



## **Madison Water Utility**

Tom Heikkinen – General Manager  
Alan L. Larson P.E. – Principal Engineer

119 E. Olin Avenue  
Madison, Wisconsin 53713  
Telephone: 608 266-4651  
FAX: 608 266-4426

# **MEMORANDUM**

Date: March 14, 2014

To: Water Utility Board

From: Al Larson  
Principal Engineer

Re: **Booster Station 115 Upgrade  
Recommendation to the Board for Engineering Services**

### **Background**

Booster Pump Station 115, located in Pressure Zone 6E, provides localized low pressure relief in the Bunker Hill area in east Madison. The pumps draw water from the 3.0 million gallon reservoir on site and pumps to the local area approximately 8 hours per day. Booster Pump Station 115 also provides critical fire flow supply to the East Towne Shopping Center area. The combination of the 3 million gallon reservoir and the pumps produce the needed fire fighting capacity for the large commercial area.

The 2006 Water Utility Master Plan made two recommendations for the Station to remedy water supply and service deficiencies in Zone 6E and the adjacent Zone 3. The first recommendation was to convert the high elevation area around the Station to from Pressure Zone 6E to Zone 3 and to raise the hydraulic grade line from 1070+ to 1140 to mitigate the chronic low pressure problems plaguing the area. The second recommendation was that the Station be reconfigured to a two-zone facility to provide another supply feed from Zone 6E into Zone 3. A third objective is to restore emergency back-up power to the station. The station has been without back-up power since the original natural gas fired engine failed and was removed in 2012.

The planned upgrade of Booster Station 115 will allow Madison Water to implement the two Master Plan recommendations and the additional objective of adding an emergency power supply to the Station.

### **Request for Proposal (RFP) and Advertising**

A request for engineering design services was prepared for the project. The RFP was electronically transmitted to the standard engineering firm distribution list which includes over 30 different companies. The RFP was also posted on the Utility web page.

## **Proposals**

Three proposals were received on March 6, 2014 and distributed the next day to a review committee of four Water Utility employees with expertise and knowledge of the project, Al Larson and Kelly Miess from Engineering, John Larson from Operations and Maintenance and Joe DeMorett from Supply.

## **Review**

The proposals were all reviewed and rated independently by each member of the committee. The committee then met on Wednesday March 12th. The proposals were evenly matched in quality and qualifications. The proposals were evaluated on two main categories:

1. Project Understanding
  - a. Why the project is needed
  - b. Schedule
  - c. Understanding of the Madison process
  
2. Project Qualifications
  - a. Project Team
  - b. Work Experience
  - c. Project Management
  - d. Cost controls
  - e. Work samples
  - f. Madison approval process

Submitted hours were considered as a part of the evaluation as a demonstration of the effort expected and as a demonstration of project understanding. Submitted hours and costs are as follows:

	Hours	Costs
AECOM	797	\$93,531
Baxter Woodman	575	\$74,950
Strand Assoc.	1270	\$147,600

Based on all information received, the proposals were ranked as follows:

	#1	#2	#3	#4
AECOM	2	2	2	2
Baxter Woodman	1	1	1	1
Strand Assoc.	3	3	3	3

## **Recommendation**

Based on all of the information submitted, Baxter Woodman was judged by all reviewers to be the most qualified firm for this project. They have recent and very relevant experience with pump station design and construction. Projects listed include: Beloit WI, Windsor WI and projects at our own facilities including the recently completed upgrade of booster pumps Unit Well 20 and the in-progress addition of a back-up generator and electrical upgrades at Unit Well 26.

Baxter Woodman provided a comprehensive description of the project and a very detailed work plan that clearly demonstrated their understanding of the project, MWU needs, the challenges that we will face in completing the project and all of the tasks needed to gain approval and acceptance of the project by the regulating authorities and the neighborhood.

The costs and projected hours submitted by Baxter Woodman with their proposal further reinforced their depth of understanding of the project and the challenges of developing a project that will meet the Utility's needs. Their proposal included the lowest projected hours and cost, and it was supported by the detail provided in the work plan that reflected past experience, background research and evident forethought regarding the anticipated effort to complete this project successfully.

Following a comprehensive evaluation of all materials submitted the committee unanimously recommends that Baxter Woodman be retained for project development, design and construction services for the upgrade of Booster Station 115.