

# RIVERSIDE PUBLIC UTILITIES

## Board Memorandum

**BOARD OF PUBLIC UTILITIES**

**DATE:** SEPTEMBER 26, 2016

**ITEM NO:** 13

**SUBJECT:** APPROVAL OF COMMUNICATIONS SYSTEM AGREEMENT FROM THE DESIGN BUILD PROPOSAL NO. 1558, WITH MOTOROLA SOLUTIONS, INC., OF SAN DIEGO, CALIFORNIA, FOR THE LAND MOBILE RADIO PROJECT FOR \$2,479,852, AND APPROVAL OF WORK ORDER NO. 1524282 FOR \$3,000,000

**ISSUES:**

Approve a Communications System Agreement from the Design Build Proposal No. 1558 to Motorola Solutions, Inc., of San Diego, California, for \$2,479,852; and 2) Work Order No. 1524282 for \$3,000,000.

**RECOMMENDATIONS:**

That the Board of Public Utilities:

1. Approve Communications System Agreement to Motorola Solutions, Inc., of San Diego, California, for the Land Mobile Radio Project for \$2,479,852; and
2. Approve Work Order No. 1524282 for \$3,000,000.

**BACKGROUND:**

Riverside Public Utilities (RPU) operates a Land Mobile Radio (LMR) system to facilitate voice communications between field crews and Utilities Dispatch, which handles all field communications for the electric and water divisions. The existing LMR system consists of five (5) low band VHF channels in the frequency range of 40 megahertz (MHz) to 50 MHz. There are approximately 250 radio units currently operating on the LMR system.

The existing LMR system was commissioned in 2002 and has reached the end of its useful life. Several of the components required to operate the system are obsolete and are no longer supported by manufacturers. In addition, the current system does not provide adequate coverage throughout the service territory. Staff frequently cannot use the system and have to rely on cell phone communications, which is significantly less effective. The existing LMR system can no longer provide the quality of service necessary for RPU field forces to complete their work safely and effectively.

The 2015 Strategic Technology Plan recommended the implementation of a new LMR system as one of the high priority projects. RPU intends to replace its existing LMR infrastructure with a new state-of-the-art system following the Project 25 (P25) public safety standard. Under the proposed agreement with Motorola Solutions, Inc. (Motorola), RPU would acquire 170 portable radio units and 100 mobile radio units, which include highly desirable features, such as encryption, GPS location, Over-the-Air-Programming, and enhanced safety features.

The new system is secure and operates in the 700 MHz frequency band, which is compatible with the County of Riverside's Public Safety Enterprise Communication system, as well as the City of Riverside's Police Department radios, enabling seamless communications during regional emergencies and disasters. It is highly reliable, fault tolerant, and provides increased radio coverage in the RPU service area. This system can also be integrated across multiple voice and data networks meeting RPU's current needs, while providing a path for future expansion.

On March 7, 2016, staff issued a Design Build Request for Proposal (RFP 1558) through the Purchasing Division for a turnkey design, purchase and install Land Mobile Radio system. The proposed scope of work includes equipment, installation, configuration, testing, commissioning and training to replace the existing system. Approvals from the Federal Communication Commission to use new licensed channels have already been secured. Two vendors submitted proposals on April 18, 2016. The evaluation panel deemed Motorola Solutions, Inc. to be the lowest responsive and responsible proposer. CAZCOM, Inc. was deemed non-responsive by the Purchasing Services Manager because the bidder did not provide the specified security bond as required in the bid documents.

The proposal results are shown in the table below:

<b>Vendors:</b>	<b>Bid Amount</b>	<b>Evaluation</b>
1. Motorola Solutions, Inc	\$2,479,852	Lowest Responsive and Responsible Bidder
2. CAZCOM, Inc	-	Non-responsive
➤ <i>Engineer's Estimate</i>		\$1,925,000

The project bid amount is above the engineer's estimate because of higher equipment costs for the core system as well as the mobile units themselves. The P25 system proposed by Motorola includes features that are highly desirable, such as encryption, network management, over-the-air-programming, and GPS location. Over the life of the proposed system, these additional features will allow benefits that the current LMR radio system cannot provide. Encryption will help ensure operations communications are secure. Network management and over-the-air-programming will ensure that all equipment can be programmed with minimal downtime. Finally, the GPS feature will provide RPU Operations with real time location of all its field resources which is important for efficiency and emergency response.

Project management, design review, inspection, factory acceptance testing, and commissioning efforts will be completed by RPU staff. The total capital expenditure for the Land Mobile Radio Project, including all costs for equipment, materials, engineering, training and testing are as follows:

<b>Work Order Breakdown</b>	<b>Sub-Total</b>	<b>Percent of Total</b>
Motorola Solutions, Inc. Agreement	\$2,479,852	83%
RPU In-House Labor and Misc.	\$520,148	17%
<b>TOTAL</b>	<b>\$3,000,000</b>	<b>100%</b>

<b>Project Breakdown</b>	
Engineering Performed By:	RPU and Motorola
Civil Construction Performed By:	N/A
Electrical Work Performed By:	RPU and Motorola
Anticipated Start Date:	October 1, 2016
Anticipated Duration:	6 months
Coordination Required With:	Riverside Police Department and FCC
Reimbursements:	N/A

The Purchasing Services Manager concurs that the recommended actions comply with the City of Riverside's Purchasing Resolution No. 22576.

**FISCAL IMPACT:**

The total capital expenditure for Work Order No. 1524282 is estimated to be \$3,000,000. Sufficient funds are available in Public Utilities' Capital Account No. 6130000-470664, initial funding being provided from an Electric Division capital account. Actual costs will be allocated to the Water Division based upon the number of deployed water radio units.

Prepared by: Pat Hohl, Utilities Assistant General Manager/Energy Delivery  
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. Communications Agreement with Motorola
2. Presentation

# LMR Project Site Map

