



## **AGENDA MEMORANDUM**

Action Item for the City Council Meeting of May 19, 2020

**DATE:** May 1, 2020

**TO:** Peter Zaroni, City Manager

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### **Construction Change Order**

Nueces River Raw Water Pump Station

#### **CAPTION:**

One-reading ordinance amending the FY 2020 Capital Improvement Program budget for project E11068 Nueces River Raw Water Pump Station in the amount of \$771,662 and authorizing the execution of Change Order No. 2 with CSA Construction, Inc. of Houston, Texas, for several additional construction modifications, in the amount of \$771,662 for a total restated fee of \$13,721,662 located in City Council District 1, with funding available from the FY 2020 Water Capital Improvement Program Budget and the Water Fund.

#### **SUMMARY:**

This Change Order addresses several necessary additional scope items and a new bar screen at Pump Building No. 1.

#### **BACKGROUND AND FINDINGS:**

The Nueces River Raw Water Pump Station is comprised of Pump Building No. 1 that was constructed in 1954 and Pump Building No. 2 constructed in 1981. The Pump Station conveys raw water from the Nueces River to the O.N. Stevens Water Treatment Plant (ONSWTP) through dual, 54-inch Nueces River Raw Water Pump Station transmission lines. Each building contains 4 large pump and motor assemblies with associated valves, piping, electrical, controls and other miscellaneous equipment. The current project is intended to re-capitalize the pump station and expand its capacity.

During the design phase the existing pumps, check valves and mechanical bar screens at Pump Building No. 1 were performing satisfactorily and there was no indication of problems or issues with the existing equipment, so they were not included in the original scope of work or budget. In January 2019, City Council awarded a construction contract to CSA Construction, Inc. in the amount of \$12,950,000 to upgrade the pump station. Removing the existing equipment from service during construction allowed better investigation of existing conditions. Additional problem areas were then identified.

Since the issuance of the notice to proceed in March 2019, Change Order No. 1 has been administratively approved adding 30 days to the construction duration. The proposed Change Order No. 2 includes nine items. Eight of those nine items add scope that was not included in the original contract. One is a deletion in scope that results in a credit back to the project.

The two main new scope items are the AEP Main Power Supply Connection and the Pump Building No. 1 Bar Screen Refurbishment. This AEP Main Power Supply Connection scope of work was not included in the original project scope due to a misunderstanding of responsibility between AEP and the City project team. AEP has taken the position that the required power supply connection is the responsibility of the City. The power supply scope provides a new 4160-volt power feed from the AEP substation to each pump building including a new fuse box, conduits, conductors, and other materials required to provide a complete and usable project.

The Pump Building No. 1 Bar Screen scope was not included in the design because, at the time of the design, the bar screens were believed to be in relatively good working condition. Since that time, the West bar screen at Pump Building No. 1 has become inoperable. With the bar screens dewatered during construction, the manufacturer was able to fully inspect them, and it was determined that a full refurbishment of the Pump Building No. 1 west bar screen was required. The full refurbishment includes replacement of all moving components. Additionally, the East bar screen will receive new bearings, shafts, and bushings.

A summary of items included in the Change Order is presented below in Table 1. Additional details are available in the supporting documents.

**Table 1. Change Order No. 2 Cost Proposal Summary**

<b>COST PROPOSAL</b>	<b>TITLE</b>	<b>AMOUNT</b>	<b>REQUESTED DAYS</b>	<b>REASON FOR CHANGE</b>
#3	New Ethernet Equipment	\$6,375	0	Owner Request
#4	Additional Power Circuits for Instruments	\$24,207	13	Design oversight
#5	Dewater ONS WTP Splitter Box	\$19,941	1	Unforeseen
#6	AEP Main Power Supply Connection	\$222,685	15	Unforeseen
#7	Pump No. 10 Check Valve Modifications Credit	(\$17,026)	0	Owner Request

#8	Refurbish Existing Pump No. 3	\$20,206	1	Unforeseen
#9	Pump Building No. 1 Bar Screen Refurbishment	\$350,008	25	Unforeseen
#10	Existing Check Valves Replacement – Pump Building No. 1	\$99,889	0	Unforeseen
#11	Replace Concrete Slab – West End Pump Building No. 1	\$45,377	21	Unforeseen
	<b>PROPOSAL TOTAL</b>	<b>\$771,662</b>	<b>76</b>	

This Change Order authorizes CSA Construction, Inc., who is currently mobilized at the pump station to continue reconfiguring and refurbishing Pump Building No. 1 & 2 structures, pumps, motors, controls, electrical/mechanical systems, and miscellaneous equipment up to the additional proposed contract amount. If approved, the change order will add 76 calendar days extending the anticipated final completion date from September 2020 to January 2021.

**PROJECT TIMELINE WITH CHANGE ORDER:**

2020							2021
J	J	A	S	O	N	D	Jan
Construction							

The above construction project timeline reflects the remainder of the original contract scope plus this change order. Change Order No.2 will add 76 calendar days to the construction contract and extend final completion from September 2020 to January 2021.

**ALTERNATIVES:**

As an alternative to approving this Change Order the City could pursue a new stand-alone construction contract(s) to execute this work. This process would likely result in additional construction cost since the contractor is already mobilized on site. It would also result in delays to implementation of construction items required to achieve a fully operable pump station at the rated capacity.

**FISCAL IMPACT:**

This Change Order No. 2 is to reconfigure and refurbish Pump Building No. 1 & 2 structures, pumps, motors, controls, electrical/mechanical systems, and miscellaneous equipment at the

Nueces River Raw Water Pump Station will result in the additional expenditure of a total amount not to exceed \$771,662, which is available from the FY 2020 Water Capital Improvement Program Budget and the Water Fund 4010.

**Funding Detail:**

**Fund: Water 2020 CIP Fund (Fund #4099)**

Mission Elem: Treat Water (ME#062)

Project No.: Nueces River Raw Water Pump Station (Project #E11068)

Account: E11068-01-4099-EXP

Activity: Construction (Acct #550910)

Amount \$431,662

These funds are coming from the various fund balances of other Water CIP project cost savings and will be distributed to this project.

**Fund: Water Fund (Fund # 4010)**

Mission Elem: Water Planning (ME#068)

Project No.: Nueces River Raw Water Pump Station (Project #E11068)

Org: Water Supply Development (Org #30230)

Account: Professional Services (Acct #530000)

Activity: E11068-01-4010-EXP

Amount \$340,000

These funds are coming from the Raw Water Supply Development Fund.

**RECOMMENDATION:**

Staff recommends approval of this Change Order No. 2 in the amount of \$771,662 with CSA Construction, Inc. to reconfigure and refurbish Pump Building No. 1 & 2 structures, pumps, motors, controls, electrical/mechanical systems, and miscellaneous equipment at the Nueces River Raw Water Pump Station. Construction is anticipated to be completed in January 2021.

**LIST OF SUPPORTING DOCUMENTS:**

Location & Vicinity Maps

Change Order No. 2 Summary

Change Order No. 2