



## EXHIBIT A

### WORK ORDER NO. 11

#### CITY OF BAY CITY

#### **5th Street Waterline Assessment Preliminary Engineering Phase Services Project No. W09-2302644**

This WORK ORDER (“Work Order”) is made by and between the **City of Bay City** (hereinafter referred to as “Owner”) and **Garver, LLC**, (hereinafter referred to as “Garver”) in accordance with the provisions of the MASTER AGREEMENT FOR PROFESSIONAL SERVICES executed on October 27, 2020 (the “Agreement”).

Under this Work Order, the Owner intends to assess the 5<sup>th</sup> Street waterline to identify the rehabilitation required to reduce water loss and pipe failures.

Generally, the scope of services includes historical data review, structural condition assessment, and leak detection assessment for the existing 12-inch ductile iron water line along 5th Street within the City from Avenue G to Norvell Avenue. Garver will conduct a holistic review of the historical and field investigation data towards developing rehabilitation recommendations to mitigate water loss and repair structural degradation. The final Water Line Condition Assessment Report will document inspection methodology, results, estimated construction cost, and recommendations for rehabilitating sections of the existing 12-inch ductile iron water line along 5th Street.

Garver will provide professional services as described herein. Terms not defined herein shall have the meaning assigned to them in the Agreement.

#### **1. SCOPE OF SERVICES**

1.1. Refer to APPENDIX A – SCOPE OF SERVICES.

#### **2. PAYMENT**

2.1. The lump sum amount to be paid under this Agreement is \$198,195.00. The total amount under this Agreement is \$198,195.00. For informational purposes, a breakdown of Garver’s estimated costs is included in APPENDIX B – FEE SUMMARY.

#### **3. APPENDICES**

3.1. The following Appendices are attached to and made a part of this Work Order:  
Appendix A – Scope of Services  
Appendix B – Fee Summary



This Work Order may be executed in two (2) or more counterparts each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

The effective date of this Work Order shall be the last date written below.

CITY OF BAY CITY

GARVER, LLC

By: \_\_\_\_\_  
*Signature*

By: \_\_\_\_\_  
*Signature*

Name: \_\_\_\_\_  
*Printed Name*

Name: Daniel N. Olson, P.E.  
*Printed Name*

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

Title: Vice President

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

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

Attest: \_\_\_\_\_

Attest: \_\_\_\_\_

# Appendix A

## SCOPE OF SERVICES

### CITY OF BAY CITY, TEXAS 5th Street Water Line Assessment Preliminary Engineering and Assessment Services

#### I. Background

Generally, the scope of services includes historical data review, structural condition assessment, and leak detection assessment for the existing 12-inch ductile iron water line along 5<sup>th</sup> Street within the City of Bay City from Avenue G to Norvell Avenue. Garver will conduct a holistic review of the historical and field investigation data towards developing rehabilitation recommendations to mitigate water loss and repair structural degradation. The final Water Line Condition Assessment Report will document inspection methodology, results, estimated construction cost, and recommendations for rehabilitating sections of the existing 12-inch ductile iron water line along 5<sup>th</sup> Street.

#### II. Scope of Work

The following scope of work describes the services to be provided.

##### A. Task I – Project Administration

1. Project Kickoff Meeting: Garver will conduct a project kickoff meeting with the City of Bay City (City) and other project stakeholders, as applicable. The purpose of the meeting will be to discuss the project approach, schedule, data needs, and confirm project goals.
2. Project Management Plan (PMP) and Quality Control Plan (QCP): Garver will develop and submit for approval a PMP and QCP that will describe the project organizational chart, communication protocols, document management, quality control procedures, and other technical and administrative aspects of the project management.
3. Project Schedule: Garver will develop and maintain a project schedule that shall be used and periodically updated throughout the project for reporting progress to City. The project schedule shall be updated at least monthly to reflect current progress and status of ongoing tasks.
4. Project Coordination: Garver will coordinate the field activities of Garver personnel, subconsultants, and inform the City of any assistance needed from City staff. All site access permissions will be coordinated with City in advance. Garver will coordinate the work of all subconsultants throughout the project.
5. Progress Meetings: Garver will facilitate bi-monthly progress meetings to update City on activities in the prior period, results of investigations, upcoming activities, and any issues that may impact the schedule or budget. Garver will prepare and distribute meeting minutes after each progress meeting. This scope includes up to 3 progress meetings during the project.
6. Monthly Invoicing: Garver will prepare and submit monthly invoices to City, which shall include a progress report and updated project schedule.

##### B. Task II – Historical Data Review

1. Desktop Analysis: Garver will compile historical data (as available) for the existing 12-inch ductile iron water line alignment along 5<sup>th</sup> Street from Avenue G to Norvell Avenue. The

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following items are identified for inclusion in the desktop analysis:

- a. Historical aerial imagery compilation and review.
  - b. Documentation of connections to the existing 12-inch ductile iron water line.
  - c. Historical work order review as provided by the City.
2. Historical Data Review documentation will be compiled and delivered as part of the Water Line Assessment Technical Memorandum

## **C. Task III – Water Line Condition Assessment**

1. Garver will work with a subconsultant to perform a condition assessment for the existing 12-inch ductile iron water line along 5<sup>th</sup> Street. The results of the water line condition assessment will be utilized to identify segments of water line that may require rehabilitation or replacement. It is anticipated that up to 8,000 linear feet of 12-inch ductile iron water line will be inspected.
2. Garver will review the reports submitted by the subconsultant from a quality and completeness perspective in accordance with the Project Management Plan.
3. Garver will evaluate the reports provided by the subconsultant to define the recommended future level of effort for water line rehabilitation, which will be included as part of the Water Line Assessment Technical Memorandum.

## **D. Task IV – Water Line Leak Detection Assessment**

1. Garver will work with a subconsultant to perform traditional leak detection for the existing 12-inch water line along 5<sup>th</sup> Street from Avenue G to Norvell Avenue.
2. Garver will review the reports submitted by the subconsultant from a quality and completeness perspective in accordance with the Project Management Plan.
3. Garver will evaluate the reports provided by the subconsultant to define the recommended future level of effort for water line rehabilitation.

## **E. Task V – Water Line Assessment Technical Memorandum**

At the conclusion of the water line condition and leak detection assessment tasks, an engineering analysis of field survey data will be performed to develop recommendations for prioritized water line repairs. A description of field investigations, engineering analysis, and recommendations towards rehabilitation of the existing 12-inch ductile iron water line along 5<sup>th</sup> street will be included in the Water Line Assessment Technical Memorandum. The Technical Memorandum will provide a comprehensive water line rehabilitation strategy coordinated with the City, and include the following:

- Estimated total project costs for rehabilitation and improvement for critical or defective sections of existing 12-inch ductile iron water line along 5<sup>th</sup> Street in accordance with AACE Class 5 estimation standards.
  - Prioritized rehabilitation plan based on applicable rehabilitation method, material, and costs.
  - Recommendations for next steps.
1. Garver will submit a Draft Water Line Condition Assessment Technical Memorandum to the

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City for review and comment. The Draft Technical Memorandum will be submitted in electronic (.pdf) format. City will provide comments on the Draft Technical Memorandum within 21 calendar days of submission.

2. Garver will conduct a Draft Technical Memorandum Review Workshop with the City and other interested stakeholders. The workshop will review the findings of the field investigations, prioritized areas for rehabilitation, as well as the costs and rehabilitation methods that are proposed in the recommendations.
3. Garver will incorporate the comments and feedback from the City in the Final Water Line Assessment Technical Memorandum.
4. Submit documentation to TWDB for Engineering Feasibility Report review and address comments.
5. Garver will conduct a quality review of the deliverables according to the PMP.

### III. Additional Services

Additional Services are to be authorized as needed after written confirmation by the City. Additional services include the following:

1. Easement and Property Acquisition
2. Subsurface Utility Engineering (SUE)
3. Geotechnical Investigation
4. Environmental Site Assessment

### DELIVERABLES

The following will be submitted to the Owner, or others as indicated, by Engineer:

1. Electronic copy (pdf) of the Water Line Condition Assessment Reports.
2. Electronic copy (pdf) of the Water Line Leak Detection Assessment Reports.
3. Electronic copy (pdf) of the Draft Water Line Assessment Technical Memorandum.
4. Electronic copy (pdf) of the Final Water Line Assessment Technical Memorandum.
5. Electronic files as requested.

### EXTRA WORK

The following items are not included under this agreement but will be considered as extra work:

1. Detailed Design Services (future authorization)
2. Construction Phase Services (future authorization).
3. Traffic Control Plan (TCP).
4. Stormwater Pollution Protection Plan (SWPPP).
5. Construction materials testing.
6. Redesign for the City's convenience or due to changed conditions after previous alternate direction and/or approval.
7. Submittals or deliverables in addition to those listed herein.
8. Design of any utilities relocation beyond those listed herein.

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## Schedule

Garver shall begin work under this Agreement within ten (10) days of a Notice to Proceed and shall complete the work in accordance with the schedule below:

<b>Phase Description</b>	<b>Calendar Days</b>
Kickoff Meeting	10 days from Notice to Proceed
Notice to Proceed Issued for Water Line Condition Assessment	14 days from Kickoff Meeting
Notice to Proceed Issued for Water Line Leak Detection Assessment	14 days from Kickoff Meeting
Draft Water Line Assessment Technical Memorandum	60 days from receipt of subconsultant reports from Water Line Condition Assessment and Water Line Leak Detection Assessment tasks
Draft Water Line Assessment Technical Memorandum Review Workshop	14 days after delivery of Draft Water Line Assessment Technical Memorandum
Final Water Line Assessment Technical Memorandum	30 days from Draft Water Line Assessment Technical Memorandum Review Workshop

\*Note: for planning purposes, 10 days are assumed for City review from receipt of a DRAFT submittal until comments are expected to be received.

## Appendix B

### City of Bay City 5th Street Water Line Assessment Work Order is Lump Sum

#### FEE SUMMARY

<b>Basic Services Section</b>	<b>Estimated Fees</b>
Task 1 - Program and Project Management	\$ 20,316.00
Task 2 - Historical Data Review	\$ 6,596.00
Task 3 - Water Line Condition Assessment	\$ 105,575.00
Task 4 - Water Line Leak Detection Assessment	\$ 13,568.00
Task 5 - Water Line Assessment Technical Memorandum	\$ 52,140.00
<b>Subtotal for Basic Services Section</b>	<b>\$ 198,195.00</b>