



City of League City, TX

300 West Walker
League City TX 77573

Text File

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In Control: Public Works

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Title

Consider and take action on a resolution authorizing an agreement with Howden-Roots LLC for three replacement aeration blowers for the Southwest Water Reclamation Facility Project (WW1802) in an amount not to exceed \$452,567 (Director of Public Works)

..Background:

Approval of this resolution will authorize the sole source pre-purchase of three Howden 5SV-GK200 single stage integrally geared, centrifugal compressors (Blower) to replace the failing aeration blowers at the Southwest Water Reclamation Facility.

On March 27, 2018 City Council approved a professional services agreement with CDM-Smith for the accelerated design and construction support services for the blower replacement project. As part of the early design activity, it was determined that the direct purchase of the aeration equipment by the City from the blower manufacturer would lessen the lead time for delivery by as much as six-months. The need to fast-track the design and construction is driven by urgent need to restore aeration redundancy that is currently compromised by the sequence of events associated with the blower failures. The pre-purchase allows the manufacturer to begin the build process while the design and associated submittal review move forward. The estimated time line for in-service availability is May 2019 versus November 2019 if the standard Design, Bid, Build, (DBB) process was utilized without the pre-purchase. The construction phase will be competitively bid at completion of the design process. Further detail is available in attached CDM-Smith Pre-Procurement memo.

In December 2015, the three (3) Siemens SC-50 Turbo Blowers that were selected to serve SWWRF began progressively failing. All three machines experienced similar failures by Summer of 2017 (Blower #2 Nov 2015 @ 9,627 hours; Blower #3 Sept 2016 @ 11,625 hours; and Blower #1 May 2017 @ 11,812 hours of operation, respectively). General cause of failure was found to be air bearing failure from ingesting particulate matter from the effects of corrosion and/or metallurgy issues with the rotating assembly. A technical memo from CDM is attached to provide for a more in-depth detail of the issues encountered.

Siemens initially discounted repair of one of the Turbo Blowers, in the amount of \$71,209 (still in service), but the associated 9-month turn around for overseas repairs and the failure of the two remaining blowers, triggered concerns about continued repair cost and long-term commitment to Siemens' air bearing technology. In April 2014, Siemen's warranty obligations expired so the City began negotiations to find an alternative replacement. During this process Howden Roots LLC acquired Siemens' blower product lines, including the manufacturing rights to Siemens' 5SV-GK200 single stage, integrally geared turbo blowers that have been providing the required aeration needs for the City's Dallas Salmon Wastewater Treatment Plant (DSWWTP) since 2010. Soon after Howden Roots' acquisition of the Siemens blower lines, their leadership approached the City with a commitment to find an acceptable solution in an effort to retain the longstanding relationship with the City and their 5SV blower line. These negotiation efforts

led to a proposed agreement with all parties to pursue the purchase of three Howden Roots 5SV single stage turbo blowers at a significantly reduced price.

3 x 5SV Turbo Blowers:

Market Price	\$654,340
<u>Price Reduction</u>	<u>\$201,773</u>
Total Price	\$452,567

Howden Roots agreed in a good faith gesture to include the following services and items in the proposed reduced rate:

1. Reduced voltage soft starters for each blower
2. Integration with the existing master control panel (previously provided by Siemens) to avoid the City having to pay a third-party integrator
3. A five-year extended warranty with annual service
4. Inclusion of previously quoted material upgrades to the blower impellers to avoid future corrosion issues

Estimated equipment and construction cost is \$1,012,902.

Attachments:

1. Data Sheet
2. Proposed Resolution
3. Exhibit A - Howden-Roots Agreement
4. CDM- Smith Updated Recommendation Memo
5. CDM-Smith Pre-Procurement Recommendation Memo
6. Justification for Noncompetitive Procurement
7. Sole Source Letter - Howden
8. Approved Data Sheet March 27, 2018

CONTRACT ORIGINATION: Professional services agreement with CDM-Smith, Inc and the City of League City reviewed and approved by City Attorney's office

FUNDING

{ } NOT APPLICABLE

{X} Funds in the amount of \$452,567 are available from 2015 CO fund 1335 with expenses charged to project expense string WW1802 - CONSTRUCT- CONSTRUCT- 2015CO W/W

{ } Requires Budget Amendment to transfer from Account # _____ to Account # _____

RESOLUTION NO. 2018-67

