



Board Report

File #: 2019-0716, File Type: Budget

Agenda Number: 35.

OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE OCTOBER 17, 2019

SUBJECT: CONNECTED BUS

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

CONSIDER:

- A. APPROVING an increase of \$1,440,000 in Life-of-Project (LOP) budget for the Connected Bus Project (CP 207152) for a new total LOP of \$9,407,000; and
- B. AMENDING the FY20 budget \$565,000 to reflect the current wireless mobile router installation schedule.

ISSUE

The requested life-of-project budget increase is for the continued acquisition and installation of wireless mobile routers onto Metro's bus fleet. The installation of wireless routers on Metro's fleet is already well underway. However, Metro decided to extend the life of 349 bus vehicles by replacing the CNG tanks which will now also require router installations. The additional funds are needed to maintain the ability to purchase the wireless routers through Metro's inventory process and install them on the re-tanked fleet by Metro employees. The installation of these units is being fast-tracked at 33 units/month to complete the fleet installations as soon as possible.

BACKGROUND

In March 2017, the Metro Board approved the Connected Bus capital project (CP 207152) and subsequent \$7,967,000 LOP to support the implementation of cellular and WiFi technologies on Metro's bus fleet. This economically feasible enhancement will advance the ability to connect transit buses to the internet. Connecting Metro buses through the public cellular network creates many opportunities. The riding public benefits from internet access to on-line information while on the bus. Metro Operations can remotely connect onboard systems allowing remote video on-demand of security cameras by law enforcement and bus operations as well as improved access to vehicle diagnostic systems for increased maintenance efficiency through continuous fleet health monitoring. This technology will also provide improved vehicle location information,

advancing the prediction accuracy of bus arrival times and providing an additional measure of safety

and security for both passengers and Metro fleet operations. This equipment is the foundational hardware enabling the improved poll/location rate of the vehicle from every 3 minutes to every 5 seconds.

DISCUSSION

Findings

Mobile routers have been included as a standard hardware requirement on the new and future bus fleet procurements. This will eliminate the need from retrofitting vehicles with routers in the future. The need for this device is a critical technology upgrade which is being evaluated for similar capabilities on the rail fleet. The rail fleet enhancements will be brought back to the Board as a separate Board action once the proof of concept is complete.

DETERMINATION OF SAFETY IMPACT

The approval of this LOP increase to this capital project will have a direct and positive impact to safety, service quality, system reliability, performance, and overall customer satisfaction.

FINANCIAL IMPACT

The additional funding of \$565,000 will be added to the FY20 budget under cost center 9210, project 207152. The new FY20 budget for cost center 9210 is \$2,133,054. The new project LOP will be \$9,407,000.

Since this is a multi-year contract, the cost center manager and Chief Information and Technology Officer will be accountable for budgeting the project funds in future fiscal years.

Impact to Budget

The current source of funds for this action is Transportation Development Act Article 4. Use of this funding source maximizes current funding allocation within approved funding provisions and guidelines.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Improved Customer Information supports Metro Vision 2028 Strategic Goal 2: Deliver outstanding trip experiences for all users of the transportation system.

ALTERNATIVES CONSIDERED

The alternative is to not authorize the increase the life-of-project budget and not install the re-tanked vehicles with routers. This option is not recommended as it segment the fleet operation capabilities

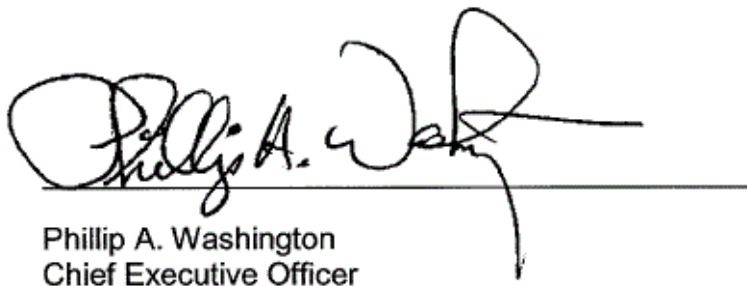
and limit the intended benefits of the system enhancement.

NEXT STEPS

Continue with the acquisition and installation of the mobile routers on all of Metro's bus fleet until complete.

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