

**Board Report**

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**File #:** 2022-0427, **File Type:** Contract**Agenda Number:** 29.

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**CONSTRUCTION COMMITTEE  
AUGUST 18, 2022****SUBJECT: METRO I-105 EXPRESSLANES - ROADSIDE TOLL COLLECTION SYSTEM****ACTION: APPROVE RECOMMENDATIONS****RECOMMENDATION**

AUTHORIZE the Chief Executive Officer to:

- A. AWARD firm fixed price Contract No. PS78835000 for the I-105 ExpressLanes Roadside Toll Collection System (RTCS) Design, Build, Operate, and Maintain (DBOM) contract to Conduent State and Local Solutions Inc. in the amount of \$66,067,392 for a 12-year base period including the occupancy detection system, \$13,161,324 for the first three-year option term for operations and maintenance, \$14,165,857 for the second three-year option term for operations and maintenance, and \$1,217,700 for a standalone Traffic Management Center, for a total contract value of \$94,612,273, subject to resolution of protest(s), if any.
- B. EXECUTE individual Contract Modifications within the Board-approved CMA in the not to exceed amount of \$6,606,739, to cover the costs of anticipated future changes to the contract as informed by past experience with other Metro ExpressLanes contracts of similar nature, scope, and duration.

**ISSUE**

Board authorization is needed for the Chief Executive Officer to award a contract for the I-105 ExpressLanes Project RTCS DBOM for the procurement and installation of the necessary roadside infrastructure, customization of the algorithm for dynamic pricing and ongoing operations and maintenance.

**BACKGROUND**

In January 2017, the Board approved the Countywide ExpressLanes Strategic Plan, which listed I-105 as a priority Tier 1 corridor to be implemented within the next 5-10 years. In December 2020, the I-105 ExpressLanes project received a \$150 million Solutions for Congested Corridors Program (SCCP) grant from the California Transportation Commission (CTC). In May 2021, Metro and Caltrans completed the Project Approval/Environmental Document (PA/ED) phase for the I-105 ExpressLanes. The project is now in the next phase of project development, which is Plans,

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Specifications, and Estimates (PS&E). In April 2022, the Board awarded a contract to prepare PS&E. Now in August 2022, Metro is seeking Board approval for the RTCS contract (the subject of this Board Report), the Construction Management/General Contractor (CM/GC) contract, and the Project Management Support Services (PMSS) contract. The RTCS, CM/GC, and PMSS contracts are required to construct and implement the I-105 ExpressLanes. With prior Board direction, staff continues to seek additional funds through U.S. Department of Transportation (USDOT) discretionary grant programs.

Metro, in partnership with the California Department of Transportation (Caltrans), is implementing improvements on the I-105 corridor in the cities of El Segundo, Inglewood, Hawthorne, Los Angeles, Lynwood, South Gate, Paramount, Downey, Norwalk, and portions of unincorporated Los Angeles County. The improvements will convert the existing HOV lane to one or more High-Occupancy Toll (HOT) lanes, referred to as express lanes and branded by Metro as I-105 ExpressLanes.

The I-105 corridor is an integral part of Southern California's freeway network, extending from I-405 at the western limit to Studebaker Road at the eastern limit. Traffic demand regularly exceeds the capacity of the corridor, resulting in over 11,000 daily Vehicle Hours of Delay (VHD) for eastbound general-purpose lane users and over 2,200 daily VHD for westbound HOV lane users. Existing daily vehicle miles travelled exceed 2.7 million, and Average Daily Traffic (ADT) volume exceeds 250,000 vehicles, with HOV lanes accounting for 17% of total ADT.

Metro anticipates that the I-105 ExpressLanes will be developed in multiple segments, starting with segment 1 spanning between I-405 and Central Avenue and segment 2/3 between Central Avenue and Studebaker Road.

The I-105 ExpressLanes Project will provide multi-modal travel options and mobility benefits to all users in the corridor. Metro transit, vanpool, and HOV users are eligible to continue to use the lanes without a toll. Revenues from ExpressLanes can support Metro rail and Metro/municipal bus operations through direct subsidies to transit programs on the ExpressLanes. Local cities and agencies benefit from the ExpressLanes Net Toll Revenue Grant program which supports transit and active transportation programs and adds a tool to help close the first/ last mile gap.

The I-105 ExpressLanes project is expected to improve overall operating conditions on local arterials due to vehicles shifting away from arterials and onto I-105. Local streets and arterials will have fewer cars congesting their intersections which will offset the vehicle miles travelled improve air-quality in the neighborhoods, and accommodate potential active transportation improvements.

A major component of the project is the RTCS. The RTCS contractor will be responsible for providing input to the overall design of the ExpressLanes on I-105, implementation of the RTCS, and Operations and Maintenance (O&M) of the system post-construction.

## **DISCUSSION**

### **Recommendation A: Award of I-105 ExpressLanes RTCS Contract**

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The RTCS encompasses the hardware and software systems in the field needed to support congestion pricing calculations and toll collection from customers traveling in the ExpressLanes. Functions of the RTCS include transponder communications, image capture and processing, dynamic pricing, and transaction acquisition. Since all toll agencies, including Metro ExpressLanes, have very specific business rules, toll rate policies, customer policies, and standard operating procedures dictated by the agency or statute, each RTCS must be designed to conform to precisely specified requirements.

The system and services under this contract will incorporate the latest best-in-class tolling technologies capable of fulfilling the needs on the I-105 ExpressLanes over the next 12 to 18 years, depending on the execution of options, with additional capacity for future growth to support additional ExpressLanes corridors if required. The contract will also include an option for an automated occupancy detection system to electronically verify the number of occupants in each vehicle at configured locations.

This RTCS contract term and associated scope of work, which included over 1,700 requirements, was developed in collaboration with a team of consultants with tolling expertise. The recommended contract term is based on experience gained in a decade of tolling, as well as the results of an Industry Forum conducted in February 2017. The current I-10/I-110 RTCS contract for the I-10 and I-110 ExpressLanes also has a similar period of performance of 12 to 18 years.

Staff is recommending a long-term contract because the RTCS requires large capital investment for the equipment necessary to support electronic tolling, the complexity associated with system integration, and the substantial number of labor hours required to bring a new RTCS online. Industry experience has shown that a typical acquisition of a RTCS requires at least 30 to 36 months to complete. This places a significant burden on Metro in terms of time and resources, making the process cost-prohibitive to repeat at more traditional procurement intervals. With a shorter contract term, the agency would be in a perpetual cycle of system procurement, integration, and data migration.

The procurement and deployment timeframe for the I-105 RTCS is provided below.

- Months 1-12: Prepare a suitable statement of work to reflect tolling best practices and lessons learned from past program experience.
- Months 13-22: Release RFP, review proposals, interview, negotiate, seek Board approval, and award contract.
- Months 23-50: Design RTCS
- Months 51-86: Construction of I-105 ExpressLanes, including the RTCS

The design and construction phases will last approximately five years, while base O&M will last approximately seven years. Therefore, an 18-year contract will provide for O&M for up to 13 years (seven-year base, plus two options of three years each), which is similar to that of the I-10/I-110 ExpressLanes RTCS contract approved by the Board in June 2018.

A potential total contract term of 18 years (including the design phase) will allow Metro to fully realize the useful life of the system and obtain maximum return on investment. Furthermore, it typically takes

at least a year of operation to comprehensively verify system reliability and achieve steady-state conditions. Therefore, it is usually several years from the date that work commences before normal, stable operating conditions are achieved. For this reason, a shorter contract duration would lead to significant procedural inefficiencies, as the procurement process would need to be restarted before the current contractor has achieved stable operations. Minimizing the number of vendor/system transitions for the RTCS also reduces costs, avoids lane closures, and minimizes the risk of lost transactions and service disruptions that can arise during system transition. Therefore, staff is recommending a 12-year base contract with two options of three years each, for a total of 18 years.

Staff will return to the Board to seek approval before authorizing either of the contract options for additional years of RTCS O&M. This will be done far enough in advance of the current contract end date to allow sufficient time to develop, advertise, award, and implement a new RTCS if directed to do so by the Board in lieu of executing one of the O&M contract options.

**Recommendation B: Contract Modification Authority Considerations**

The request for authorization to execute individual Contract Modifications within the Board-approved CMA will serve as a management tool for staff to issue Contract Modifications expeditiously to the contractor for additional costs that may be incurred as a result of necessary activities that are challenging to predict or anticipate sufficiently far enough in advance to incorporate them into the original contract with any precision or reliability. Furthermore, these activities often require rapid or immediate response to address conditions that impact public safety, continuity of operations, and/or customer-facing aspects of the system.

Examples of such required contract expenditures that are effectively impossible to anticipate and that require rapid/immediate response include system hardware and software upgrades in response to newly discovered critical vulnerabilities. They also include repairs to address damage to field infrastructure resulting from acts of vandalism, theft, sabotage, or other destruction of roadside equipment by malicious or negligent third parties.

Staff is therefore recommending the authorization for the CEO to execute individual Contract Modifications within the Board-approved CMA to ensure that such needs may be expeditiously addressed to prevent schedule delays during the construction phase, minimize system downtime, avoid service interruptions, and protect against any customer-facing impacts.

**DETERMINATION OF SAFETY IMPACT**

The Board action is not anticipated to have an impact on the safety of Metro's patrons or employees.

**FINANCIAL IMPACT**

The FY 2022-23 budget includes \$3 million in Cost Center 2220 (Shared Mobility) and Project 475004 for the I-105 ExpressLanes RTCS. Since this is a multi-year contract, the Cost Center Manager, RTCS Project Manager, and Deputy Chief Operations Officer of Shared Mobility will be responsible for budgeting in future years. Consistent with existing ExpressLanes policy, the ongoing I

-105 ExpressLanes O&M will be funded through future toll revenues.

In December 2020, the I-105 ExpressLanes project received a \$150 million SCCP grant from the CTC which will be used for constructive activities.

### Impact to Budget

The funding for this Project is from Measure M funds included in the 2016 Measure M Expenditure Plan; to be used for pre-construction expenses for the I-105 ExpressLanes project. Those funds are not eligible for Metro bus/rail capital or operating expenditures.

## **EQUITY PLATFORM**

The Diversity and Economic Opportunity Department (DEOD) established a 22% Disadvantaged Business Enterprise (DBE) goal for this solicitation. The proposed contractor team satisfied Metro's goal by making a 22% DBE commitment. Prior to the release of the solicitation, two virtual Metro Connect Industry Forums were conducted for the I-105 ExpressLanes Construction Management/General Contractor (CMGC) and RTCS projects on June 3, 2021, and July 23, 2021. The June 3<sup>rd</sup> event was attended by 138 individuals and the July 23<sup>rd</sup> event was attended by 88 individuals. The events were held to inform the SBE/DBE/DVBE community of the upcoming I-105 contracting opportunities and to increase SBE/DBE/DVBE participation.

Equity Focus Communities (EFCs) comprise approximately six miles of the sixteen-mile-long corridor. In the one-mile area around the I-105, about 94% of the total population of 536,000 is minority (70.3% Hispanic, 19.6% African American, 3.5% Asian, 0.6% American Indian) based on 2018 data. Of the 142,000 households living in this area, 22% earned below the poverty level (\$25,900 for a family of four) and 26% earned less than \$25,000 annually.

To ensure low-income households are afforded equitable access to the ExpressLanes and their benefits, Metro's Low Income Assistance Plan and Transit Rewards programs will help lower the costs of opening and maintaining an ExpressLanes account while providing reliability benefits to all users. These programs along with dynamic pricing for solo drivers using the ExpressLanes will help ensure the facility operates as efficiently as possible while maintaining reliable and equitable travel for all.

Additional strategies cited in the final environmental document to help mitigate negative project impacts on EFCs include sound walls, best management practices, and a traffic management plan (TMP) to reduce construction-related impacts.

## **IMPLEMENTATION OF STRATEGIC PLAN GOALS**

The I-105 ExpressLanes project supports Strategic Goal 1, providing high-quality mobility options that enable people to spend less time traveling, by increasing regional highway capacity and offering travelers on the corridor a new, quicker, more reliable, and convenient travel mode alternative.

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The project supports Strategic Goal 2, delivering outstanding trip experiences for all users of the transportation system, by improving trip times and travel speeds for both the ExpressLanes and the general-purpose lanes.

The project supports Strategic Goal 4, transforming LA County through regional collaboration and national leadership, by strengthening Metro's relationships with Caltrans, the Federal Highway Administration, Los Angeles County, local cities/jurisdictions, and several other agencies.

### **ALTERNATIVES CONSIDERED**

The Board may elect not to award and execute the Contract. This alternative is not recommended because the I-105 ExpressLanes project requires an RTCS for core operational functions including dynamic pricing, toll collection, and violation enforcement.

The Board may elect to direct staff to develop and install the system using in-house resources. This alternative is not recommended because Metro staff does not currently possess sufficient expertise in developing, installing, and maintaining roadside tolling equipment, nor does it have the necessary staffing to do so.

### **NEXT STEPS**

Upon Board approval, staff will execute Contract No. PS78835000 to Conduent State & Local Solutions, Inc. for the design, implementation, operation, and maintenance of the new I-105 ExpressLanes RTCS.

### **ATTACHMENTS**

Attachment A - Procurement Summary

Attachment B - DEOD Summary

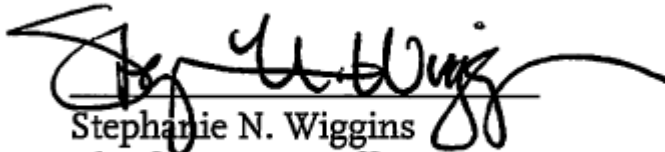
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