

REQUEST FOR PROPOSAL

RFP # 19-35

Engineering for Huron West Park Sanitary Sewer

City of Ann Arbor
Public Services - Engineering



Due Date: October 29, 2019, 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 requesting proposals from professional civil engineering firms to provide public engagement, topographic survey, and design engineering services for the Huron West Park Sanitary Sewer.

See Section II, Background and Scope of Services, for additional information and a detailed task overview.

The City of Ann Arbor, Engineering Unit will oversee the direction and quality of work of this consultant.

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 October 14, 2019 at 5:00 p.m., and should be addressed as follows:

Scope of Work/Proposal Content questions shall be e-mailed to Brian Slizewski, PE, bslizewski@a2gov.org

RFP Process and Compliance questions shall be e-mailed to Colin Spencer, Buyer - 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 and 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

A **mandatory** pre-proposal meeting will be held:

WHEN: Friday, October 11, 2019 at 10:00 a.m.

WHERE: Larcom City Hall, Basement Conference Room, 301 East Huron Street,
Ann Arbor, Michigan 48104

The purpose of this meeting is to discuss the project with prospective offerors and to answer any questions concerning RFP 19-35.

Any questions and answers furnished in the pre-proposal meeting will not be official until verified in writing through an addendum.

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 in ink. 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 are planned **November 13 - 15, 2019**. 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, October 29, 2019 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**
- **five (5) additional proposal copies**
- **one (1) digital copy of the proposal 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 must be clearly marked: “**RFP No.19-35 – Engineering for Huron West Park Sanitary Sewer**” 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 48107

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 proposals must be date/time stamped by the Customer Service Department at the address above in order to be considered. Delivery hours are 8:00 a.m. to 5:00 p.m. Monday through Friday, excluding 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 will be disqualified if the following required forms are not included with the proposal:

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

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

Please do not provide these forms outlined directly above only 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 B 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 the award action. 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.

Activity/Event	Anticipated Date
Mandatory Pre-Proposal Meeting	October 11, 2019, 10:00 a.m
Written Question Deadline	October 14, 2019, 5:00 p.m.
Addenda Published (if needed)	October 17, 2019
Proposal Due Date	October 29, 2019, 2:00 p.m.
Interviews	November 13-15, 2019
Selection/Negotiations	November 20, 2019
City Council Authorization	January 6, 2020
Notice to Proceed	January 27, 2020

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 terms or conditions 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.

S. USE OF CITY SEAL AND FLAG

Please be aware in responding to this formal solicitation that use of the City's seal or flag in a manner inconsistent with Title I, Chapter 9 of the City's Code of Ordinances is prohibited.

SECTION II – BACKGROUND AND SCOPE OF SERVICES

A. BACKGROUND

The Huron West Park Sanitary Sewer was constructed in the 1920s to serve the northwest portion of the City. The main trunkline runs generally parallel to, and north of, Dexter Road. The 1995 Sanitary Trunk Sewer Study identified improvements to address known capacity constraints in the area. That study recommended upsizing a large segment of the Huron West Park trunkline; and in the 1990s a portion of the recommended improvements were completed downstream (east) of Arbana Drive.

In 2017 a Sanitary Sewer Improvement Preliminary Engineering report was conducted to verify the improvements are needed west of Arbana Drive, determine the needed size and capacity of sewers, and estimate the construction costs. That report determined that approximately 4000 feet of 12- to 18- inch sewers west of Arbana Drive to Lyn Anne Court should be replaced with 21-inch sewer.

The new sewer would generally follow the same route as the existing pipe and passes through wooded residential rear yards and a city park. Some of the sewer is within narrow easement. The route also roughly parallels a large county storm sewer.

The existing sewer from Arbana Drive to Westwood Avenue is 12-inches diameter, except the section under Wildwood Avenue that was replaced with 21 inch sewer in 2010. All of the 12-inch sewer is to be replaced with 21-inch pipe. The sewer from Arbana Drive to Revenna Blvd is located in a wooded valley area behind residences to the north and south, within a narrow 10 foot sewer easement. From Revenna Blvd to Westwood Ave, the sewer runs through the Maryfield Wildwood City Park.

From Westwood Avenue to Doty Avenue the existing 12-in sewer is in residential rear yard areas. There are no existing easements. West of Doty to Lyn Anne Ct, the existing sewer is 12- and 18-inch, and the combined sanitary-storm easement varies in width between 10 and 35 feet.

See Appendix C, for additional detailed information from the Preliminary Engineering report.

B. SCOPE OF SERVICES

The City of Ann Arbor plans to reconstruct this segment of the Huron – West Park Sanitary Sewer beginning in the 2021 construction season. The City is seeking proposals from qualified, professional engineering consulting firms to perform the necessary tasks to survey, design, and prepare detailed plans and specifications in accordance with City of Ann Arbor Standards in order to competitively bid and construct the project. In addition, to help guide the design process, the Consultant will also create and lead a robust public engagement process.

The following items shall be addressed in the Proposal, in accordance with Section III

of this request and the attached project schedule:

- a. Review and understand the hydraulic basis of design of the 2017 Sanitary Sewer Improvement Preliminary Engineering report.
- b. Develop and implement a public engagement process to include all the various interest groups and the public at large. The selected consultant will be sensitive to all the community organizations that will have an interest in this project and assure that those organizations are included in the process. This public involvement process will educate and inform the community about the project and will result in identification of those issues most important to the public with regard to construction and the final product. It is expected that the selected consultant will provide experienced professional public relations personnel to manage work with the public and address their concerns. The selected consultant shall schedule and conduct the public meetings, notify stakeholders, prepare graphics and related materials, and prepare meeting summaries.
- c. Schedule project progress meetings as needed to ensure proper coordination of Consultant and City work throughout the entire design process. The Consultant will provide meeting minutes and action items for these meetings. The Consultant shall coordinate their efforts with any other needed agencies, various City service units, private utility companies, other formal and informal committees, and the public.
- d. Coordinate with the Washtenaw County Water Resources Commissioner's office, incorporate WCWRC requirements into the design, and obtain all permits required for the project.
- e. Perform topographical survey required for the preparation of civil engineering construction plans in accordance with the City of Ann Arbor's Standard Specifications. The extent of the survey is to be determined by the Consultant. The final work product will be a complete survey that will contain all known site features and utility information for use as a base drawing for final engineering plans. The survey drawings shall include the information in the checklist (Appendix B).
- f. Perform geotechnical investigation. The consultant shall determine the depth, location and number of soil borings, and include the services of the geotechnical firm in the proposal.
- g. Determine the exact location of the proposed new sewer based on considerations of natural features, physical limitations, public input, and constructability.
- h. Review available easement documents. Meet with private property owners from whom easements will be needed. Prepare detailed easement

descriptions for the new sewer. These shall include both permanent and temporary grading easements. Incorporate easement requirements on the design plans. Coordinate with the City's consultant that will prepare and obtain the executed easements.

- i. Design the new sanitary sewer and related utility relocations necessary for the sanitary construction.
- j. Design of road crossings. All roads influenced by the project are under City jurisdiction.
- k. Prepare all plan/profile views and construction details needed for the design drawings.
- l. Prepare soil erosion and sediment control drawings; and submit the plans and permit application for review/approval. The City is a municipal enforcing agency and will review and issue the approved SESC permit to the contractor.
- m. Prepare complete, detailed and accurate plans for construction access and traffic control. Traffic control shall consider both vehicles and pedestrians; and take into account construction staging and the impact on the residential neighborhood.
- n. Conduct design review meetings at appropriate stages of the project. Prepare meeting notes.
- o. Prepare complete, detailed, and accurate construction drawings for bidding and construction purposes.
- p. Establish pay items and quantities, and prepare detailed pay item descriptions.
- q. Obtain EGLE (MDEQ) sanitary construction permit.
- r. Provide technical assistance during bidding, including pre-bid meeting attendance, addressing bid questions, preparing addenda, as-needed bid analysis.

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 – 30 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 – 30 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 must be completed and 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 an initial short-list of firms for further consideration. Only fee proposals from those firms will be opened. Initial short-listing does not guarantee that the proposing firm will be interviewed.

2. 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.
3. The committee then will schedule interviews with the selected firms. The selected firms will be given the opportunity to discuss in more detail their qualifications, past experience, proposed work plan and fee proposal.
4. 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.
5. 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.

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 and/or the City of Ann Arbor web site 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 - Legal Status of Offeror

Attachment B – Non-Discrimination Ordinance Declaration of Compliance Form

Attachment C – Living Wage Declaration of Compliance Form

Attachment D – Vendor Conflict of Interest Disclosure Form

Attachment E – Non-Discrimination Ordinance Poster

Attachment F – Living Wage Ordinance Poster

**ATTACHMENT A
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.

_____, Date: _____,
Signature

(Print) Name _____ Title _____

Firm: _____

Address: _____

Contact Phone _____ Fax _____

Email _____

**ATTACHMENT C
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 \$13.22/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 \$14.75/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 D

VENDOR CONFLICT OF INTEREST DISCLOSURE FORM
--

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:

Conflict of Interest Disclosure*	
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.

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:		
Vendor Name	Vendor Phone Number	
Signature of Vendor Authorized Representative	Date	Printed Name of Vendor Authorized Representative

**ATTACHMENT E
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.

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. Then submit it to the Human Rights Commission by e-mail (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.

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 F

CITY OF ANN ARBOR LIVING WAGE ORDINANCE

RATE EFFECTIVE APRIL 30, 2019 - ENDING APRIL 29, 2020

\$13.61 per hour

If the employer provides health care benefits*

\$15.18 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**

APPENDIX A: SAMPLE PROFESSIONAL SERVICES AGREEMENT

If a contract is awarded, the selected Firm(s) will be required to adhere to a set of general contract provisions which will become a part of any formal agreement. These provisions are general principles which apply to all contractors/service providers to the City of Ann Arbor. The required provisions are:

(2018 PSA over \$25,000 Auto AI)

PROFESSIONAL SERVICES AGREEMENT BETWEEN

AND THE CITY OF ANN ARBOR
FOR _____

The City of Ann Arbor, a Michigan municipal corporation, having its offices at 301 E. Huron St. Ann Arbor, Michigan 48104 ("City"), and

("Contractor"), a(n) _____
(State where organized) (Partnership, Sole Proprietorship, or Corporation)

with its address at _____, agree as follows:

The Contractor agrees to provide services to the City under the following terms and conditions:

I. DEFINITIONS

Administering Service Area/Unit means _____.

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

Deliverables means all Plans, Specifications, Reports, Recommendations, and other materials developed for and delivered to City by Contractor under this Agreement.

Project means _____.
Project name

II. DURATION

Contractor shall commence performance on _____, 20____ ("Commencement Date"). This Agreement shall remain in effect until satisfactory completion of the Services specified below unless terminated as provided for in Article XI. The terms and conditions of this Agreement shall apply to the earlier of the Effective Date or Commencement Date.

III. SERVICES

- A. The Contractor agrees to provide _____
type of service

("Services") in connection with the Project as described in Exhibit A. The City retains the right to make changes to the quantities of service 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 contract sum 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. The Contractor shall perform its Services for the Project in compliance with all statutory, regulatory, and contractual requirements now or hereafter in effect as may be applicable to the rights and obligations set forth in the Agreement.
- D. The Contractor may rely upon the accuracy of reports and surveys provided to it by the City (if any) except when defects should have been apparent to a reasonably competent professional or when it has actual notice of any defects in the reports and surveys.

IV. INDEPENDENT CONTRACTOR

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 will be 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.

V. COMPENSATION OF CONTRACTOR

- A. The Contractor shall be paid in the manner set forth in Exhibit B. Payment shall be made monthly, unless another payment term is specified in Exhibit B, following receipt of invoices submitted by the Contractor, and approved by the Contract Administrator.
- B. The Contractor will be compensated for Services performed in addition to the Services described in Article III, only when the scope of and compensation for those additional Services have received prior written approval of the Contract Administrator.
- C. The Contractor shall keep complete records of work performed (e.g. tasks performed, hours allocated, etc.) so that the City may verify invoices submitted by the Contractor. Such records shall be made available to the City upon request and submitted in summary form with each invoice.

VI. INSURANCE/INDEMNIFICATION

- A. The Contractor shall procure and maintain during the life of this contract such insurance policies, including those set forth in Exhibit C, as will protect itself and the City from all claims for bodily injuries, death or property damage that may arise under this contract; whether the act(s) or omission(s) giving rise to the claim were made by the Contractor, any subcontractor or anyone employed by them directly or indirectly. Prior to commencement of work under this Agreement, Contractor shall provide to the City documentation satisfactory to the City, through City-approved means (currently myCOI), demonstrating it has obtained the policies and endorsements required by Exhibit C. 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 subcontractor(s) (if any).

- B. Any insurance provider 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, its officers, employees and agents harmless from all suits, claims, judgments and expenses, including attorney's fees, resulting or alleged to result, from any acts or omissions by Contractor or its employees and agents occurring in the performance of or breach in 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 or willful misconduct or its failure to comply with any of its material obligations set forth in this Agreement.

VII. COMPLIANCE REQUIREMENTS

- A. Nondiscrimination. The Contractor agrees to comply, and to require its subcontractor(s) to comply, with the nondiscrimination provisions of MCL 37.2209. The Contractor further agrees to comply with the provisions of Section 9:158 of Chapter 112 of the Ann Arbor City Code and to assure that applicants are employed and that employees are treated during employment in a manner which provides equal employment opportunity.

- B. Living Wage. If the Contractor is a “covered employer” as defined in Chapter 23 of the Ann Arbor City Code, the Contractor agrees to comply with the living wage provisions of Chapter 23 of the Ann Arbor City Code. The Contractor agrees 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.

VIII. WARRANTIES BY THE CONTRACTOR

- A. The Contractor warrants that the quality of its Services under this Agreement shall conform to the level of quality performed by persons regularly rendering this type of service.
- B. The Contractor warrants that it has all the skills, experience, and professional licenses necessary to perform the Services specified in this Agreement.
- C. The Contractor warrants that it has available, or will engage, at its own expense, sufficient trained employees to provide the Services specified in this Agreement.
- D. The 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.
- E. The Contractor warrants that its proposal for services was made in good faith, it arrived at the costs of its proposal independently, without consultation, communication or agreement, for the purpose of restricting completion as to any matter relating to such fees with any competitor for these Services; and no attempt has been made or shall be made by the Contractor to induce any other person or firm to submit or not to submit a proposal for the purpose of restricting competition.

IX. OBLIGATIONS OF THE CITY

- A. The City agrees to give the Contractor access to the Project area and other City-owned properties as required to perform the necessary Services under this Agreement.
- B. The City shall notify the Contractor of any defects in the Services of which the Contract Administrator has actual notice.

X. ASSIGNMENT

- A. The 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, however described, as are required of it under the Agreement unless specifically released from the requirement, in writing, by the City.
- B. The Contractor shall retain the right to pledge payment(s) due and payable under this Agreement to third parties.

XI. TERMINATION OF AGREEMENT

- A. If either party is in breach of this Agreement for a period of fifteen (15) days following receipt of notice from the non-breaching party with respect to a breach, the non-breaching party may pursue any remedies available to it against the breaching party under applicable law, including but not limited to, 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 thirty (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 for this Project. If funds to enable the City to effect continued payment under this Agreement 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 thirty (30) days after it receives notice of such non-appropriation.
- D. The provisions of Articles VI and VIII shall survive the expiration or earlier termination of this Agreement for any reason. The expiration or termination of this Agreement, for any reason, shall not release either party from any obligation or liability to the other party, including any payment obligation that has already accrued and Contractor's obligation to deliver all Deliverables due as of the date of termination of the Agreement.

XII. REMEDIES

- A. This Agreement does not, and is not intended to, impair, divest, delegate or contravene any constitutional, statutory and/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 agreement between the parties or otherwise.
- C. Absent a written waiver, no act, failure, or delay by a Party to pursue or enforce any rights or remedies under this Agreement shall constitute a waiver of those rights with regard to any existing or subsequent breach of this Agreement. No waiver of any term, condition, or provision of this Agreement, whether by conduct or otherwise, in one or more instances, shall be deemed or construed as a continuing waiver of any term, condition, or provision of this Agreement. No waiver by either Party shall subsequently effect its right to require strict performance of this Agreement.

XIII. 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 in this Agreement 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 the CONTRACTOR, it shall be addressed and sent to:

If Notice is sent to the CITY, it shall be addressed and sent to:

City of Ann Arbor

(insert name of Administering Service Area Administrator)

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, 3rd Floor
Ann Arbor, Michigan 48104

XIV. 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.

XV. OWNERSHIP OF DOCUMENTS

Upon completion or termination of this Agreement, all documents (i.e., Deliverables) prepared by or obtained by the 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 the 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 Project. Prior to completion of the contracted Services the City shall have a recognized proprietary interest in the work product of the Contractor.

Unless otherwise stated in this Agreement, any intellectual property owned by Contractor prior to the effective date of this Agreement (i.e., Preexisting Information) shall remain the exclusive property of Contractor even if such Preexisting Information is embedded or otherwise incorporated in materials or products first produced as a result of this Agreement or used to develop Deliverables. The City's right under this provision shall not apply to any Preexisting Information or any component thereof regardless of form or media.

XVI. 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. The City's prospective consent to the 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, the Contractor has obtained sensitive, proprietary or otherwise confidential information of a non-public nature that, if known to another client of the 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.

XVII. 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 will be 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.

XVIII. EXTENT OF AGREEMENT

This Agreement, together with any affixed exhibits, schedules or other documentation, constitutes the entire understanding between the City and the 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, of any kind or nature, 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 form. 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 the 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.

XIX. ELECTRONIC TRANSACTION

The parties agree that signatures on this Agreement may be delivered electronically in lieu of an original signature and agree to treat electronic signatures as original signatures that bind them to this Agreement.

XX. EFFECTIVE DATE

This Agreement will become effective when all parties have signed it. The Effective Date of this Agreement will be the date this Agreement is signed by the last party to sign it.

FOR CONTRACTOR

By _____
Type Name

Its

Date: _____

FOR THE CITY OF ANN ARBOR

By _____
Christopher Taylor, Mayor

By _____
Jacqueline Beaudry, City Clerk

Approved as to substance

Type Name
Service Area Administrator

Howard S. Lazarus, City Administrator

Approved as to form and content

Stephen K. Postema, City Attorney

**EXHIBIT A
SCOPE OF SERVICES**

(Insert/Attach Scope of Work & Deliverables Schedule)

**EXHIBIT B
COMPENSATION**

General

Contractor shall be paid for those Services performed pursuant to this Agreement inclusive of all reimbursable expenses (if applicable), in accordance with the terms and conditions herein. The Compensation Schedule below/attached states nature and amount of compensation the Contractor may charge the City:

(insert/Attach Negotiated Fee Arrangement)

**EXHIBIT C
INSURANCE REQUIREMENTS**

From the earlier of the Effective Date or the Commencement Date of this Agreement, and continuing without interruption during the term of this Agreement, Contractor shall have, at a minimum, the following insurance, including all endorsements necessary for Contractor to have or provide the required coverage.

A. The Contractor shall have insurance that meets the following minimum requirements:

1. Professional Liability Insurance or Errors and Omissions Insurance protecting the Contractor and its employees in an amount not less than \$1,000,000.

2. Worker's Compensation Insurance in accordance with all applicable state and federal statutes. Further, Employers Liability Coverage shall be obtained in the following minimum amounts:

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

3. 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. Further, the following minimum limits of liability are required:

\$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

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. Further, 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.

- B. Insurance required under A.3 and A.4 above 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. Further, the Contractor agrees to waive any right of recovery by its insurer against the City for any insurance listed herein.
- C. 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. Upon request, the Contractor shall provide within 30 days, a copy of the policy(ies) and all required endorsements to the City. If any of the above coverages expire by their terms during the term of this contract, the 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.

City of Ann Arbor
Project Management Services Unit

Survey Package Submittal Checklist

The City of Ann Arbor Project Management Services Unit requests and receives project packages from internal resources and various consultants for surveys of public streets, public utility easements and other bounded topographical surveys for the preparation of civil engineering construction plans. The desired surveying services will include the gathering of topographical survey data 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 involving public facilities within the project area. The survey package will be reviewed and accepted by the Project Manager.

The checklist below summarizes the required contents of the package. Consultants shall use the checklist to indicate that all applicable items have been included. A completed copy of this form must be signed and submitted with the survey package. The consultant should also review the *RFP for Services* document (including any additions) and the current City CAD Standards. In the event that any of the applicable listed items are missing from a submittal, the Project Manager will immediately notify the consultant of deficiencies.

Item No.	Item	Description	Included?	Comments
1	Digital Submission	Include an AutoCAD format base drawing, with all project survey points (COGO) inserted; bench marks, witnesses and control points in Simplex, Oblique=15 deg, paper space height 0.10" text style.		
2	Survey Notes	Include, in bound notebook; control information, alignment information, structure data notes (including size and condition of sanitary manholes and storm sewer and water structures), copy of all field notes, and any source information not part of the City-provided as-built package (point listings are <u>not</u> required).		

Digital submission:

The City of Ann Arbor currently uses AutoCAD Civil 3D 2015 software.

1. If using Civil 3D, a base template drawing, provided by the City of Ann Arbor, is to be used for importing survey data. Request a copy of the current template file upon award of survey.
2. If not using Civil 3D, imported points and feature lines must be in an AutoCAD 2015 drawing file format. Provide an AutoCAD drawing file containing the points, feature lines used to create 3D break lines, and the final surface. The preferred formats for data collection point files are ".fbk" or ".txt" file (PNEZD comma delimited); point description key to be provided by City of Ann Arbor.
3. Planimetrics to be AutoCAD 2015 or earlier, layering standards to be provided by the City of Ann Arbor. All linework in the base topographic drawing are to be comprised of polylines with an elevation of zero. Text heights for labels are to be Simplex with a paper space height of 0.10" and Oblique of 15 degrees.
4. Coordinate with other city service areas, local agencies, etc.

City of Ann Arbor
Project Management Services Unit

Survey Package Submittal Checklist

Topographic Survey

All topographic features on a project site will be located. This includes man-made and natural terrain features that the surveyor will come across. Elevation data will be obtained as needed for sufficient project design, quantity computations and drainage studies.

<i>Item No.</i>	<i>Description</i>	<i>OK?</i>	<i>Comments</i>
1	State Plane Coordinate system and City of Ann Arbor datum is to be used. NAVD88 and horizontal datum of NAD83 (Michigan State Plane coordinates, international feet). Translation should not be used.		
2	Current City standard template has been used for model space base drawing. Base drawing and any related AutoCAD drawing files are in 2015 format.		
3	City standard blocks (symbols) have been used		
4	City standard line types have been used appropriately		
5	City standard text styles have been used appropriately		
6	City standard dimstyles have been used appropriately		
7	City standard layers are used appropriately and any extraneous layers have been purged/deleted		
8	A north arrow, street names and consultant logo have been included in the base drawing		
9	Site survey notes are included in model space, aligned with associated topo items and with text style Simplex, Oblique=15 degrees, paper space height=0.10".		
10	Benchmark, witness and control point information is included		
11	All <u>public City</u> utilities are shown and labeled in the base drawing appropriately (sanitary sewer, water main and storm sewer)		
12	Right-of-ways and centerlines are shown and dimensioned		
13	Section corners, section lines and associated bearings and distances have been included for the section(s) that contain the entire limits of the survey project		

City of Ann Arbor
Project Management Services Unit

Survey Package Submittal Checklist

14	All ROW lines, easements, adjacent property boundaries, found property corners and monumentation located and shown. Copies of all records, measurement data, and calculations used to determine the alignment shall be part of the survey notes.		
15	Rights-of-way and centerlines are shown and dimensioned.		
16	Locate all surface features within and a minimum of 25' beyond the right-of-way along a street.		
17	All public and private utilities located and identified.		
18	Driveways - locate to a minimum of 40 feet beyond right-of-way or sidewalk for grading design.		
19	Intersecting streets - Sidewalks to a sufficient distance beyond first driveway/lead walk; minimum 20 feet. Roadway to 200 feet from intersection.		
20	Curb ramps should have all 4 corners of the "turning space" and 10 adjacent flags of the walk transition located.		
21	Sufficient ground elevations for creation of a digital terrain model (DTM) for one (1) foot contours, including around curb radii and through intersections. Along curves in street, sufficient survey points have been taken to create reasonable feature lines (without crossing)		
22	Survey feature lines, 3D break lines, shall be included as part of the final digital submittal.		
23	All building entrance doors shall be located and elevations are to be included survey and shown pictorially in the base drawing (typical in areas where buildings are at or near ROW).		
24	All finished and basement floor elevations shall be obtained and shown in the plan and profile views of all relevant drawings.		
25	Retaining walls (top and both sides at bottom) and steps (top and bottom steps, at both ends of each) are to be included.		
26	All trees within project limits located. Include trunk diameter at breast height (DBH) and canopy diameter - 6" or greater DBH or a canopy that may impact the project.		

City of Ann Arbor
Project Management Services Unit

Survey Package Submittal Checklist

27	Surface and underground drainage information is to be assembled by the surveyor. The surveyor should obtain record plans of any City utilities crossing the project and report any observed differences, and potential drainage problems.		
28	The construction type and condition of each structure and connecting pipe shall be fully described. Connections between manholes and catch basins must be determined.		
29	The location of all structures and drainage pipes, as found, are to be shown on a base map. Prepare separate, hard-copy, 1=20' scale plots to show measurements of underground storm drain systems and include with the project notes. Show direction of pipe flow.		
30	Include type and size of structure, measured casting elevations, measured invert elevations of sewers, and top of pipe elevation for water main.		
31	Obtain structure and connecting pipe information outside the project limits; locate nearest downstream/upstream structures that tie into project area.		
32	Overhead utility information shall include location and type of utility.		

CITY OF ANN ARBOR

SANITARY SEWER IMPROVEMENTS PRELIMINARY ENGINEERING
VOLUME 3: MODELING AND PRELIMINARY ENGINEERING REPORT



JANUARY 2018



Introduction

In 2013 and 2014, the City of Ann Arbor conducted a Sanitary Sewer Wet Weather Evaluation (SSWWE) to evaluate the effectiveness of the City's footing drain disconnection program. The SSWWE included evaluation of the entire City and found five areas with potential capacity issues during wet weather events. These areas were evaluated as part of the 2016-2017 Sanitary Sewer Improvements and Preliminary Engineering (SSIPE) project. An additional area, Area F, was added to this project as an operation and maintenance evaluation by the City.

The scope and details of the SSIPE project are described in Volumes 1 and 2 of the project report. The following report discusses the hydrologic and hydraulic analyses completed as part of the SSIPE project. The following recommendations include a preliminary engineering analysis where applicable. This following background information is based on the five original project sheets, which are located in Appendix A of the SSES Report.

Area A Objective

As part of the 2013 Sanitary Sewer Wet Weather Evaluation Project (SSWWEPE), which evaluated the effectiveness of the Footing Drain Disconnect (FDD) Program, Project Area A, Huron/West Park was identified as an over loaded area with the 2013 hydraulic model. The model indicated that the sanitary pipe was over loaded in this region. The 2013 sanitary sewer model was calibrated to a downstream sanitary meter. The flow distribution upstream of this meter was estimated in the 2013 study. The model resulted in excessive surcharging in this area. The City had previously recognized this as a problem area and constructed a relief sewer downstream of the original metered location. There is no history of reported sewer backups in this area. The modeling team did not have high confidence in the surcharging identified in the hydraulic model based on the lack of citizen complaints.

For the current Sanitary Sewer Improvements and Preliminary Engineering (SSIPE) Project, Area A was subdivided with new meter locations upstream, and the flow distribution was updated in the hydraulic model based on the meter data. The Volume 1: Flow Monitoring Report discusses the details of the flow monitoring for Area A and the other identified Project Areas.

Area A Modeling Results

Existing Conditions

As discussed above, Area A was metered further for the current SSIPE study. The results of the metering were used to adjust the flow distribution in the upstream portion of Area A in the hydraulic model. The hydraulic model was run under Scenario B, which is the selected design. This event consists of a 25-year frequency event plus additional flow to account for growth planned by the City and growth expected in the Township. Scenario B also includes a 10% increase in peak flows within the City to account for climate change, an increase in the level of service from a 25- to a 50-year design event, or additional growth beyond that contained in the City's planned development list.

The existing conditions (2013 modeled physical pipe characteristics) were evaluated for modeling the Area A system. Similar to the results of the 2013 study, many pipes in Area A were overloaded during the design event model analysis. A profile of the overloaded pipes is shown in Figure 1.

For the section upstream of the ravine, it was determined through discussion with the City that an improvement was not necessary. Though the pipes surcharge, the HGL does not reach the measured basement elevations, as shown in Figures 1 and 2.

Alternative Solutions

The model was used to size and identify the extent of improvements needed. In an attempt to relieve the surcharging, several alternatives were explored, and two were chosen as viable options.

Alternative One – Doty to Arbana

Alternative Two – Dexter Ave to Arbana

Alternatives One and Two both resolve the issue of surcharging in Area A. Details of these alternatives are covered in the following preliminary engineering discussion. Figures 3-5 show the

profile of the sewer through the ravine and further downstream in Area A for existing and proposed conditions.

In addition to Alternatives One and Two, another alternative was considered. Preliminary engineering analysis concluded that the third was not feasible. Details of these options are discussed in the following section.

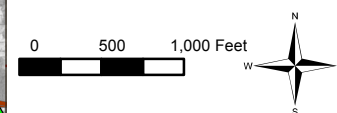


Project Area A Huron/West Park Trunkline

Figure 1

Legend

- Project Area
- Basement Survey Areas
- Proposed Meters
- Optional Meters
- 2013 Meter
- City Raingage
- 2013 PSR
- CAC Member



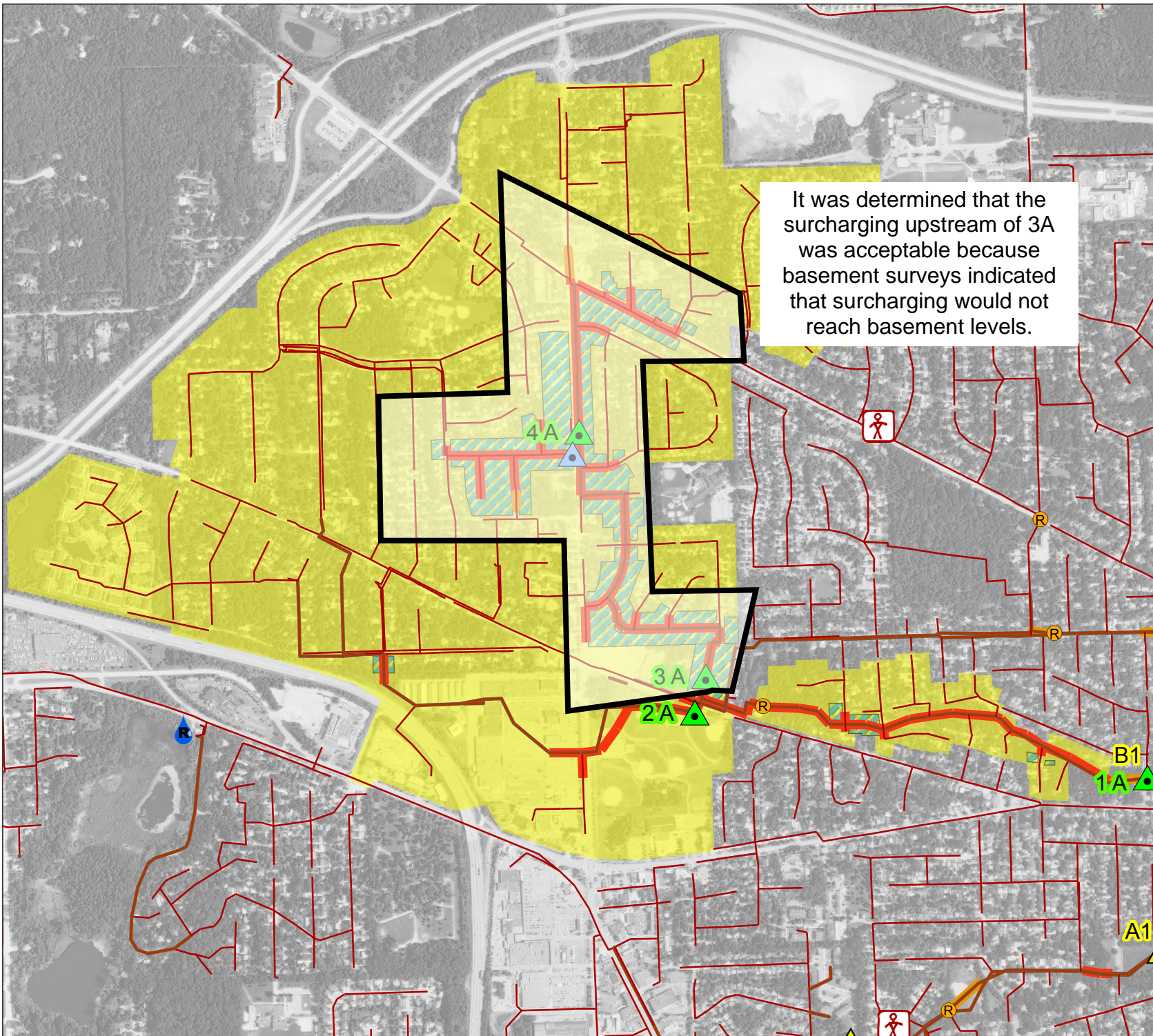
Source: Data provided by the City of Ann Arbor. OHM Advisors does not warrant the accuracy of the data and/or the map. This document is intended to depict the approximate spatial location of the mapped features within the Community and all use is strictly at the user's own risk.

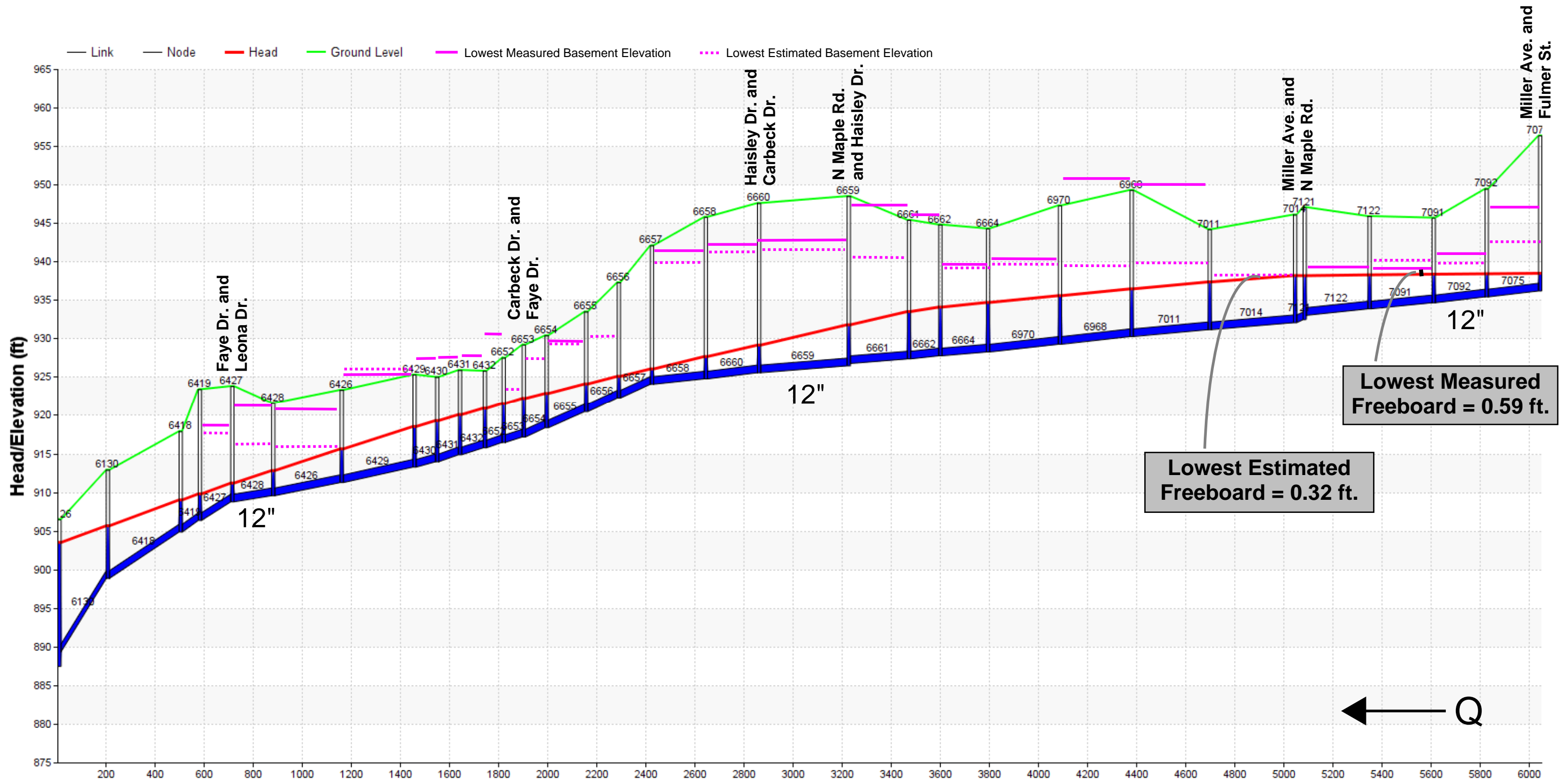
Coordinate System: NAD 1983 StatePlane Michigan South FIPS 2113 IntlFeet

Map Published: January 5, 2017

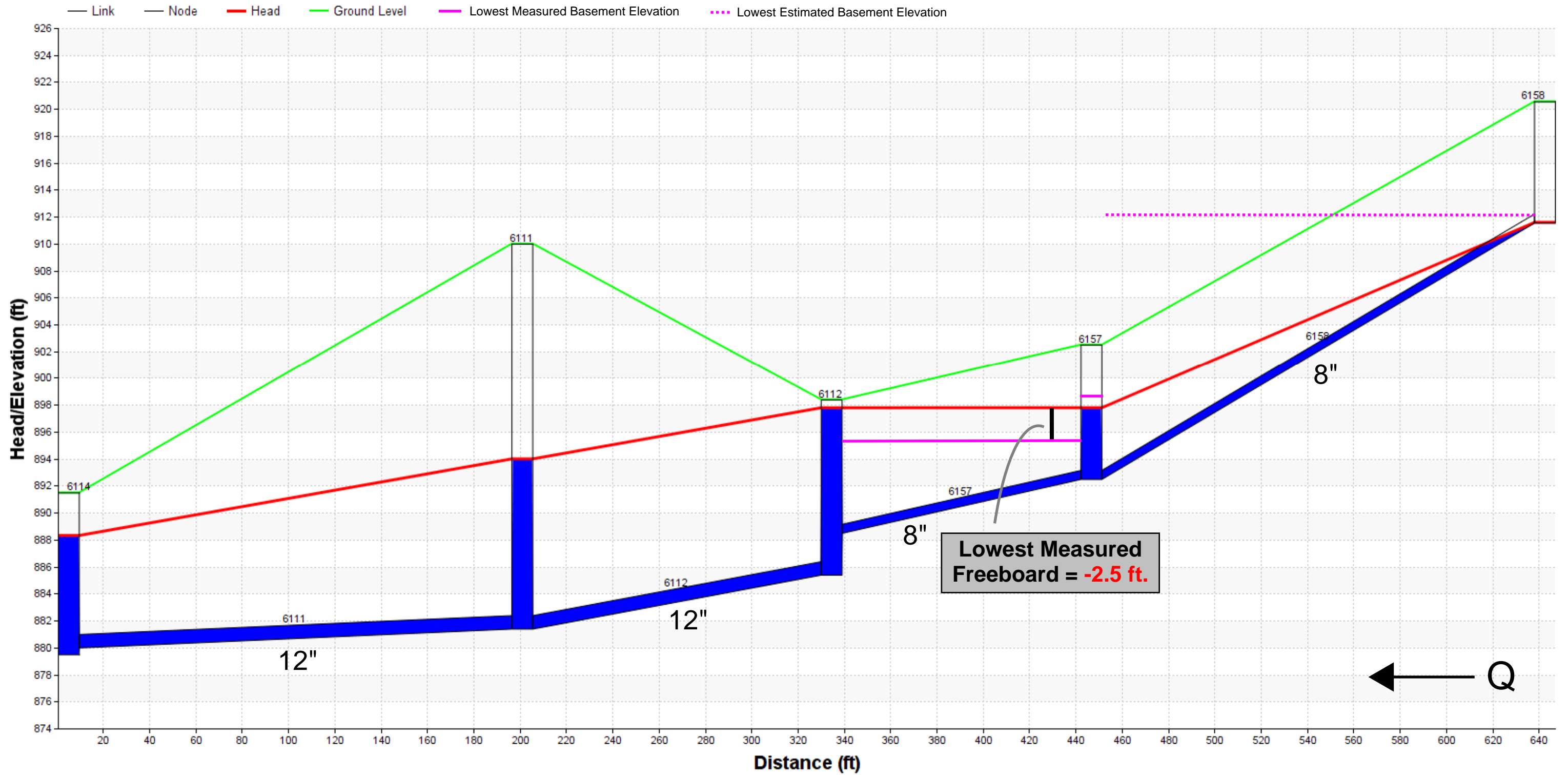


It was determined that the surcharging upstream of 3A was acceptable because basement surveys indicated that surcharging would not reach basement levels.

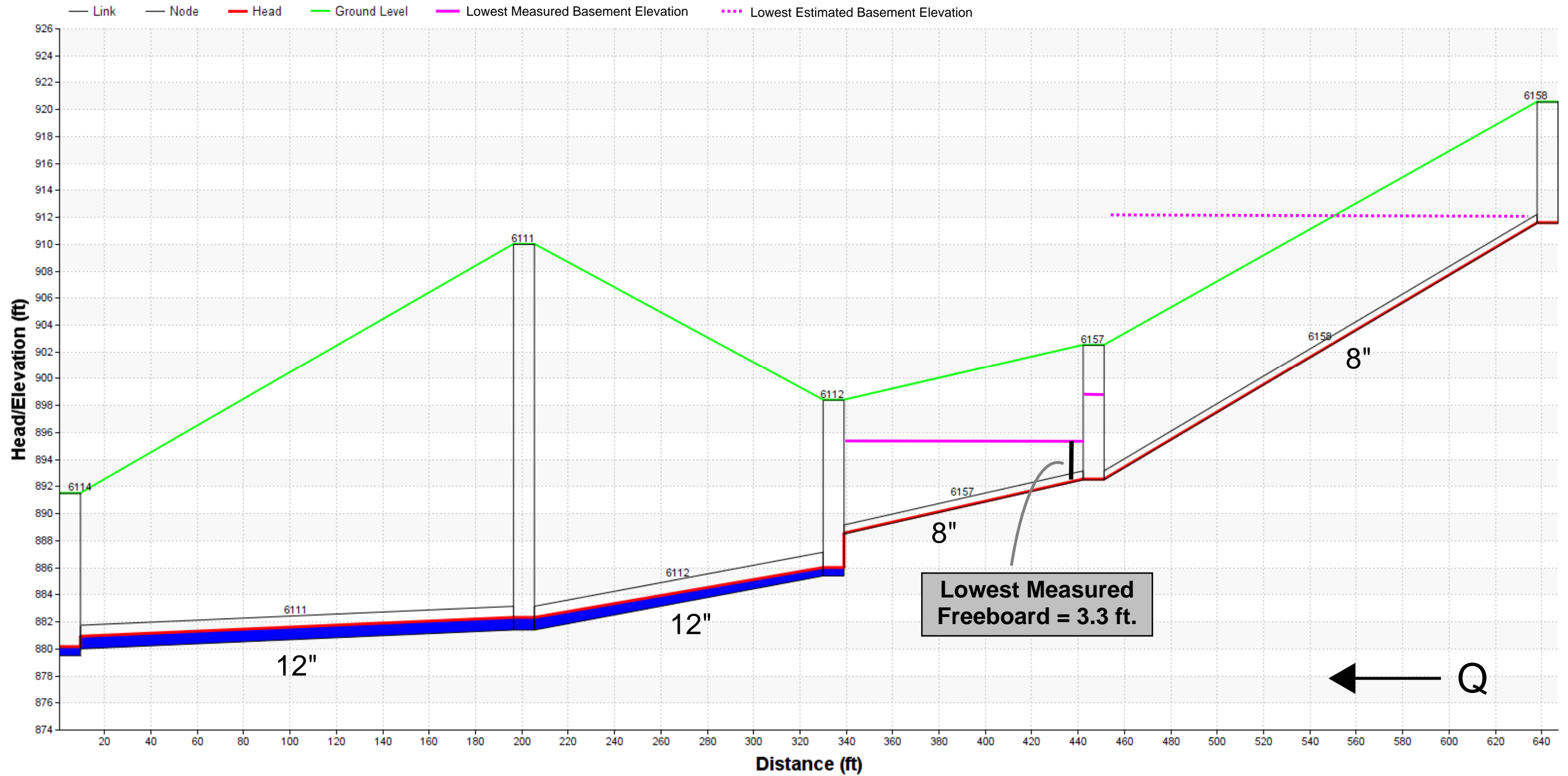




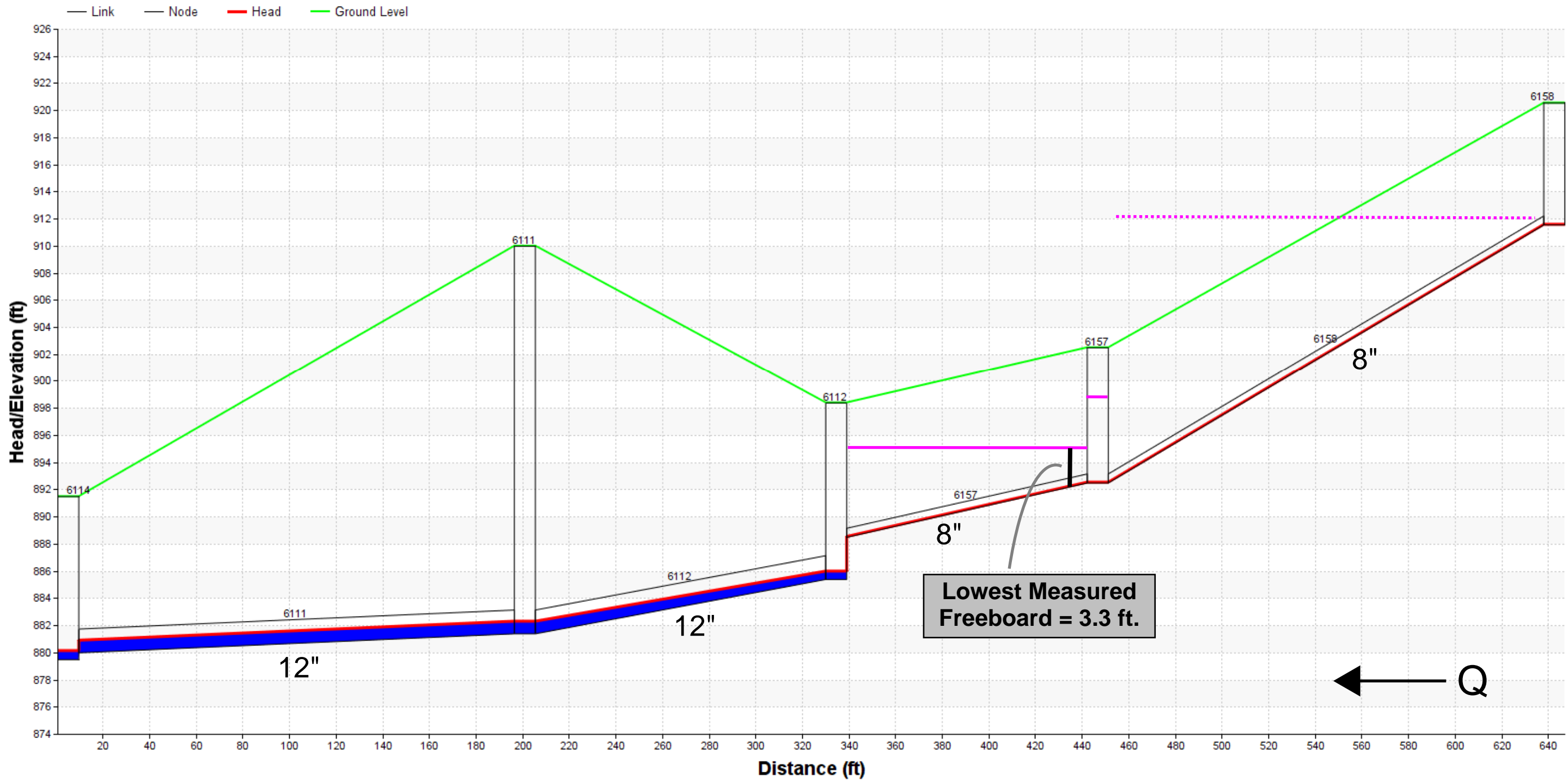
Area A - Upstream of Ravine - Existing Conditions



Area A - Doty Ave. - Existing Conditions



Area A - Doty Ave. - Entire Ravine Line Increased to 21"



Area A - Doty Ave. - Ravine Line Increased to 21" up to Doty

Preliminary Engineering

Sanitary sewers in the vicinity of Project Area A drain to the existing 12” and 18” diameter sewers in the ravine that runs between Linwood and Dexter Avenues. Existing sewage flows easterly in a 12” collector sewer from the vicinity of the Mapleridge apartments, through the ravine to Arbana Drive. This route is roughly parallel to Dexter Avenue. At Arbana Drive the flow continues into an existing 21” sewer just north of W. Huron St.

The objective of the project is to increase the size of the existing sewers to 21” in diameter to increase the sewer flow capacity for the project area. Another goal is to create a permanent path along the sewer that is navigable by sewer maintenance vehicles. Currently the existing sewer is not readily accessible. Photos of the areas are shown in Appendix A.

Alternative One – Doty to Arbana

Alternative One is to replace the existing 12” diameter sewers with a new 21” diameter sewer through the ravine from Doty Ave. to Arbana Drive. Figure 2 shows the profile along Doty Ave. with this improvement as compared to measured and estimated basement elevations.

Sewer Design

- i. The proposed sanitary sewer would be 21” reinforced concrete pipe in accordance with the Ann Arbor Design Standards. Concrete corrosion inhibitors, such as Xypex, can be added to the concrete mix at the time of pipe production. This will be considered at the time of design engineering. The City could also consider products which can be applied to the interior of the concrete pipes for protection.
- ii. The existing sewers have slopes of approximately 0.10% to 3.0%. The proposed sewer would have similar slopes.

Route Description

- i. The proposed route is along a wooded ravine through a residential neighborhood. The route would parallel the existing sanitary sewer.
- ii. Drains- The proposed sewer route follows the route of the “West Park – Fairgrounds” County Drain. (see attached map) There is also a local storm drainage system in the surface roads consisting of mostly 12” diameter sewers.
- iii. Roads – Several residential streets would have to be crossed by the proposed sewer. The existing pavement in those streets is asphalt in average condition. The roads have concrete curb and gutter.
- iv. The sewer passes through Maryfield Wildwood Park between Westwood and Revena.

Construction Methods

- i. The anticipated construction method would be open cut installation of the sewers. Installation of new sewers by the pipe bursting method was considered. This method would not be plausible for this project because of the desired inside diameter of the proposed sewer. The existing sewer has a 12” inside diameter and the desired inside diameter of the proposed sewer is 21”. A nominal size 24” plastic pipe (O.D. = 25.8”) would be required to achieve an inside diameter of at least 21”. This is because plastic pipe has thicker walls, and needs that thickness to withstand pull forces on the pipe during pipe bursting operations. It



is not feasible to pipe burst a 12” clay pipe to a condition whereby a new 24” plastic pipe could be pulled through the void.

- ii. Bypass pumping of the sewage flow would be required at times during the construction operations.

Potential Construction Challenges

- i. This is a wooded corridor with a number of large trees. Numerous trees will need to be cleared in order to create an access route along the length of the proposed sewer.
- ii. The ravine is up to 25 feet lower than adjacent roads. Access routes would have to be built for construction equipment to enter into the work zone.
- iii. Two roads may have to be crossed by a jack and bore operation. These are Westwood Ave. and Revena Blvd. There is already a segment of 21” pipe under Wildwood, so that road will not need to be disturbed.
- iv. Because the route of the sewer is along the “West Park – Fairgrounds” County Drain, weather and storm water will need to be considered and accommodated during construction operations. The proposed work will need to be coordinated with the Washtenaw County Water Resource Commissioner’s office.
- v. The operation of construction equipment and bypass pumping will produce heightened noise levels in a residential neighborhood that is not accustomed to it. Measures may need to be employed to mitigate noise from construction operations and bypass pumping.
- vi. The Maryfield Wildwood Park (see attached map) is central to the project area. Park land could be a desirable location for some construction staging. Coordination with the Parks and Recreation Dept. will be necessary to determine how and when the park land could be used for construction purposes.
- vii. Construction operations will have an impact on plants and wildlife along the ravine. Coordination will be required with any environmental agencies that have jurisdiction over this area. A sign near the sewer route on Revena indicates that the area is a “Certified Wildlife Habitat” by the National Wildlife Federation.

Traffic Control Considerations

- i. It is anticipated that there would be temporary road blockages during construction. The local traffic in the neighborhood could be managed with traffic control devices. The existing road network in the neighborhood allows for alternate routes to enable residents to access their homes.
- ii. There is an existing park in the middle of the neighborhood. Coordination would be required with the Parks and Recreation Dept. to manage pedestrian and other traffic coming and going from the park.
- iii. Dexter Road is a heavily travelled road. Construction traffic would be travelling on the road and slowing down to turn into the subdivision. Although traffic control devices may not need to be set up in Dexter Ave., the typical flow of traffic could be slowed due to the movements of construction vehicles.
- iv. Easement Needs: Both temporary and permanent easements will be needed along the route in order to build the proposed sewer. Research will be required by the City to determine locations of any existing easements. Also, coordination with the Washtenaw County Water Resources Commissioner’s office will be needed to determine what easements they have in the project area.



- v. Existing soil conditions: No investigations were performed under the scope of this study.
- vi. Existing buried utilities: No investigations were performed under the scope of this study.

A summary of pipe lengths in the project under Alternative One are shown in the following table.

Table 1: Alternative One Sewer Lengths

Alternative One - Sewer Segments	Existing Sewer Diameter	Proposed Sewer Diameter	Distance, feet
Doty Ave. to Arbana Dr.	12"	21"	2,800
TOTAL			2,800

Alternative Two – Dexter Ave. to Arbana

Alternative Two is to replace the existing 12” and 18” diameter sewers with 21” diameter sewer through the ravine from a point in Dexter Ave. near the Mapleridge Apartments to Arbana Drive.

Sewer Design

- i. The proposed sanitary sewer would be 21” reinforced concrete pipe in accordance with the Ann Arbor Design Standards. Concrete corrosion inhibitors, such as Xypex, can be added to the concrete mix at the time of pipe production. This will be considered at time of design engineering. The City could also consider products such as Sika Shield which can be applied to the interior of the concrete pipes for protection
- ii. The existing sewers have slopes of approximately 0.10% to 3.0%. The proposed sewer would have similar slopes.

Route Description

- i. The beginning of the route is in Dexter Ave. near the Mapleridge Apts. The remainder of the proposed route is along a wooded ravine through a residential neighborhood. The route would parallel the existing sanitary sewer.
- ii. Drains-The proposed sewer route follows the route of the “West Park – Fairgrounds” County Drain. (see attached map) The drain is enclosed in a 72” storm sewer pipe that runs parallel to the sanitary sewer from Dexter Ave. to Doty Ave. There is also a local storm drainage system in the surface roads consisting of mostly 12” diameter sewers.
- iii. Roads – Several residential streets would need to be crossed. The existing pavement in those streets is asphalt in average condition. The roads have concrete curb and gutter. Dexter is a 66 feet wide arterial road with 2 lanes of pavement. The pavement is 34 feet wide from back to back of curbs. Curb and gutter is 2 ft wide.
- iv. The sewer passes through Maryfield Wildwood Park between Westwood and Revena.



Construction Methods

- i. The anticipated construction method through the ravine would be open cut installation of the sewers. Installation of new sewers by the pipe bursting method was considered. This method would not be plausible for this project because of the desired inside diameter of the proposed sewer. The existing sewer has a 12” inside diameter and the desired inside diameter of the proposed sewer is 21”. A nominal size 24” plastic pipe (O.D. = 25.8”) would be required to achieve an inside diameter of at least 21”. This is because plastic pipe has thicker walls, and needs that thickness to withstand pull forces on the pipe during pipe bursting operations. It is not feasible to pipe burst a 12” clay pipe to a condition whereby a new 24” plastic pipe could be pulled through the void.
- ii. Open cut installation of the sewer in Dexter Ave. would not be possible without closing the road during construction. This is due to the sewer depth and presence of other utilities. In this case the entire paved surface in the sewer construction area would be removed and replaced. Alternately, the road could be partially closed and pits constructed to allow for jacking and boring sewer segments into place. The pros and cons of these options would need to be further evaluated at the time of engineering design. For the purposes of this preliminary study, installation by jack and bore has been assumed for the opinion of probable construction costs.
- iii. Bypass pumping of the sewage flow would be required at times during the construction operations.

Potential Construction Challenges

- i. This is a wooded corridor with a number of large trees. Numerous trees will need to be cleared in order to create an access route along the length of the proposed sewer.
- ii. The ravine is up to 25 feet lower than adjacent roads. Access routes would have to be built for construction equipment to enter into the work zone.
- iii. Work in Dexter Ave: Because of the sewer depth and existing utilities in Dexter Ave., it is anticipated that the segments of sewer in Dexter Ave. would be constructed by jacking and boring the pipe into place.
- iv. Dexter Ave. is a heavily travelled road. Construction traffic would be travelling on the road and slowing down to turn into the subdivision. The typical flow of traffic could be slowed due to the movements of construction vehicles. The road will have to be partially or fully closed during the construction of the sewer segments in Dexter Ave.
- v. Two roads within the neighborhood may have to be crossed by a jack and bore operation. These are Westwood Ave. and Revena Blvd. There is already a segment of 21” pipe under Wildwood, so that road will not need to be disturbed.
- vi. Because the route of the sewer is along a ravine, weather and storm water will need to be considered and accommodated during construction operations. Coordination will be required with the Washtenaw County Water Resources Commissioner’s office.
- vii. The operation of construction equipment and bypass pumping will produce heightened noise levels in a residential neighborhood that is not accustomed to it. Measures may need to be employed to mitigate noise from construction operations and bypass pumping.
- viii. The Maryfield Wildwood Park is central to the project area. Park land could be a desirable location for some construction staging. Coordination with the Parks and Recreation Dept. will be necessary to determine how and when the park land could be used for construction purposes.

- ix. Construction operations will have an impact on plants and wildlife along the ravine. Coordination will be required with any environmental agencies that have jurisdiction over this area. A sign near the sewer route on Revena indicates that the area is a “Certified Wildlife Habitat” by the National Wildlife Federation.

Traffic Control Considerations

- i. It is anticipated that there would be temporary road blockages during construction. The local traffic in the neighborhood could be managed with traffic control devices.
- ii. There is an existing park in the middle of the neighborhood. Coordination would be required with the Parks and Recreation Dept. to manage pedestrian and other traffic coming and going from the park.
- iii. Dexter Road is a heavily travelled road. Construction traffic would be travelling on the road and slowing down to turn into the subdivision. The typical flow of traffic could be slowed due to the movements of construction vehicles. The road would need to be partially or fully shut closed during construction of sewer in Dexter Ave.
- iv. Easement Needs: Both temporary and permanent easements will be needed in order to build the project. Research will be required by the City to determine locations of any existing easements. Also, coordination with the Washtenaw County Water Resources Commissioner’s office will be needed to determine what easements they have in the project area.
- v. Existing soil conditions: No investigations were performed under the scope of this study.
- vi. Existing buried utilities: No investigations were performed under the scope of this study.

A summary of pipe lengths in the project area under Alternative Two are shown in the following table.

Table 2: Alternative Two Sewer Lengths

Alternative Two - Street Segments	Existing Sewer Diameter	Proposed Sewer Diameter	Distance, feet
Mapleridge Apts to Doty Ave.	18”	21”	1,450
Doty Ave. to Arbana Dr.	12”	21”	2,800
TOTAL			4,250

Other Option Considered

Constructing a new 21” diameter sewer in Dexter Avenue from the vicinity of Mapleridge Apartments to Doty Ave. was considered. In this option, sewage would flow easterly on Dexter, then turn north on Doty, and be directed into new 21” sewer flowing east from Doty. This would avoid approximately 900 feet of sewer construction through the ravine.

With this option, sewer depths would reach up to 37 feet. Open cut construction would require the complete closure and reconstruction of Dexter Ave. in the project area. Sewers can be installed by horizontal directional drilling under certain circumstances, but it is not a viable option for this route.

The accuracy of the pilot hole drilling at these depths is typically within 1% of the pipe length installed. This accuracy level cannot be tolerated for the pipe slopes needed for this project, which are as low as 0.11%.

This route was not considered further because of the reasons stated above.

Opinions of Probable Construction Costs

The detailed opinions of probable construction costs are attached. The totals are:

- i. Alternative One - \$2,943,000
- ii. Alternative Two - \$4,988,000

Conceptual Plans

Preliminary conceptual plans for each option are attached.

Photos

Representative photos of the project area are attached in Appendix A.

Appendix A

Photos of Area with Recommended Improvements

**PHOTOS ARE VERY LARGE
AND NOT INCLUDED IN THIS PDF**

Appendix B

Preliminary Cost Estimates

Project Summary Engineer's Opinion of Probable Project Costs

Owner: City of Ann Arbor
 Project: Sanitary Sewer Improvement Project
 Work: AREA A - OPTION 1
Upsize existing sewer from 12 inch to 21 inch
Route through ravine from Doty Ave. to Arbana Drive

Date: 3/8/2017
 Project No. 0028-15-0051
 Prepared By: E.Gumpper
 Reviewed By: _____

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Mobilization (5%)	1	LS	\$78,000	\$78,000
2	Soil Erosion and Sediment Control (5%)	1	LS	\$71,000	\$71,000
3	Traffic Maintenance and Control (5%)	1	LS	\$71,000	\$71,000
4	Digital Video Route Survey	1	LS	\$5,000	\$5,000
5	Exploratory Excavations	10	EA	\$2,000	\$20,000
6	Earthwork for access ramps to ravine	1	LS	\$50,000	\$50,000
7	Sewer, 21 inch, Tr Det A (10'-20' Deep)	2500	FT	\$210	\$525,000
8	Sewer, 21 inch, Tr Det A (over 20' deep)	200	FT	\$230	\$46,000
9	Sewer, 21 inch, Bore & Jack in 36" Steel Casing (Revena)	100	FT	\$600	\$60,000
10	Sewer Reconnections	10	EA	\$5,000	\$50,000
11	Trench Under Cut and Back Fill (6A)	500	CYD	\$50	\$25,000
12	Dewatering Trench	500	FT	\$50	\$25,000
13	Bypass Pumping	1	LS	\$50,000	\$50,000
14	Sanitary Sewer Manhole, 4 ft diameter	8	EA	\$12,000	\$96,000
15	Sanitary Sewer Manhole, 5 ft diameter	8	EA	\$16,000	\$128,000
16	Storm Sewer, 12 inch	100	FT	\$100	\$10,000
17	Storm Drain Manhole, 4 ft diameter	4	EA	\$10,000	\$40,000
18	Abandon Existing sewer with Flowable Fill	100	CYD	\$200	\$20,000
19	Pavement Remove and Replacement	400	SYD	\$50	\$20,000
20	Curb and Gutter, Remove and Replace	200	FT	\$25	\$5,000
21	Sidewalk , Remove and Replace	2000	SFT	\$5	\$10,000
22	Subgrade Undercut and Refill	50	CYD	\$100	\$5,000
23	Permanent aggregate maintenance path	5200	SYD	\$20	\$104,000
24	Clearing & Tree Removal	1	LS	\$50,000	\$50,000
25	Green Belt Restoration	13700	SYD	\$5	\$68,500
26	Utility Relocation Allowance	1	LS	\$25,000	\$25,000
27	Easement Acquisition Allowance	1	LS	\$80,000	\$80,000
28	Permit Application Allowance	1	LS	\$10,000	\$10,000
29	General Conditions & Requirements	10	%		\$175,000.00
	CONSTRUCTION SUBTOTAL				\$1,923,000.00
	Engineering, Contract Admin, Constr Eng, Observation	25	%		\$481,000.00
	Geotechnical Services	3	%		\$58,000.00
	Contingencies	25	%		\$481,000.00
	ENGINEER'S OPINION OF PROJECT COST				\$2,943,000.00
	PROJECT ASSUMPTIONS				
	Residential Pavement thickness	3" asphalt	and	8" agg base	
	Easements needed in ravine area				
	Construction method open cut				
	Design flow is XX CFS. Proposed pipe is 21" diameter at 0.0 to 0.0% slope.				
	Pipe is 21" RCP with corrosion inhibitor added				
	Geotechnical investigations and existing utility research was out of the scope of this study.				
	Pavement work includes costs for removal and replacement of HMA, aggregate base, underdrain, and pavement markings.				

Project Summary Engineer's Opinion of Probable Project Costs

Owner: City of Ann Arbor
 Project: Sanitary Sewer Improvement Project
 Work: AREA A - OPTION 2
Upsize existing sewer from 12 inch and 18 inch to 21 inch diameter
Route from Dexter Ave. through ravine to Arbana Drive

Date: 3/8/2017
 Project No. 0028-15-0051
 Prepared By: E.Gumpper
 Reviewed By: _____

Item No.	Item Description	Est. Quantity	Unit	Unit Price	Total Cost
1	Mobilization (5%)	1	LS	\$134,000	\$134,000
2	Soil Erosion and Sediment Control (5%)	1	LS	\$116,000	\$116,000
3	Traffic Maintenance and Control (10%)	1	LS	\$232,000	\$232,000
4	Digital Video Route Survey	1	LS	\$7,000	\$7,000
5	Exploratory Excavations	20	EA	\$2,000	\$40,000
6	Earthwork for access ramps to ravine	1	LS	\$100,000	\$100,000
7	Sewer, 21 inch, Tr Det A (10'-20' Deep)	3400	FT	\$210	\$714,000
8	Sewer, 21 inch, Tr Det A (over 20' deep)	200	FT	\$230	\$46,000
9	Sewer, 21 inch, Bore & Jack in 36" Steel Casing	650	FT	\$600	\$390,000
10	Sewer Reconnections	10	EA	\$5,000	\$50,000
11	Trench Under Cut and Back Fill (6A)	700	CYD	\$50	\$35,000
12	Dewatering Trench	700	FT	\$50	\$35,000
13	Bypass Pumping	1	LS	\$75,000	\$75,000
14	Sanitary Sewer Manhole, 4 ft diameter	12	EA	\$12,000	\$144,000
15	Sanitary Sewer Manhole, 5 ft diameter	12	EA	\$16,000	\$192,000
16	Storm Sewer, 12 inch	150	FT	\$100	\$15,000
17	Storm Drain Manhole, 4 ft diameter	6	EA	\$10,000	\$60,000
18	Abandon Existing Sewer with Flowable Fill	200	CYD	\$200	\$40,000
19	Pavement Remove and Replacement, Residential	400	SYD	\$50	\$20,000
20	Pavement Remove and Replacement, Dexter Ave	400	SYD	\$70	\$28,000
21	Curb and Gutter, Remove and Replace	200	FT	\$25	\$5,000
22	Sidewalk, Remove and Replace	2000	SFT	\$5	\$10,000
23	Subgrade Undercut and Refill	50	CYD	\$100	\$5,000
24	Permanent aggregate maintenance path	6800	SYD	\$20	\$136,000
25	Clearing & Tree Removal	1	LS	\$75,000	\$75,000
26	Green Belt Restoration	20000	SYD	\$5	\$100,000
27	Utility Relocation Allowance	1	LS	\$50,000	\$50,000
28	Easement Acquisition Allowance	1	LS	\$100,000	\$100,000
29	Permit Application Allowance	1	LS	\$10,000	\$10,000
30	General Conditions & Requirements	10	%		\$296,000.00
CONSTRUCTION SUBTOTAL					\$3,260,000.00
	Engineering, Contract Admin, Constr Eng, Observation	25	%		\$815,000.00
	Geotechnical Services	3	%		\$98,000.00
	Contingencies	25	%		\$815,000.00
ENGINEER'S OPINION OF PROJECT COST					\$4,988,000.00
PROJECT ASSUMPTIONS					
	Residential Pavement thickness	3" asphalt	and	8" agg base	
	Easements needed in ravine area				
	Construction method: open cut through ravine and pipe jacked in place in Dexter Ave.				
	Dexter Ave. will be limited to one lane of traffic or shut completely				
	Design flow is XX CFS. Proposed pipe is 21" diameter at 0.1 to 3.0% slope.				
	Pipe is 21" RCP with corrosion inhibitor added.				
	Geotechnical investigations and existing utility research was out of the scope of this study.				
	Pavement work includes costs for removal and replacement of HMA, aggregate base, underdrain, and pavement markings.				

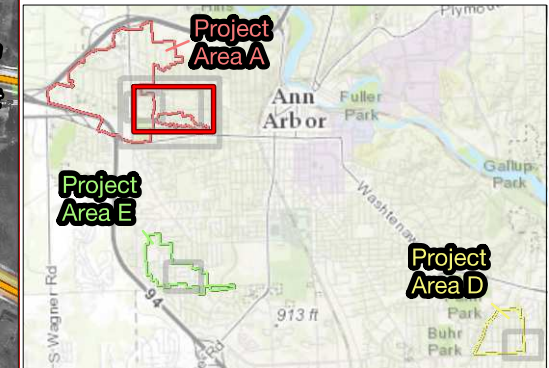
Appendix C

Preliminary Conceptual Plans

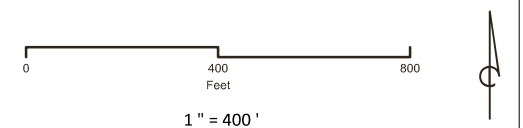


Ann Arbor Sanitary Sewer Improvements

Area A - Option 1



- Improvement Areas**
- Area A
 - Area D
 - Area E
- Proposed Sanitary Mains - Size**
- 12"
 - 18"
 - 21"
- Sanitary Main - Type**
- Collector
 - Force Main
 - Storm Manhole
 - Storm Discharge Point
 - Storm Catchbasin
 - Storm Main
- Project Areas**
- Sanitary Manhole
 - Project Area A
 - Project Area D
 - Project Area E



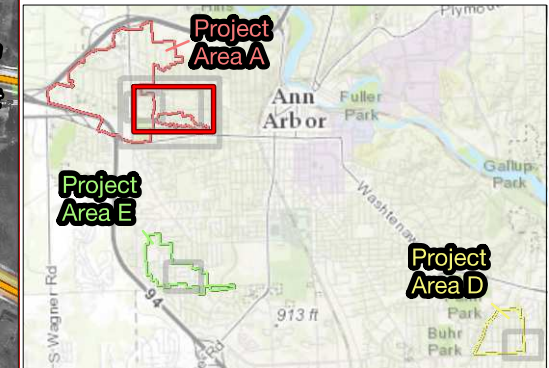
Source: Data provided by Washtenaw County and the City of Ann Arbor. OHM Advisors does not warrant the accuracy of the data and/or the map. This document is intended to depict the approximate spatial location of the mapped features within the Community and all use is strictly at the user's own risk.

Coordinate System: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
Map Published: February 16, 2017

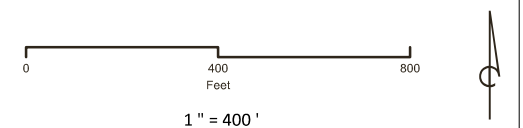


Ann Arbor Sanitary Sewer Improvements

Area A - Option 2



- Improvement Areas**
 - Area A (Red outline)
 - Area D (Yellow outline)
 - Area E (Green outline)
- Sanitary Main - Type**
 - Collector (Orange line with arrows)
 - Force Main (Red line with arrows)
 - Storm Manhole (Green circle)
 - Storm Discharge Point (Green diamond)
 - Storm Catchbasin (Green square)
 - Storm Main (Green line)
- Proposed Sanitary Mains - Size**
 - 12" (Purple line)
 - 18" (Blue line)
 - 21" (Pink line)
- Project Areas**
 - Sanitary Manhole (Orange circle)
 - Project Area A (Red outline)
 - Project Area D (Yellow outline)
 - Project Area E (Green outline)



Source: Data provided by Washtenaw County and the City of Ann Arbor. 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: February 16, 2017

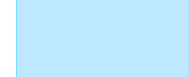


Ann Arbor Township County Drain Map

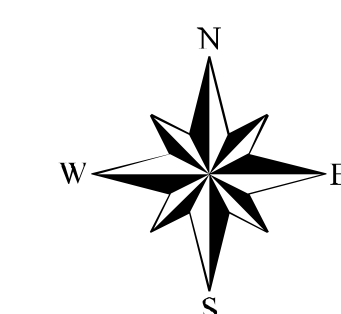
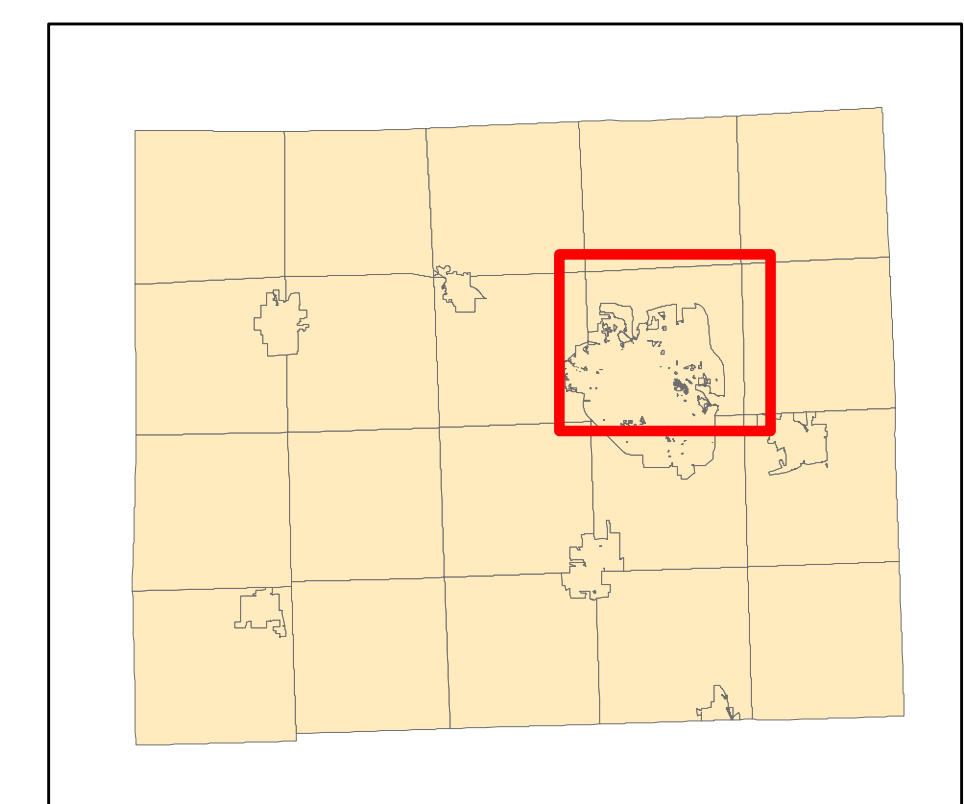


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Legend

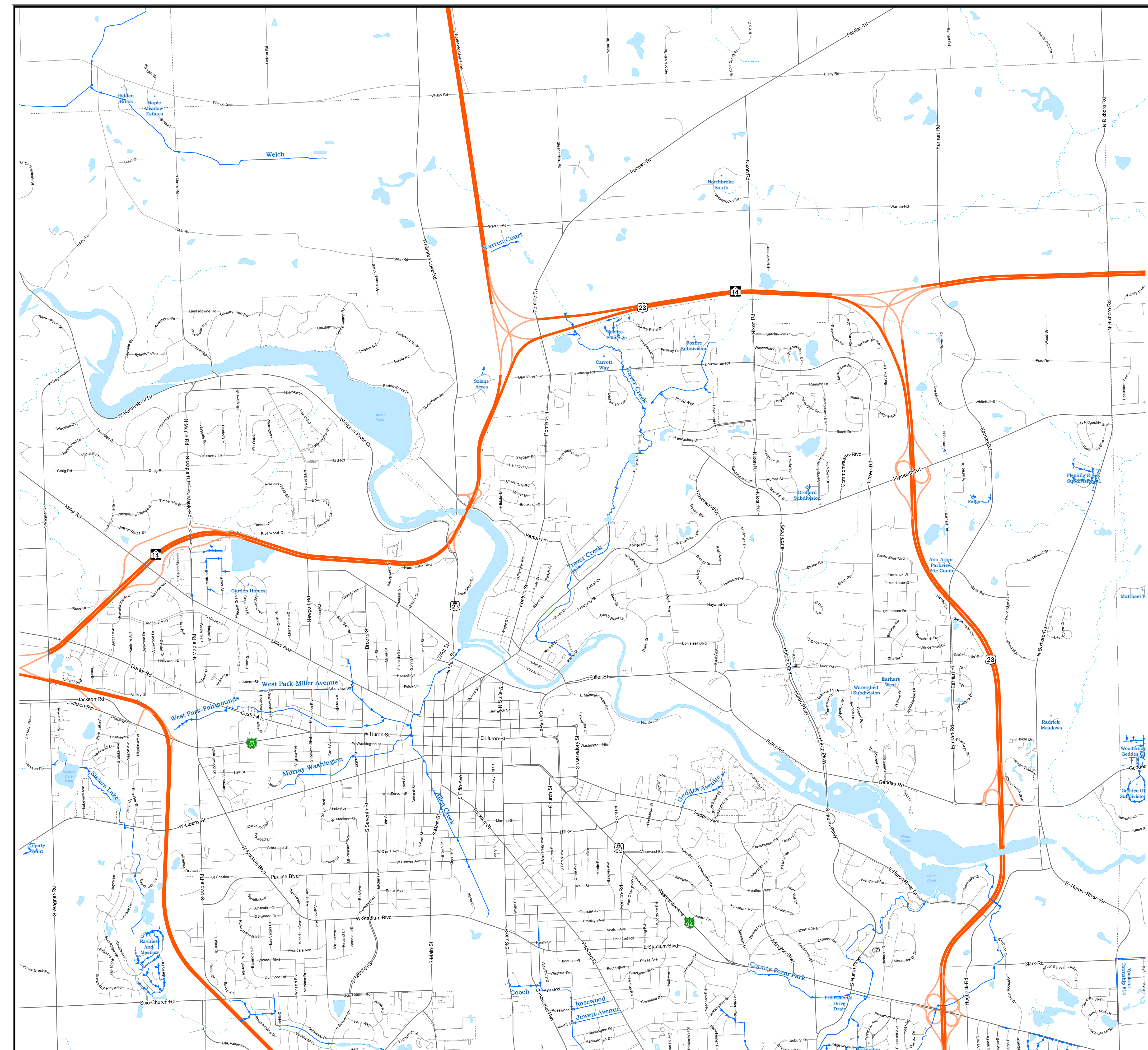
-  Lakes
-  County Drain Systems
-  Waters of the State



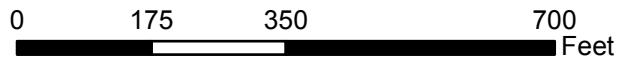
0 1,600 3,200
 Feet

1:19,200

Map Published On : Date: 1/12/2016



Maryfield Wildwood Park



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