



City Council Report

Date: June 1, 2009
To: City Council
Through: Jack Friedline, Deputy City Manager
From: Beth Huning, City Engineer
Subject: Northwest Wastewater Reclamation Plant Pump Replacement
City Project #07-021-001
Council District 1

Purpose and Recommendation

The purpose of this report is to provide information to the Council on the results of the bids received for City Project No. 07-021-001, Northwest Water Reclamation Plant (NWWRP) Granite Reef Underground Storage Project (GRUSP) Pumps Variable Frequency Drive (VFD) Replacement. Refer to Exhibit "A" for the project location.

Staff recommends that Council award this project to the low bidder, Commonwealth Electric Company of the Midwest, for a total award of \$239,030.00.

Background

The City pumps reclaimed water from the NWWRP, located at the southeast corner of the intersection of the 101 and the 202 Freeways, to the GRUSP facility, located north of the Salt River and east of Gilbert Road, for the purpose of groundwater recharge. An eight (8) mile long pipeline conveys the water between the two facilities. The three pumps that pump the water are controlled by VFDs that automatically adjust the pumping rates to match the rate of flow coming from the plant.

Discussion

In December of 2007, one of the VFD's (originally installed in 1999) failed. After extensive coordination and troubleshooting with the manufacturer, the problem was isolated and repaired with a total down time of two months. As part of the repair process, it was discovered that the existing VFD's are no longer being manufactured and spare parts are becoming increasingly difficult to find. Due to the limited availability of these parts, they have become very expensive.

Since the initial incident, there have been other problems that have necessitated the replacement of parts and more down time. The vendor from whom the VFD's were purchased has now indicated that they will only support the existing VFD's for the next three to four years.

Additionally, due to advancements in technology over the last 10 years, the replacement drives are expected to be more efficient resulting in reduced power costs.

The project scope includes the total replacement of the three VFD's with modern equipment and the installation of enhanced control wiring. This solution will provide the plant with reliable, locally supported equipment.

Alternatives

One option is to not replace the VFD's until there is a major failure, or until parts can no longer be obtained to repair the existing VFD's. This option poses the risk of extended down time and more expensive repairs. During an extended downtime, the City would not be able to receive the groundwater recharge credits associated with recharging reclaimed water at GRUSP. The water would then be discharged to the City's basins in the Salt River or to the River without an opportunity to recover this water for potable water supplies. This is not recommended.

Fiscal Impact

The recommended total award amount for this project is \$239,030.00, based on the low bid of \$217,300.00 plus an additional \$21,730.00 (10% allowance for change orders).

Funding is available in the Adopted FY 08/09 Wastewater Capital Bond program. This project may also be funded with a \$126,000.00 grant and a 2% interest loan, both from the American Recovery and Reinvestment Act of 2009 (ARRA) through the State's Water Infrastructure Finance Authority (WIFA).

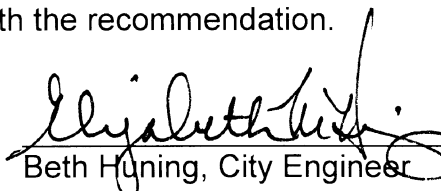
In order to obtain federal stimulus dollars for this project, the project must be "shovel ready" by June 15, 2009, which means able to begin construction.

Coordinated With

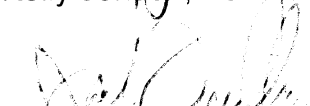
The Water Resources Department concurs with the recommendation.



Kelly Jensen, Assistant City Engineer



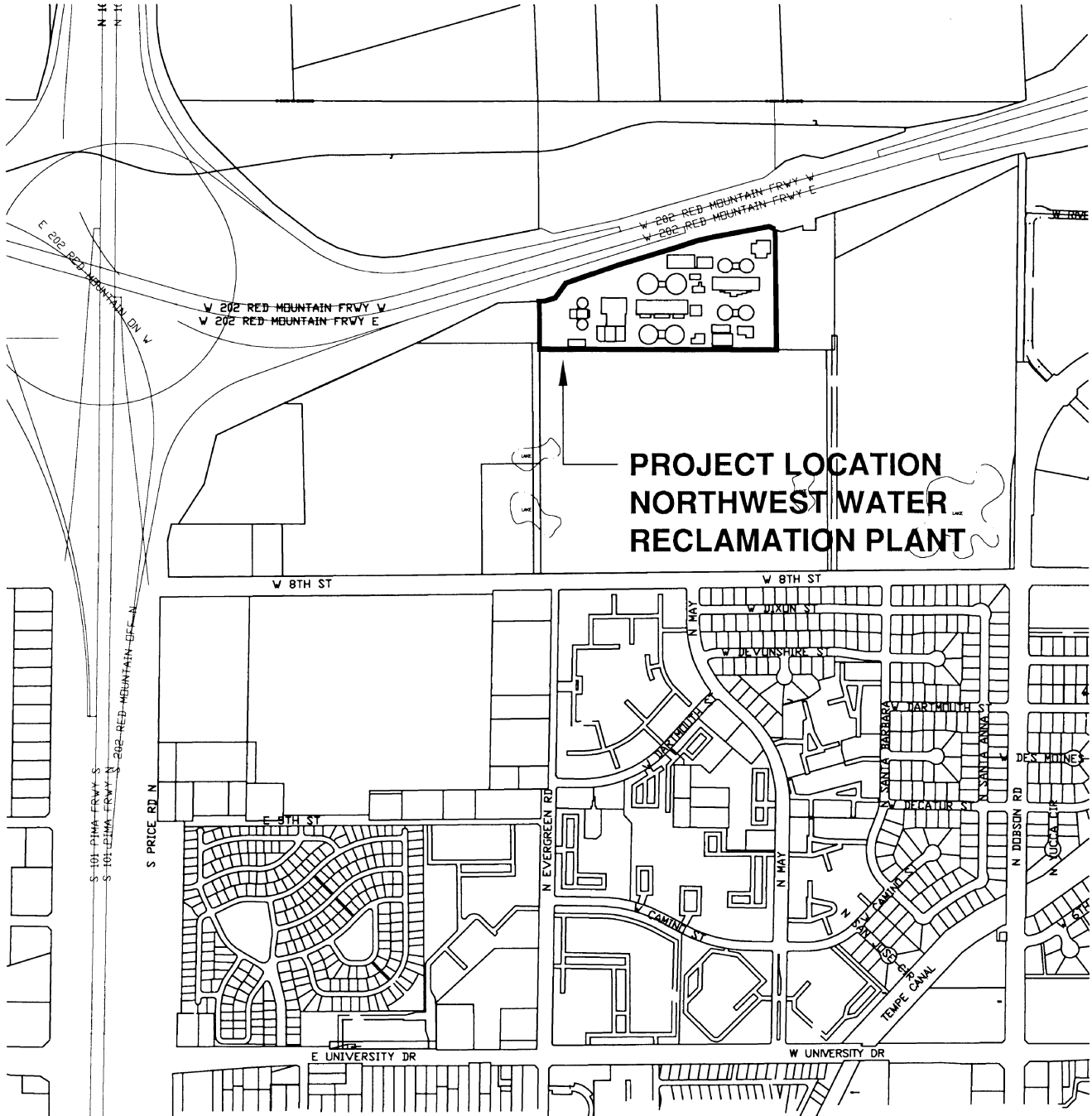
Beth Huning, City Engineer



Jack Friedline, Deputy City Manager



EXHIBIT "A"



**PROJECT LOCATION MAP
NWWRP GRUSP
960 N. RIVERVIEW
PROJECT NO. 07-021-001**



Budget Information:

Funding is available in the Adopted FY 08/09 Wastewater Capital Bond program. This project may also be funded with a \$126,000.00 grant and a 2% interest loan, both from the American Recovery and Reinvestment Act of 2009 (ARRA) through the State's Water Infrastructure Finance Authority (WIFA). In order to obtain federal stimulus dollars for this project, the project must be "shovel ready" by June 15, 2009.

CITY OF MESA
MESA, ARIZONA

NWWRP GRUSP PUMPS VARIABLE FREQUENCY
DRIVES REPLACEMENT
960 N. RIVERVIEW

PROJECT NO. 07-021-001

Tabulation of Bids Received Thursday, April 30, 2009, at 1:30 P.M.


ENGINEERS ESTIMATE	\$316,050.00
1. Commonwealth Electric Company of the Midwest	\$217,300.00
2. Phil Stratton Electric Inc.	\$221,248.00
3. Wilson Electric Services Corp.	\$222,468.32
4. Keller Electrical Industries Inc.	\$227,218.00
5. GSL Electric Inc.	\$228,438.00
6. Sturgeon Electric Company Inc.	\$230,500.00
7. Desert Mechanical	\$238,000.00
8. DutchMasters Electric Inc.	\$239,028.00
9. Felix Construction Company	\$246,195.00
10. Watkins Electric Inc.	\$279,000.00

Johnson Controls Inc. – Bid Not Read – Did not use Correct Bid Schedule and Took Exceptions

Laron Inc. – Bid Not Read – Did not Acknowledge Addendum, Took Exceptions and Used Wrong Bid Schedule

Rural Electric Inc. – Bid Not Read – No Bid Proposal Form Included

Recommend award to low bidder, Commonwealth Electric Company of the Midwest, in the amount of \$217,300.00 plus an additional \$21,730.00 (10% allowance for change orders) for a total award of \$239,030.00.



Jack Friedline
Deputy City Manager