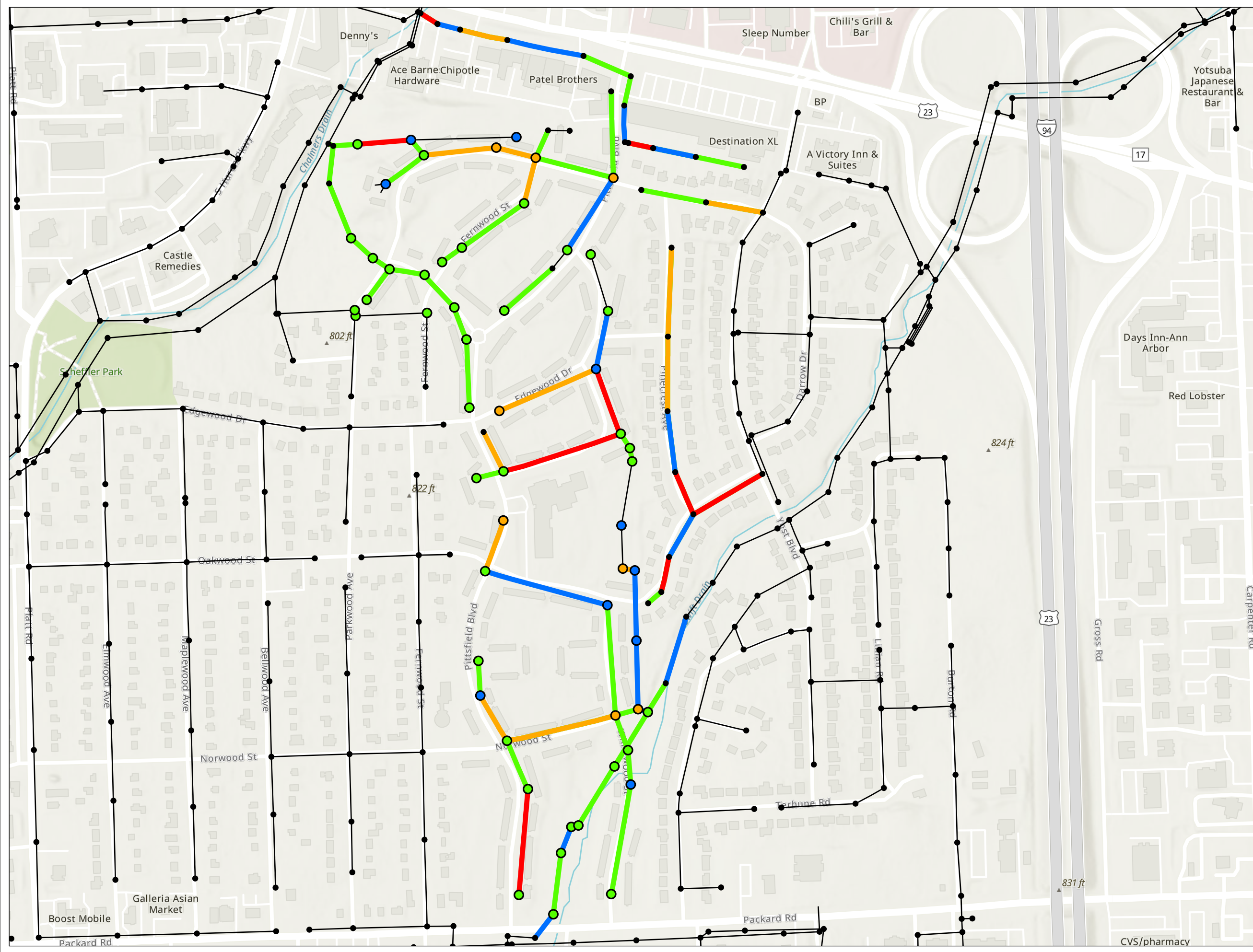
Rehabilitation

Recommendation Maps

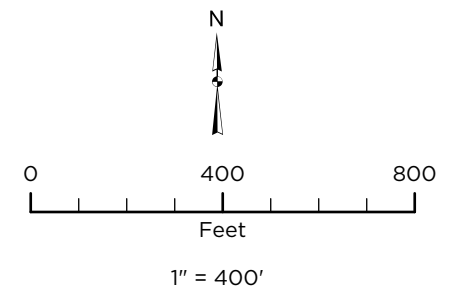


# Pittsfield Village SSES Sanitary Rehabilitation Recommendations

## Figure 1



- Manholes Inspected
- Manhole Full Liner
- Manhole Rehab Recommended
- Manholes
- Sanitary Gravity Main Inspected
- Sanitary Gravity Main Remove and Replace
- Sanitary Gravity Main Full Liner
- Sanitary Gravity Main Rehab Recommended
- Sanitary Gravity Mains



Source: Data provided by The City of Ann Arbor, ESRI and OHM Advisors. OHM Advisors does not warrant the accuracy of the data and/or the map. This document is intended to depict the approximate spatial location of the mapped features within the Community and all use is strictly at the user's own risk.

Coordinate System: NAD 1983 2011 StatePlane Michigan South FIPS 2113 Ft Int'l

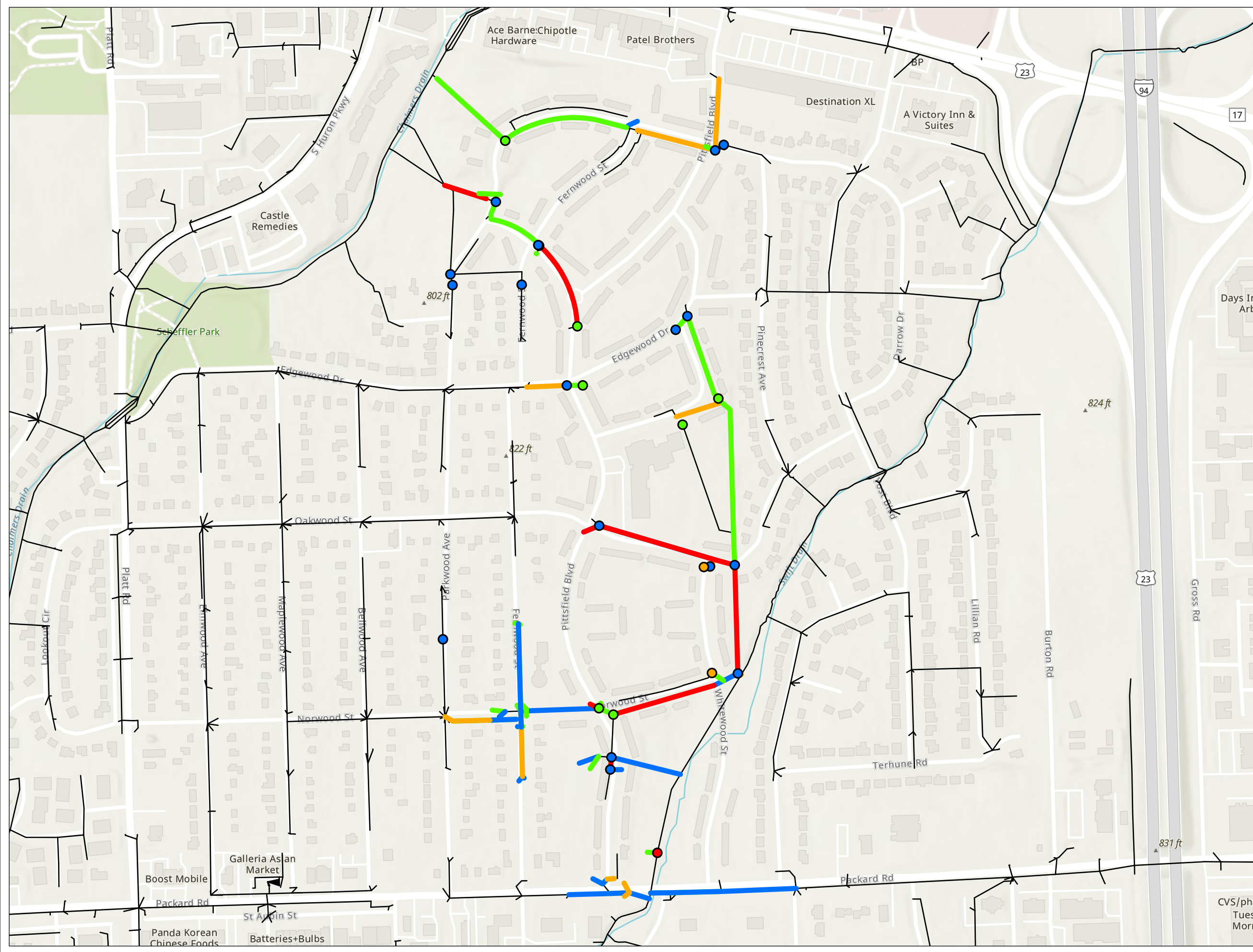
Map Published: May 23, 2023



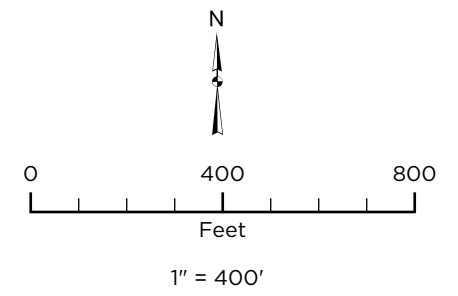


# Pittsfield Village SSES- Stormwater Rehabilitation Recommendations

## Figure 2



- Manhole Inspected
- Manhole Replace
- Manhole Full Liner
- Manhole Rehab Recommended
- Stormwater Main Inspected
- Stormwater Main Remove and Replace
- Stormwater Main Full Liner
- Stormwater Main Rehab Recommended
- Stormwater Mains



Source: Data provided by The City of Ann Arbor, ESRI and OHM Advisors. OHM Advisors does not warrant the accuracy of the data and/or the map. This document is intended to depict the approximate spatial location of the mapped features within the Community and all use is strictly at the user's own risk.

Coordinate System: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl

Map Published: May 23, 2023





# **Appendix D**

## **PACP and MACP Defect Descriptions**

**Description of NASSCO PACP Pipe Defects Identified in Pittsfield Village**

<b>Defect Type</b>	<b>Grade</b>	<b>Description</b>
Broken Pipe	4	Broken Pipe refers to a pipe that has pieces noticeably displaced or moved from their original position.
Broken Soil Visible	5	This defect occurs when the soil surrounding the pipe is visible beyond the break in the pipe, but the soil surrounding the pipe is still in place.
Broken Void Visible	5	This defect occurs when a void or cavity in the soil is visible beyond the break in the pipe.
Crack Hinge	4	This defect occurs when more than one longitudinal crack occurs at the same footage at the 12, 3, 6, or 9 clock positions. Hinge cracks are recorded as CH2 for two cracks, CH3 for three cracks, and CH4 for four cracks.
Deformed	5	This defect occurs when the original cross-section or geometry of the pipe is noticeably changed. Deformation in rigid pipes is typically associated with the loss of structural integrity of the pipe.
Deposits Attached Encrustation (DAE)	4/5	Deposits Attached Encrustation are deposits left by the partial evaporation of infiltrating groundwater containing dissolved salts or minerals. Without periodic cleaning, DAE can build up over time resulting in the loss of some or all of the cross-sectional area of the pipe. This defect is classified as a Grade-4 defect when the DAE buildup blocks 20%-30% of the pipe's cross-sectional area, and is classified as a Grade-5 defect when the DAE buildup blocks over 30% of the pipe's cross-sectional area.
Deposits Settled Fine/Other	4/5	This defect occurs when there is deposited material with small particle size settled in the pipe or if the settled deposits are not classified by other codes. This defect is classified as a Grade-4 defect when the deposits buildup blocks 20%-30% of the pipe's cross-sectional area, and is classified as a Grade-5 defect when the deposits buildup blocks over 30% of the pipe's cross-sectional area.
Deposits Settled Gravel	4/5	This defect occurs when there is deposited material with large particle size settled in the pipe. This defect is classified as a Grade-4 defect when the deposits buildup blocks 20%-30% of the pipe's cross-sectional area, and is classified as a Grade-5 defect when the deposits buildup blocks over 30% of the pipe's cross-sectional area.
Fracture Hinge	4	This defect occurs when more than one longitudinal fracture occurs at the same footage at the 12, 3, 6, or 9 clock positions. Hinge fractures are recorded as FH2 for two fractures, FH3 for three fractures, and FH4 for four fractures.
Fracture Multiple	4	A Fracture Multiple defect occurs when a combination of longitudinal and circumferential fractures intersect. A fracture is a break line that has become visibly open and a gap can be seen.
Hole	4	This defect occurs when the pipe material is missing due to severe breaks or fractures in the pipe wall.
Hole Soil Visible	5	This defect occurs when the soil surrounding the pipe is visible beyond the hole in the pipe, but the soil surrounding the pipe is still in place.

Hole Void Visible	5	This defect occurs when a void or cavity in the soil is visible beyond the hole in the pipe.
Infiltration Runner	4	An Infiltration Runner occurs when a steady stream of water enters through the body or wall of the pipe.
Joint Offset Large	4	This defect occurs when the pipe joint is offset greater than or equal to 1.5 pipe wall thickness.
Line Left	4	This defect occurs when the pipe deviates left more than 20%.
Line Right	4	This defect occurs when the pipe deviates right more than 20%.
Miscellaneous Camera Underwater (MCU)	4	This code describes the occurrence of when the CCTV camera goes underwater. This often occurs due to debris, rocks, or sediment buildup in the pipe.
Miscellaneous Water Level Sag	4/5	This defect occurs when there is a sag, dip, or low spot in the pipe allowing water to be trapped by a reverse grade downstream. This defect is classified as a Grade-4 defect when the pipe sags 50%-75%, and is classified as a Grade-5 defect when the pipe sags over 75%.
Point Repair Patch Defective	4	This defect occurs when a patch that was installed to repair a hole or other defect is defective.
Root Ball at the Barrel	4	This defect occurs when a large mass of roots (>50%) enters the pipe along the wall of the pipe.
Surface Damage Missing Wall	5	This defect occurs when severe surface damage has let to a portion of the pipe material being completely missing due to corrosion or erosion over time.
Tap Break-In Intruding	4/5	This defect occurs when the break-in tap or a portion of it intrudes into the sewer main. This defect is classified as a Grade-4 defect when the length of the intruding tap is equal to 20%-30% of the pipe's diameter, and is classified as a Grade-5 defect when the length of the intruding tap is over 30% of the pipe's diameter.

**Description of NASSCO MACP Manhole Defects Identified in Pittsfield Village**

<b>Defect Type</b>	<b>Grade</b>	<b>Description</b>
Bench Collapse	5	This defect occurs when the bench has collapsed.
Channel Collapse	5	This defect occurs when the pipe channel has collapsed.
Cracked Frame	4	This defect occurs when the frame is cracked but still in one piece.
Deposits Attached Ragging (DAR)	4	This defect occurs when deposits such as paper debris and other refuse snag on defects such as roots or broken pipe.
Fracture Multiple	4	A Fracture Multiple defect occurs when a combination of longitudinal and circumferential fractures intersect. A fracture is a break line that has become visibly open and a gap can be seen.
Hole Soil Visible	5	This defect occurs when soil surrounding the manhole structure is visible beyond the hole in the structure.
Infiltration Runner	4	An Infiltration Runner occurs when a steady stream of water enters into the manhole structure.
Joint Separated Medium	4	This defect occurs when the pipe joint is separated greater than 1 pipe wall thickness.
Missing Brickwork	4	This defect occurs when one or more bricks are missing from the manhole structure.
Missing Mortar Large	4	This defect occurs when the mortar between the brickwork has receded over two inches.
Surface Damage Aggregate Missing	4	This defect occurs when severe surface damage causes some of the aggregate in the manhole wall to fall out creating small pits in the manhole wall.
Surface Damage Reinforcement Visible	5	This defect occurs when surface damage in reinforced concrete structures causes sufficient concrete to be missing exposing the reinforcement within the manhole wall. This defect is often associated with H <sub>2</sub> S (hydrogen sulfide) damage.
Surface Damage Reinforcement Projecting	5	This defect occurs when severe surface damage in reinforced concrete structures causes significant corrosion that leaves reinforcement projecting out from the manhole wall.

## memorandum

**Date:** January 20, 2023

**To:** Troy Baughman, City of Ann Arbor  
**cc:** Robert Czachorski, OHM Advisors  
**From:** Mackenzie Johnson, OHM Advisors

**Re:** Pittsfield Village Curb Drain Study

### Project Background

A large rain event occurred on the evening of June 25, 2021 into the early morning hours of June 26, 2021 resulting in numerous reports of flooding and basement backups in Washtenaw and Wayne Counties including portions of the City of Ann Arbor. The Pittsfield Village neighborhood and surrounding streets were the most impacted areas within the City of Ann Arbor.

In response to the flooding and basement backups, the City of Ann Arbor requested OHM Advisors to perform a sanitary sewer analysis to better understand the cause of the basement backups in this area and to provide recommendations on system improvements that would minimize the potential for similar occurrences in the future. One of the recommendations from that analysis was to encourage residents to disconnect their footing drains from the sanitary sewer system to reduce the amount of inflow into the sanitary sewer system during wet weather events. This would reduce the risk for future sanitary sewer surcharges and basement backups.

As a part of a footing drain disconnection, a sump pump would be installed to collect the water from the footing drain and discharge it away from the building foundation. The City of Ann Arbor requested OHM Advisors to perform a curb drain study to identify locations where curb drains can be extended to properties to facilitate sump pump discharge connections. This will allow for the water from the sump pump to be discharged directly to the stormwater system instead of the ground surface. This technical memorandum details the process used to develop the proposed curb drain layout and provides a recommended layout for the proposed curb drains.

### Data Analysis

The City of Ann Arbor's GIS database was used to review the City's existing public stormwater system layout within the Pittsfield Village neighborhood. Based on the existing system layout, properties without a curb drain directly adjacent to the property were identified and are shown in Figure 1 of Appendix A. Properties that currently have sump pumps are indicated on the figure in Appendix A as well. Out of the 422 residences within the Pittsfield Village neighborhood, 86 residences currently have sump pumps.

### Proposed Curb Drain Layout and Sizing

The basis for development of the proposed curb drain layout included three factors:

1. The proposed curb drain layout allows for each Pittsfield Village property without an adjacent stormwater pipe to have direct access to a stormwater curb drain for sump pump discharge connections. Curb drains are not being proposed where a stormwater pipe exists along the same side of the street.
2. The proposed curb drain layout minimizes the lengths of curb drain needed.
3. The proposed curb drain layout considers ground elevations for gravity flow conveyance to existing stormwater infrastructure.



The proposed curb drain layout is shown in Figure 1 of Appendix B. The proposed curb drain layout provides each Pittsfield Village property with direct access to a curb drain if the property does not already have access to an existing stormwater pipe on the same side of the street. It was assumed that the Pittsfield Village Condominium Association will extend private curb drains to the properties that are not located directly adjacent to the street. These properties are circled in Figure 1 of Appendix B.

In order to size the curb drains, the amount of flow to be discharged to each stretch of curb drain was estimated based on the number of properties tributary to each curb drain. Typically, it can be assumed that each property would discharge approximately 5 gpm from the sump pump to the curb drain since footing drains can be estimated to contribute 3-5 gpm during wet weather events. However, it was discovered that the Pittsfield Village neighborhood may contribute more inflow and infiltration into the sanitary sewer system than expected during wet weather events as detailed in the *June 25-26, 2021 Storm Event Analysis* report completed in April 2022. That report states the following:

*“The typical flow per connected footing drain is 1 gallon per minute (gpm) per 1-inch of rain. Considering that the June rain event produced approximately 5 inches of rain, it would be expected that each connected footing drain would normally contribute about 5 gpm to the sanitary sewer system. However, an additional flow equal to approximately 15 gpm per connected footing drain had to be added to this area in the model to produce similar results to what were witnessed...”*

The analysis completed as a part of that study suggests that the Pittsfield Village neighborhood may contribute flow equivalent to an additional 15 gpm per connected footing drain during wet weather events. It should be noted that it is not expected that all of this flow is contributed directly from connected footing drains, but rather a portion of this flow likely comes from infiltration through pipe and manhole defects as well as from surface water flooding entering the sanitary sewer system via manhole pickholes or other routes. However, to be conservative for curb drain sizing purposes, it can be estimated that each property will contribute up to 15 gpm of flow to the curb drain during large wet weather events.

Based on the proposed curb drain layout, the longest stretches of proposed curb drain will collect flow from 18 properties. Thus, the highest amount of flow to be conveyed by a single stretch of curb drain is estimated to be about 270 gpm, or 0.602 cfs. A 6-inch curb drain with a minimum slope of 0.4% can convey a maximum flow of 0.355 cfs and an 8-inch curb drain with a minimum slope of 0.4% can convey a maximum flow of 0.764 cfs, so a combination of 6-inch and 8-inch curb drains can be used. Based on the estimated peak flow to be contributed by each property, 6-inch curb drains are recommended to be installed along stretches with fewer than 11 tributary properties, and 8-inch curb drains are recommended to be installed along stretches with 11 or more tributary properties at slopes no less than 0.4%. The estimated total length of 6-inch curb drains needed is approximately 5,813 linear feet. The estimated total length of 8-inch curb drains needed is approximately 5,356 linear feet.

Connected footing drains typically account for a significant portion of inflow into the sanitary sewer system, and removing a majority of this flow would reduce the risk for sanitary sewer surcharges and basement backups in the future. The extension of stormwater curb drains within Pittsfield Village will facilitate footing drain disconnections and subsequent sump pump discharge connections, thus further reducing the risk for basement backups during future wet weather events.

# **Appendix A**

## Existing Conditions



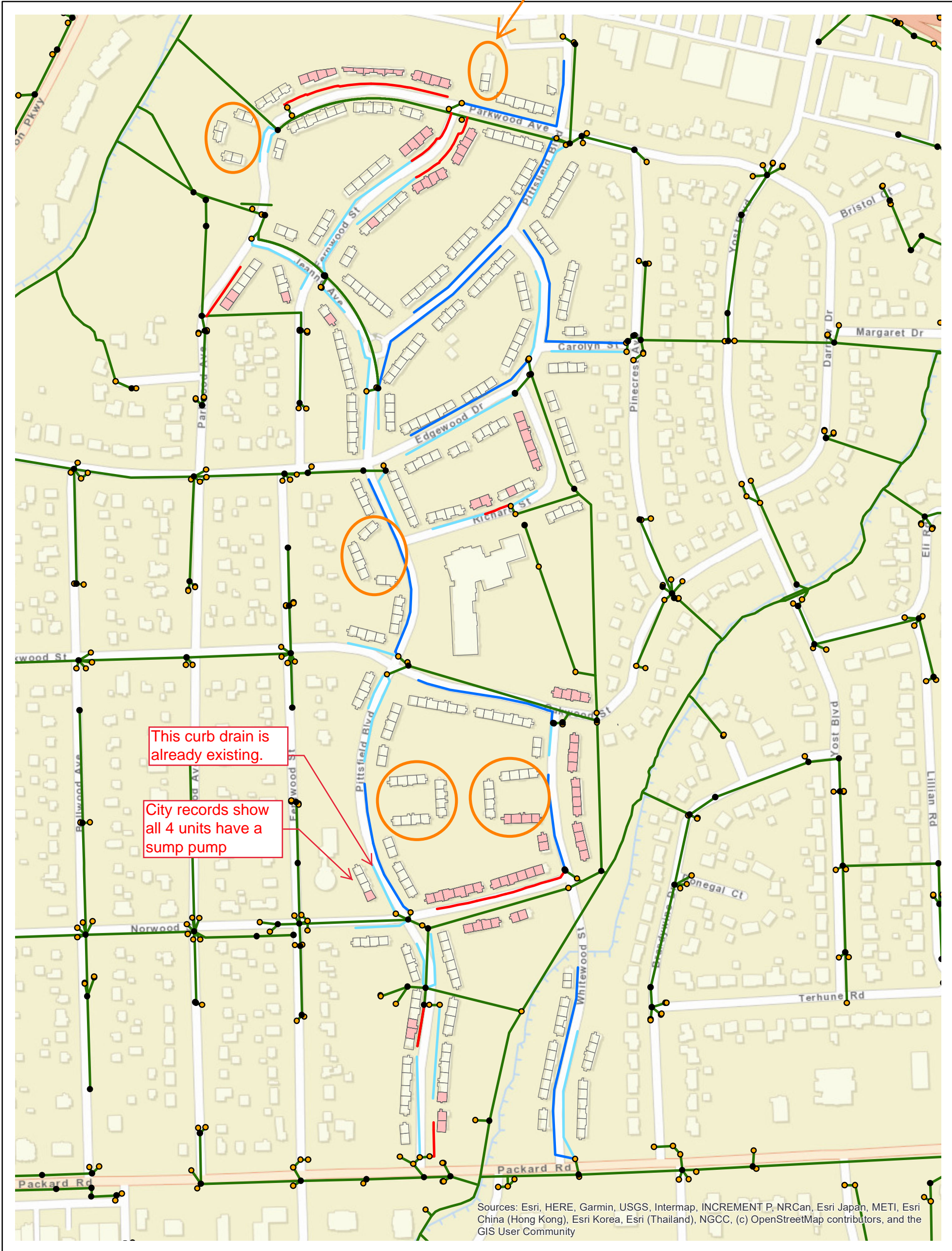


# **Appendix B**

Proposed Curb Drain Layout

**FIGURE 1**

Assumed Pittsfield Village will extend private curb drains to buildings not adjacent to streets



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

**Legend**

- Storm Manhole
- Storm Catch Basin
- ▭ Pittsfield Village Parcel
- ▭ Parcel with Sump Pump
- Existing Storm Sewer
- Existing Curb Drain
- Proposed 6" Curb Drain
- Proposed 8" Curb Drain

**Proposed Curb Drain Layout**  
Pittsfield Village - City of Ann Arbor



0 400 800 Feet

1 inch = 292 feet

Source: Data provided by City of Ann Arbor, Washtenaw County, OHM Advisors, and Esri. OHM Advisors does not warrant the accuracy of the data and/or the map. This document is intended to depict the approximate spatial location of the mapped features within the Community and all use is strictly at the user's own risk.

Coordinate System: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl

Map Published: November 5, 2022



**ATTACHMENT B  
LEGAL STATUS OF OFFEROR**

(The Respondent shall fill out the provision and strike out the remaining ones.)

The Respondent is:

- A corporation organized and doing business under the laws of the state of \_\_\_\_\_, for whom \_\_\_\_\_ bearing the office title of \_\_\_\_\_, whose signature is affixed to this proposal, is authorized to execute contracts on behalf of respondent.\*

\*If not incorporated in Michigan, please attach the corporation's Certificate of Authority

- A limited liability company doing business under the laws of the State of \_\_\_\_\_, whom \_\_\_\_\_ bearing the title of \_\_\_\_\_ whose signature is affixed to this proposal, is authorized to execute contract on behalf of the LLC.
- A partnership organized under the laws of the State of \_\_\_\_\_ and filed with the County of \_\_\_\_\_, whose members are (attach list including street and mailing address for each.)
- An individual, whose signature with address, is affixed to this RFP.

Respondent has examined the basic requirements of this RFP and its scope of services, including all Addendum (if applicable) and hereby agrees to offer the services as specified in the RFP.

\_\_\_\_\_  
Signature Date: \_\_\_\_\_,

(Print) Name \_\_\_\_\_ Title \_\_\_\_\_

Firm: \_\_\_\_\_

Address: \_\_\_\_\_

Contact Phone \_\_\_\_\_ Fax \_\_\_\_\_

Email \_\_\_\_\_



**ATTACHMENT D  
CITY OF ANN ARBOR  
LIVING WAGE ORDINANCE DECLARATION OF COMPLIANCE**

The Ann Arbor Living Wage Ordinance (Section 1:811-1:821 of Chapter 23 of Title I of the Code) requires that an employer who is (a) a contractor providing services to or for the City for a value greater than \$10,000 for any twelve-month contract term, or (b) a recipient of federal, state, or local grant funding administered by the City for a value greater than \$10,000, or (c) a recipient of financial assistance awarded by the City for a value greater than \$10,000, shall pay its employees a prescribed minimum level of compensation (i.e., Living Wage) for the time those employees perform work on the contract or in connection with the grant or financial assistance. The Living Wage must be paid to these employees for the length of the contract/program.

*Companies employing fewer than 5 persons and non-profits employing fewer than 10 persons are exempt from compliance with the Living Wage Ordinance. If this exemption applies to your company/non-profit agency please check here  No. of employees\_\_*

The Contractor or Grantee agrees:

- (a) To pay each of its employees whose wage level is not required to comply with federal, state or local prevailing wage law, for work covered or funded by a contract with or grant from the City, no less than the Living Wage. The current Living Wage is defined as \$15.90/hour for those employers that provide employee health care (as defined in the Ordinance at Section 1:815 Sec. 1 (a)), or no less than \$17.73/hour for those employers that do not provide health care. The Contractor or Grantor understands that the Living Wage is adjusted and established annually on April 30 in accordance with the Ordinance and covered employers shall be required to pay the adjusted amount thereafter to be in compliance with Section 1:815(3).

**Check the applicable box below which applies to your workforce**

Employees who are assigned to any covered City contract/grant will be paid at or above the applicable living wage without health benefits

Employees who are assigned to any covered City contract/grant will be paid at or above the applicable living wage with health benefits

- (b) To post a notice approved by the City regarding the applicability of the Living Wage Ordinance in every work place or other location in which employees or other persons contracting for employment are working.
- (c) To provide to the City payroll records or other documentation within ten (10) business days from the receipt of a request by the City.
- (d) To permit access to work sites to City representatives for the purposes of monitoring compliance, and investigating complaints or non-compliance.
- (e) To take no action that would reduce the compensation, wages, fringe benefits, or leave available to any employee covered by the Living Wage Ordinance or any person contracted for employment and covered by the Living Wage Ordinance in order to pay the living wage required by the Living Wage Ordinance.

The undersigned states that he/she has the requisite authority to act on behalf of his/her employer in these matters and has offered to provide the services or agrees to accept financial assistance in accordance with the terms of the Living Wage Ordinance. The undersigned certifies that he/she has read and is familiar with the terms of the Living Wage Ordinance, obligates the Employer/Grantee to those terms and acknowledges that if his/her employer is found to be in violation of Ordinance it may be subject to civil penalties and termination of the awarded contract or grant of financial assistance.

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Street Address

\_\_\_\_\_  
Signature of Authorized Representative

\_\_\_\_\_  
Date

\_\_\_\_\_  
City, State, Zip

\_\_\_\_\_  
Print Name and Title

\_\_\_\_\_  
Phone/Email address



**ATTACHMENT E**

<b>VENDOR CONFLICT OF INTEREST DISCLOSURE FORM</b>
--

All vendors interested in conducting business with the City of Ann Arbor must complete and return the Vendor Conflict of Interest Disclosure Form in order to be eligible to be awarded a contract. Please note that all vendors are subject to comply with the City of Ann Arbor’s conflict of interest policies as stated within the certification section below.

If a vendor has a relationship with a City of Ann Arbor official or employee, an immediate family member of a City of Ann Arbor official or employee, the vendor shall disclose the information required below.

1. No City official or employee or City employee’s immediate family member has an ownership interest in vendor’s company or is deriving personal financial gain from this contract.
2. No retired or separated City official or employee who has been retired or separated from the City for less than one (1) year has an ownership interest in vendor’s Company.
3. No City employee is contemporaneously employed or prospectively to be employed with the vendor.
4. Vendor hereby declares it has not and will not provide gifts or hospitality of any dollar value or any other gratuities to any City employee or elected official to obtain or maintain a contract.
5. Please note any exceptions below:

<b>Conflict of Interest Disclosure*</b>	
Name of City of Ann Arbor employees, elected officials or immediate family members with whom there may be a potential conflict of interest.	<input type="checkbox"/> Relationship to employee <hr/> <input type="checkbox"/> Interest in vendor’s company <input type="checkbox"/> Other (please describe in box below)

\*Disclosing a potential conflict of interest does not disqualify vendors. In the event vendors do not disclose potential conflicts of interest and they are detected by the City, vendor will be exempt from doing business with the City.

<b>I certify that this Conflict of Interest Disclosure has been examined by me and that its contents are true and correct to my knowledge and belief and I have the authority to so certify on behalf of the Vendor by my signature below:</b>		
<b>Vendor Name</b>	<b>Vendor Phone Number</b>	
<b>Signature of Vendor Authorized Representative</b>	<b>Date</b>	<b>Printed Name of Vendor Authorized Representative</b>

**ATTACHMENT F  
CITY OF ANN ARBOR NON-DISCRIMINATION ORDINANCE**

Relevant provisions of Chapter 112, Nondiscrimination, of the Ann Arbor City Code are included below.  
You can review the entire ordinance at [www.a2gov.org/humanrights](http://www.a2gov.org/humanrights).

**Intent:** It is the intent of the city that no individual be denied equal protection of the laws; nor shall any individual be denied the enjoyment of his or her civil or political rights or be discriminated against because of actual or perceived age, arrest record, color, disability, educational association, familial status, family responsibilities, gender expression, gender identity, genetic information, height, HIV status, marital status, national origin, political beliefs, race, religion, sex, sexual orientation, source of income, veteran status, victim of domestic violence or stalking, or weight.

**Discriminatory Employment Practices:** No person shall discriminate in the hire, employment, compensation, work classifications, conditions or terms, promotion or demotion, or termination of employment of any individual. No person shall discriminate in limiting membership, conditions of membership or termination of membership in any labor union or apprenticeship program.

**Discriminatory Effects:** No person shall adopt, enforce or employ any policy or requirement which has the effect of creating unequal opportunities according to actual or perceived age, arrest record, color, disability, educational association, familial status, family responsibilities, gender expression, gender identity, genetic information, height, HIV status, marital status, national origin, political beliefs, race, religion, sex, sexual orientation, source of income, veteran status, victim of domestic violence or stalking, or weight for an individual to obtain housing, employment or public accommodation, except for a bona fide business necessity. Such a necessity does not arise due to a mere inconvenience or because of suspected objection to such a person by neighbors, customers or other persons.

**Nondiscrimination by City Contractors:** All contractors proposing to do business with the City of Ann Arbor shall satisfy the contract compliance administrative policy adopted by the City Administrator in accordance with the guidelines of this section. All city contractors shall ensure that applicants are employed and that employees are treated during employment in a manner which provides equal employment opportunity and tends to eliminate inequality based upon any classification protected by this chapter. All contractors shall agree not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of any applicable protected classification. All contractors shall be required to post a copy of Ann Arbor's Non-Discrimination Ordinance at all work locations where its employees provide services under a contract with the city.

**Complaint Procedure:** If any individual believes there has been a violation of this chapter, he/she may file a complaint with the City's Human Rights Commission. The complaint must be filed within 180 calendar days from the date of the individual's knowledge of the allegedly discriminatory action or 180 calendar days from the date when the individual should have known of the allegedly discriminatory action. A complaint that is not filed within this timeframe cannot be considered by the Human Rights Commission. To file a complaint, first complete the complaint form, which is available at [www.a2gov.org/humanrights](http://www.a2gov.org/humanrights). Then submit it to the Human Rights Commission by e-mail ([hrc@a2gov.org](mailto:hrc@a2gov.org)), by mail (Ann Arbor Human Rights Commission, PO Box 8647, Ann Arbor, MI 48107), or in person (City Clerk's Office). For further information, please call the commission at 734-794-6141 or e-mail the commission at [hrc@a2gov.org](mailto:hrc@a2gov.org).

**Private Actions For Damages or Injunctive Relief:** To the extent allowed by law, an individual who is the victim of discriminatory action in violation of this chapter may bring a civil action for appropriate injunctive relief or damages or both against the person(s) who acted in violation of this chapter.

**THIS IS AN OFFICIAL GOVERNMENT NOTICE AND  
MUST BE DISPLAYED WHERE EMPLOYEES CAN READILY SEE IT.**

ATTACHMENT G

CITY OF ANN ARBOR LIVING WAGE ORDINANCE

**RATE EFFECTIVE APRIL 30, 2023 - ENDING APRIL 29, 2024**

**\$15.90 per hour**

If the employer provides health care benefits\*

**\$17.73 per hour**

If the employer does **NOT** provide health care benefits\*

Employers providing services to or for the City of Ann Arbor or recipients of grants or financial assistance from the City of Ann Arbor for a value of more than \$10,000 in a twelve-month period of time must pay those employees performing work on a City of Ann Arbor contract or grant, the above living wage.

**ENFORCEMENT**

The City of Ann Arbor may recover back wages either administratively or through court action for the employees that have been underpaid in violation of the law. Persons denied payment of the living wage have the right to bring a civil action for damages in addition to any action taken by the City.

Violation of this Ordinance is punishable by fines of not more than \$500/violation plus costs, with each day being considered a separate violation. Additionally, the City of Ann Arbor has the right to modify, terminate, cancel or suspend a contract in the event of a violation of the Ordinance.

\* Health Care benefits include those paid for by the employer or making an employer contribution toward the purchase of health care. The employee contribution must not exceed \$.50 an hour for an average work week; and the employer cost or contribution must equal no less than \$1/hr for the average work week.

**The Law Requires Employers to Display This Poster Where Employees Can Readily See It.**

**For Additional Information or to File a Complaint contact  
Colin Spencer at 734/794-6500 or [cspencer@a2gov.org](mailto:cspencer@a2gov.org)**



## APPENDIX A - SAMPLE CONTRACT

### PROFESSIONAL SERVICES AGREEMENT BETWEEN [TBD] AND THE CITY OF ANN ARBOR FOR [TBD]

This agreement ("Agreement") is between the City of Ann Arbor, a Michigan municipal corporation, 301 E. Huron St. Ann Arbor, Michigan 48104 ("City"), and [TBD], a(n) [TBD] \_\_\_\_\_, [TBD], [TBD], [TBD] [TBD] ("Contractor"). City and Contractor agree as follows:

#### 1. DEFINITIONS

**Administering Service Area/Unit** means [TBD].

**Contract Administrator** means [TBD], acting personally or through any assistants authorized by the Administrator/Manager of the Administering Service Area/Unit.

**Deliverables** means all documents, plans, specifications, reports, recommendations, and other materials developed for and delivered to City by Contractor under this Agreement.

**Effective Date** means the date this Agreement is signed by the last party to sign it.

**Project** means [TBD].

**Services** means [TBD] as further described in Exhibit A.

#### 2. DURATION

- A. The obligations of this Agreement shall apply beginning on the Effective Date and this Agreement shall remain in effect until satisfactory completion of the Services unless terminated as provided for in this Agreement.

#### 3. SERVICES

- A. Contractor shall perform all Services in compliance with this Agreement. The City retains the right to make changes to the quantities of Services within the general scope of the Agreement at any time by a written order. If the changes add to or deduct from the extent of the Services, the compensation shall be adjusted accordingly. All such changes shall be executed under the conditions of the original Agreement.
- B. Quality of Services under this Agreement shall be of the level of quality performed by persons regularly rendering this type of service. Determination of acceptable quality shall be made solely by the Contract Administrator.
- C. Contractor shall perform Services in compliance with all applicable statutory, regulatory, and contractual requirements now or hereafter in effect. Contractor shall also comply with and be subject to City policies applicable to independent contractors.

- D. Contractor may rely upon the accuracy of reports and surveys provided by the City, except when a defect should have been apparent to a reasonably competent professional or when Contractor has actual notice of a defect.

#### **4. INDEPENDENT CONTRACTOR**

- A. The parties agree that at all times and for all purposes under the terms of this Agreement each party's relationship to any other party shall be that of an independent contractor. Each party is solely responsible for the acts of its own employees, agents, and servants. No liability, right, or benefit arising out of any employer-employee relationship, either express or implied, shall arise or accrue to any party as a result of this Agreement.
- B. Contractor does not have any authority to execute any contract or agreement on behalf of the City, and is not granted any authority to assume or create any obligation or liability on the City's behalf, or to bind the City in any way.

#### **5. COMPENSATION OF CONTRACTOR**

- A. The total amount of compensation paid to Contractor under this Agreement shall not exceed \$0.00, which shall be paid upon invoice by Contractor to the City for services rendered according to the schedule in Exhibit B. Compensation of Contractor includes all reimbursable expenses unless a schedule of reimbursable expenses is included in an attached Exhibit B. Expenses outside those identified in the attached schedule must be approved in advance by the Contract Administrator.
- B. Payment shall be made monthly following receipt of invoices submitted by Contractor and approved by the Contract Administrator, unless a different payment schedule is specified in Exhibit B.
- C. Contractor shall be compensated for additional work or Services beyond those specified in this Agreement only when the scope of and compensation for the additional work or Services have received prior written approval of the Contract Administrator.
- D. Contractor shall keep complete records of work performed (e.g. tasks performed, hours allocated, etc.) so that the City may verify invoices submitted by Contractor. Such records shall be made available to the City upon request and submitted in summary form with each invoice.

#### **6. INSURANCE/INDEMNIFICATION**

- A. Contractor shall procure and maintain from the Effective Date or Commencement Date of this Agreement (whichever is earlier) through the conclusion of this Agreement, such insurance policies, including those required by this Agreement, as will protect itself and the City from all claims for bodily injury, death, or property damage that may arise under this Agreement; whether the act(s) or omission(s) giving rise to the claim were made by Contractor, Contractor's subcontractor, or anyone employed by Contractor

or Contractor's subcontractor directly or indirectly. Prior to commencement of work under this Agreement, Contractor shall provide documentation to the City demonstrating Contractor has obtained the policies and endorsements required by this Agreement. Contractor shall provide such documentation in a form and manner satisfactory to the City. Currently, the City requires insurance to be submitted through its contractor, myCOI. Contractor shall add registration@mycoitracking.com to its safe sender's list so that it will receive necessary communication from myCOI. When requested, Contractor shall provide the same documentation for its subcontractors.

- B. All insurance providers of Contractor shall be authorized to do business in the State of Michigan and shall carry and maintain a minimum rating assigned by A.M. Best & Company's Key Rating Guide of "A-" Overall and a minimum Financial Size Category of "V". Insurance policies and certificates issued by non-authorized insurance companies are not acceptable unless approved in writing by the City.
- C. To the fullest extent permitted by law, Contractor shall indemnify, defend, and hold the City and its officers, employees, and agents harmless from all suits, claims, judgments, and expenses, including attorney's fees, resulting or alleged to result, from an act or omission by Contractor or Contractor's employees or agents occurring in the performance or breach of this Agreement, except to the extent that any suit, claim, judgment, or expense are finally judicially determined to have resulted from the City's negligence, willful misconduct, or failure to comply with a material obligation of this Agreement. The obligations of this paragraph shall survive the expiration or termination of this Agreement.
- D. Contractor is required to have the following minimum insurance coverage:
  - 1. Professional Liability Insurance or Errors and Omissions Insurance protecting Contractor and its employees - \$1,000,000.
  - 2. Commercial General Liability Insurance equivalent to, as a minimum, Insurance Services Office form CG 00 01 04 13 or current equivalent. The City of Ann Arbor shall be an additional insured. There shall be no added exclusions or limiting endorsements that diminish the City's protections as an additional insured under the policy.

\$1,000,000	Each occurrence as respect Bodily Injury Liability or Property Damage Liability, or both combined
\$2,000,000	Per project General Aggregate
\$1,000,000	Personal and Advertising Injury
  - 3. Worker's Compensation Insurance in accordance with all applicable state and federal statutes; also, Employers Liability Coverage for:

Bodily Injury by Accident - \$500,000 each accident
Bodily Injury by Disease - \$500,000 each employee
Bodily Injury by Disease - \$500,000 each policy limit
  - 4. Motor Vehicle Liability Insurance equivalent to, as a minimum, Insurance Services Office form CA 00 01 10 13 or current equivalent. Coverage shall include all owned vehicles, all non-owned vehicles and all hired vehicles. The

City of Ann Arbor shall be an additional insured. There shall be no added exclusions or limiting endorsements that diminish the City's protections as an additional insured under the policy. The limits of liability shall be \$1,000,000 for each occurrence as respects Bodily Injury Liability or Property Damage Liability, or both combined.

5. Umbrella/Excess Liability Insurance shall be provided to apply in excess of the Commercial General Liability, Employers Liability and the Motor Vehicle coverage enumerated above, for each occurrence and for aggregate in the amount of \$1,000,000.
- E. Commercial General Liability Insurance and Motor Vehicle Liability Insurance (if required by this Agreement) shall be considered primary as respects any other valid or collectible insurance that the City may possess, including any self-insured retentions the City may have; and any other insurance the City does possess shall be considered excess insurance only and shall not be required to contribute with this insurance. Contractor agrees to waive any right of recovery by its insurer against the City for any insurance listed herein.
- F. Insurance companies and policy forms are subject to approval of the City Attorney, which approval shall not be unreasonably withheld. Documentation must provide and demonstrate an unconditional and unqualified 30-day written notice of cancellation in favor of the City of Ann Arbor. Further, the documentation must explicitly state the following: (a) the policy number(s); name of insurance company; name(s), email address(es), and address(es) of the agent or authorized representative; name and address of insured; project name; policy expiration date; and specific coverage amounts; (b) any deductibles or self-insured retentions, which may be approved by the City in its sole discretion; (c) that the policy conforms to the requirements specified. Contractor shall furnish the City with satisfactory certificates of insurance and endorsements prior to commencement of any work. If any of the above coverages expire by their terms during the term of this Agreement, Contractor shall deliver proof of renewal and/or new policies and endorsements to the Administering Service Area/Unit at least ten days prior to the expiration date.

## 7. **WAGE AND NONDISCRIMINATION REQUIREMENTS**

- A. Nondiscrimination. Contractor shall comply, and require its subcontractors to comply, with the nondiscrimination provisions of MCL 37.2209. Contractor shall comply with the provisions of Section 9:158 of Chapter 112 of Ann Arbor City Code and assure that Contractor's applicants for employment and employees are treated in a manner which provides equal employment opportunity.
- B. Living Wage. If Contractor is a "covered employer" as defined in Chapter 23 of Ann Arbor City Code, Contractor must comply with the living wage provisions of Chapter 23 of Ann Arbor City Code, which requires Contractor to pay those employees providing Services to the City under this Agreement a "living wage," as defined in Section 1:815 of the Ann Arbor City Code, as adjusted in accordance with Section 1:815(3); to post a notice approved by the City of the applicability of Chapter 23 in every location in which regular or contract employees providing services under this Agreement are working; to maintain records of compliance; if requested by the City, to provide documentation to verify compliance; to take no action that would reduce the

compensation, wages, fringe benefits, or leave available to any employee or person contracted for employment in order to pay the living wage required by Section 1:815; and otherwise to comply with the requirements of Chapter 23.

## **8. REPRESENTATIONS AND WARRANTIES BY CONTRACTOR**

- A. Contractor warrants that the quality of Services shall conform to the level of quality performed by persons regularly rendering this type of service.
- B. Contractor warrants that it has all the skills, experience, and professional and other licenses necessary to perform the Services.
- C. Contractor warrants that it has available, or will engage at its own expense, sufficient trained employees to provide the Services.
- D. Contractor warrants that it has no personal or financial interest in this Agreement other than the fee it is to receive under this Agreement. Contractor certifies that it will not acquire any such interest, direct or indirect, which would conflict in any manner with the performance of the Services. Contractor certifies that it does not and will not employ or engage any person with a personal or financial interest in this Agreement.
- E. Contractor warrants that it is not, and shall not become overdue or in default to the City for any contract, debt, or any other obligation to the City, including real and personal property taxes. Further Contractor agrees that the City shall have the right to set off any such debt against compensation awarded for Services under this Agreement.
- F. Contractor warrants that its bid or proposal for services under this Agreement was made in good faith, that it arrived at the costs of its proposal independently, without consultation, communication, or agreement for the purpose of restricting competition as to any matter relating to such costs with any competitor for these services; and no attempt has been made or will be made by Contractor to induce any other person or entity to submit or not to submit a bid or proposal for the purpose of restricting competition.
- G. The person signing this Agreement on behalf of Contractor represents and warrants that they have express authority to sign this Agreement for Contractor and agrees to hold the City harmless for any costs or consequences of the absence of actual authority to sign.
- H. The obligations, representations, and warranties of this section 8 shall survive the expiration or termination of this Agreement.

## **9. OBLIGATIONS OF THE CITY**

- A. The City shall give Contractor access to City properties and project areas as required to perform the Services.
- B. The City shall notify Contractor of any defect in the Services of which the Contract Administrator has actual notice.

## **10. ASSIGNMENT**

- A. Contractor shall not subcontract or assign any portion of any right or obligation under this Agreement without prior written consent from the City. Notwithstanding any consent by the City to any assignment, Contractor shall at all times remain bound to all warranties, certifications, indemnifications, promises, and performances required of Contractor under the Agreement unless specifically released from the requirement in writing by the City.
- B. Contractor shall retain the right to pledge payments due and payable under this Agreement to third parties.

## **11. TERMINATION OF AGREEMENT**

- A. If either party is in breach of this Agreement for a period of 15 days following receipt of notice from the non-breaching party with respect to the breach, the non-breaching party may pursue any remedies available against the breaching party under applicable law, including the right to terminate this Agreement without further notice. The waiver of any breach by any party to this Agreement shall not waive any subsequent breach by any party.
- B. The City may terminate this Agreement, on at least 30 days' advance notice, for any reason, including convenience, without incurring any penalty, expense, or liability to Contractor, except the obligation to pay for Services actually performed under the Agreement before the termination date.
- C. Contractor acknowledges that if this Agreement extends for several fiscal years, continuation of this Agreement is subject to appropriation of funds through the City budget process. If funds are not appropriated or otherwise made available, the City shall have the right to terminate this Agreement without penalty at the end of the last period for which funds have been appropriated or otherwise made available by giving written notice of termination to Contractor. The Contract Administrator shall give Contractor written notice of such non-appropriation within 30 days after the Contract Administrator has received notice of such non-appropriation.
- D. The expiration or termination of this Agreement shall not release either party from any obligation or liability to the other party that has accrued at the time of expiration or termination, including a payment obligation that has already accrued and Contractor's obligation to deliver all Deliverables due as of the date of termination of the Agreement.

## **12. REMEDIES**

- A. This Agreement does not, and is not intended to, impair, divest, delegate, or contravene any constitutional, statutory, or other legal right, privilege, power, obligation, duty, or immunity of the parties.
- B. All rights and remedies provided in this Agreement are cumulative and not exclusive, and the exercise by either party of any right or remedy does not preclude the exercise

of any other rights or remedies that may now or subsequently be available at law, in equity, by statute, in any other agreement between the parties, or otherwise.

- C. Absent a written waiver, no act, failure, or delay by a party to pursue or enforce any right or remedy under this Agreement shall constitute a waiver of that right 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, 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 the waiving party's right to require strict performance of this Agreement.

### **13. NOTICE**

All notices and submissions required under this Agreement shall be delivered to the respective party in the manner described herein to the address stated below or such other address as either party may designate by prior written notice to the other. Notices given under this Agreement shall be in writing and shall be personally delivered, sent by next day 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 next day express delivery service or personal delivery; or (3) three days after mailing first class or certified U.S. mail.

If Notice is sent to Contractor:

[TBD]  
ATTN: [TBD]  
[TBD]  
[TBD], [TBD] [TBD]

If Notice is sent to the City:

City of Ann Arbor  
ATTN: [TBD]  
301 E. Huron St.  
Ann Arbor, Michigan 48104

With a copy to: The City of Ann Arbor  
ATTN: Office of the City Attorney  
301 East Huron Street, 3<sup>rd</sup> Floor  
Ann Arbor, Michigan 48104

### **14. CHOICE OF LAW AND FORUM**

This Agreement will be governed and controlled in all respects by the laws of the State of Michigan, including interpretation, enforceability, validity and construction, excepting the principles of conflicts of law. The parties submit to the jurisdiction and venue of the Circuit Court for Washtenaw County, State of Michigan, or, if original jurisdiction can be established, the United States District Court for the Eastern District of Michigan, Southern Division, with respect to any action arising, directly or indirectly, out of this Agreement or the performance or breach of this Agreement. The parties stipulate that the venues referenced in this Agreement are convenient

and waive any claim of non-convenience.

## **15. OWNERSHIP OF DOCUMENTS**

Upon completion or termination of this Agreement, all Deliverables prepared by or obtained by Contractor as provided under the terms of this Agreement shall be delivered to and become the property of the City. Original basic survey notes, sketches, charts, drawings, partially completed drawings, computations, quantities, and other data shall remain in the possession of Contractor as instruments of service unless specifically incorporated in a Deliverable, but shall be made available, upon request, to the City without restriction or limitation on their use. The City acknowledges that the documents are prepared only for the Services. Prior to completion of the Services the City shall have a recognized proprietary interest in the work product of Contractor.

## **16. CONFLICTS OF INTEREST OR REPRESENTATION**

Contractor certifies it has no financial interest in the Services to be provided under this Agreement other than the compensation specified herein. Contractor further certifies that it presently has no personal or financial interest, and shall not acquire any such interest, direct or indirect, which would conflict in any manner with its performance of the Services under this Agreement.

Contractor agrees to advise the City if Contractor has been or is retained to handle any matter in which its representation is adverse to the City and to obtain the City's consent therefor. The City's prospective consent to Contractor's representation of a client in matters adverse to the City, as identified above, will not apply in any instance where, as the result of Contractor's representation, Contractor has obtained sensitive, proprietary, or otherwise confidential information of a non-public nature that, if known to another client of Contractor, could be used in any such other matter by the other client to the material disadvantage of the City. Each matter will be reviewed on a case by case basis.

## **17. SEVERABILITY OF PROVISIONS**

Whenever possible, each provision of this Agreement will be interpreted in a manner as to be effective and valid under applicable law. However, if any provision of this Agreement or the application of any provision to any party or circumstance is prohibited by or invalid under applicable law, that provision will be ineffective to the extent of the prohibition or invalidity without invalidating the remainder of the provisions of this Agreement or the application of the provision to other parties and circumstances.

## **18. EXTENT OF AGREEMENT**

This Agreement, together with all Exhibits constitutes the entire understanding between the City and Contractor with respect to the subject matter of the Agreement and it supersedes, unless otherwise incorporated by reference herein, all prior representations, negotiations, agreements, or understandings, whether written or oral. Neither party has relied on any prior representations in entering into this Agreement. No terms or conditions of either party's invoice, purchase order, or other administrative document shall modify the terms and conditions of this Agreement, regardless of the other party's failure to object to such terms or conditions. This Agreement shall be binding on and shall inure to the benefit of the parties to this Agreement and their permitted



successors and permitted assigns and nothing in this Agreement, express or implied, is intended to or shall confer on any other person or entity any legal or equitable right, benefit, or remedy of any nature whatsoever under or by reason of this Agreement. This Agreement may only be altered, amended, or modified by written amendment signed by Contractor and the City. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together shall be deemed to be one and the same agreement.

#### **19. ELECTRONIC TRANSACTION**

The parties agree that signatures on this Agreement may be delivered electronically or by facsimile in lieu of an physical signature and agree to treat electronic or facsimile signatures as binding.

**[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK; SIGNATURE PAGES FOLLOW]**

SAMPLE

[TBD]

**CITY OF ANN ARBOR**

By: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Name: Milton Dohoney Jr.

Title: \_\_\_\_\_

Title: City Administrator

Date: \_\_\_\_\_

Date: IA

**Approved as to substance:**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Approved as to form:**

By: \_\_\_\_\_

Name: Atleen Kaur

Title: City Attorney

Date: \_\_\_\_\_



**EXHIBIT A**  
**Scope of Services**

**EXHIBIT B**  
**Compensation**