



Board Report

File #: 2018-0483, **File Type:** Contract

Agenda Number: 24.

**OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE
SEPTEMBER 20, 2018**

SUBJECT: DOOR ENABLE SYSTEM (CORRECT SIDE DOOR OPENING PROJECT)

ACTION: APPROVE USE OF DESIGN-BUILD CONTRACT DELIVERY METHOD

RECOMMENDATION

CONSIDER:

- A. FINDING that awarding a design-build contract pursuant to Public Utilities Code Section 130242(b) will achieve for Metro certain private sector efficiencies through the integration of design, project work and components at Metro rail facilities and in Metro light rail vehicles in Los Angeles County as defined by the project listed in Attachment A. Approval requires a two-thirds affirmative vote;
- B. ADOPTING the use of the design-build process pursuant to Public Utilities Code Section 130242 et seq. will result in a reduction in project costs and expedite project completion. Approval requires a two-thirds affirmative vote; and
- C. AUTHORIZING the Chief Executive Officer to solicit a design-build contract for design and construction of the project listed in Attachment A pursuant to Public Utilities Code Section 130242 (a), (c), (d) and (e).

ISSUE

Metro is authorized to enter into design-build contracts pursuant to Public Utilities Code Section 130242. Recommendation A requires Board approval.

Public Utilities Code Section 130242 et seq. allows for the negotiation and award of a design-build contract to a responsible proposer whose proposal is determined to be the best value to Metro. Recommendation B requires Board approval.

BACKGROUND

The Door Enable System (Correct Side Door Opening) Project on LRT (CP 214002) is a light rail line safety improvement project for the Blue, Gold, and Expo Lines. The scope of the project is to install a

vital safety system to automatically detect the side of a platform that is immediately adjacent to a stopped train and open the train doors only on that side, thus preventing unintended opening of doors on the non-platform side or “wrong side” of a station. Additionally, this safety system will preclude an operator from opening a train’s doors if the train is not properly berthed at a station (i.e. when one or more bank of doors is off the platform) Currently, Metro (with the exception of the Green Line and the future Crenshaw Line) uses a system that is dependent on train operators opening the doors on the correct side. This project will deploy a vital feature such that light rail vehicle doors will only be enabled to open when properly aligned with the correct side of station platforms. This system will also satisfy an additional objective in providing foundational technology structure to ensure proper vehicle berth and switching of radio channels. Metro is working with our State Safety Oversight agency - the California Public Utilities Commission (CPUC) to implement an enhanced safety system under this project.

DISCUSSION

Design-build is a method of project delivery through which the project owner contracts directly with a single entity that is responsible for both design and subsequent construction services for the stated project. Metro has successfully utilized design-build contracts on various projects in its capital program. Staff seeks suitable opportunities to utilize the design-build delivery method for current and future capital program projects. The design-build approach offers a number of benefits:

- A single point of responsibility for design, installation, and construction.
- Staff project development resources are limited so more budgeted projects can be accomplished by adding design/build capacity.
- Risk for design is shifted to the design/build contractor; therefore, changes related to design are minimized.
- Schedule efficiency and significant time savings can be achieved because construction can proceed while design is being finalized.
- Administrative costs can be saved due to combining the solicitation process with design and construction; save construction management and engineering resources during the construction phase; and minimize contractor-generated changes resulting in a reduced contract closeout time.
- More competition can be obtained during the procurement process.

The project described in Attachment A will benefit from the design-build approach and pertinent elements of the project are as follows:

- The project described in Attachment A will benefit from the design-build approach and pertinent elements of the project are as follows: It is safety-driven - the project will enhance safe operations of Metro’ light rail vehicles;
- It will be implemented on the Blue, Gold and EXPO Lines;
- A single vendor will assure a well-coordinated design with the subsequent installation of a technologically driven system;

- Metro will achieve efficiency in procurement, design and installation time. Only one procurement process will be required as opposed to two; and
- Metro will mitigate other administrative, engineering and construction management costs that are customary utilizing design-build method of project delivery.

The contract will be awarded to the responsive, responsible bidder determined to be the best value to Metro meeting the criteria set forth in the invitation for bids.

DETERMINATION OF SAFETY IMPACT

The recommended action of a design-build delivery method will improve the implementation of this safety enhancement project and enhance Metro's ability to provide service that is safe and reliable.

FINANCIAL IMPACT

There is no financial impact resulting from this action. Funds for the project are included in the FY19 budget under project number 214002 Correct Door Enable on LRT. Since this is a multi-year project, the Project Manager will ensure that the balance of Life of Project (LOP) funds is budgeted in future years.

Impact to Budget

The current source of funds for this project is Prop A 35%. This funding source maximizes allowable project fund allocations given approved funding provisions and guidelines.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Approval of this recommendation supports the following Metro Strategic Plan Goal: Provide responsive, accountable, and trustworthy governance within the Metro organization. This project will improve safety, service, and reliability in an effort to provide a world-class transportation system that enhances quality of life for all who live, work, and play within LA County.

ALTERNATIVES CONSIDERED

The fulfilment of this project could be accomplished through separately procured design and construction contracts or through a design prepared by Metro staff followed by a traditionally procured construction contract. For this project, staff does not recommend this approach. Staff asserts that there are distinct advantages to Metro in having a single contracted firm responsible for all design, installation, construction and testing. There are achievable cost savings to Metro by mitigating or minimizing certain project management, administration and coordination costs, a significant cost reduction in contracting and reduction in the overall project schedule. Additionally, assurance of quality and reliable functionality of a technologically advanced system is significantly raised when a single contractor is responsible for its own design and installation.

NEXT STEPS

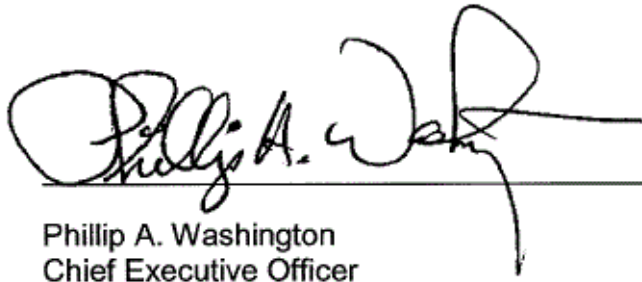
Design-build contract solicitation and award for the project will be pursued in FY 19.

ATTACHMENTS

Attachment A - Correct Side Door Opening Project Scope of Work

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Phillip A. Washington
Chief Executive Officer

Attachment A

Correct Side Door Opening - Project Scope of Work

The following is a restatement of the current general scope of work for the Correct Side Door Opening project (System).

The Los Angeles County Transportation Authority (Metro) has initiated an effort to study, develop, and implement a safety enhancement for all its operating light rail vehicles (LRVs), with emphasis toward rehabilitating the existing lines. Metro is seeking to deploy a feature such that LRV doors can only be opened when properly aligned with the correct side of station platforms. This System shall be designed, constructed, and installed to operate on the Blue, Gold, and Expo Lines.

Metro seeks to obtain a vital solution for two safety-related functional objectives and two supplemental operational objectives achieved through a single operational system when designed, constructed, and implemented. Once the System is operational, it will:

- (1) Ensure that Metro's operating LRVs are one properly berthed, i.e., aligned, at station platforms;
- (2) Prevent doors on an LRV from opening in an unsafe condition unless intentionally overridden;
- (3) Alert the train operator to change radio channels when appropriate; and
- (4) Provide Ready to Dispatch prompts to the operator.