

# REQUEST FOR PROPOSAL

**RFP # 23-57**

## WATER DISTRIBUTION PLAN & MODEL UPDATE

City of Ann Arbor  
Public Services Area



**Due Date: November 1, 2023 by 3:00 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, Michigan, is seeking proposals from qualified consultants to update the City's water distribution comprehensive plan and hydraulic model. Such a plan is intended to be used to strategically plan and budget for improvements to ensure a sustainable water distribution system for current demand, future growth, and emergency situations.

### **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 20, 2023 at 5:00 p.m.,** and should be addressed as follows:

Scope of Work/Proposal Content questions shall be e-mailed to Troy Baughman, Systems Planning Engineer – [tbaughman@a2gov.org](mailto:tbaughman@a2gov.org)

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

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

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

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

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

WHEN: October 17, 2023 at 9:00 a.m.

WHERE: Virtually via [Microsoft Teams](#). If the link does not work, please contact Troy Baughman ([tbaughman@a2gov.org](mailto:tbaughman@a2gov.org)) for a link to join.

Meeting ID: 263 796 854 658  
Passcode: hBCyd2

The meeting is not mandatory; however, it is highly recommended that interested offerors attend the meeting. The purpose of this meeting is to discuss the project with prospective offerors and to answer any questions concerning RFP 23-57. 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. Each proposal must remain valid for at least ninety days from the due date of this RFP.

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

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

Responses to this RFP will be evaluated using a point system as shown in Section III. A selection committee comprised of staff from the City will complete the evaluation.

The fee proposals will not be reviewed at the initial evaluation. After initial evaluation, the City will determine top proposals, and open only those fee proposals. The City will then determine which, if any, firms will be interviewed. During the interviews, the selected firms will be given the opportunity to discuss their proposal, qualifications, past experience, and their fee proposal in more detail. The City further reserves the right to interview the key personnel assigned by the selected offeror to this project. If the City chooses to interview any respondents, the interviews will be tentatively held the **week of November 27, 2023**. Offeror must be available on these dates.

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

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

**All proposals are due and must be delivered to the City on or before, November 1, 2023 by 3:00 p.m. (local time).** Proposals submitted late or via oral, telephonic, telegraphic, electronic mail or facsimile **will not** be considered or accepted.

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

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

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

- two (2) copies of the fee proposal
- one (1) digital copy of the proposal preferably on a USB/flash drive as one file in PDF format

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

Proposals submitted should be clearly marked: “**RFP No. 23-57 – Water Distribution Plan & Model Update**” and list the offeror’s name and address.

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

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

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

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

- **Attachment C - City of Ann Arbor Non-Discrimination Declaration of Compliance**

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

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

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

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

## **G. DISCLOSURES**

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

## **H. TYPE OF CONTRACT**

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

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

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

## **I. NONDISCRIMINATION**

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

## **J. WAGE REQUIREMENTS**

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

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

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

#### **L. COST LIABILITY**

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

#### **M. DEBARMENT**

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

#### **N. PROPOSAL PROTEST**

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

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

## **O. SCHEDULE**

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

The following is the schedule for this RFP process.

<b>Activity/Event</b>	<b>Anticipated Date</b>
Pre-proposal Meeting	October 17, 2023, 9:00 a.m.
Written Question Deadline	October 20, 2023, 5:00 p.m.
Addenda Published (if needed)	Week of October 23, 2023
Proposal Due Date	November 1, 2023, 3:00 p.m. (Local Time)
Tentative Interviews (if needed)	Week of November 27, 2023
Selection/Negotiations	December 2023
Expected City Council Authorizations	February 2023

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

## **P. IRS FORM W-9**

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

## **Q. RESERVATION OF RIGHTS**

1. The City reserves the right in its sole and absolute discretion to accept or reject any or all proposals, or alternative proposals, in whole or in part, with or without cause.
2. The City reserves the right to waive, or not waive, informalities or irregularities in of any proposal if determined by the City to be in its best interest.
3. The City reserves the right to request additional information from any or all offerors.
4. The City reserves the right to reject any proposal that it determines to be unresponsive and deficient in any of the information requested within RFP.
5. The City reserves the right to determine whether the scope of the project will be entirely as described in the RFP, a portion of the scope, or a revised scope be implemented.
6. The City reserves the right to select one or more consultants to perform services.



7. The City reserves the right to retain all proposals submitted and to use any ideas in a proposal regardless of whether that proposal is selected. Submission of a proposal indicates acceptance by the firm of the conditions contained in this RFP, unless clearly and specifically noted in the proposal submitted.
8. The City reserves the right to disqualify proposals that fail to respond to any requirements outlined in the RFP, or failure to enclose copies of the required documents outlined within RFP.

## **R. ENVIRONMENTAL COMMITMENT**

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

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

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

### **GENERAL INFORMATION ON UTILITY**

The City of Ann Arbor's Public Services Area (AAPSA) is a municipal water utility that provides quality drinking water services to a population of approximately 125,000 people within the city of Ann Arbor. AAPSA also provides water service to portions of Ann Arbor and Scio Townships (population approximately 10,000). The entire AAPSA covers about 43 square miles and continues to attract residential and commercial development.

The City maintains and operates approximately 460 miles of water main and has 22,571 residential connections and 5,540 multi-family/commercial connections. The water distribution system consists of five pressure districts. Water pressure is maintained by high service pumps at the WTP, four remote pumping stations, two elevated storage tanks, three underground storage tanks, and one ground storage tank, all located throughout the distribution system.

In 2010, the City completed a distribution system comprehensive plan that included recalibration of the city's hydraulic model. Executive summary of the 2010 plan can be found in Appendix A. The hydraulic modeling software presently being used is InfoWater 12.4 (Innovyze/Autodesk) and city seeks to migrate the model to InfoWater PRO as part of this project. The model has been kept updated with system improvements since the last plan effort. The model is a full pipe model (excluding short hydrant leads) comprised of over 16,000 pipes and 14,000 junctions. Demands in the model have been updated with 2019 (pre-COVID) billing data. The City's water distribution asset inventory is contained within ArcGIS Pro 3.1.1.

A water distribution level of service (LOS) study was completed in 2015. This effort included engaging with the public to establish a sustainable LOS for the City's water distribution system in consideration of an associated level of reinvestment in water main replacement. The project scope also included an analysis of water mains in the system and to determine the probability of failure (POF) and consequence of failure (COF) for every segment of pipe in the City. This request for proposal is not seeking to update LOS recommendations from 2015 other than the items indicated in the scope section below.

### **HISTORICAL REPORTS/PROJECTS**

- 2010 – Drinking Water Distribution Master Plan/Water Model (CDM)
  - This master plan included an update and recalibration of the existing water system hydraulic model in InfoWater software, using field measurements and customer water demand information. The model was used to evaluate the system operation in varying demand conditions under existing and future scenarios based on population projections. Recommended improvements were developed based on these

evaluations for long-term implementation in the CIP. Some of the improvements have since been implemented and others remain in the CIP to be completed in the future.

- 2015 – Water Distribution Level of Service & Capital Reinvestment Study (AECOM)
  - The purpose of this project was to establish a sustainable LOS for the City’s water distribution system in consideration of an associated level of reinvestment in water main replacement. The project scope also included an analysis of water mains in the system to determine the probability of failure (POF) and consequence of failure (COF) for every segment of pipe in the city. A Prioritization Action Number (PAN) score was calculated for each segment of water main based on the POF and COF scores. These calculations were embedded into a computer model, which can be run with GIS data to calculate the Prioritization Action Number (PAN) scores for future analyses. The PAN scores developed during this study are used to prioritize water main replacement for CIP planning efforts.
  
- 2017 – Water Distribution Modeling Scenarios (FTCH)
  - The purpose of this project was to model a series of water distribution scenarios, generating schematic figures of flows, pressures, and levels throughout the system. These figures are intended to be used by the city to provide operators at the Water Treatment Plant an easily understood picture of what is happening in the system during typical and atypical operations.
  
- 2017 – Water Asset Management Program Report (FTCH)
  
- 2021 – City of Ann Arbor/University of Michigan Water Connectivity Analysis (CDM)
  - The University of Michigan (UM) owns, operates, and maintains much of the distribution system serving the North, Central, Medical and Athletic campuses of the UM Ann Arbor system. Since this system is integrated into the City of Ann Arbor (City) distribution system, water entering these areas may flow from the City system, through the UM system, to other City customers. This analysis conducted an evaluation of the impacts of reconfiguring the UM system to prevent flow through UM lines and back into the City system and developed distribution system recommendations to provide the same level of service if backflow separation was to occur. Model demands were updated using 2019 (pre-COVID) billing data from the City.
  
- Present – Water Treatment Plant Facility Plan (AECOM)
  - The purpose of this project is to evaluate the operational, maintenance and regulatory needs of the plant both now and into the future. The

project includes strategic planning, an alternatives analysis, a small pilot plant used to evaluate new technology, and community engagement throughout. <https://www.a2gov.org/departments/water-treatment/Pages/WTP-Facilities-Plan.aspx>

- Present – Comprehensive Land Use Plan (City of Ann Arbor Planning Department)
  - The City’s Planning Department recently kicked off an effort to develop a new citywide comprehensive land use plan that will tie into infrastructure needs over time.
  
- Present – Capital Predictor Reinvestment Strategy (OHM)
  - Incorporate the City’s existing water main asset management data into Brightly Predictor (formerly Assetic Predictor). Brightly Predictor will then be used to develop overall lifecycle and budget prediction models of the water distribution system.

## SCOPE OF SERVICES

The consultant will be responsible for updating the City’s water distribution comprehensive plan and hydraulic model. The tasks listed below are not intended to comprise a complete list or are the only tasks required for the project. The consultant shall submit a comprehensive and detailed scope of services required to complete the project.

- 1) Establish average, minimum, and maximum day and peak hour demands for current and future customer needs. Future needs should look at next 10 year and 20 year planning periods.
  - a) Organizations to engage for future growth projections may include, but not limited to, the University of Michigan, Ann Arbor Public Schools, City of Ann Arbor Planning Department, surrounding townships.
  - b) Engage with City of Ann Arbor Office of Sustainability and Innovations (OSI) staff regarding climate adaptation goals.
  - c) Utilize outcomes and findings from the current Water Treatment Plant Facility Plan effort on growth projections.
  - d) Incorporate proposals and recommendations from current Planning Department comprehensive land use planning effort.
    - i) This will likely involve evaluating water system impacts as a result of different land use scenarios that will be considered during the development phase of the City’s *Comprehensive Land Use Plan* effort.
  - e) Utilize City’s water meter billing data for current demand.
  
- 2) Update and recalibrate City’s water distribution hydraulic model.
  - a) Develop and execute hydrant flow testing plan as needed.

- b) Migrate current model from InfoWater 12.4 to InfoWater PRO.
  - c) Utilize City's water meter billing data for demand and diurnal patterns updates. City's water meters currently report hourly reads.
  - d) Update control settings based on current system operations.
  - i) Provide training for up to four (4) city staff members on use of InfoWater PRO model.
- 3) Perform hydraulic analysis of water distribution system and identify any hydraulic deficiencies with recommendations to meet current and future demands. Analysis shall consider fire flow capability and water age/quality.
    - a) Engage with staff and fire department to determine fire flow criteria.
    - b) Establish modeling scenario for summer months when University of Michigan student population is at minimum. Utilize scenario for evaluating water age/quality concerns. Develop recommendations to minimize water age concerns through optimizing system operations.
  - 4) Engage with WTP staff to identify areas of known water quality concerns. Develop alternatives for addressing water quality in these areas.
  - 5) Evaluate areas for a uni-directional flushing program to be considered. Develop action plan for implementing such a program if decided by city.
  - 6) Future conditions modeling-
    - a) Include proposed/future isolation vaults as recommended in the *2021 City of Ann Arbor/University of Michigan Water Connectivity Analysis* report.
    - b) Include full water distribution build out for township island areas located within the City of Ann Arbor.
    - c) Identify build out areas where reduced pressure zones may be needed. Perform alternative analysis (including life cycle cost analysis) for system pressure reduced valve(s) vs individual house pressure reducing valve(s).
    - d) City's practice in locations with dual existing water mains (eg. 12" and 6") has been to consolidate to a single water main (eg. 12"). Identify areas of dual water mains and evaluate impacts of consolidation moving forward.
  - 7) Evaluate existing pressure districts (including reduced pressure zones) and develop alternative(s) for consolidation of pressure districts.
  - 8) Identify areas of reliability concerns (eg. single points of failure) and make recommendation for system improvements.
  - 9) Review of existing city/township water supply agreements. Make recommendations for updates/improvements.
    - a) Includes review of future delivery points and hydraulic analysis to ensure adequate system capacity to deliver contract flow amounts.

- b) Perform analysis of available capacity for future agreement opportunities.
- 10) Review and make recommendations as needed to the City's Water Pressure policy.
  - 11) Identify any present and future regulatory concerns for the distribution system.
  - 12) Develop a short and long-term capital improvement plan (CIP) to address identified deficiencies, including prioritization, alternatives, analysis, and planning level cost estimates.
  - 13) Interview WTP operators and evaluate distribution system operations. Recommend operational improvements to achieve reservoir turnover and other identified areas of improvement opportunity.
  - 14) Review level of service goals as established in the *2015 Water Distribution Level of Service (LOS) & Capital Reinvestment Study*
    - a) Make recommendations for future Level of Service update effort.
  - 15) Review and recommend changes to risk model (Priority Action Number/PAN) as developed in the *2015 LOS* project
    - a) Review and update large user and critical customers.
    - b) Consultant shall provide optional task with pricing to evaluate at minimum three (3) software applications to replace current PAN model. Software cost allowance shall not be included in this optional task. Consultant shall develop ranking system and recommendation for a new software application if desired by the city.
  - 16) Identify and prioritize critical valve locations for future condition assessment. The deliverable from this task will assist city with future scoping on the city's distribution valve replacement project.
  - 17) Review previous two (2) years of fire department hydrant flow tests (approximately 50) to determine potential closed/broken valves in system for further assessment. Develop guidance material for staff to efficiently perform similar task moving forward.
  - 18) Review and validate current Capital Improvement Plan water distribution projects.
    - a) Provide additional scoping recommendations (eg. proposed diameter/sizing). Key projects to evaluate are
      - i) UT-WS-22-14: S Maple (Scio Church to N of Breckinridge) Water Pressure Improvements
      - ii) UT-WS-14-04: Geddes Road (Huron Pkwy to Windycrest) Water Main Replacement

- iii) UT-WS-18-33 and UT-WS-14-16: N Main St Water Main Replacement
  - iv) UT-WS-06-08: WTP: Pressure District Improvements
  - v) UT-WS-18-05: Washington Heights/Arboretum Transmission Main Replacement
- 19) Recommend locations for permanent system pressure monitoring & district metering to allow the City to better track water usage by district and account for water loss as part of its annual water audit.
  - 20) Review and update the emergency planning operations recommendations from the *2010 - Drinking Water Distribution Master Plan/Water Model* report.
    - a) The focus of this task will be to evaluate the 2010 scenario which examined the ability to supply the distribution system with raw water from city's Steere Farm well supply.
    - b) Consultant shall engage with the City's emergency management team on this effort.
  - 21) Engage with staff to develop process for emergency boil water advisory events. Effort should include development of guidance material/tools to be used by staff for quickly identifying area of impact for notification purposes.
  - 22) Perform review of the Public Services Standard Specifications water main sizing requirements as it relates to zoning. These requirements are currently used for capital planning and private development review. Provide recommendations/alternatives to current pipe sizing methodology requirements for staff consideration.
  - 23) Review field (hydrant) static pressures vs predicted model pressures to identify discrepancies (open boundary valves, pressure reducing valve issues, etc.). Develop action plan for investigation by city field crews.
  - 24) Provide optional task for as-needed modeling support for a three (3) year period upon completion of the project. Fee schedule showing hourly rate(s) covering this 3 year period shall be provided.
  - 25) Consultant shall include in their proposal their initial engagement strategy indicating the level of engagement/information sharing they believe would be necessary for this type of project. It shall be noted, the city is not seeking to update the water distribution level of service goals as part of this project. Develop and implement a public engagement strategy in collaboration with city staff that includes at minimum:
    - a) Complete the City of Ann Arbor's Community Engagement Toolkit with city staff (minimum of 2 hours)

- b) In collaboration with the City, develop a stakeholder list of who needs to be invited to participate, who to reach with informational materials, and which methods will be used to reach them.
- c) Develop education and outreach materials (digital, print, and/or social media materials) to reach a diverse audience about the project's process, outcomes, and potential impacts (such as language for website, social media updates, presentations). This material will include, at minimum, a video to be shared on the website and social media describing the project and its conclusions and recommendations. Also provide website updates throughout the project that inform the community about the project's progress. Presentation to city council and commissions may be needed.



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

### **PROPOSAL FORMAT**

Offerors should organize Proposals into the following Sections:

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

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

#### A. Professional Qualifications – 20 points

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

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

The written proposal must include a list of specific experience in the project area and indicate proven ability in implementing similar projects for the firm **and** the individuals to be involved in the project. Experience with using InfoWater (Innovyze/Autodesk) software application shall be provided. A complete list of client references must be provided for similar projects recently completed. The list

shall include the firm/agency name, address, telephone number, project title, and contact person.

#### C. Proposed Work Plan – 40 points

A detailed work plan is to be presented which lists all tasks determined to be necessary to accomplish the work of this project. The work plan shall define resources needed for each task (title and person hours) and the firm's staff person completing the project task. In addition, the work plan shall include a time line schedule depicting the sequence and duration of tasks showing how the work will be organized and executed.

1. The work plan shall be sufficiently detailed and clear to identify the progress milestones (i.e., when project elements, measures, and deliverables are to be completed) and the extent and timing of the City personnel involvement. Additional project elements suggested by the Proposer are to be included in the work plan and identified as Proposer suggested elements.
2. The work plan must identify information the Proposer will need from City staff in order to complete the project. Include estimated time and resource commitment from City staff.
3. The work plan shall include any other information that the Proposer believes to be pertinent but not specifically asked for elsewhere.
4. Also include in the work plan proposed steps, if any, to expedite completion of the project. This will be given due consideration during evaluation of proposals.

In the scoring for this section, consultants shall be evaluated on the clarity, thoroughness, and content of their responses to the above items.

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

#### D. Fee Proposal - 20 points

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

#### E. Authorized Negotiator

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

#### F. Attachments

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

### **PROPOSAL EVALUATION**

1. The selection committee will evaluate each proposal by the above-described criteria and point system (A through C) to select a short-list of firms for further consideration. The City reserves the right to reject any proposal that it determines to be unresponsive and deficient in any of the information requested for evaluation. A proposal with all the requested information does not guarantee the proposing firm to be a candidate for an interview. The committee may contact references to verify material submitted by the offerors.
2. The committee then will schedule interviews with the selected firms if necessary. The selected firms will be given the opportunity to discuss in more detail their qualifications, past experience, proposed work plan and fee proposal.
3. The interview must include the project team members expected to complete a majority of work on the project, but no more than six members total. The interview shall consist of a presentation of up to thirty minutes (or the length provided by the committee) by the offeror, including the person who will be the project manager on this contract, followed by approximately thirty minutes of questions and answers. Audiovisual aids may be used during the oral interviews. The committee may record the oral interviews.
4. The firms interviewed will then be re-evaluated by the above criteria (A through D), and adjustments to scoring will be made as appropriate. After evaluation of the proposals, further negotiation with the selected firm may be pursued leading to the award of a contract by City Council, if suitable proposals are received.

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

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

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

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

## **PREPARATION OF PROPOSALS**

Proposals should have no plastic bindings but will not be rejected as non-responsive for being bound. Staples or binder clips are acceptable. Proposals should be printed double sided on recycled paper. Proposals should not be more than 40 sheets (80 sides), not including required attachments and resumes.

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

## **ADDENDA**

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

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

## **SECTION IV - ATTACHMENTS**

Attachment A – 2010 Drinking Water Distribution Master Plan (Executive Summary)

Attachment B - Legal Status of Offeror

Attachment C – Non-Discrimination Ordinance Declaration of Compliance Form

Attachment D – Living Wage Declaration of Compliance Form

Attachment E – Vendor Conflict of Interest Disclosure Form

Attachment F – Non-Discrimination Ordinance Poster

Attachment G – Living Wage Ordinance Poster

**ATTACHMENT A**

**2010  
DRINKING WATER DISTRIBUTION MASTER PLAN  
(EXECUTIVE SUMMARY)**

# 0.0 Executive Summary

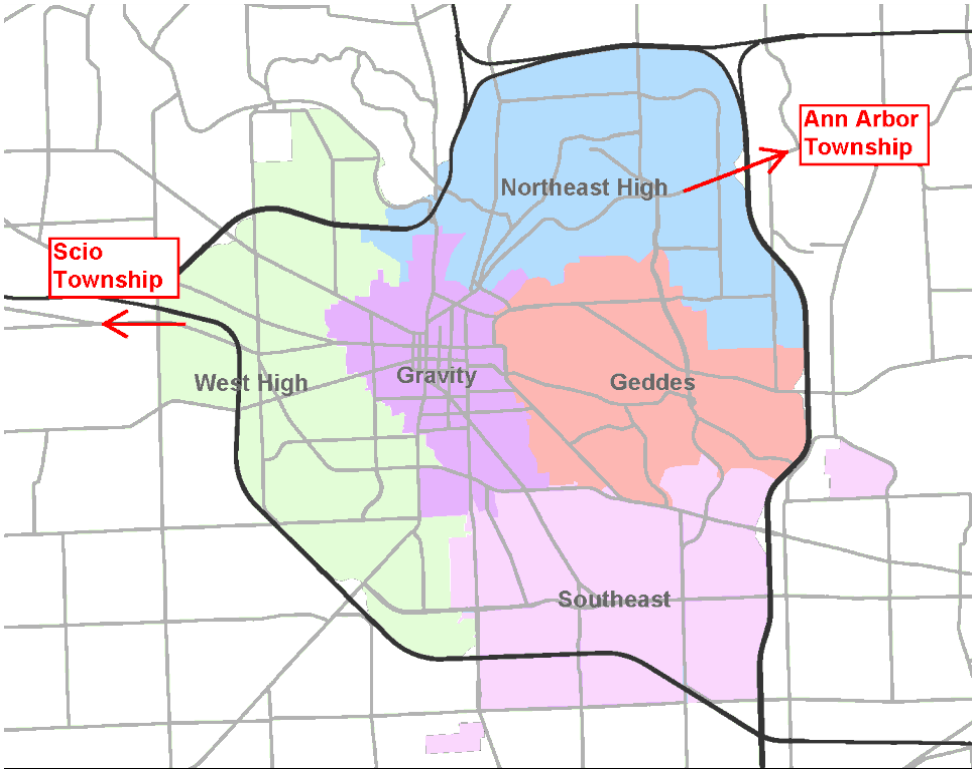
## 0.1 Introduction

This purpose of the City of Ann Arbor Distribution System Master Plan project was to evaluate the water distribution system for the City of Ann Arbor and determine if there are system deficiencies that must be addressed. The evaluation tool that was used for this was an existing hydraulic model, InfoWater. This model upgrade included the addition of new distribution system components, and a combination of field testing, customer demand data collection, and model calibration to allow a more comprehensive evaluation of current system conditions. The improved model was used for master planning, culminating in recommended distribution system improvement projects.

The model was calibrated using fire flow testing that included pressure monitoring throughout each of the pressure districts. The model implementation was enhanced through GIS (Geographical Information System) integration, water quality bypass assessment and additional detail for the connection of fire hydrants. An innovative task involved using the City’s AMR (Automatic Meter Reading) data to collect, assess, and apply detailed diurnal demand patterns for different customer types. The model recalibration and verification was performed by using comparisons to water treatment plant operational data.

The City of Ann Arbor distribution system includes a total of 5 pressure districts, as shown in Figure 0-1.

Figure 0-1: Ann Arbor Pressure Districts



Reduced pressure zones have been established in the Northeast High Service District and were incorporated into the updated model. The system also serves two wholesale customers, Scio Township and Ann Arbor Township, also shown in **Figure 0-1**. The water system currently serves 114,800 people in the City as well as 9,145 in Scio Township and 1,800 in Ann Arbor Township for a total service population of 125,800.

The updated model was used to identify and prioritize capital improvement projects that will upgrade the existing water distribution system. Immediate and future needs were addressed through the development of demand projections based on existing AMR data, predictions of population and projected land use changes over time. The model was also used to investigate and recommend future emergency connections to alternative water supply sources. A specific task analyzed the potential benefits and recommended a new elevated storage tank in the West High Service District. Finally, the model was used to develop criteria to be used in asset management and preliminary recommendations were prepared.

## 0.2 Historical Review:

Historical information from prior distribution system master plans and related reports was reviewed. Information from these reports, such as ultimate projected system demand, was used in the development of the 2010 Distribution System Master Plan. The primary purpose of this review was to gain an understanding of how the distribution system evolved to its current configuration, what projects may have previously been proposed but were never completed and provide backup for establishing demand projections.

A number of meetings were held with Ann Arbor and Scio Townships, the two major wholesale customers which receive City water, to discuss their future water use, agreements and data availability. A meeting was also held with the University of Michigan to understand their projected future water demands.

## 0.3 Model Improvements:

A number of changes were made to the distribution system model to improve its performance. This included the incorporation of additional junctions into the model, pilot testing of an alternative demand allocation methodology, tighter integration of the model with GIS, a significant improvement to the demands by customer type, as well as improved approaches to pumping controls.

One improvement provided enhanced demand distribution through the insertion of additional junctions into the model. The new junctions developed were:

- Additional nodes to represent fire hydrant locations. This provided a better understanding of elevation impacts and pressures on long water mains. The additional nodes allowed fire flow simulations to be performed using actual hydrant locations which resulted in improved insight into true fire flow capacity.
- Pipes experiencing high water age were split to provide improved simulation of water quality impacts. Splitting long pipes improved the accuracy of demand node assignments as well.

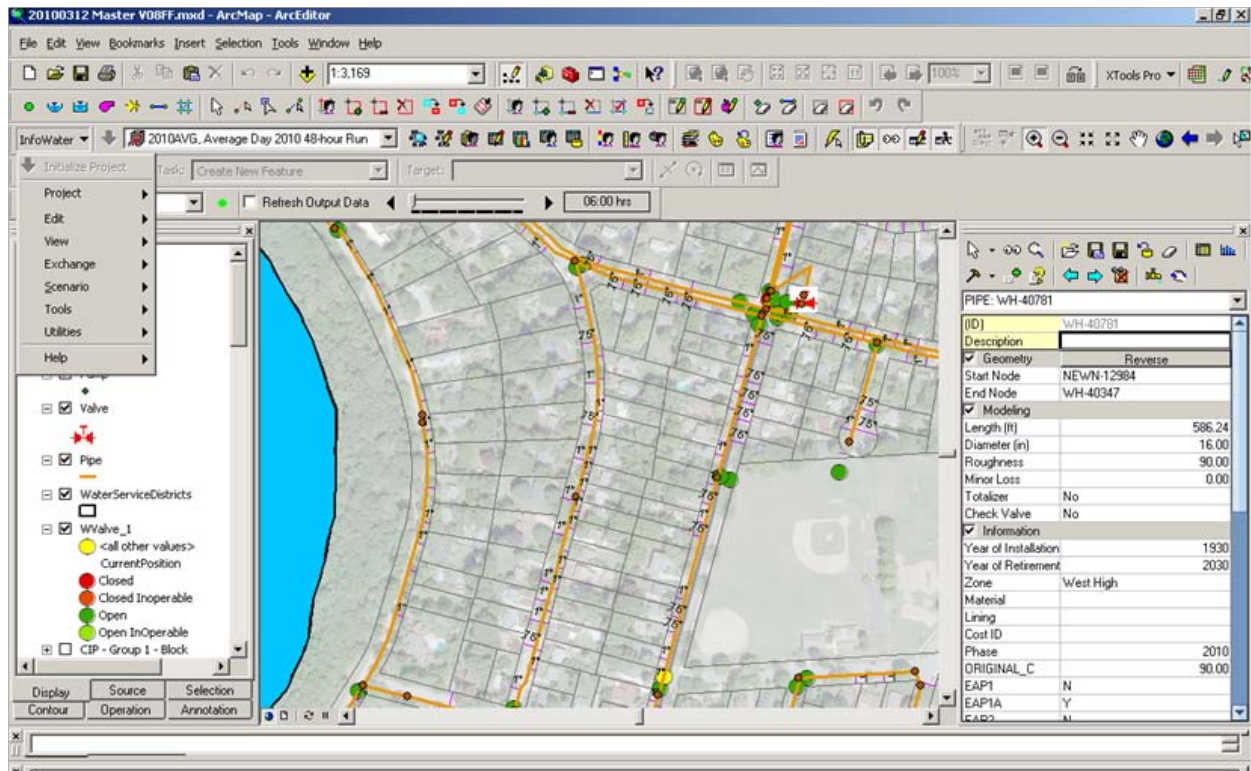


- Two demand allocation methodologies were compared in a pilot area of the city to determine if enhanced model results could be obtained by modifying the model to incorporate individual service connection demands. The “base” methodology used the location of a water service to associate each water demand point with a pipe in the hydraulic model and to proportionally weight the distribution of that demand to the two end junctions of that pipe, based on the demand location relative to the overall pipe length. The “modified” demand methodology involved the creation of new junctions in the model to represent the takeoff point for each service.
  
- Comparisons of demand distributions and model results based on the two methodologies suggest that there is, on average, similar results for water age for the two demand distribution methods for looped systems, based on the pilot area selected. However, there do appear to be potential benefits for using the more detailed methodology in single feed and/or dead-end systems, especially on the periphery of the system where water age is already high. There may also be significant benefits from the “modified” demand methodology in other modeling areas, such as pressure calculations that make use of the more defined distribution of elevation points along a pipe section and the resulting fire flow calculations. As a result of this pilot study, the model demands were placed proportionately at the two nodes at either end of the pipe that serves the individual parcel.

The GIS data were also more tightly integrated into the model framework through the use of the InfoWater software, which works as an extension to GIS. Based on this comparison, new pipes and junctions were added. New junction elevations were also incorporated. The appearance of the model connections was changed to improve accuracy and the alignment of model pipes was changed to reflect actual alignment. The software’s capability to split the location weighted assignment of demands to end nodes as described above was also implemented.

One significant benefit of this approach is the ability to more easily reflect changes in the GIS in future versions of the model as well as the ability to thematically display model output on maps. The integration of the GIS data improved the model by reflecting actual conditions, correcting inaccuracies and incorporating updates that had occurred over the past 10 years. GIS data on closed valves were also used to better define the current district pressure boundaries. An example of the modeling desktop is included in **Figure 0-2**.

Figure 0-2: InfoWater Modeling Desktop



A major modification to the model framework included the use of AMR (automatic meter reading) diurnal data collection, analysis and application in the model to provide more realistic demand patterns for a variety of customer types. Prior model versions used a standard demand diurnal pattern for all customer types.

Diurnal data were collected for a period of up to 7 months from 41 large customers, 21 small commercial establishments and 31 residential accounts. The top 200 large customers account for 39% of the total City water usage.

Outdoor watering was expected to have a significant seasonal impact so efforts were made to collect data from customers that practiced watering and from irrigation-only meters. Weekly 168-hour patterns were developed along with seasonal patterns as applicable. Annual usage information for all customers was evaluated to determine if they employed summer watering practices. The resulting customer patterns are listed in **Table 0-1**.

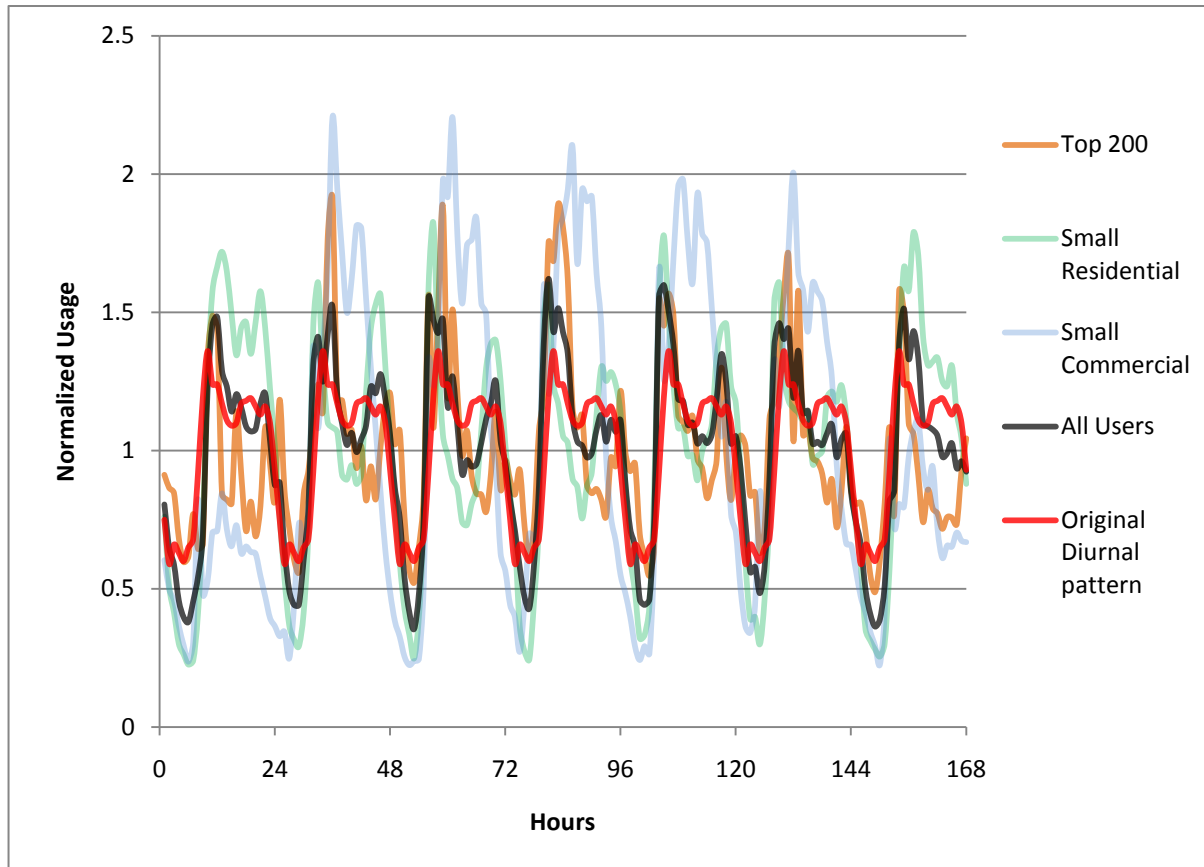
**Table 0-1: List of Diurnal Patterns Developed**

Pattern #	Group	Pattern
1	Residential	Consistent
2	Residential	Outdoor Waterer
3	Residential	Outdoor Waterer - Summer/Max
4	Small commercial	Multi-family
5	Small commercial	Office
6	Small commercial	Retail
7	Small commercial	Restaurant
8	Irrigator	Dedicated Irrigation only (generated pattern)
9	Large Users	Medical
10	Large users	Student Housing
11	Large users	Campus
12	Large user	Hotel
13	Large user	Power
14	Large user	Large user composite average
15	Large user	Small commercial composite average
16	Large user	Assisted Living
17	Scio - Jackson Road, Rhea Road	Scio composite developed
18	Scio - Walnut Ridge	Scio composite developed - Summer/Max
	Large user, secondary meter	Primary meter
Axxxxxxx	Large users - individual pattern	37 individual pattern (xxxxxxx as account number)
UNIFORM	Unbilled Water	Uniform pattern for unbilled water

These diurnal usage patterns were applied to non-sampled customers based on seasonal usage (residential), annual usage (large customers), and/or assessor database designation (small commercial). In general, the application of these patterns in the model resulted in larger daily peaks and lower daily minimums when compared to the standard pattern previously employed in the model. Low night time use, peak morning use and lower evening peaks were also observed. This improved demand approach yielded a better understanding of local conveyance requirements throughout the distribution system.

The composite system demand is presented in **Figure 0-3**. This figure presents the distribution of the diurnal demands to each of the different customer types included in the model.

Figure 0-3: Composite Demand Pattern



The demands at individual nodes in the distribution system model were redeveloped using both the Cogsdale customer billing system data and the STAR/Hexagram AMR data for the remaining customers. These demands were used to redevelop base demands under existing conditions. The model settings were adjusted for all facilities including pump stations, valves, elevated tanks and pumps. Minor modifications to pump curves were incorporated into the distribution system model to better reflect recently tested pump performance. The result of these approaches was to develop a very detailed and robust model to analyze a variety of current and projected conditions.

The model performance was also compared to available SCADA data. This analysis showed that there were some issues with SCADA data collection which limited this comparison. However, the model upgrades that were implemented demonstrated improved model performance and greater comparability to both field testing and the available SCADA information. The ability to provide a more detailed and reliable model is critical for both short term and long term planning for the City of Ann Arbor water distribution system.

#### 0.4 Calibration:

The model was calibrated using the collected information from the fire flow testing and the field investigations. By stressing the water distribution system with relatively high flows in areas of

concern and collecting pressure readings from strategic locations, the model performance was assessed and modified based on the testing results.

For fire flow analysis, three to five locations were tested in each pressure district while simultaneously recording pressures on the primary conveyance water mains. Based on these fire flow tests, it was concluded that:

- Most areas of the distribution system the system are well gridded and high flows can be supplied by the system through multiple flow pathways.
- System storage is well situated around the distribution system.
- A few low pressure or low flow (old water) areas were identified during this review and testing process.
- The GIS was not always consistent with the model configuration and/or the field configuration.
- Additional pressure monitoring was performed in the distribution system. Four classes of locations were monitored:
  - Wholesale Customer Feed Point to confirm boundary conditions.
  - Pressure Recording Station to calibrate pressure loggers.
  - Motorized Control Valve to quantify flow and losses.
  - Water Quality Bypasses to quantify flow and losses. Water quality bypasses are connections added between pressure district boundaries to reduce high water age by improving flow.

The pressure monitoring provided good correlations with the SCADA data. The list of pressure monitoring stations and comparisons were:

- Southeast High Pressure District – Charing Cross Location: This location exhibited a very good correlation between SCADA and field monitored data for both pressure and pattern.
- West High Pressure District – Jackson & Burwood Location: This location had a very good correlation in pattern, but the SCADA point was consistently 2-3 psi higher than the field recorded value.
- West High Pressure District – Maple & Pauline Location: This location had one of the poorer correlations between the SCADA and the field recording, with the SCADA

consistently recording several psi higher than the field recording device. Patterns were similar most of the time but occasional divergences were observed.

- Northeast High Pressure District – Green Road Location: This location had the lowest correlation, with the SCADA monitor typically 4-5 psi lower than the field recording device. The Green Road SCADA monitor did not correlate with fixed field recorders during calibration either. Patterns were similar most of the time but occasional divergences were observed.
- Geddes Pressure District – Geddes Hill Location: This monitor correlated very well with field recorded data collected both on pattern and actual pressure recorded.

Most discrepancies were minor and corrections were not necessary. The largest discrepancy occurred at Green Road. In this case, the model and the field data recorded agreed. Therefore, the model was not modified per the SCADA data.

Water Quality bypass testing was performed to assess actual flow rates at these locations. Water quality bypasses are connections added between pressure district boundaries to reduce high water age by improving flow at a boundary valve. Bypasses are located at Brockman Boulevard & E. Stadium Boulevard and at Sheridan Drive & Washtenaw Avenue. These bypasses were installed in 1999 to reduce rusty water complaints in the southern portions of the Geddes zone. At the Brockman Boulevard & E. Stadium Boulevard location, the model suggests that each bypass carries a flow of approximately 175 gpm on average from the Geddes pressure district into the Southeast High pressure district.

At the Sheridan Drive & Washtenaw Avenue bypass one bypass is projected to carry about 275 gpm and the other about 175 gpm. There is a good correlation between the model predicted pressures on each side of these bypasses and the monitored pressures that were observed. Flow from the Geddes pressure district passes into the Southeast High pressure district.

The reduction in water age that results from the open bypasses was examined. This analysis showed that the number of bypass locations could be reduced to one bypass valve at each location and still maintain the water quality benefit in the Geddes pressure district. This change would reduce the energy costs of using multiple bypass valves.

There are a number of control valves that are used to pass flows from up-gradient pressure districts to down-gradient pressure districts. This project also included monitoring to better understand the behavior of these control valves and to assess whether the operation of these valves could be optimized.

The Eisenhower valve was monitored to help determine the typical valve setting (percent open) that is used when the valve is operated in the field. This valve is an electronically operated valve that is partially opened to allow water to flow through into the Southeast High pressure district, to help prevent over-pressurizing the West High District. The valve was configured in the 2000 master plan model to operate as a throttled control valve. Based on review of the data collected during this testing and the comparison to model results, it was determined that an open status value of about 10 percent best represents the typical operating range for this valve.

The Huron Parkway valve is typically left in the closed to partially closed position. From monitoring, the pressure on the Northeast High Service side of the system was shown to be consistently higher than the Geddes side, although the difference is lower at night than in the day time. This trend was also present in the SCADA data reviewed for the same time period. Under average flow conditions, a constant north to south flow ranging from 100 gpm to a peak of 225 gpm was predicted through the valve. If the valve were completely open, the model predicts a continuous north to south flow ranging from 400 gpm to 1,600 gpm.

The Sunset valve is typically left in an open position. The valve was originally installed to restrict flow to the Southeast High Service District, which included Geddes, so that the North Campus reservoir could be filled overnight. After a new large transmission main to the North Campus area was installed, this valve was left full in the open position. Monitoring of the hydrants near the valve confirmed that the valve is most likely completely open. The model simulation compared very well to field data and projected an average flow of about 3,000 gpm through this valve.

The conclusions and recommendations from the bypass analysis are as follows:

- Continue Field Monitoring – The field monitoring approach was found to be extremely useful for verifying the pressures in the system and to confirm the operating modes for valves and bypasses in the system.
- SCADA information Confirmed – Most of the SCADA pressure monitoring points were found to be functioning accurately. In addition, most pressure patterns observed by both field monitoring and SCADA matched quite well. It is recommended that a review of the SCADA data for the Green Road and Maple & Pauline locations be performed to determine whether the conversion from raw data to reported pressure is being performed properly.
- Eisenhower Valve Operation Confirmed – Based on the analysis of the Eisenhower valve, it appears that the valve is generally opened about 10 percent during routine operations.
- Reduce Number of Bypasses – Based on the analysis and water age calculations from the distribution system, the number of bypasses opened at both the Brockman Boulevard and Sheridan Drive locations could be reduced to one bypass at each location and still maintain the water quality benefit in the neighboring areas of the Geddes pressure district.

The data collected and the improvements implemented were used to calibrate the hydraulic model. The calibration process included a review of the connections between the pressure districts and the change in pressure within each pressure district for different demand conditions. This work resulted in the adjustment of C-values in some conditions to better match the recorded pressures and model predicted pressures.

From the calibration exercise, the following conclusions and recommendations are provided:

- Gravity District: Pressure monitoring suggested that pipe C-values should be increased to represent less friction in the major water lines, which have the highest velocities. In addition, two open connections and several inadvertently closed valves were identified, but results suggest that there may still be additional closed valves in this system. It was recommended that the Nob Hill area be moved to West High Service as there were low pressures observed in this area. Since this recommendation, the City has decided to pursue an alternate approach consisting of improving the transmission capability from the Gravity District to Nob Hill.
- Geddes District: Pressure monitoring suggested that pipe C-values should be increased to represent less friction in the major water lines, which have the highest velocities. Fire flow testing indicated that the fire flow at Tappan School is not satisfactory.
- Northeast High District: This system is very robust with low pressure drops were observed during all fire flow tests. However SCADA pressure points differ from those measured during fire flow testing.
- West High District: This district and the model are very sensitive to open connections. It was determined that the pipe C-values were valid.
- Southeast High District: Minimal head loss was observed in this district with good calibration results overall.

## 0.5 Demand Projections:

To determine short-term and long-term needs of Ann Arbor's water distribution system, water demand projections were developed for current (2010), intermediate (2020) and long range (2035) planning periods. Past demand projections were reviewed and updated. Current population data from SEMCOG (Southeast Michigan Council of Governments) indicated that population growth for the City of Ann Arbor will not reach prior projections but rather remains fairly flat.

The population is predicted to increase from 114,721 in 2008 to 115,218 in 2035; an increase of 0.4%. Employment projections prepared by SEMCOG suggest an increase from 124,511 in 2008 to 142,064 in 2035; an increase of 14%. The employment increases have been predicted largely due to growth at the University of Michigan and related facilities. Increasing density in the downtown area is predicted thus shifting the water use demands between pressure districts. Projections also incorporated the development of vacant property. It was assumed that Ann Arbor and Scio Townships would not increase their water demands beyond the limits in the current agreements (1.5 MGD and 4.4 MGD, respectively). It was also assumed that the former Pfizer property, now owned by the University of Michigan, will eventually consume water similar to the historic use of 1 MGD.

The analysis also suggests that water demands on a per capita basis are decreasing. The water treatment plant production has also been steadily declining over the past seven years. This pattern has been observed at water utilities throughout the United States. Therefore the water



demand projections are lower than indicated in previous analyses. Water System Demand Projections are provided in **Table 0-2**.

**Table 0-2: Water Demand Projections**

	2010	2020	2035
Average Day (MGD)	14.8	15.1	15.5
Max Day (MGD)	31.2	32.0	32.7
Max Hour (MGD)	51.4	52.3	53.4

The projected demands through 2035 can be met with the existing City of Ann Arbor water treatment facilities and distribution system. Demand projections are lower than previously projected, likely due to changes in water use driven by a variety of factors that include changes in the rate structure, changes in precipitation, and increasing use of water efficient appliances and fixtures. The maximum day demand in 2035 is projected to be 32.7 MGD with a max hour of 53.4 MGD. Average day projection is 15.5 MGD.

The unbilled water in the City is estimated to be 7 %. This amount of unbilled water is low compared to many other similar utilities, and therefore it is unlikely that there are cost effective options to further reduce this unbilled water.

## **0.6 West High Service District:**

The addition of a new elevated storage tank on the West High Pressure District was assessed. Addition of an elevated tank has many advantages including more consistent pressure regulation throughout the district, protection against loss of system pressure during water main breaks and avoidance of expansion of the Liberty Reservoir. The pressure in this district is currently supplied by high service pumps and from pumping at the Liberty Reservoir. Since this is a closed system, pressure fluctuations are routine, pumping costs are significant and main breaks are more likely to take place. The system is also sensitive to the fill cycle operation at the Scio Township elevated storage tank.

Based on this analysis, it is recommended that a 1.0 MG capacity elevated storage tank be located at or near the Liberty Road Pump Station. Based on the modeling work performed, the 1.0 MG capacity would provide a consistent hydraulic grade line throughout the pressure district, and be adequate to meet WHS district demands during refill of Scio’s tank. A 1.0 MG elevated storage tank appears to be the best balance between controlling pressure fluctuations and water age while still supplying sufficient capacity.

However, the recommended tank elevation should exceed both the previously recommended 1,090 feet and the installed elevation of 1,100 feet provided by the Plymouth Road elevated tank. This analysis demonstrates that the system curve at the WTP (Water Treatment Plant) for the West High Service District is sufficiently different from the East High Service District so that common operation is not recommended under normal conditions. The fire flow and pressure analysis conducted suggest that a tank operating at a higher hydraulic grade line would provide increased service to customers at the higher elevations in the West High Service District. Therefore, a tank overflow elevation of 1,120 feet is recommended so that minimum

pressures of at least 40 psi are provided throughout the West High Service District under the range of expected demand conditions

Critical areas for low pressure are in the area of Maple Road and Pauline Boulevard, particularly under maximum demand and fire flow conditions. The analysis demonstrated that the East High Service and West High Service pump curves are sufficiently different and therefore common operation is not recommended under normal conditions. Matching the hydraulic grade lines in the two districts does not provide a pumping benefit.

With the installation of a new elevated storage tank, water age will increase and should be managed to minimize that increase. This can be done by reducing the amount of time that water is stored in the Liberty Road reservoir by increasing reservoir level fluctuation or designing for flow through the tank under low flow conditions.

Fire flow needs can be met in the West High Service District with the recommended elevated tank and with fire flows that typically exceed 1,000 gpm. A few older 6-inch diameter lines may need replacement to meet fire flow requirements. Some areas may also experience high pressures, above 100 psi, during normal operations. Portions of the southeast area of the district near Briarwood are likely to be impacted by high pressures affecting approximately 43 parcels. This could be controlled through development of a reduced pressure district.

## **0.7 Emergency Operations:**

In the event that the WTP is completely out of service, the City wanted to investigate several scenarios to provide an alternate source of potable water supply. These scenarios included connection of the Steere Farm groundwater supply to three potential connection points in the distribution system. Other scenarios examined a potential connection to wholesale supplies that included Pittsfield Township, Superior Township and the Village of Barton Hills. All of these are potable supplies have different water chemistry compared with the typical City water, a situation that would need to be addressed if these alternatives are implemented. In addition, the ability to connect to the Huron River water supply at the Barton pump station was discussed.

Of these scenarios, four were modeled to determine what areas of the distribution system could be supplied: three groundwater scenarios plus the Pittsfield connection at Packard and Carpenter. Model analyses included both normal customer usage demands as well as a 50% reduced usage assumed under emergency conditions. From the modeled scenarios, the ability to supply water at sufficient pressure to critical customers was identified. These critical customers include the University of Michigan Hospital, the VA Hospital, and the high schools (emergency evacuation centers).

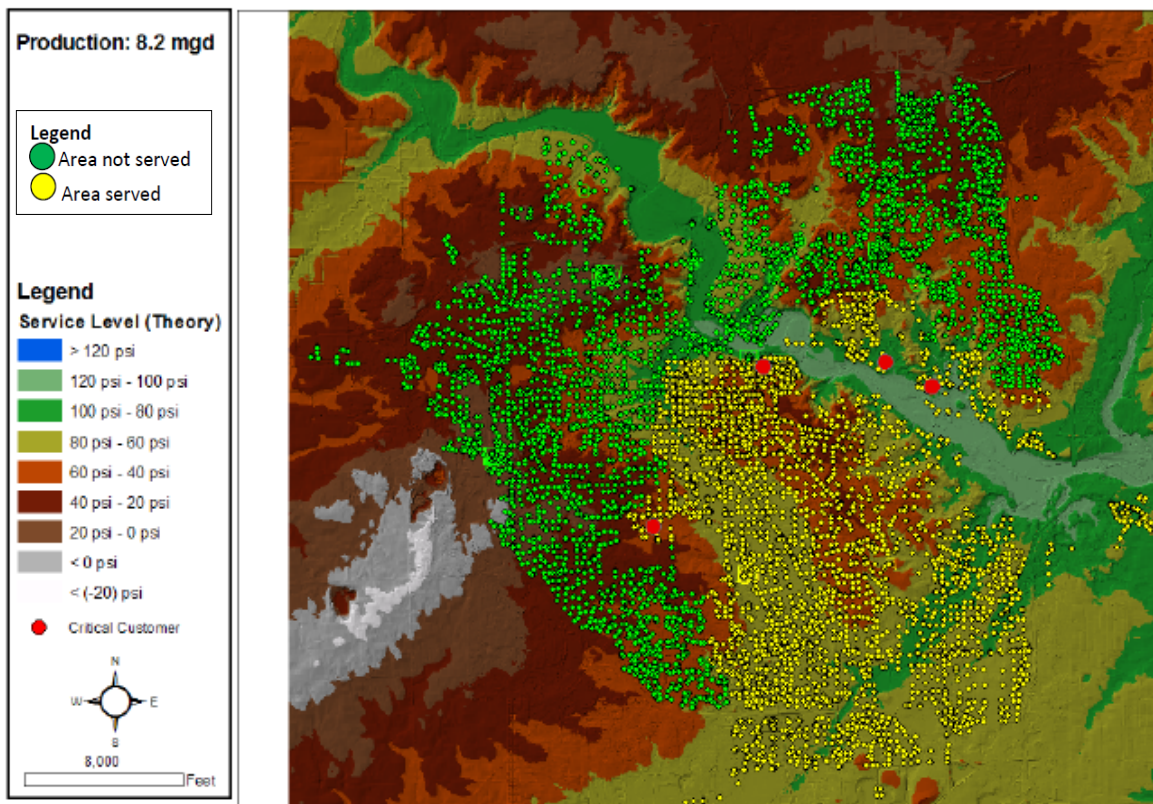
The largest amount of water could be supplied through the Steere Farm well water connection at State Street and Research Park Drive. The Steere Farm wells are capable of producing up to 10 MGD. Most of the City could be supplied with exceptions along the northern and western edges of the City. Similar water distribution could be achieved for the other well water connections. However, the amount of water was more limited due to head loss and elevation changes as the distance from the wells increased. With the groundwater connections at State &

Stimson or Crest & Bemidji, water use restrictions are more important in order to maximize coverage for the City.

Of the critical customers, water could be delivered to Huron High School, Pioneer High School and the University of Michigan Hospital under all conditions. It is possible to provide water to the VA hospital but this requires valving changes. Skyline High School cannot be supplied under any of these scenarios.

**Figure 0-4** shows an example of the area that can be served using the groundwater supply. This figure shows the area that can be served (nodes shown in yellow) and those portions of the rest of the distribution system that could not be served (nodes shown in green). The red dots represent the locations of the four critical facilities identified that could be served (Skyline High School could not be served). The figure also shows ground elevations shaded throughout the city using pressure.

**Figure 0-4. Example of Area Potentially Served by Groundwater Supply**



The connection to Pittsfield Township at Carpenter and Packard is not practical due to the low volume of water that can be provided by Pittsfield and the low elevations/pressures limiting distribution of that water unless a new pump station were provided. The connection to Pittsfield at Stone School and Ellsworth was predicted to behave very similarly to the connection of Groundwater at Research Park and State Street. Therefore this connection was

not modeled but it was determined that this would be a more practical approach if connection to a township was desired. This township connection would provide some limited benefit to the Southeast High Service district and potentially benefit to Pittsfield Township if the City were supplying Pittsfield.

Direct use of Huron River water either via distribution from the Water Treatment Plant or connection to the West High Service District at Barton Pump Station would be a last resort alternative. This approach would provide non-potable water for sanitary and fire protection purposes only. It would not be compliant with regulations and would present a health risk if customers consumed this water. Due to the risks involved, this scenario is discussed, but further investigation was not performed.

In addition to these scenarios, a single fire flow simulation was performed. The fire flow assumed that the fire was located at a critical customer, the University of Michigan Hospital, with a fire flow of 3,500 gpm for 4 hours. The water supply was limited to Steere Farm with connection to the Gravity district at Crest Street and Bemidji Street. The critical customer could be supplied during this scenario, but it was necessary to have South Industrial tank available to provide a sufficient supply.

A list of valves needed for feeding water into the distribution system and routing to critical customers was developed for the three modeled groundwater connection scenarios.

## **0.8 CIP Recommendations:**

The final task included in the master plan was to develop a supportable and effective plan for capital improvement projects (CIP) to maintain and enhance the distribution system. Using the calibrated model combined with water demand projections, the behavior and adequacy of the distribution system can be predicted over time.

The following planning periods were identified:

- Immediate 2010 to 2015 (5-year)
- Long term (24 year)

The 5-year CIP was prepared with detailed individual projects that include a description, schedule and cost for each recommendation. For the long term projects, the focus was on asset management

Evaluation criteria for identifying capital projects included:

- Acceptable pressures, both high (100 psi), low (40 psi), and minimum fire flow (20 psi). Pressures were typically acceptable throughout the distribution system.
- Sufficient distribution system storage capacity per MDNRE (Michigan Department of Natural Resources and the Environment) requirements of 33% of maximum day per

pressure district. Existing storage capacity was determined to be acceptable. The addition of the West High Service elevated tank is driven by factors other than capacity.

- Water quality and water age: No projects were identified based on this criterion as the City was already actively addressing these issues.
- Emergency operations planning (discussed above).
- West High Service District improvements (discussed above).
- Prior master plan or sanitary survey identified projects that had not been implemented but were verified as beneficial.

Based on the results of this evaluation, a total of three projects were identified with a combined planning level cost of \$1,490,000 over five years. Project costs were prepared using the City Project Costing Tool. Projects were ranked as urgent, important or desirable using the City's standard approach. These projects were prioritized and scheduled to manage rate increases while incorporating the current CIP plans (**Table 0-3**). The impact of these recommended projects on customer water rates will be minimal and is estimated at 0.2% in 2015.

**Table 0-3: Recommended Projects, Planning Level Costs and Schedule**

Year	Existing CIP	Project	Project Description	Project Ranking	New Projects Planning cost	Total Annual Budget
2011	\$2,108,000				\$0	\$2,108,000
2012	\$5,070,000				\$0	\$5,070,000
2013	\$3,650,000	WHS elevated tank	Incremental increase in cost for additional 0.5 MG capacity with option for up to 4 PRVs	Urgent	\$700,000	\$4,350,000
2014	\$2,095,000				\$0	\$2,095,000
2015	2,400,000	Fire flow PRVs	3 new PRV connections along Gravity boundary with WHS and Geddes to enhance fire flow	Important	\$470,000	\$3,190,000
		Water Main Replacement	Replace 6" with 8" on Ross & Duncan between Miller & Sunrise	Important	\$320,000	
<b>Total</b>	<b>\$15,323,000</b>				<b>\$1,490,000</b>	<b>\$16,813,000</b>

## 0.9 Asset Management Recommendations

The replacement of aging infrastructure is a national problem facing water utilities, including Ann Arbor. A preliminary evaluation of asset management was performed based on the following criteria:

- Areas that do not meet the hydraulic level of service: Based on fire flow analysis, a list of hydrants was developed that may not meet desired fire flow rates. These hydrants should be tested to verify actual fire flow availability.
- Fire hydrant spacing: Older areas of the City may not meet current desired fire hydrant spacing. These areas were identified. During water main construction in these areas, increased fire hydrant density should be included in these designs.
- Pipe age: Infrastructure sustainability is an important aspect of capital planning. Pipe replacement of 5 miles per year was set as a goal. This goal was established based on expected life and retirement ages for different pipe types (see Figures 0-5 and 0-6). In **Figure 0-5**, the predicted age of retirement is shown in blue. This line can be compared to annual replacement rates of 4.6 miles per year and 6.0 miles per year.
- Road or sewer construction: Infrastructure replacement that coincides with road renewal projects or sewer construction may be economically advantageous through opportunities for shared construction costs. It was recommended that the condition of these water mains be assessed to determine if remaining actual service life prior to potential road or sewer project implementation.
- System valves: A list of 26 inoperable key valves was provided by the City (see Section 7). A replacement program was developed to provide for annual replacement of these valves at a cost of \$32,000 annually from 2011 to 2015.

Figure 0-5: Recommended Water Main Replacement Rate Analysis

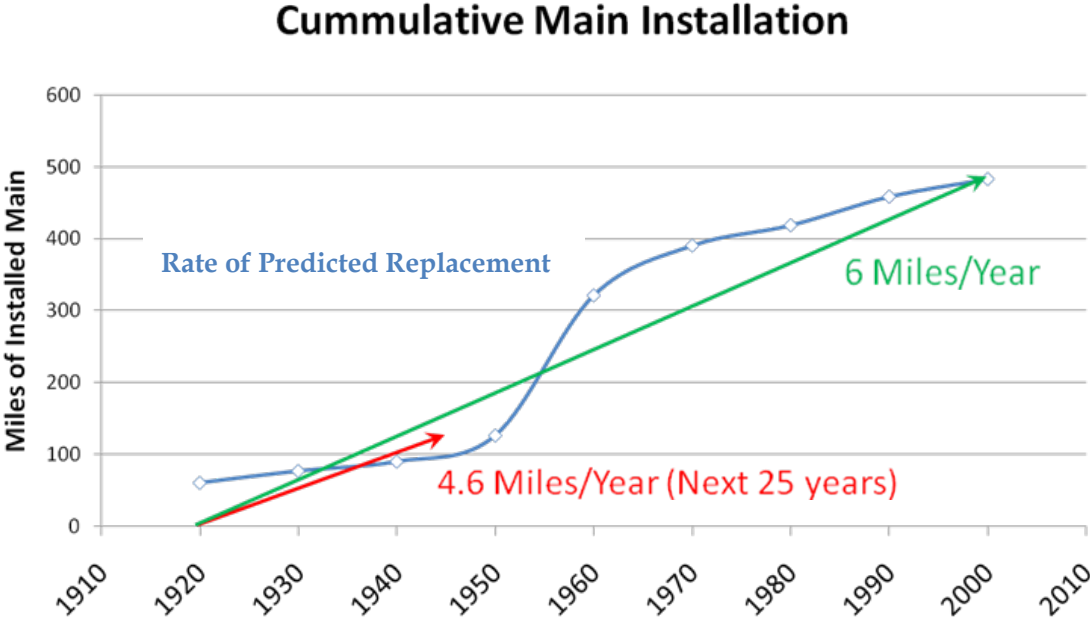
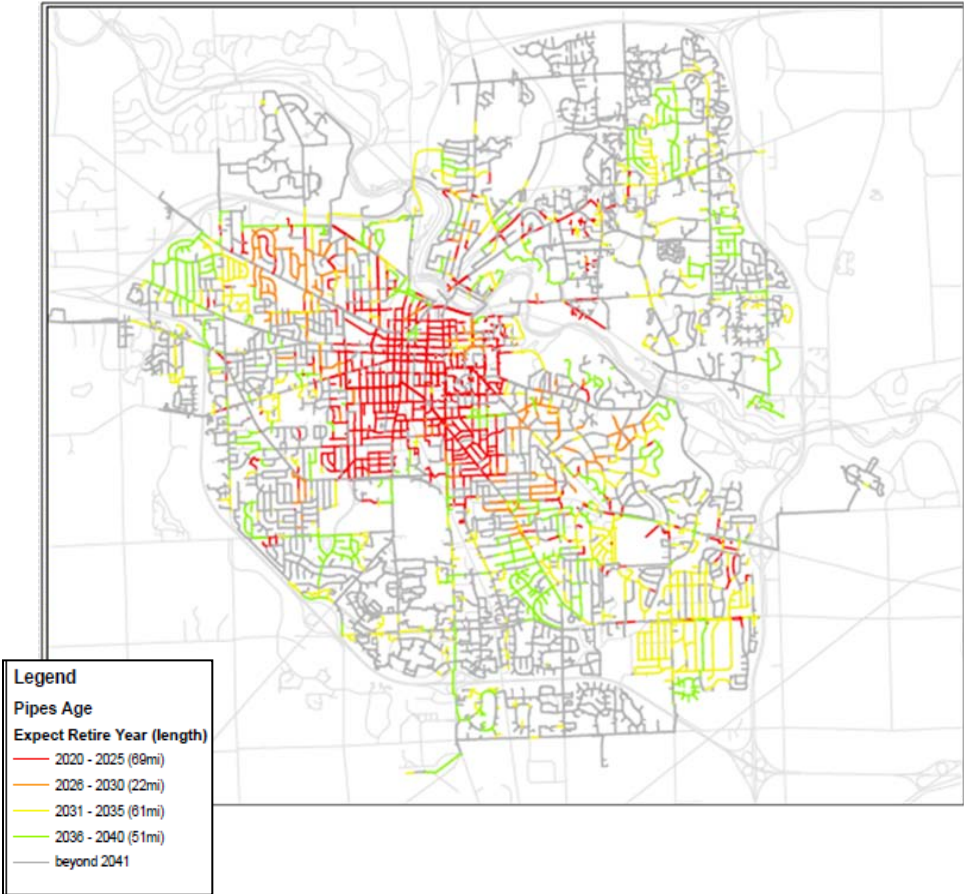


Figure 0-6: Map of Pipe Age due for Replacement (2020-2040)





Based on the recommended replacement rate for infrastructure renewal, a capital investment of \$7,500,000 annually was recommended.

## **0.10 Public Engagement**

Public engagement focused on both internal communications with staff and external communications with the public and City Council. Project awareness, education and feedback were provided in order to inform City customers on project scope, progress and final recommendations. Web site information, a fact sheet, and presentations were prepared.

## **0.11 Individual Report Section**

The following sections of this report are based on the individual technical memoranda delivered throughout the course of the project.

**ATTACHMENT B  
LEGAL STATUS OF OFFEROR**

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

The Respondent is:

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

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

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

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

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

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

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

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

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

Email \_\_\_\_\_

**ATTACHMENT C  
CITY OF ANN ARBOR DECLARATION OF COMPLIANCE**

**Non-Discrimination Ordinance**

The "non discrimination by city contractors" provision of the City of Ann Arbor Non-Discrimination Ordinance (Ann Arbor City Code Chapter 112, Section 9:158) requires all contractors proposing to do business with the City to treat employees in a manner which provides equal employment opportunity and does not discriminate against any of their employees, any City employee working with them, or any applicant for employment on the basis 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. It also requires that the contractors include a similar provision in all subcontracts that they execute for City work or programs.

In addition the City Non-Discrimination Ordinance requires that all contractors proposing to do business with the City of Ann Arbor must satisfy the contract compliance administrative policy adopted by the City Administrator. A copy of that policy may be obtained from the Purchasing Manager

The Contractor agrees:

- (a) To comply with the terms of the City of Ann Arbor's Non-Discrimination Ordinance and contract compliance administrative policy.
- (b) To post the City of Ann Arbor's Non-Discrimination Ordinance Notice in every work place or other location in which employees or other persons are contracted to provide services under a contract with the City.
- (c) To provide documentation within the specified time frame in connection with any workforce verification, compliance review or complaint investigation.
- (d) To permit access to employees and work sites to City representatives for the purposes of monitoring compliance, or investigating complaints of non-compliance.

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 in accordance with the terms of the Ann Arbor Non-Discrimination Ordinance. The undersigned certifies that he/she has read and is familiar with the terms of the Non-Discrimination Ordinance, obligates the Contractor 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.

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

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

\_\_\_\_\_  
Date

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

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

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

**Questions about the Notice or the City Administrative Policy, Please contact:**

Procurement Office of the City of Ann Arbor  
(734) 794-6500

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

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

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

The Contractor or Grantee agrees:

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

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

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

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

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

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

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

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

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

\_\_\_\_\_  
Date

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

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

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



**ATTACHMENT E**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ATTACHMENT G

CITY OF ANN ARBOR LIVING WAGE ORDINANCE

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

**\$15.90 per hour**

If the employer provides health care benefits\*

**\$17.73 per hour**

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

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

**ENFORCEMENT**

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

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

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

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

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

## APPENDIX A - SAMPLE CONTRACT

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

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

#### 1. DEFINITIONS

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

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

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

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

**Project** means [TBD].

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

#### 2. DURATION

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

#### 3. SERVICES

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



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

**4. INDEPENDENT CONTRACTOR**

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

**5. COMPENSATION OF CONTRACTOR**

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

**6. INSURANCE/INDEMNIFICATION**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## **10. ASSIGNMENT**

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

## **11. TERMINATION OF AGREEMENT**

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

## **12. REMEDIES**

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

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

- C. Absent a written waiver, no act, failure, or delay by a party to pursue or enforce any right or remedy under this Agreement shall constitute a waiver of that right with regard to any existing or subsequent breach of this Agreement. No waiver of any term, condition, or provision of this Agreement, whether by conduct or otherwise, shall be deemed or construed as a continuing waiver of any term, condition, or provision of this Agreement. No waiver by either party shall subsequently affect the waiving party's right to require strict performance of this Agreement.

### **13. NOTICE**

All notices and submissions required under this Agreement shall be delivered to the respective party in the manner described herein to the address stated below or such other address as either party may designate by prior written notice to the other. Notices given under this Agreement shall be in writing and shall be personally delivered, sent by next day express delivery service, certified mail, or first class U.S. mail postage prepaid, and addressed to the person listed below. Notice will be deemed given on the date when one of the following first occur: (1) the date of actual receipt; (2) the next business day when notice is sent next day express delivery service or personal delivery; or (3) three days after mailing first class or certified U.S. mail.

If Notice is sent to Contractor:

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

If Notice is sent to the City:

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

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

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

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

and waive any claim of non-convenience.

## **15. OWNERSHIP OF DOCUMENTS**

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

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

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

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

## **17. SEVERABILITY OF PROVISIONS**

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

## **18. EXTENT OF AGREEMENT**

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

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

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

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

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

SAMPLE



[TBD]

**CITY OF ANN ARBOR**

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

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

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

Name: Milton Dohoney Jr.

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

Title: City Administrator

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

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

**Approved as to substance:**

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

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

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

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

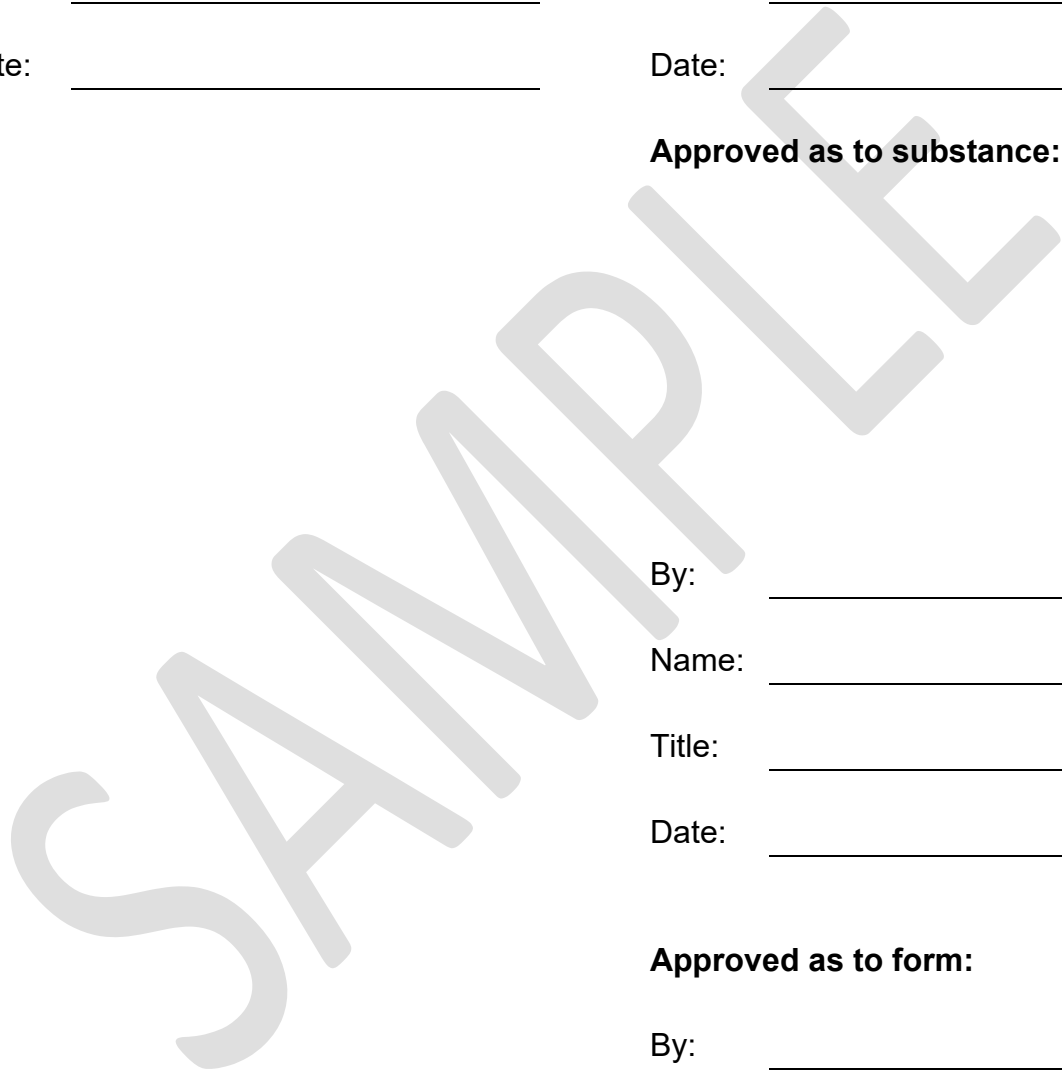
**Approved as to form:**

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

Name: Atleen Kaur

Title: City Attorney

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



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

**EXHIBIT B**  
**Compensation**