



MEMORANDUM

Date: September 27, 2016

To: Madison Water Utility Board

From: Adam Wiederhoeft, PE
Engineer 3, Unit Well 31 Project Manager

Al Larson, PE, BCEE
Principal Engineer

Re: **Unit Well 31 – Recommendation to the Madison Water Utility Board for Professional Construction Administration, Engineering & Inspection Services**

Background Information

Project Background:

The 2006 Madison Water Utility Master Plan identified a fire flow capacity deficiency and a lack of supply redundancy in the southern part of Pressure Zone 4. An analysis of this situation resulted in a recommendation to install a second well in Zone 4 to provide additional capacity, redundancy, reliability and fire protection capacity. Following evaluation of potential well sites and two test wells, the Utility selected and purchased the preferred well site located at 4901 Tradewinds Parkway. The site provides needed supply capacity south of the Beltline Highway, provides redundancy within Zone 4, and significantly improves fire flow to the area. Construction of the production well commenced in 2013 and was completed in 2014. Construction of Reservoir 31, a detached 1.5 MG wire-wound concrete ground storage reservoir was completed in May 2016.

Project Description:

The proposed water treatment building will house the well pump, 16 4-foot diameter vertical pressure filters for iron and manganese removal using pyrolucite media, two above grade backwash tanks, a three-pump booster pumping station, chemical rooms, a restroom and all associated process piping, motors, electronic control/communication equipment and mechanical equipment. The exterior features consist of brick, precast architectural panels, natural stone, and glass block. Attached to the treatment building will be a semi-heated utility storage building with a drive-through garage. Also on-site there will be an emergency standby generator.

The Unit Well 31 facility construction project will be competitively bid in November & December 2016 as a City of Madison Public Works Contract. Construction will begin in spring 2017 and continue for approximately one year, with facility start-up anticipated in early 2018.

Request for Proposal (RFP) and Advertising

In April 2014, Madison Water Utility solicited proposals for professional engineering services related to the design and construction of the proposed Unit Well 31. At that point, several design concepts existed but had yet to be fully explored and evaluated. Subsequently, there was uncertainty regarding the final scope of the facility size, components and the associated level of effort required to oversee the construction. The 2014 Unit Well 31 engineering services contract was awarded to Short Elliott Hendrickson, Inc (SEH, Inc.) for the design through bidding phases of the project, with a request from the Water Utility Board to re-solicit proposals for the construction phase of the project when the scope of the final design is known and construction drawings are near complete. Ref: File 33598

In July 2016, Madison Water Utility in conjunction with City Purchasing advertised for proposals from interested, qualified professional engineering and construction management firms to provide construction engineering, inspection and administration services through the construction and start-up of the Unit Well 31 project. The request for proposals was advertised online by City Purchasing through DemandStar and VendorNet services, as well as it being distributed electronically to an engineering/consulting firm distribution list consisting of over 30 different companies.

Advertising commenced on July 21, 2016, with a proposal deadline of 2:00 PM, August 19, 2016.

Proposals

One proposal was received from SEH, Inc. The proposal was distributed by City Purchasing to a review committee consisting of four Water Utility employees with expertise and knowledge of the project: Al Larson and Adam Wiederhoeft from Engineering; Douglas Van Horn from Operations and Maintenance; Joe DeMorett from Supply.

Review

The evaluation process was coordinated and supported by Brittany O'Donnell, Procurement Representative – City Purchasing. The proposal was reviewed and rated independently by each member of the committee. The proposals were evaluated within five main categories:

1. Project Understanding
 - a. Why the project is needed
 - b. Project objectives & challenges
2. Team Qualifications
 - a. Project team
 - b. Understanding of the Madison development & permitting process
 - c. Understanding of WI-DNR and WI-PSC regulations
3. Project History
 - a. Similar iron & manganese filtration plant projects completed in the last 5 years
 - b. Similar pump station construction projects completed in the last 5 years
 - c. Project references
4. Work Plan

- a. Summary of proposed work plan
- b. Project management qualifications
- c. Summary of proposed time on site/total hours

Anticipated project hours were also considered as a part of the evaluation as a demonstration of the effort expected and as a demonstration of project understanding. These submittals were opened and reviewed following discussion and ranking of the applicants. Submitted hours and costs are 1,520 hours and \$185,500, respectively.

Upon review of the proposal, the committee judged SEH, Inc to be well qualified for the project. The individual scoring worksheets were submitted to City Purchasing for final evaluation, reference inquiries and final scoring. The SEH, Inc. proposal was cumulatively scored as follows:

	<i>(avg. score)</i>	<i>(max points)</i>
Proposal - MWU Panel	SEH, Inc	550
Project Understanding	27.4	30
Qualifications	70.8	80
Project History	191	200
Work Plan	159	180
Proposed Subcontractors	57	60
City Purchasing Evaluation		
References	90	100
Total Cost	300	300
Local Preference	50	50
FINAL EVALUATION SCORE	945.2	1000

Recommendation

Based on all of the information submitted and discussed, the committee came to the consensus that SEH, Inc. is a uniquely qualified firm for this project. Already being the Unit Well 31 project design consultant, SEH, Inc., immediately has a thorough understanding of the project and an unmatched familiarity with the technical details and associated specifications.

SEH, Inc. demonstrated that they have recent and relevant experience with pump station and filter plant construction and supplemented their existing Unit Well 31 design team with the addition of local-office construction management professionals.

The SEH, Inc. qualifications were further supported in the proposal relating to the detailed overview of their project management approach. Detailed project communications protocol, reporting procedures, a project-specific work plan including a detailed summary of anticipated project hours were all included in the proposal. The costs and projected hours submitted by SEH, Inc. demonstrate a clear understanding of the project and its associated challenges.

For these reasons, the committee unanimously recommends the hiring of SEH, Inc. for the professional construction administration, engineering and inspection services for the Unit Well 31 project.