



25 August 2021

TO: Mayor and City

Council members

Allowance of new development that has dead end water lines has created ongoing water quality problems. Now going back retrofitting and ready to award construction contract for largely trenchless work. Clay

**To:** Clay Pearson, City Manager

**From:** Morgan R Early, Project Manager

**CC:** Trent Epperson, Deputy City Manager  
Robert D. Upton, P.E., Director of Engineering & Public Works  
Skipper Jones, Assistant Director of Capital Projects  
Eric Hammond, Assistant Director of Public Works  
David Van Riper, Assistant Director of Public Works

**Date:** August 26, 2021

**Re:** Pre-Award Memo for Construction of the  
Water Quality Phase 1 & 2 (Oakbrook & Oakbrook Estates) Project

## Purpose

This memo provides information on the Water Quality Phase 1 & 2 (Oakbrook & Oakbrook Estates) project's bid phase and the forthcoming proposed award of a contract for construction to Scohil Construction Services, LLC (Scohil). This contract is scheduled for presentation to Council on the September 13, 2021 meeting agenda.

## Background

The City's Distribution and Collections Division has repeatedly received water quality work orders from the residents of Oakbrook & Oakbrook Estates subdivision. The water quality issues are aesthetic in nature (taste and odor) and **do not pose any health or safety issues**. The City has tried several temporary solutions including but not limited to: scouring the waterlines, flushing the lines, treating the water, extending a water line down Pearland Parkway and switching the source of the water. Despite these efforts, water quality issues in this subdivision are still reported.

These issues are related to the age of the water in the system and can be largely attributed to the number of dead-end lines that were constructed as the subdivision was developed. Without adequate use, the water has the potential to stagnate and develop taste, odor, and nitrification issues. Flushing will only temporarily address the situation and is a costly and inefficient method for improving the water quality within the affected system.

**Water modeling has helped to identify areas where dead end water lines can be looped and has been identifying where water aging is occurring in the system.** Water age is determined by the estimated length of time that water will stay in the distribution piping before use. The longer that water remains in the distribution piping the increased chance there is for nitrification which leads to taste and odor complaints and a potential reduction in disinfection quality of the water. This results in the short-term solution of installing automatic flushers that flush water out of the distribution piping into the wastewater line for a determined amount of time. **The long-term solution for this issue is the extension and looping or connecting of the waterlines to improve water flows and reduce water age so that water moves continuously.** Removing dead end waterlines will assist in enhancing water circulation and reduce staff call outs to flush waterlines this reducing system water loss. Many of the cul-de-sac segments consist of small diameter pipe, with a 2-inch blow-off at the end of the line. The small line diameter and small blow-off valve result in the inability to adequately flush these lines and can create these stagnant segments. Locations which do not have room for

easements for looping will be upsized to a 6” and extended to the end of the cul-de-sac where a fire hydrant will be installed. This will allow staff to pig and/ or flush these lines that cannot be looped.

Using the City’s Qualification Based Selection process, ARKK Engineers was selected as the most qualified firm to perform design services for this project. The design of phase 1 began in July 2019 and phase 2 design began in September 2020. Both phases were completed concurrently in July 2021. Although design was divided into two phases, based on a relative order of priority, the construction will be carried out in a single phase to limit impact to customers as much as possible.

Prior to bid advertisement, staff received approval from Brazoria County Municipal Utility District (BCMUD) No. 17 to use existing blanket easements from the Canterbury Water Line project to encompass the locations of two new waterline easements needed to complete this project. These right-of-entry easements are necessary to ensure the contractor has permission to be working on site, and so staff can access the property for future line maintenance and repair.

### Project Scope

The work of the contract is for the construction of approximately 4,500 linear feet of new six-inch diameter water line with associated valves fire hydrants, connections and appurtenances required to replace the distribution system. **The proposed water lines will be installed primarily through trenchless construction, which will minimize construction debris and disruptions within the neighborhood.** Project limits are located within the subdivisions of Oakbrook and Oakbrook Estates. The work will extend lines in cul-de-sacs and remove blow-offs, install fire hydrants, and reconnect water line services.

### Contract Award

Advertising for the project commenced on July 14, 2021 and concluded July 21, 2021. A mandatory pre-bid conference was held at City Hall July 22, 2021.

The project utilized the Lowest Responsible Bidder (Local Gov’t Code Chapter 271), subchapter (B) process. Bids were opened on August 10, 2021. Eight contractors submitted bids ranging from \$596,037.50 to \$978,770. Scohil Construction Services, LLC was the apparent responsible low bidder, submitting the bid of \$596,037.50 which is approximately 14% below the engineer’s construction estimate of \$695,320.

Name	Response Total
Scohil Construction Services, LLC	\$596,037.50
Lopez Utilities Contractors, LLC	\$696,250.00
D.L. Elliott Enterprises, Inc	\$724,780.00
Android Construction Services	\$728,800.00
Underground Construction Solutions, LLC. (Zamora)	\$771,850.00
Nerie Construction LLC.	\$777,050.00
J Rivas Construction, LLC	\$917,786.25
AR TurnKee Construction Company Inc.	\$978,770.00

Scohil has not worked with the City on a project to-date. The reference projects provided include trenchless waterline installation, extension, and rehabilitation projects for the City of Alvin, City of Rosenberg and the City of Patton Village. ARKK Engineers, the engineer of record, has contacted the references provided and received positive feedback on their performance of similar size and scope projects. They confirmed that Scohil has completed the work in a satisfactory manner, both within budget and on schedule. The Engineer has reviewed the bids and has provided a Recommendation to Award to Scohil Construction Services, LLC.

**Budget Info**

**WA1906 – Phase 1:**

<b>Funding Sources</b>	<b>Series</b>	<b>To Date</b>	<b>Future</b>	<b>Total Budget</b>
System Revenue - Cash		427,000		427,000
Certificates of Obligation				-
Certificates of Obligation				-
General Obligation Bonds				-
General Obligation Bonds				-
W/S Revenue Bonds				-
Impact Fee - Debt				-
Other Funding Sources				-
<b>Total Funding Sources</b>		<b>427,000</b>	<b>-</b>	<b>427,000</b>

<b>Expenditures</b>	<b>To Date</b>	<b>Future</b>	<b>Total</b>
PER			-
Land			-
Design	46,250		46,250
Construction		201,500	201,500
Construction Management/Inspection			-
Construction Materials Testing		10,000	10,000
FF&E			-
<b>Total Expenditures</b>	<b>46,250</b>	<b>211,500</b>	<b>257,750</b>

<b>Project Contingency</b>	<b>7%</b>		<b>30,000</b>
<b>Project Balance</b>			<b>139,250</b>

**WA2003 - Phase 2:**

<b>Funding Sources</b>	<b>Series</b>	<b>To Date</b>	<b>Future</b>	<b>Total Budget</b>
System Revenue - Cash		837,000		837,000
Certificates of Obligation				-
Certificates of Obligation				-
General Obligation Bonds				-
General Obligation Bonds				-
W/S Revenue Bonds				-
Impact Fee - Debt				-
Other Funding Sources				-

<b>Total Funding Sources</b>	<b>837,000</b>	<b>-</b>	<b>837,000</b>
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<b>Expenditures</b>	<b>To Date</b>	<b>Future</b>	<b>Total</b>
PER			-
Land		18,500	18,500
Design	99,200		99,200
Construction		394,538	394,538
Construction Management/Inspection			-
Construction Materials Testing		15,000	15,000
FF&E			-
<b>Total Expenditures</b>	<b>99,200</b>	<b>428,038</b>	<b>527,238</b>

<b>Project Contingency</b>	<b>7%</b>	<b>62,000</b>
<b>Project Balance</b>		<b>247,763</b>

### Schedule Info

	<b>Base Line</b>	<b>Current</b>
<i>Design Start Phase I</i>	July-19	July-19
<i>Design Start Phase II</i>	June-20	September-20
<i>Bid Start</i>	December-20	July-21
<b>Construction Start</b>	September-21	
<b>Construction Completion</b>	March-22	

### Recommendation

Staff will recommend to Council at the September 13<sup>th</sup> meeting to award the contract to Scohil Construction Services, LLC in the amount of \$596,037.50.

### Previous Memos

05/30/19, 08/20/20, 01/07/21, 03/11/21

VICINITY MAP



Water Quality - Oakbrook & Oakbrook Estates



1:12,000  
1 inch = 1,000 feet  
NORTH  
This product is for informational purposes only and may not be prepared or be suitable for legal, engineering or technical purposes.  
MAP PREPARED: 04/05/2010