RIVERSIDE PUBLIC UTILITIES

Board Memorandum

BOARD OF PUBLIC UTILITIES **DATE**: JANUARY 8, 2018

ITEM NO: 8

SUBJECT: **CONSTRUCTION OF THE EXPLORATORY UTILITY POTHOLE WORK FOR THE MAGNOLIA AVENUE TECHITE PIPE REPLACEMENT PROJECT – AWARD OF BID NO. RPU-7528 TO T.E. ROBERTS, INC. OF ORANGE, CALIFORNIA, IN THE AMOUNT OF $153,151 – APPROVE WORK ORDER NO. 1612632 FOR $484,000**

ISSUES:

Award Bid No. RPU-7528 to T.E. Roberts, Inc. of Orange, California, for the construction of the Exploratory Utility Pothole Work for the Magnolia Avenue Techite Pipe Replacement Project in the amount of $153,151, and approve the expenditure of $484,000 for Work Order No. 1612632 that includes a budgetary amount to cover upfront costs for the pipeline design by Riverside Public Utilities staff.

RECOMMENDATIONS:

That the Board of Public Utilities:

1. Award a contract for the construction of the Exploratory Utility Pothole Work for the Magnolia Avenue Techite Pipe Replacement Project – Bid No. RPU-7528 to the lowest responsive and responsible bidder, T.E. Roberts, Inc. of Orange, California, in the amount of $153,151; and

2. Approve the capital expenditure of $484,000 for Work Order No. 1612632, which includes all design, construction, paving, contract administration, inspection and construction contingency costs for the Exploratory Utility Pothole Work for the Magnolia Avenue Techite Pipe Replacement Project. A budgetary amount is also included to cover upfront costs for the pipeline design by RPU staff.

BACKGROUND:

The Public Works Department (PW) is scheduled to construct a street improvement project along Magnolia Avenue between Buchanan Street and Tyler Street. The project will entail modifications to the center medians to accommodate a third traffic lane in each direction and installation of new curb, gutter, sidewalk and asphalt pavement at various places along with modifications to the traffic signals and existing storm drain facilities.

In advance of and in coordination with the street improvement project, Riverside Public Utilities (RPU) will replace approximately 5,500 linear feet of 27-inch and 36-inch Techite pipeline currently in use along Magnolia Avenue between Park Sierra Drive and Hole Avenue with cement mortar lined and coated steel pipe. RPU will also replace approximately 2,000 linear feet of old 6-inch diameter cast Iron pipe with 12-inch ductile iron pipe. In addition, the existing Polk and Magnolia pressure reducing stations will be replaced with a single pressure reducing station facility.

By constructing the transmission main prior to the street widening, portions of the pipeline can be installed in the existing medians that will eventually become new traffic lanes, thereby reducing RPU's construction costs.

When designing new water transmission pipelines, it is important to understand the location of existing underground utilities in order to anticipate their location and minimize conflicts during construction of the new facilities. A variety of methods are available for establishing the location of existing underground utilities. Some of these include reviewing record drawings or "as-built" plans, surveying ground features such as manholes, vaults or valve covers and talking with the utility owners. Depending on the age and nature of available records, they may not be accurate or reliable.

It is not practical to unearth an entire underground utility to establish its location. Instead, physically confirming the location of existing utilities at select locations using small excavations is more economical. This method is often referred to as "utility potholing" and is an effective method for identifying the location of existing underground utilities at proposed utility crossings and other critical locations.

The work involves removing a small section of the asphalt roadway followed by excavating a small hole to the top, alongside and bottom of the existing utility, usually with the assistance of a high-pressure water jet wand to loosen the soil and an industrial grade vacuum machine to evacuate the mud slurry. Before the hole is backfilled and repaved according to the standards set forth by PW, measurements are taken and recorded.

Figure 1 – Typical Utility Potholing Setup for Hydro Excavation with a Vacuum Machine

The utility potholing work will provide important information such as the depth, size and location of existing utilities that are near, crossing or parallel to the proposed recycled water pipelines.

DISCUSSION:

The work will entail seventy-four utility potholes along with all incidental work. Pavement repairs are also included as part of the work in accordance with the PW standards.

Staff has coordinated with PW regarding the allowable working hours for the project. Due to Magnolia Avenue being a heavily traveled arterial roadway and the close proximity of the work location to the Galleria at Tyler shopping center and other businesses, the work is required to occur during nighttime working hours. Daytime hours on Saturdays are also allowed. For work occurring in the immediate vicinity of motels and the Galleria at Tyler shopping center, the work hours will be modified slightly to minimize disruptions to patrons in those areas of the project. The work will not affect service to RPU water customers.

The inspection budget for the project has been enhanced to account for construction oversight work during nighttime hours.

Bid RPU-7528 was advertised on November 16, 2017, and the bids were opened on December 6, 2017. Two construction contractors submitted bids. Staff has determined that T.E. Roberts, Inc. submitted the lowest responsive bid. Staff has reviewed all provided documentation and has determined that T.E. Roberts, Inc. has met all of the requirements of the specifications.

The table below summarizes the two bids received:

	COMPANY	CITY LOCATION	BID TOTAL
1.	**T.E. Roberts, Inc.**	**Orange, CA**	**$153,151**
2.	Weka, Inc.	Highland, CA	$224,083

►*Engineer's Construction Cost Estimate $150,800*

The Purchasing Manager concurs that the recommended actions comply with the City of Riverside's Purchasing Resolution No. 23256.

The project breakdown is as follows:

Project Breakdown:	
Engineering Performed By:	RPU Engineering staff
Construction to be Performed By:	T.E. Roberts, Inc.
Anticipated Start Date:	February 2018
Anticipated Duration:	1 Month
Coordination Required With:	Public Works
Reimbursements:	None

The expenditure for Work Order No. 1612632 is estimated to be $484,000 as summarized in the following table. A budgetary amount is included in this work order authorization to cover upfront costs for the pipeline design by RPU staff. The overall project cost for the pipeline and pressure reducing station replacement is estimated at $5,700,000. A detailed breakdown of the project costs will be brought before the Board at a future date with a recommendation to award the overall construction contract.

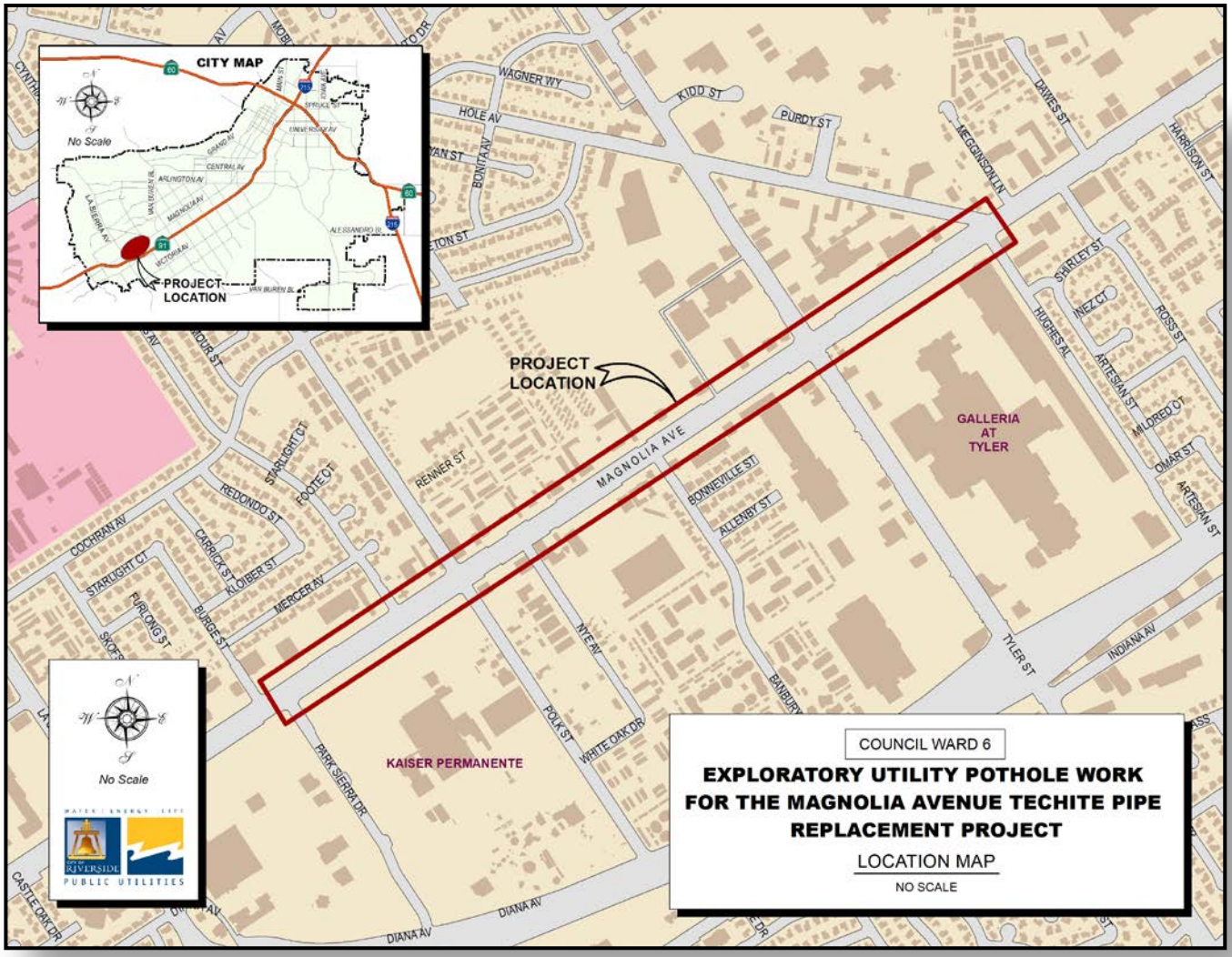
Description	Cost	Percent of Total
Design	$15,533.90	6.6%
Construction (T.E. Roberts, Inc.)	$153,151.00	65.5%
Construction Contingencies	$15,315.10	6.5%
Construction Management and Engineering Support	$10,000.00	4.3%
Inspection	$40,000.00	17.1%
Total for the Potholing Work	**$234,000.00**	**100.0%**
Budgetary Amount to Cover Upfront Costs for the Pipeline Design	$250,000.00	
Work Order Total	**$484,000.00**	

FISCAL IMPACT:

Sufficient funds are available in the Public Utilities' Water Transmission Main Account No. 6230000-470735.

Prepared by: Todd L. Jorgenson, Utilities Assistant General Manager/Water
Approved by: Girish Balachandran, Utilities General Manager
Approved by: John A. Russo, City Manager
Approved as to form: Gary G. Geuss, City Attorney
Certifies availability of funds: Laura Chavez-Nomura, Utilities Assistant General Manager/Finance

Attachments:
1. Bid Award Recommendation
2. Presentation


CITY MAP
No Scale
PROJECT LOCATION
PROJECT LOCATION
MAGNOLIA AVE
GALLERIA AT TYLER
KAISER PERMANENTE
WAGNER WY
KIDD ST
PURDY ST
HOLE AV
DAVIES ST
HARRISON ST
SHIRLEY ST
INEZ CT
ROSS ST
HUGHES AL
ARTESIAN ST
MILDRED CT
OMAR ST
ARTESIAN ST
RENNER ST
STARLIGHT CT
REDONDO ST
FOOTE CT
COCHRAN AV
CARRICK ST
KLOTBER ST
MERCER AV
FURLONG ST
BURGE ST
BONNEVILLE ST
ALLENBY ST
NYE AV
POLK ST
WHITE OAK DR
PARK SIERRA DR
DIANA AV
TYLER ST
INDIANA AV
No Scale
PUBLIC UTILITIES
COUNCIL WARD 6
EXPLORATORY UTILITY POTHOLE WORK
FOR THE MAGNOLIA AVENUE TECHITE PIPE
REPLACEMENT PROJECT
LOCATION MAP
NO SCALE