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**SYSTEMS SAFETY, SECURITY AND OPERATIONS COMMITTEE
SEPTEMBER 17, 2015**

SUBJECT: ATMS COUNTYWIDE BUS SIGNAL PRIORITY IMPLEMENTATION

ACTION: AWARD CONTRACT

RECOMMENDATION

AUTHORIZING the Chief Executive Officer to award a sole source firm fixed price Contract No. PS92403277 to **Xerox Transport Solutions, Inc. for the integration of a Countywide Signal Priority (CSP) software module into Metro's Advanced Transportation Management System (ATMS)** for an amount of $952,000.

ISSUE

In 1998, Metro initiated the Countywide Bus Signal Priority Pilot Project as part of an effort to design, develop, implement, and evaluate a multi-jurisdictional bus signal priority system as well as develop countywide signal priority guidelines for Los Angeles County. The CSP Pilot Project was a collaborative effort bringing together multiple jurisdictions and transit operators that resulted in the development of a wireless signal priority standard for Los Angeles County.

In 2005, Metro embarked on the Countywide Metro Rapid Signal Priority Expansion Project. This was a follow-up to the previous successful demonstration pilot and the first phase of an expansion effort to implement signal priority on seven Metro Rapid corridors traversing through 24 jurisdictions. In accordance with the Metro Rapid Five-Year Implementation Plan, the first phase focused on providing bus signal priority for four Metro Rapid corridors including, Pacific-Long Beach, Soto, Hawthorne, and Florence. In 2008, Metro initiated work on the second phase of the Countywide Metro Rapid Signal Priority Expansion Project to implement signal priority along the Manchester, Garvey-Chavez and Atlantic Metro Rapid corridors. Additional communication enhancements for Metro fleet operations have taken place as part of that phase.

Currently, on-bus technology is implemented utilizing a third-party vendor and requires dedicated fleet assignments. With the continuous changing fleet environment, this becomes a growing challenge to maintain for both bus operations and CSP deployments. The wireless standards deployed at the inception of the system specified similar communications protocol as the current proprietary ATMS system. Metro's ATMS computer system is the core system used to manage Metro's bus fleet. The ATMS system incorporates automated vehicle location (AVL), automated passenger counting (APC), automated voice annunciation (AVA) and interfaces with the various fleet

video, fare payment and headsign systems to better manage the overall effectiveness of the fleet on a 365/24/7 basis. Adding the recommended countywide signal priority module to the current ATMS suite of functionality allows the existing infrastructure to be leveraged in a way that no new additional hardware is needed to implement the signal priority solution, although it does require this sole source contract to be executed. Additionally, since Metro's ATMS system is already used countywide, this new software module will similarly be able to provide a one-size-fits-all solution for all of the various cities within the County that support the signal priority concept on Metro's fleet.

Status

Metro has partnered with various agencies throughout the county to deploy street infrastructure for communication. CSP infrastructures have been deployed on the following corridors:

- Crenshaw (Los Angeles, Inglewood, LA County, Gardena, & Hawthorne)
- Pacific-Long Beach (LA County, Huntington Park, South Gate, & Lynwood)
- Florence (LA County, Inglewood, Huntington Park, Bell, & Bell Gardens)
- Soto (LA County, Vernon, Huntington Park, South Gate,& Lynwood)
- Hawthorne (LA County, Inglewood & Lawndale)
- Manchester (LA County, Inglewood, & South Gate)
- Garvey-Chavez (LA County, Monterey Park, Rosemead, South El Monte, & El Monte)
- Atlantic (LA County, Alhambra, Bell, Compton, Cudahy, Long Beach, Lynwood, Maywood, Monterey Park, Pasadena, South Gate, South Pasadena, & Vernon)

DISCUSSION

The countywide signal priority solution requires a coordinated effort with the various cities throughout Los Angeles County. A general operational description of the signal priority solution is summarized below:

1. A Metro vehicle operating along a rapid line approaches a given intersection within a city boundary.

2. A pre-existing agreement between Metro and the "City" establishes the conditions under which the City would allow a given signal timing event (green light) to be extended to allow a Metro bus to obtain priority and proceed through the intersection. If a bus is early and/or on-time, or if a bus is not a rapid bus, or other special circumstances (e.g. pre-empted emergency vehicles), then the City would not trigger a change to the signal timing to allow priority.

3. Each City within the Rapid lines would have an agreement in place for signal priority. The intent is to establish a uniform set of conditions for countywide signal priority, but there may be some differences to account for certain infrastructure variations.

4. Each Rapid vehicle operating within the City would be processed under the same conditions to assess priority. Day of week, time of day, special events, maintenance periods and related variables would all be part of the decision conditions for allowing priority.

DETERMINATION OF SAFETY IMPACT

The countywide signal priority software helps to improve the efficiency and effectiveness of transit service along Metro's rapid lines. There is no specific safety related impact and/or improvement in the implementation of this software module.

FINANCIAL IMPACT

The funding for this project is budgeted under cost center 9210, Information Management - Transit Applications, Capital Project 207136, Countywide Signal Priority, account 50320 - Contracted Services. This capital project was approved and is funded by federal grant funds. Since this is a multi-year project, the project manager and the Chief Information Officer will be responsible for budgeting costs in future years.

Impact to Budget
The funding for this action will come from grant funds earmarked for signal priority. No other sources of funding were considered for this activity since the project is 100% funded with dedicated grant funds which are not available or eligible for general bus and rail operating and/or capital projects. This project will not impact on-going operating expenses.

ALTERNATIVES CONSIDERED

The Board may choose to not award or to postpone awarding this contract. However, this is not recommended as the proposed capital project LOP is fully grant funded and addresses a customer service improvement goal which, when fully operational, has the potential to improve service times across all rapid lines throughout the County of Los Angeles.

NEXT STEPS

Upon approval by the Board, staff will move forward with awarding the new contract.

ATTACHMENTS

Attachment A - Procurement Summary
Attachment B - DEOD Summary

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