

**WESTWOOD SHORES MUD**

**PROPOSED \$7,000,000 BOND**

**AUTHORIZATION**



CGE Project No. 318-13

2 April 2024



Civil Grade Engineers LLC  
TBPE Registration No. F-15400

**710 N. Post Oak Road (Ste 510)**  
**Houston, Texas 77024**  
**(281) 407-5018**



April 2, 2024

Board of Directors  
Westwood Shores Municipal Utility District  
c/o Mitchell, Zientek & Scruggs, LLP  
24624 Interstate 45 N, Suite 200  
The Woodlands, Texas 77386

RE: Westwood Shores Municipal Utility District (the "District")  
Preliminary Engineering Report for  
\$7,000,000 Bond Authorization

Dear Directors:

We are pleased to present this preliminary engineering report detailing a \$7,000,000 bond authorization. The proposed construction of facilities described under the bond issue program are feasible, practical and necessary for continued sustainability of water and sewer service to the District.

This preliminary engineering report, once approved by the Board, will be utilized in securing approval from the voters in the District, and the Texas Commission on Environmental Quality, of bond applications for funding District capital improvement projects. Actual issuance of bonds will not be based on this report but will require preparation of detailed engineering reports and applications based on specific projects, construction contracts, and other costs incurred by the District.

Civil Grade Engineers will be happy to answer any questions you have concerning this report, or the preliminary design of the project.

Regards,

A handwritten signature in blue ink, appearing to read "R. Rodriguez", is written over a horizontal line.

Ricardo (Rico) Rodriguez, P.E.  
Engineer for the District

cc: Mr. Josh Zientek – Mitchell, Zientek & Scruggs, LLP  
Mr. Daniel Scruggs – Mitchell, Zientek & Scruggs, LLP  
Mr. Frank Mitchell – Mitchell, Zientek & Scruggs, LLP

# BOND AUTHORIZATION REPORT

Proposed \$7,000,000 Bond Authorization  
Westwood Shores Municipal Utility District  
Trinity County, Texas



Civil Grade Engineers LLC  
TBPE Registration No. F-15400  
710 N. Post Oak Road (Ste 510)  
Houston, Texas 77024

April 2, 2024

## **EXECUTIVE SUMMARY**

Westwood Shores Municipal Utility District No. 318 (the “District”) located within Trinity County, Texas, was created to provide water and sewer services to the land in the District. The District will finance, with proceeds from its bond issues, the construction of water supply and sanitary sewer facility improvements in the District.

The District is located southeast of the City of Trinity, approximately three (3) miles from the intersection of North Robb Street and East Caroline Street. (refer to Exhibit 1 for district boundary). The District does not lie within the extra-territorial jurisdiction of the City of Trinity.

The proposed bond program is feasible from an engineering and economic viewpoint and is necessary for the construction/rehabilitation of the District’s facilities. The feasibility of the District’s bond authorization program is outlined in the following summary.

## INTRODUCTION

This report aims to provide information to the Board of Directors and its constituents within the District with details regarding a bond authorization vote. In this election, District voters will determine whether to authorize the sale of up to \$7,000,000 in bonds. These funds will be allocated towards the proposed construction and rehabilitation of facilities that serve the customers within the District's current service area boundary.

The District, established by the Texas Commission on Environmental Quality, encompasses 1.88 square miles of land located within the Sosa A-42, G.W. Wilson A-630, Joel Clapp A-130, and E.I. Pantaleon A-31 abstracts. An assessment of construction and rehabilitation expenses, along with the developed acreage, indicates that the District must authorize these bonds to finance these needed improvements.

## PROPOSED BOND AUTHORIZATION

The costs include contingencies and engineering.

### SUMMARY TABLE

#### **I. Construction Costs**

<i>Planning and Preliminary Engineering</i>	\$195,000
<i>Water Plants Improvements</i>	\$1,946,425
<i>Wastewater Treatment Plan Improvements</i>	\$661,050
<i>Sanitary Sewer Collection System</i>	\$1,108,775
<i>Lead Service Line Replacement</i>	\$778,610
<i>Miscellaneous Construction Costs</i>	\$1,417,585
<b>Total Construction Costs</b>	<b>\$6,107,445</b>

#### **I. Non-Construction Costs**

<i>Legal Fees</i>	\$175,000
<i>Financial Advisor Fees</i>	\$140,000
<i>Bond Discount</i>	\$210,000
<i>Capitalized Interest</i>	\$150,000
<i>Engineering Bond Application Report</i>	\$135,000
<i>Administrative Costs</i>	\$58,055
<i>Attorney General Fee</i>	\$7,000
<i>TCEQ Bond Issuance Fee</i>	\$17,500
<b>Total Non-Construction Costs</b>	<b>\$892,555</b>

**TOTAL PROPOSED BOND AUTHORIZATION: \$7,000,000**

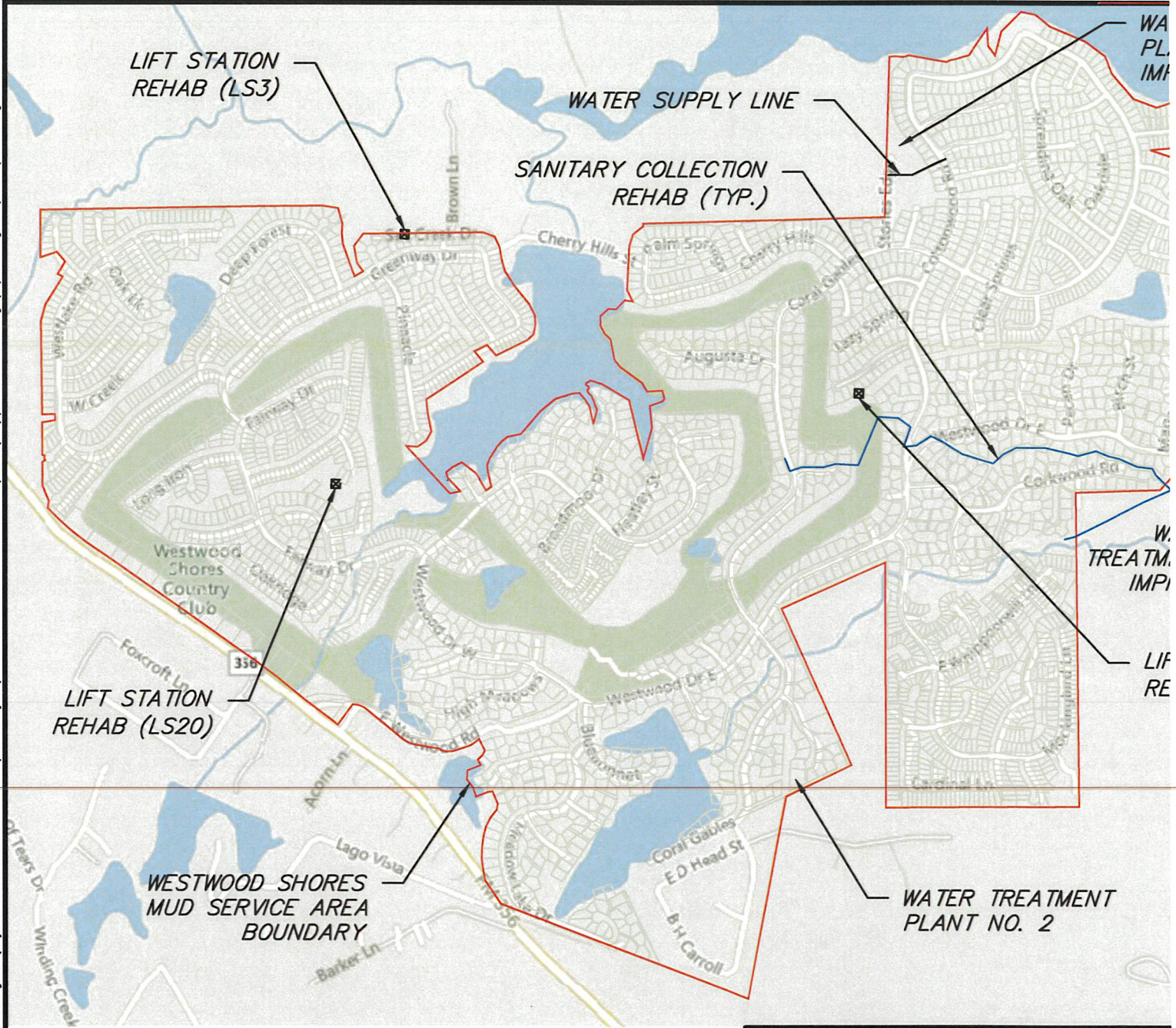
Reference Exhibit 2 & 3 for itemization of bond issuance costs and conceptual construction cost estimates.

## **CONCLUSION**

The District's proposal for a \$7,000,000 bond authorization is practical and feasible from both engineering and economic perspectives, given the necessity to construct and rehabilitate its facilities.

**Exhibit 1**  
**District Boundary**

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This drawing is a pictorial representation for presentation purposes only and is subject to change. Further, said drawing is a scanned image only and is not for computation or construction purposes. This drawing may or may not incorporate information and/or data provided to Civil Grade Engineers by other consultants relative to engineering and drainage, flood plains and environmental issues and should not be relied upon for any purpose. No warranties, express or implied, concerning the actual design, location, and character of the facilities shown on this map are intended. Additionally, no warranty is made to the accuracy of the information contained herein.

 <b>Civil Grade</b> ENGINEERS	<b>WE</b>
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	TBPE Registration No. F-15400
	Job No



**Exhibit 2**  
**Bond Issuance Requirement**

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**Westwood Shores MUD**  
**\$7.0 Million Bond Authorization Election**  
**February 13, 2024**  
**Bond Issuance Requirement**

	<u>Total Amount</u>	<u>District Share</u>
<b><u>PLANNING &amp; CONSTRUCTION COSTS</u></b> <sup>(1)</sup>		
1. Planning & Preliminary Engineering <sup>(2)</sup>	\$ 195,000	\$ 195,000
2. Water Plants and Wastewater Treatment Plant Improvements <sup>(3)</sup>	\$ 2,607,475	\$ 2,607,475
3. Sanitary Sewer Collection Systems <sup>(4)</sup>	\$ 1,108,775	\$ 1,108,775
4. Lead & Copper Rule: Lead Service Line Replacement	\$ 778,610	\$ 778,610
5. Miscellaneous Construction Costs <sup>(5)</sup>	\$ 1,417,585	\$ 1,417,585
<b>Total Construction Cost (87.25 % of BIR)</b>	<b>\$ 6,107,445</b>	<b>\$ 6,107,445</b>

	No. of Bond Issues	Cost per Bond Issue	Total Cost
<b><u>NON CONSTRUCTION COSTS</u></b>			
1. Legal Fees (2.5%)	3	\$ 58,333	\$ 175,000
2. Financial Advisor Fees	3	\$ 46,667	\$ 140,000
3. Bond Discount (3% of BIR)	3	\$ 70,000	\$ 210,000
4. Capitalized Interest	3	\$ 50,000	\$ 150,000
5. Engineering Bond Application Report	3	\$ 45,000	\$ 135,000
6. Administrative Costs	3	\$ 19,352	\$ 58,055
7. Attorney General Fee (0.10%)	3	\$ 2,333	\$ 7,000
8. TCEQ Bond Issuance Fee (0.25%)	3	\$ 5,833	\$ 17,500

**Total Nonconstruction Costs (12.75 % of BIR)** **\$ 892,555**

**TOTAL BOND ISSUANCE REQUIREMENT** **\$ 7,000,000**

**Notes:**

<sup>(1)</sup> Includes Contingencies and Engineering.

<sup>(2)</sup> Includes preparing preliminary engineering feasibility studies and submittal to TWDB for funding consideration and related environmental studies to support said applications; Also includes assessments of existing sanitary sewer collection system and assessments of easement acquisition needs.

<sup>(3)</sup> ~~Projects include but are not limited to water supply line improvements, WWTP clarifier and onsite lift station improvements, and other needed improvements.~~

<sup>(4)</sup> Includes but is not limited to improvements to existing offsite lift stations and sewer collection system.

<sup>(5)</sup> Includes but is not limited to contractor bonds and related mobilization costs, construction stormwater pollution prevention plan, allowance for unforeseen construction site conditions and restoration of site to preconstruction condition and funds (\$800k) for unforeseen emergency repairs.

**Exhibit 3**  
**Capital Improvement Plan (5-Year Priority)**

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**Westwood Shores MUD**  
**\$7.0 Million Bond Authorization Election**  
**February 13, 2024**  
**Capital Improvement Plan (5-Year Priority)**

<u>Item Description</u>	<u>Qty</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Item Total</u>
<b><u>PLANNING PHASE</u></b>				
<b>Unit A: Planning and Preliminary Engineering</b>				
1. Scope project and prepare preliminary engineering feasibility report and submit to TWDB.	3	Projects	\$ 15,000	\$ 45,000
2. Identification of Land and/or easement acquisition (includes surveying and preparation, execution and recordation of legal descriptions and easement documents by legal. Does not include cost of easement purchase)	1	LS	\$ 20,000	\$ 20,000
3. Environmental Studies (required if projects are financed by TWDB)	1	Projects	\$ 50,000	\$ 50,000
4. Assessment of Trinity River Authority / City of Trinity water supply line	1	LS	\$ 20,000	\$ 20,000
5. Assessment of air quality at Water Plant No. 1 (includes contractor with air quality monitoring equipment and preparation of report)	1	LS	\$ 20,000	\$ 20,000
6. Smoke testing of sanitary lines to locate manholes.	1	Phases	\$ 40,000	\$ 40,000
<b>Subtotal, Unit A</b>				<b>\$ 195,000</b>
<b><u>CONSTRUCTION PHASE</u></b>				
<b>Unit B: Mobilization</b>				
1. Mobilization, Bonds and Insurance	3	Projects	\$ 30,000	\$ 90,000
<b>Subtotal Unit B</b>				<b>\$ 90,000</b>
<b>Unit C: Water Plant Improvements</b>				
1. <u>Water Plant No. 1</u>				
a. Ground Storage Tank Improvements - TRW Supply	1	LS	\$ 250,000	\$ 250,000
b. Rehab of existing building (including doors, AC, roof etc.)	1	LS	\$ 75,000	\$ 75,000
c. Construction of new water supply.	1	LS	\$ 1,000,000	\$ 1,000,000
<b>Subtotal, Unit C</b>				<b>\$ 1,325,000</b>

**Westwood Shores MUD**  
**\$7.0 Million Bond Authorization Election**  
**February 13, 2024**  
**Capital Improvement Plan (5-Year Priority)**

<b>Item Description</b>	<b>Qty</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Item Total</b>
<b>Unit D: Wastewater Treatment Plant Improvements</b>				
1. Clarifier 1 - New gear drive and control panel	1	LS	\$ 150,000	\$ 150,000
2. Rehab Return Activated Sludge (RAS) lift station (including recoat of wet well, new pumps, check valves, RAS telescoping valves and piping.)	1	LS	\$ 150,000	\$ 150,000
3. Clarifier splitter box to allow operation of both clarifiers at the same time.	1	LS	\$ 150,000	\$ 150,000
<b>Subtotal, Unit D</b>				<b>\$ 450,000</b>
<b>Unit E: Sanitary Collection System</b>				
1. <b>Rehab of Existing Concrete Manholes:</b>				
a. Standard Manhole (all depths)	30	EA	\$ 2,700	\$ 81,000
2. <b>Rehab of Existing Sanitary Sewer:</b>				
a. 10" Pipe (All depths)	8,631	LF	\$ 30	\$ 258,931
b. 12" Pipe (All depths)	913	LF	\$ 40	\$ 36,508
c. 18" Pipe (All depths)	717	LF	\$ 50	\$ 35,835
d. Bypass Pumping During Rehab	1	Projects	\$ 75,000	\$ 75,000
3. <b>Remove and Replace SDR 26 P.V.C. Sewer (depth class determined by average depth of pipe segments between manholes):</b>				
a. 10" Pipe (All depths)	959	LF	\$ 35	\$ 33,565
b. 12" Pipe (All depths)	101	LF	\$ 45	\$ 4,564
c. 18" Pipe (All depths)	80	LF	\$ 55	\$ 4,380
4. <b>Limited Improvements of Lift Stations and Forcemains</b> <i>May include some or all of the following on a case by case basis: Recoat of wet well, pumps and pump rails, hatch and safety netting, above ground piping and valves with bypass connection, control panel, new generator, yard lighting, fencing, driveway.</i>	3	EA	\$ 75,000	\$ 225,000
<b>Subtotal, Unit E</b>				<b>\$ 754,782</b>

**Westwood Shores MUD**  
**\$7.0 Million Bond Authorization Election**  
**February 13, 2024**  
**Capital Improvement Plan (5-Year Priority)**

<u>Item Description</u>	<u>Qty</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Item Total</u>
<b>Unit F: Other Miscellaneous Items</b>				
1. Land and/or Easement Acquisition (waterline easements, sanitary easements, sanitary control easements, temporary construction easements, etc.)	1	LS	\$ 75,000	\$ 75,000
2. Additional authorization for emergency project	1	LS	\$ 800,000	\$ 800,000
<b>Subtotal, Unit F</b>				<b>\$ 875,000</b>
<b>Unit G: Lead and Copper Rule Revision</b>				
1. Lead and Copper Rule: Lead Service Line Replacement <i>Non-Forgivable amount 49% of \$1,589,000 = \$778,610</i> <i>Forgivable amount 51% of \$1,589,000 = \$810,390</i>	1	LS	\$ 778,610	\$ 778,610
<b>Subtotal, Unit G</b>				<b>\$ 778,610</b>
<b><u>SUMMARY</u></b>				
Unit A: Planning and Preliminary Engineering				\$ 195,000
Unit B: Mobilization				\$ 90,000
Unit C: Water Plant Improvements				\$ 1,325,000
Unit D: Wastewater Treatment Plant Improvements				\$ 450,000
Unit E: Sanitary Collection System				\$ 754,782
Unit F: Other Miscellaneous Items				\$ 875,000
Unit G: Lead and Copper Rule: Lead Service Line Replacement				\$ 778,610
Subtotal				<u>\$ 4,468,392</u>
Contingencies (30%)				\$ 1,048,435
Engineering (13%)				<u>\$ 590,618</u>
Total Project Cost				<u>\$ 6,107,445</u>