



AGENDA ITEM SUMMARY FORM

MEETING DATE: February 24, 2026

PREPARED BY: Hector Renteria

AGENDA CONTENT: Discussion and Possible action on awarding HDR the engineering contract for the Design Review Oster Creek Wastewater Treatment Plant in the amount of \$64,000.

AGENDA ITEM SECTION: Regular Agenda

BUDGETED AMOUNT: **FUNDS REQUESTED: \$64,000.00**

FUND:

EXECUTIVE SUMMARY:

The City owns and operates the Oyster Creek WWTP and has requested HDR to develop a Technical Memorandum to identify and provide budgetary numbers for the below improvements at the WWTP:

- Replace existing air diffusers and drop headers in the existing aeration basins.
- Replace blowers to provide sufficient air to the aeration basins and air lift pumps.
- Improve or replace the existing blower building, and ensure all blowers are above the current floodplain level.
- Expand the current water reuse system so that chlorinated plant effluent can be used for washdown and spraydown of key areas at the WWTP. The existing reuse system currently only serves as carrier water for the WWTP chlorination and dechlorination systems.

This effort will also include Class 5 cost estimates for each of the above improvements.

RECOMMENDATION:

Approve and execute HDR contract for engineering contract for the Design Review Oster Creek Wastewater Treatment Plant in the amount of \$64,000.



February 24, 2026

Guadalupe Valdez
Acting City Manager
City of Angleton
121 South Velasco Street
Angleton, Texas 77515

**Re: Proposal for Professional Engineering Services
2026 Oyster Creek Wastewater Treatment Plant (WWTP) Design Review**

Dear Mr. Valdez:

HDR Engineering, Inc. (HDR) is pleased to submit this proposal to prepare a technical memorandum for specific improvements at the City of Angleton's Oyster Creek Wastewater Treatment Plant (WWTP). For your convenience, this proposal consists of a Project Background, Scope of Services, Key Project Understandings, Schedule, Fees, and Terms and Conditions Sections.

PROJECT BACKGROUND:

The City owns and operates the Oyster Creek WWTP (SIC Code 4952) which is located at 500 Sebesta Road within the City of Angleton (City) in Brazoria County, Texas. The WWTP has a capacity of 3.6 million gallons per day and treats all of the City's wastewater. In 2021 and 2022, HDR performed a condition assessment of the WWTP which recommended several sizeable capital improvements be implemented by the City.

Upon completion of HDR's Condition Assessment Report, the City elected to partner with an Energy Service Company (ESCO) to implement two (2) of HDR's capital improvement recommendations. The ESCO approach uses guaranteed energy savings to pay back the project's costs, often allowing for no upfront funding to build the project. At the end of 2025, the City terminated this ESCO approach and is now interested in pursuing these capital improvements using the more traditional design-bid-build approach.

The City has therefore requested that HDR develop a Technical Memorandum for the following improvements at the WWTP:

- Replace existing air diffusers and drop headers in the existing aeration basins. The piping to be included only involves the small diameter vertical pipes from the common air headers down to the diffusers. Air diffusers are to be fine bubble type.
- Replace blowers to provide sufficient air to the aeration basins and air lift pumps.
- Improve or replace the existing blower building, and ensure all blowers are above the current floodplain level.
- Expand the current water reuse system so that chlorinated plant effluent can be used for washdown and spraydown of key areas at the WWTP. The existing reuse system currently only serves as carrier water for the WWTP chlorination and dechlorination systems.

This effort will also include Class 5 cost estimates for each of the above improvements.

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SCOPE OF SERVICES:

The following Scope of Services outlines the preliminary engineering services that HDR will perform for this project.

Task 1 – Project Initiation and Management

Task 1.1 – Project Management Plan

As part of project planning and set-up, HDR will develop a project management and quality plan outlining the project goals and objectives, scope of work, communications protocols, and quality review plan.

Task 1.2 – Project Kickoff Meeting

A half-day kickoff meeting will be held with the City to confirm key elements of the project management and quality plan, project scope of work, and baseline schedule. HDR will also lead an initial discussion of project goals and objectives and screening of alternatives for various aspects of the project. Following the meeting, the HDR team will conduct a half-day visit to the WWTP site and tour the facility with WWTP staff. The HDR staff will consist of engineers in the areas of structural, electrical, and process. The following topics will be discussed at the kickoff meeting:

- Confirmation of available information for completion of this project.
- Discussion of project goals and unique aspects of the tasks required.
- Recent projects at the WWTP site that could impact recommendations.
- Project schedule.

Task 1.3 – Tracking & Reporting

Throughout project execution, HDR will conduct monitoring and control activities to track project progress and develop monthly invoices with project activity reports for submittal to the City. Activity reports will document activities completed in the previous period and planned activities for the following month.

Task 1.4 – Data Collection and Review

HDR will submit a data needs request to obtain initial data and information for review. Since HDR already has much of the required information from the 2021-2022 Condition Assessment Report, the requested data will generally be related to those activities that have occurred since the report was completed.

Task 2 – Design Review

Task 2.1 – Diffusers and Air Header Piping

HDR will evaluate options for fine bubble diffuser systems for the existing aeration basins and recommend the preferred option for installation. The options will be evaluated on a life-cycle basis and on operator maintenance issues. HDR will also evaluate how to minimize the opportunity for operators to accidentally damage the diffusers by overloading them with air.

The only air header improvement that will be evaluated is the use of an insertion flow meter on the air header to each of the aeration basins. This will allow the operators to better control the quantity of air to each basin. This will not be connected to any SCADA or automation system.

Task 2.2 – Blower Assessment

HDR will perform an assessment of the blowers and associated panels to recommend which ones are to be moved and reused versus those that need to be replaced. HDR will perform calculations of air requirements for the WWTP to confirm if additional blowers are needed. These air requirements will include aeration basins, digesters, re-aeration in the chlorine contact chamber, and air lift pumps.

Task 2.3 – Blower Building Assessment and Recommendation

HDR will perform an assessment of the existing Blower Building to determine if it can be used to create an elevated platform where the blowers can be placed, including required means of ingress and egress and weather protection. The assessment will include a structural and electrical review of existing design documents (where available) and an on-site assessment of the feasibility of repurposing and modifying the existing building in this fashion. HDR will also include a preliminary evaluation of the loads generated by the blowers on the proposed second floor and the potential framing options that may be required. However, no detailed structural or electrical design or calculations will be done as part of this phase of the project.

The blower building assessment will evaluate and recommend between two (2) options as defined below:

- Option 1 – Utilize the existing Blower Building structure as the basis for an elevated blower building platform to house the required blowers. Factors to be considered in the repurposing of the existing building will include building age, apparent condition of the building, apparent condition of the existing influent wet well (which is integrated into the building), and impacts due to blower vibration.
- Option 2 – Build a new raised building dedicated to the blowers and associated equipment.

For both options, HDR will also evaluate the existing motor control center (MCC) equipment for feasibility to continue to supply the new blower facility.

Based on the results of this assessment, HDR will develop a recommendation that achieves the project goal of putting all blowers and associated equipment above the floodplain and that is protected from the weather.

Task 2.4 – Reuse System Expansion

HDR will determine the improvements necessary to expand the existing reuse water system for washdown and spraydown at key areas in the WWTP. Current and desired demands will be determined and compared to existing pumping and piping capacities. HDR will develop a recommendation outlining the needed improvements to the existing reuse water system.

Task 2.5 – Opinion of Probable Construction Cost (OPCC)

HDR will prepare an OPCC for the recommended improvements from the above tasks. The OPCCs will be to a Class 5 standard as defined by the Association for the Advancement of Cost Engineering (AACE). The Class 5 estimate typically has an accuracy of -50% to +100%.

Task 2.6 – Technical Memorandum

HDR will prepare a draft and final Technical Memorandum (TM) for this project. The TM will be structured as follows:

- Executive Summary
- Facility Air Requirements
- Blower Assessment and Recommendations
- Blower Building Assessment and Recommendations
- Reuse Water System Improvements
- Opinion of Probable Construction Costs

The draft and final TM will be submitted to the City electronically by email or approved file sharing platform.

KEY PROJECT UNDERSTANDINGS:

- HDR’s WWTP site visit observations will be limited to visual and tactile means and will not involve testing of any kind, nor will an effort be undertaken to uncover any conditions not visible by at-grade, pedestrian access. HDR’s conclusions and recommendations based on these site observations will be subject to the limitations of such observations.
- Any OPCC provided by HDR is made on the basis of information available to HDR and on the basis of HDR’s experience and qualifications. HDR does not guarantee that future construction proposals, bids, or actual costs will not vary from the OPCCs prepared by HDR.
- If the City requests for HDR to evaluate any other system at the WWTP not identified above in the Scope of Services section, HDR will prepare and submit a contract amendment for these Additional Services.
- Once the draft TM is submitted to the City, HDR anticipates receiving comments back from the City within two (2) weeks. HDR will incorporate the City’s comments and submit a final signed and sealed TM.

SCHEDULE:

It is estimated that the schedule to complete the project is approximately three (3) months from the date of authorization to proceed.

FEES:

HDR proposes to provide the above-described Scope of Services for a lump fee of **\$64,000.00**.

TERMS AND CONDITIONS:

This project will be performed as a ‘Project Engineering Design and Support Service’ under the current Master Agreement for Professional Services with the City, and its terms and conditions will apply.

Invoices will be submitted on a monthly basis and the charges for lump sum services, hourly services, subcontract expenses, reimbursable expenses, and mileage will be in accordance with Attachment “A” – Fee Basis of the Master Agreement for Professional Services with the City.

We appreciate the opportunity to be of service on this project. If you have any questions, please do not hesitate to contact me at (713) 622-9264.

Sincerely,

HDR Engineering, Inc.

 2026.02.17
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Mike Meroney, P.E.
Vice President

Approved:
Authorized signature on behalf of the City of Angleton: _____

Printed Name: _____

Title: _____

Date: _____