Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

Metro

Board Report

File #: 2018-0011, **File Type:** Project **Agenda Number:** 21.

CONSTRUCTION COMMITTEE
MARCH 15, 2018

SUBJECT: METRO BLUE LINE TRACK AND SYSTEM REFURBISHMENT

ACTION: ESTABLISH A LIFE OF PROJECT BUDGET

RECOMMENDATION

ESTABLISH a Life-of-Project (LOP) Budget of $90,779,817, utilizing $44,581,402 available FY19 funds from existing capital projects, for the Metro Blue Line Track and System Refurbishment Project (205115).

ISSUE

The Metro Blue Line (MBL) opened in 1990 and is Metro's oldest operating rail line. Major railway infrastructure components on the MBL are nearing the end of their useful life and require constant replacement, rehabilitation, and upgrade enhancements to continue to meet safety and service reliability standards.

DISCUSSION

The MBL has been in continuous operation for over 27 years and rail infrastructure components have reached the end of useful life and require replacement, upgrades and modernizations. Many of the MBL's existing infrastructure equipment are no longer supported by the Original Equipment Manufacturers and will result in longer repair times if not replaced or upgraded with new equipment. Delay in addressing this in a timely manner will result in customer impacts that include major service delays and may compromise passenger safety.

As a State of Good Repair project, the scope of the MBL Track and System Refurbishment Project will:

1) Upgrade and rehabilitate the Expo/Blue Line junction located at the corner of Washington and Flower streets
2) Upgrade and rehabilitate two double crossovers at 7th & Metro Station
3) Upgrade the Overhead Catenary System (OCS) to Overhead Catenary Rail (OCR) under the I -10 Bridge in the Central LA business district
4) Rehabilitate the OCS from Washington Station to Willow Station and portions of the OCS

feeding the Blue Line yard near Del Amo Station
5) Replace direct fixation rail fasteners and installation of fall protection at elevated sections of the MBL
6) Repair and replace cable duct bank along the right-of-way from LA River Bridge to Wardlow Station
7) Replace rail, reconstruct crossing panels, and install anti-corrosive booting south of Willow Station through the Long Beach Loop
8) Replace ten track turnouts at main yard interlocking and Imperial crossover
9) Convert signals along the Expo Line and Blue Line to the new standard aspect lighting configuration
10) Install station and wayside infrastructure improvements at MBL stations to support the Wrong Side Door Opening project
11) Install station and wayside infrastructure improvements at Wardlow and 5th Street Stations to support the future Fare Gate project

The project will be completed when the MBL is shut down in segments for an eight month period. This service approach supports the MBL Signal System Rehabilitation (Contract RFP No. C1081) and Willowbrook/Rosa Park Station Improvements (Contract RFP No. C1161) projects. Performing this work during the scheduled shutdown will result in overall time and cost savings. Attachment A outlines the work breakdown for the MBL Track and System Refurbishment Project. Rail service will be replaced with an alternative service plan that will provide express and local service for Metro patrons during the duration of the shutdown. Staff will return to the board in late 2018 to provide comprehensive operations service plan/mitigation details along with complete communications/outreach planning information in preparation for the MBL shutdown which will take place in segments.

This project is part of Metro's commitment to deliver a robust State of Good Repair program that invests in modernization and enhancements to renew asset life and reduce asset breakdowns that impact daily service and customer experience.

DETERMINATION OF SAFETY IMPACT

Approval of the recommendation will have a positive impact on safety and reliability as the project work scope will move forward to ensure compliance with the replacement cycle specifications for the MBL. Further, maintaining the rail system in a State of Good Repair is essential to providing safe and reliable service to patrons who ride the Metro Rail system daily.

FINANCIAL IMPACT

This action will establish an LOP budget of $90,799,817 for the replacement of the MBL rail track and system infrastructure upgrades. The LOP will encompass available funds from existing MBL capital projects, including the MBL Replacement and Booting (205093), Long Beach Duct Bank Upgrade Phase 2 (205088), MBL Turnout (205101), and Correct Door Enable on LRT (214002). Contingent upon Board approval of the FY19 budget, funds in the amount of $44,581,402 will be budgeted. Since this is a multi-year project, the Project Manager will ensure that the balance of funds is budgeted in FY 20. The expenditure plan reflecting sources and usage of funds is shown in

Attachment A.

The costs for the alternative service plan and customer service support will be incurred under Operating projects 306001 (Operations Transportation) and 300022 (Rail Operations - Blue Line), respectively.

Impact to Budget

The source of funds for the Capital component of this project will come from State (TDA4) and local funding sources (PA35%) that are eligible for Rail Capital Projects. Alternative service planning and support will come from Enterprise funds. Use of these funding sources will maximize allowable funding allocation given funding provisions.

ALTERNATIVES CONSIDERED

The Board may choose not to authorize the life-of-project budget for 205115. This alternative is not recommended by Metro staff because without proceeding to replace track and infrastructure components, any failure(s) may cause extended delays in MBL service. Furthermore, not performing or deferring these replacements and upgrades is not recommended as rail infrastructure components are safety sensitive; and if not properly maintained, will impact service passenger safety and reliability. Additionally, unscheduled maintenance repair costs on a per component basis will result in higher operating costs versus reduced costs when consolidating and the performing work during a shutdown where efficiencies can be leveraged.

NEXT STEPS

Upon Board approval, Metro Transit Project Delivery and Maintenance of Way (MOW) Engineering will proceed forward with preparation of engineering specifications, contract solicitation, evaluation, and contract award in late FY18.

ATTACHMENTS

Attachment A -205115 Work Breakdown and Expenditure Plan

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ATTACHMENT A

CP 205115 - Work Breakdown and Expenditure Plan

Metro Blue Line Track and System Refurbishment Project

	Use of Funds	FY 19	FY 20	Total
	Construction Phase			
1	Construction Elements	$ 41,624,402	$ 33,093,565	$ 74,717,967
2	Rehabilitation of Expo/Blue Line Junction			
3	Crossover(s) at 7th/Metro Station			
4	Conversion of OCS to Overhead Catenary Rail			
5	Rehabilitate Mid Corridor OCS			
6	Installation of Track Fasteners & Fall Protection			
7	Replacement of Del Amo Duct Bank			
8	Rail Replacement and Booting			
9	Replacement of track turnouts			
10	Standardization of Signal Aspect			
11	Station Improvements for Door Enable system			
12	Infrastructure for Fare Gates at Wardlow & 5th Street			
13	Design Support During Construction (DSDC)	$ 100,000	$ 40,000	$ 140,000
14	Construction Management Consultants (CMC)	$ 2,154,000	$ 898,000	$ 3,052,000
15	Special Conditions (3rd Party Agreements)	$ 250,000	$ 500,000	$ 750,000
16	Agency Costs: Project Management, Project Control, Procurement, Corporate Safety Support, etc.	$ 453,000	$ 188,000	$ 641,000
17	Project Contingency 15%	$ -	$ 11,498,850	$ 11,498,850
	Total Project Fund Use	$ 44,581,402	$ 46,218,415	$ 90,799,817
	Sources of Funds			
17	Local (PA35%) State (TDA4)	$ 44,581,402	$ 46,218,415	$ 90,799,817