



AGENDA MEMORANDUM

Action Item for the City Council Meeting of July 15, 2025

DATE: July 15, 2025

TO: Peter Zanoni, City Manager

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<u>Professional Services Contract</u> South Side Water Transmission Grid Completion
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CAPTION:

Motion authorizing a professional services contract with HDR Inc., Corpus Christi, Texas, to provide preliminary design services (Phase 1) for the South Side Water Transmission Grid Completion project to plan and prioritize interconnections between multiple water transmission mains to enhance the system's redundancy, improve chlorine residuals, and more effectively transport potable water around the City in an amount not to exceed \$285,716.00, located Citywide, with FY 2025 funding available from the Water Capital Fund.

SUMMARY:

This motion authorizes the approval of a professional services contract for preliminary design-phase services for the South Side Water Transmission Grid Completion project. Reliable water distribution requires a transmission grid that is properly configured to ensure that demands can be met while maintaining adequate pressure throughout the distribution network. The system must have sufficient redundancy to prevent a single point of failure. Valves and transmission mains must be appropriately configured so that parts of the network can be isolated without impacting large numbers of customers. Some sections of the system rely on very old pipelines that are increasingly prone to breakage. Due to insufficient network redundancy, the current distribution system is susceptible to disruptions that could affect large areas of the City.

The primary focus of this project is to identify measures that enhance network resiliency and redundancy along the South Padre Island Corridor (SPID) between Highway 286 and Rodd Field.

BACKGROUND AND PURPOSE:

The SPID corridor is a major transportation corridor and center of economic activity. The SPID right-of-way also contains one of the City’s vital trunk lines for water transmission. That trunk line is a 55-year-old, 30” ductile iron water main running parallel to SPID. The pipeline is entirely within the TXDOT right-of-way and is located under portions of the highway, access ramps, and feeder roads. The expansion of SPID over time has resulted in the water line’s alignment encroaching on critical areas of SPID.

A rupture or failure of this pipeline would not only result in widespread water service disruption but could damage highway infrastructure and result in major traffic disruptions. Due to the size of the pipeline, the volume of flow that would occur from a rupture could undermine bridge structures, retaining walls and pavements. Additionally, pipeline repairs could require lane closures and detours that would be very disruptive to normal traffic patterns along large portions of SPID.

This project will lay the foundation for CCW’s plan to mitigate risks associated with this transmission main by changing the overall water delivery design to the area. The parallel 30” line would be taken out of service and replaced by intermediate, large diameter water lines crossing perpendicular to SPID. These pipes would be installed in encasement pipes which will further protect the integrity of SPID in the event of pipe failure.

To ensure adequate network redundancy, it may also be necessary to interconnect several large diameter water mains on the south side of SPID. Hydraulic modeling and engineering analysis will determine the optimal number and locations of necessary interconnections.

The study will produce recommendations for a long-range capital plan to allow for decommissioning of the 55-year-old 30” transmission main and improving the systems’ redundancy, chlorine residuals, and more effective transport of water throughout the City.

PROJECT TIMELINE:

2025 - 2026
July - June
Preliminary Design

Project schedule reflects City Council award in July 2025, with anticipated preliminary design completion June 2026. The final design and construction phases of the project will be developed later depending on the project recommendation.

COMPETITIVE SOLICITATION PROCESS:

HDR, Inc., was selected in May 2024 under RFQ 5036 for C4 South Side Water Transmission

Grid Completion, which was one of eight projects announced under the Water CIP Projects category of the RFQ. Sixty-six (66) engineering firms downloaded RFQ 5036 and fifteen (15) firms submitted for this project. The final evaluation ranked HDR, Inc., as one of the highest ranked firms based on eight factors: 1) experience on projects of similar scope and complexity, 2) demonstrated capability & capacity on comparable projects, 3) past performance, 4) team members with experience and qualifications, 5) team members experience with work of similar scope and complexity, 6) availability of resources to accomplish the work, 7) demonstrated understanding of scope of services, 8) demonstrated understanding and experience with similar services with a public agency. The evaluation selection panel consisted of members from the Engineering Department and Corpus Christi Water.

HDR, Inc. has provided professional services for other City projects. Some of these projects include Mary Rhodes Pipeline Desktop Condition Assessment, Alameda Street Bond 2018 and 2020, and multiple MSA General Civil Engineering contracts.

HDR, Inc. has also provided professional services for other utilities throughout the state, to include the Cities of Bulverde, Harlingen, Houston and Taylor.

ALTERNATIVES:

City Council could choose not to award the design contract which would impact on available water resources throughout the City.

FISCAL IMPACT:

The fiscal impact for Corpus Christi Water in FY 2025 is an amount not to exceed \$285,716.00 with funding available through the prior annual allocation from the Water Capital Fund.

FUNDING DETAIL:

Fund: **WTRCP RR 032950 2023 (Fund 4487)**
Department: Water (45)
Organization: Grants & Capital Projects Funds (89)
Project: South Side Water Transmission Grid Completion (Project No. 23060)
Account: Outside Consultants (550950)
Activity: 23060
Amount: \$285,716.00

RECOMMENDATION:

Staff recommend approval of the professional services contract with HDR, Inc., in the amount not to exceed \$285,716.00 for the South Side Water Transmission Grid Completion project. The preliminary design service will begin in June 2025 with anticipated completion by June 2026.

LIST OF SUPPORTING DOCUMENTS:

Location & Vicinity Maps
Evaluation Matrix
CIP Page

Proposal Presentation