



AGENDA MEMORANDUM

Future Item for the City Council Meeting of August 9, 2016
Action Item for the City Council Meeting of August 16, 2016

DATE: July 22, 2016

TO: Margie C. Rose, City Manager

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<u>Engineering Construction & Testing Contract</u>

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

Motion authorizing the City Manager, or designee, to execute a construction contract with PLW Cadagua Partners of The Woodlands, Texas in the amount of \$21,650,000 for the O.N. Stevens Water Treatment Plant High Service Pump Building No. 3 for the Base Bid plus Additive Alternates No. 1 through 4 and to execute a construction materials testing contract with Rock Engineering and Testing Laboratory, Inc. of Corpus Christi, Texas in the amount of \$54,765 for the O.N. Stevens Water Treatment Plant High Service Pump Building No. 3.

PURPOSE:

The purpose of this agenda item is to obtain authority to execute a construction contract for the O.N. Stevens Water Treatment Plant High Service Pump Building No. 3 for the Base Bid plus Additive Alternates No. 1 through 4 and to execute the materials testing contract.

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

This project will provide for construction of a new High Service Building as the repair/replacement of the existing High Service Building No. 1 and its equipment is not feasible

or cost effective. This project will also replace the 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 Building No. 3 will have the capability to deliver treated water to the distribution system from the existing clear-well No. 1, clear-well No. 2 and future programmed clear-well No. 3. Completion of this project will enable the City to decommission and take out of service High Service Building No. 1. The construction is anticipated to be complete in 2019.

BACKGROUND AND FINDINGS:

This project replaces the existing High Service Pump Bldg. No.1 (HSPB #1) at the O.N. Stevens Water Treatment Plant that is beyond its useful service life. The existing HSPB #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 (ACR) plan and future demands. The existing HSPB #1 will be abandoned in place. This project was developed with a Base Bid and four (4) Additive Alternatives as follows:

Base Bid: Includes construction of a new 12,700 square foot High Service Pump Building with six (6) new horizontal split-case pumps, motors, piping and valves, electrical, controls and associated site improvements.

Additive Alternates:

1. Alternate 1 – Alternate Generator Building Extension and Retrofit
The existing generator building houses the Alternate Power generators with 6 Megawatt (MW) capacity that cannot meet the peak demands of the plant and future demands. The improvements expand the existing generator building to house one additional 2 MW generator. The existing building and expansion will be upgraded to meet current code and windstorm requirements.
2. Alternate 2- High Service Pump Building No. 2 (HSPB #2) Rehabilitation
The existing HSPB #2 instrumentation, controls and equipment requires upgrades to improve operational capabilities, efficiencies and reduce the maintenance cost. The work includes:
 - Refurbish existing four pumps
 - Replace existing four (4) Horizontal Split-Case impellers to match impellers of High Service Pump Building No. 3 Pumps;
 - Replace existing four (4) pump discharge tilting disc check valves
 - Remove twenty-one (21) GE multiline motor protection relays and replace with SEL motor protection relays
3. Alternate 3 – 72-inch Waterline Extension
The work includes extension of the existing 72-inch waterline to connect the wash water supply pump station to the south filters for the plant. This increases the projected future ONSWTP rated capacity from 177 MGD to 200 MGD. Completing this work within this project is the most cost effective solution to avoid rework in the future.
4. Alternate 4 – High Service Pump Building No. 2 Access Road Rehabilitation
The work rehabs the existing access road is severely deteriorated and critical to plant operations and maintenance. Completing this road work within this project is the most cost effective solution to avoid rework in the future.

On June 8, 2016, the City received proposals from three (3) bidders and the respective bids were as follows:

CONTRACTOR	BASE BID	ADD ALT NO 1	ADD ALT NO 2	ADD ALT NO 3	ADD ALT NO 4	BASE BID PLUS ADD ALTS 1-4
PLW Cadagua Partners The Woodlands, Texas	\$18,345,000	\$2,000,000	\$955,000	\$200,000	\$150,000	\$21,650,000
CSA Construction, Inc. Houston, Texas	\$17,300,000	\$2,205,000	\$2,418,000	\$255,000	\$185,000	\$22,363,000
ALLCO, LLC Beaumont, Texas	\$19,343,540	\$2,636,875	\$2,221,557	\$186,000	\$75,000	\$24,462,972
Engineer's Opinion of Probable Construction Cost	\$23,500,000					

The City's consultant, LNV, Inc. and City staff evaluated the three proposals and determined that ALLCO, LLC does not meet the minimum qualification requirements set forth in the contract documents and therefore considered to be a non-responsive bidder. PLW Cadagua Partners of the Woodlands, Texas, was determined to be the lowest responsive and responsible bidder for the base bid and all four additive alternatives.

The lowest responsible bidder, based on the quantities provided for evaluation purposes, is PLW Cadagua Partners of the Woodlands, Texas. Based on a review of PLW Cadagua Partners's experience and resources from the information they submitted in accordance with the contract documents, PLW Cadagua Partners is qualified to provide the construction services for the project.

Rock Engineering and Testing Laboratory (RETL) is recommended for the material testing contract. RETL performed the geotechnical investigation services during design phase and brings excellent past performance on similar City projects.

ALTERNATIVES:

1. Authorize the execution of the construction contract.
2. Do not authorize the execution of the construction contract. (Not Recommended)

OTHER CONSIDERATIONS:

None

CONFORMITY TO CITY POLICY:

Conforms to City Fiscal Policy

EMERGENCY / NON-EMERGENCY:

Non-Emergency

DEPARTMENTAL CLEARANCES:

Utilities Department

FINANCIAL IMPACT:
☐ Operating

 ☐ Revenue

 ☒ Capital

 ☐ Not applicable

Fiscal Year 2015-2016	Project to Date Budget and Expenditures	Current Year	Future Years	TOTALS
Line Item Budget (Operating)	\$47,500			\$47,500
Line Item Budget (CIP)	\$5,799,900	\$6,200,000	\$16,500,000	\$28,499,900
Encumbered / Expended Amount	\$2,436,784			\$2,436,784
This Item (Construction)		\$2,750,000	\$18,900,000	\$21,650,000
This Item (Testing)		\$54,765		\$54,765
Future Anticipated Expenditures This Project		\$100,000	\$4,080,000	\$4,180,000
BALANCE	\$3,410,616	\$3,295,235	(\$6,480,000)	\$225,851

Fund(s): Water CIP #5

Comments: This project requires approximately three (3) years for construction with anticipated completion in the fall of 2019. The construction contract will result in the expenditure of an amount not to exceed \$21,650,000. The construction materials testing contract will result in the expenditure of an amount not to exceed \$54,765.

RECOMMENDATION:

City Staff and the design engineer recommend approval of a construction contract with PLW Cadagua Partners of The Woodlands, Texas in the amount of \$21,650,000 for the O.N. Stevens Water Treatment Plant High Service Pump Building No. 3 for the Base Bid plus Additive Alternates No. 1 through 4 and approval of a construction materials testing contract with Rock Engineering and Testing Laboratory, Inc. of Corpus Christi, Texas in the amount of \$54,765 for the O.N. Stevens Water Treatment Plant High Service Pump Building No. 3.

LIST OF SUPPORTING DOCUMENTS:

Project Budget
 Location Map
 Presentation
 Testing Contract
 Form 1295