



## AGENDA MEMORANDUM

First Reading Ordinance for the City Council Meeting of July 21, 2020  
Second Reading Ordinance for the City Council Meeting of July 28, 2020

**DATE:** June 12, 2020

**TO:** Peter Zaroni, City Manager

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### **Construction Change Order**

O.N. Stevens Water Treatment Plant High Service Building No. 3

### **CAPTION:**

Ordinance authorizing Change Order No. 19 with PLW Cadagua Partners of The Woodlands, Texas, for several additional scope items to O.N Stevens Water Treatment Plant High Service Building No. 3 in the amount of \$549,603.44, located in City Council District 1, for a total contract value not to exceed \$23,336,407.53 and amending the FY 2020 Capital Improvement Program budget.

### **SUMMARY:**

This Change Order addresses several necessary additional scope items at O.N. Stevens Water Treatment Plant (ONSWTP) High Service Pump Building No. 3.

### **BACKGROUND AND FINDINGS:**

In August 2016, City Council awarded a construction contract to PLW Cadagua Partners of The Woodlands, Texas in an amount of \$21,650,000 to build the new High Service Building No. 3 and associated improvements. Since then, 18 change orders have been processed that have extended the construction timeline and budget and as such this project needs to be added to the FY 2020 Capital Improvement Program budget to account for additional expenditures.

This project base bid scope included replacement of the existing High Service Pump Bldg. No.1 at the ONSWTP that is beyond its useful service life. The existing High Service Pump Bldg. No.1 was placed into service over 60 years ago and is experiencing severe deterioration impacting reliability and capacity. It does not comply with the Texas Commission on Environmental Quality

(TCEQ) approved Alternate Capacity Requirement plan and future demands. The existing High Service Pump Bldg. No.1 will be abandoned in place and a new 12,700 square foot High Service Pump Building No. 3 with six (6) new horizontal split-case pumps, motors, piping and valves, electrical, controls and associated site improvements will be constructed. In addition the project base bid scope included the replacement of four (4) existing tilting disc check valves (TDCVs) and all existing Multilin Motor protection relays (MRP) at High Service Building No. 2 in order to provide consistency and facilitate maintenance between both High Service No. 2 and the High Service No. 3 Pump Stations.

The new High Service Pump Building No. 3 is currently under construction and once completed it will have the capability to deliver treated water to the distribution system from the existing clearwell No. 1, clearwell No. 2 and future programmed clearwell No. 3. In addition, it will enable the City to decommission High Service Pump Building No. 1.

During construction it was determined that the design drawings did not provide all the information required to successfully install the conduit bodies in support of the pumps/motors or the control wiring for the generators. As a result, new conduit bodies were purchased and installed to support the pumps/motors and additional conduit and conductors were purchased and installed to support the generator. In addition, there are four new scope items that were requested by the Utility Department during construction with the major item being the addition of the chemical injection and sample station improvements. After construction started it became evident that a section of the treatment train needed to be diverted to a nearby junction box to ensure there was no loss of service for the water plant operations. To perform this, the contractor had to stop their critical path activities on Clearwell No. 1 and start on the required chemical injection and sample station improvements.

A summary of the additional cost and days included in the Change Order are shown in Table 1 below. Additional details can be found in the supporting documents.

**Table 1. Change Order No. 19 Summary**

<b>COST PROPOSAL</b>	<b>DESCRIPTION</b>	<b>AMOUNT</b>	<b>REQUESTED DAYS</b>	<b>REASON FOR CHANGE</b>
#22	Retrofit Electrical Parts on Pumps and Motors	\$24,389.59	18	Design Oversight
#28	Additional Conduit and Conductors Required for Generator	\$34,102.63	0	Design Oversight
#31	Asphalt Repairs, Pump Paint Finish, & Cage Ladder	\$27,668.98	18	Owner Request
#32	Chemical Injection and Sample Station Improvements	\$52,562.32	30	Owner Request

#33	Additional Chemical Injection and Sample Station Improvements	\$357,011.84	60	Owner Request
#34	Delay in Work at Clearwell No. 1	\$53,868.10	60	Owner Request
	<b>PROPOSAL TOTAL</b>	<b>\$549,603.44</b>	<b>186</b>	

\* Work is complete or partially complete on these items. A staff-approvable change order will need to be executed to pay for this work if council does not approve the agenda item.

This Change Order authorizes PLW Cadagua Partners, who is currently mobilized at the water treatment plant to continue construction of the new High Service Building No. 3 up to the additional proposed contract amount. If approved the addition of the 186 calendar days will extend the anticipated construction substantial completion date from September 2020 to March 2021.

**PROJECT TIMELINE WITH CHANGE ORDER:**

2020							2021		
J	J	A	S	O	N	D	J	F	M
<b>Construction</b>									

The above construction project timeline reflects City Council approval in July 2020. Change Order No. 19 will authorize the addition of 186 calendar days to the construction contract which will extend the anticipated construction substantial completion date from September 2020 to March 2021.

**ALTERNATIVES:**

As an alternative to approving this Change Order the City could pursue a new stand-alone construction contract(s). This process would likely result in additional construction cost due to inflation and mobilization. It would also result in delays to implementation of construction items required to achieve a fully operable High Service Building No. 3.

**FISCAL IMPACT:**

The fiscal impact in FY 2020 is an amount of \$549,603.44 to be funded through the FY 2020 CIP budget. This will result in the additional expenditure of a total amount not to exceed \$23,336,407.53 for the contract.

**Funding Detail:**

These funds are coming from the various fund balances of other FY 2019 Water CIP project cost savings and will be distributed to this project

**Fund: Water 2019 CIP Fund (Fund #4098)**

Mission Elem: Treat Water (ME#062)

Project No.: O.N. Stevens Water Treatment Plant Bldg. #3 (Project No. E11066)

Account: Construction (Acct #550910)

Activity: E11066-01-4098-EXP

Amount: \$549,603.44

**RECOMMENDATION:**

Staff recommends approval of Change Order No. 19 in the amount of \$549,603.44, with PLW Cadagua Partners, to construct the new High Service Pump Building No. 3 at the O.N. Stevens Water Treatment Plant. Construction is anticipated to be substantially completed in March 2021.

**LIST OF SUPPORTING DOCUMENTS:**

Location & Vicinity Maps

Change Order No. 19

Change Order No. 19 Summary

Ordinance