



Innovative approaches
Practical results
Outstanding service

11200 Broadway Street, Suite 2320 • Pearland, Texas 77584 • 832-456-4700 • FAX 832-456-4701

www.freese.com

August 4, 2025

David Van Riper
City of Deer Park
Director of Public Works
710 E. San Augustine
Deer Park, TX 77536

RE: SCOPE AND FEE FOR SANITARY SEWER EVALUATION SERVICES

Dear Mr. Van Riper:

Freese and Nichols is pleased to submit the attached proposed Exhibit A, dated August 4, 2025, for Sanitary Sewer Evaluation Services for the City of Deer Park.

We are ready to initiate work upon execution of a contract. If you have any questions, please do not hesitate to call us at (713) 600-6824 or via e-mail at richard.weatherly@freese.com. We appreciate this opportunity and are looking forward to working with you on this project.

Sincerely,

Richard Weatherly, PE
Principal / Vice President
Freese and Nichols, Inc.

EXHIBIT A

SCOPE OF SERVICES

City of Deer Park

Sanitary Sewer Evaluation Services

Engineering Scope of Services

Project Understanding:

Freese and Nichols, Inc. (FNI) will perform a Sanitary Sewer Evaluation Services (project) for the City of Deer Park (City). The project will include system-wide flow monitoring to evaluate inflow and infiltration (I/I) throughout the wastewater collection system. FNI will develop programmatic sanitary sewer evaluation survey (SSES) recommendations to help the City prioritize future rehab efforts and address undesirable I/I in the collection system.

Task A: Project Management

A1. Project Kickoff Meeting

Conduct a project kickoff meeting with the City to review project scope, goals, project team members and schedule. FNI will provide the City with a data request memorandum identifying data needs. This will be an in-person meeting with virtual option. The meeting will include discussion of the following:

- Scheduling and project coordination
- Key City personnel for field work coordination
- Information and data needs from the City

A2. Monthly Progress Reports

Throughout the project, monthly status updates will be submitted that summarize progress and document upcoming tasks. The monthly status updates will outline any upcoming key decisions which will require input from or discussion with the City.

A3. Data Collection

FNI will coordinate with City staff to collect data as specified in the data request memorandum.

Task B: Flow Monitoring

B1. Preliminary Flow Monitor Locations and Basin Delineation

FNI will select preliminary locations for flow monitoring and delineate corresponding basin polygons in GIS. During this task, FNI will coordinate with the City's GIS Department to collect the latest wastewater system GIS shapefiles and additional linear footage and general location of lines not currently included in GIS. FNI will also request data from the City on lift station service areas, force main discharge locations, and any wastewater gravity line high points or flow splits. FNI may have up to two meetings with the City's GIS and operations staff regarding this task.

FNI will develop mapping of the City's existing wastewater system based on received City GIS and will map the proposed basins. Linear footages by flow monitor basin will be calculated based on the information provided by the City for use in the I/I analysis. This scope of work does not include field survey to verify system connectivity or collection system asset locations. No updates to the City's GIS are included in this scope of work.

EXHIBIT A

SCOPE OF SERVICES

City of Deer Park
Scope for Sanitary Sewer Evaluation Services

B2. Meeting - Review Flow Monitor Locations

FNI will meet with City staff to review the proposed flow monitor locations and discuss the flow monitor site investigation plan. This will be a virtual meeting.

B3. Flow Monitor Site Investigations

FNI will conduct site investigations of the selected flow monitor locations to confirm suitability for flow monitoring. Items to be investigated include accessibility, hydraulic conditions, and debris depth. Manholes that are located in busy intersections will be excluded from potential flow monitor installation. FNI will notify City staff of any sites that require cleaning prior to flow monitoring. Any required cleaning prior to flow monitor installation will be the responsibility of the City. If a location is identified as unsuitable, FNI shall investigate up to two (2) alternate sites. This scope assumes that permitting for traffic control is not required through the City for flow monitor installation and removal.

B4. Flow Monitoring and Rain Gauge Data Collection

FNI will conduct wastewater flow monitoring at 14 locations for sixty (60) consecutive days. Flow monitors shall be calibrated prior to installation and maintained routinely during the monitoring period. Four (4) temporary rain gauges will also be installed to obtain rainfall event intensity and duration information. Rain gauges shall be calibrated prior to installation. Flow and rain gauge data will be collected at 5-minute increments.

B5. Flow Monitor Data Analysis and Basin Inflow and Infiltration (I/I) Ranking

FNI will evaluate the flow monitor and rainfall data. Hydrographs and flow depth plots will be created for each flow monitor site and will include the observed rainfall intensities. The amount of inflow and infiltration within each basin will be calculated and utilized to rank the basins. GIS mapping will be created to show the I/I results by basin.

Task C: Programmatic SSES Recommendations

C1. Programmatic SSES Recommendations

FNI will utilize the results from the flow monitoring and I/I analysis to develop programmatic SSES recommendations that could consider the following:

- Depth of pipes based on flow monitoring
- Proximity to creeks, drainage ditches, etc.
- Volume of I/I in the basin and/or potential for reduction at the WWTP

The programmatic SSES recommendations will include a prioritized list of basins recommended for future field inspection effort along with planning level budgetary costs for future field condition assessment activities, which could include additional flow monitoring. GIS mapping of the proposed SSES program recommendations will also be developed. FNI will work with the City to include a budgetary allotment for future construction of collection system rehabilitation projects. For basins where GIS does not include all

EXHIBIT A

SCOPE OF SERVICES

City of Deer Park
Scope for Sanitary Sewer Evaluation Services

the wastewater line and manholes, City-provided linear footage will be utilized and assumptions will be made by FNI regarding the number of manholes for planning level SSES budget development.

Note: Identification of rehabilitation projects are not included as part of this project. The programmatic SSES recommendations will include a budgetary allotment for developing rehabilitation projects based on future field condition assessments.

C2. Meeting – Discuss Flow Monitoring Results and SSES and Rehabilitation Plan

FNI will meet with City staff to discuss the results of the flow monitoring and basin I/I rankings. The proposed basins for SSES field activities will be presented, along with recommendations for future field condition assessment activities. FNI will solicit staff comments. This will be an in-person meeting with virtual option.

Task D: Technical Memorandum & Council Meeting

D1. Draft Technical Memorandum (TM) – Study Results and Programmatic SSES Recommendations

FNI will prepare a draft Technical Memorandum (TM) documenting the process, findings, and programmatic SSES recommendations. FNI will provide an electronic copy of the TM to City staff for review.

D2. Meeting – Review of Draft TM

FNI will meet with City staff to discuss the draft TM. Comments will be solicited and addressed. This will be a virtual meeting.

D3. Final TM – Study Results and Programmatic SSES Recommendations

FNI will incorporate staff comments on the TM and deliver one electronic PDF copy of the Final TM.

D4. Council Presentation – Study Results and Programmatic SSES Recommendations

FNI will deliver one presentation to City Council regarding the study findings and the proposed programmatic SSES recommendations.

Task E: Special Services

This task includes additional services that may be authorized by the City in support of **Tasks A-D**. Special services would be authorized on an as-needed basis by Deer Park staff. Special services could include, but are not limited to:

- Up to 30-day extension of temporary flow monitoring and rain gauge data collection

EXHIBIT A

SCOPE OF SERVICES

City of Deer Park
Scope for Sanitary Sewer Evaluation Services

Summary of Deliverables & Council Presentation

- Technical Memorandum – Study Results and Programmatic SSES Recommendations
- Council Presentation – Study Results and Programmatic SSES Recommendations

Summary of Meetings

- Project Kickoff Meeting
- Meeting - Review Flow Monitor Locations
- Meeting - Discuss Flow Monitoring Results and Programmatic SSES Recommendations
- Meeting - Discuss Draft Technical Memorandum

Schedule

- Draft Flow Monitoring Results and Programmatic SSES Recommendations TM – 270 days from NTP

Summary of Fee for Engineering Services

Our fee for completing the Sanitary Sewer Evaluation Services is shown in the following **Table 1**.

Table 1: Fee for Sanitary Sewer Evaluation Services (Time and Materials)

Task	Description	Fee
A	Project Management	\$16,259
B	Flow Monitoring	\$207,766
C	SSES and Rehabilitation Plan	\$31,718
D	Technical Memorandum & Council Meeting	\$28,930
TOTAL TASKS A - D		\$284,673
E	Special Services – Up to 30-day Extension of Flow Monitoring	\$39,757
TOTAL PROJECT FEE (TASKS A – E)		\$324,430

COMPENSATION

ATTACHMENT CO

Compensation to FNI for Basic Services in Exhibit A shall be computed on the basis of the following Schedule of Charges, but shall not exceed Two Hundred Eighty Four Thousand Six Hundred Seventy Three Dollars (\$284,673).

Compensation to FNI for Special Services in Exhibit A shall be computed on the basis of the following Schedule of Charges, but shall not exceed Thirty Nine Thousand Seven Hundred Fifty Seven Dollars (\$39,757).

If FNI sees the Scope of Services changing so that Additional Services are needed, including but not limited to those services described as Additional Services in Attachment SC, FNI will notify OWNER for OWNER's approval before proceeding. Additional Services shall be computed based on the following Schedule of Charges.

<u>Position</u>	<u>Hourly Rate</u>
Professional 1	132
Professional 2	162
Professional 3	180
Professional 4	208
Professional 5	243
Professional 6	278
Construction Manager 1	114
Construction Manager 2	141
Construction Manager 3	154
Construction Manager 4	193
Construction Manager 5	232
Construction Manager 6	265
Construction Representative 1	102
Construction Representative 2	114
Construction Representative 3	141
Construction Representative 4	154
CAD Technician/Designer 1	112
CAD Technician/Designer 2	144
CAD Technician/Designer 3	179
Corporate Project Support 1	107
Corporate Project Support 2	129
Corporate Project Support 3	172
Intern / Coop	72

Rates for In-House Services and Equipment

<u>Mileage</u>	<u>Bulk Printing and Reproduction</u>			<u>Equipment</u>	
Standard IRS Rates		<u>B&W</u>	<u>Color</u>	Valve Crew Vehicle (hour)	\$75
	Small Format (per copy)	\$0.10	\$0.25	Pressure Data Logger (each)	\$500
<u>Technology Charge</u>	Large Format (per sq. ft.)			Water Quality Meter (per day)	\$100
\$8.50 per hour	Bond	\$0.25	\$0.75	Microscope (each)	\$150
	Glossy / Mylar	\$0.75	\$1.25	Ultrasonic Thickness Guage (per day)	\$275
	Vinyl / Adhesive	\$1.50	\$2.00	Coating Inspection Kit (per day)	\$275
				Flushing / Cfactor (each)	\$500
	Mounting (per sq. ft.)	\$2.00		Backpack Electrofisher (each)	\$1,000
	Binding (per binding)	\$0.25			
				<u>Survey Grade</u>	<u>Standard</u>
				Drone (per day)	\$200 \$100
				GPS (per day)	\$150 \$50

OTHER DIRECT EXPENSES:

Other direct expenses are reimbursed at actual cost times a multiplier of 1.10. They include outside printing and reproduction expense, communication expense, travel, transportation and subsistence away from the FNI office. For other miscellaneous expenses directly related to the work, including costs of laboratory analysis, test, and other work required to be done by independent persons other than staff members, these services will be billed at a cost times a multiplier of 1.10. For Resident Representative services performed by non-FNI employees and CAD services performed In-house by non-FNI employees where FNI provides workspace and equipment to perform such services, these services will be billed at cost times a multiplier of 2.0. This markup approximates the cost to FNI if an FNI employee was performing the same or similar services.

These ranges and/or rates will be adjusted annually in February. Last updated 2025.