

FY20 New Capital Projects

Transportation Infrastructure Development

1	PROJECT: Regional Connector Pre-Revenue Service
	PROJECT OWNER: Operations - Rail Integration
	LOP: TBD FY20: \$250,000
	SCOPE: The Regional Connector Pre-revenue Service will prepare Metro for the operation of the Regional Connector line. The early part of this project will address any ancillary upgrades needed on the existing systems, signals and tracks for smoother integration with Regional Connector. Closer to the revenue service date this project will focus on training and testing the system reliability and integrity of infrastructure and new rail cars.
	JUSTIFICATION: Upgrades to existing structures are crucial for seamless integration with new infrastructure built using newer technology. Significant testing is crucial for seamless system integration of multiple types of rail cars with new systems. The training and systems testing will ensure staff and infrastructure are able to handle a multitude of revenue operating situations prior to opening day. This project will be annual funds checked until such a time when the project cost is better identified. At that time, staff will approach the Board for LOP budget approval.
	ELIGIBLE FUNDING SOURCE: Measure R 35%
2	PROJECT: Expo Closeout
	PROJECT OWNER: Program Management - Transit
	LOP: \$17,500,000 FY20: \$3,000,000
	SCOPE: Expo punch list items and other closeout efforts will be captured in this project.
	JUSTIFICATION: Expo Phase 1 to Culver City went into service in 2012 and Phase 2 from Culver City to Santa Monica going into service in 2016. The projects associated with Expo needs to close to fulfill Grant report and Accounting audit requirements. The remaining punch list items need to be captured in a separate closeout project to reflect the true cost of the asset.
	ELIGIBLE FUNDING SOURCE: Measure R 35%

State of Good Repair Projects

3	PROJECT: Fuel Storage Tanks FY20 - FY22
PROJECT OWNER: Operations - Bus Maintenance	
LOP: \$23,433,000	FY20: \$3,375,238
SCOPE: Acquire, install and upgrade agency-wide storage tanks and appurtenances to meet state environmental regulatory requirements. Defective and deficient tanks, specifically underground diesel fuel storage tanks, previously identified will be replaced or upgraded. Existing tanks nearing their life cycle containing liquids other than diesel must also be replaced or upgraded in compliance with ever-changing and new regulatory requirements set forth by several regulatory agencies (RWQCB, AQMD, DTSC and city/county fire departments). New equipment and aboveground storage tanks will be acquired and installed to replace defective non-diesel tanks and appurtenances.	
JUSTIFICATION: Non-compliant and retiring underground storage tanks and appurtenances need to be replaced in order to avoid any fines and penalties to comply with ever-changing and new, more stringent regulatory requirements regarding the operation, maintenance and monitoring issued by several regulatory agencies (US EPA, CAL EPA, SWQCB, CUPA, and APSA.)	
ELIGIBLE FUNDING SOURCE: TDA Article 4	

4	PROJECT: MRLA 650 Component Overhauls
PROJECT OWNER: Rail Fleet Services	
LOP: \$8,120,000	FY20: \$998,123
SCOPE: 1. Overhaul 37 units of Low Voltage Power Supply (LVPS) plus spares for Option Fleet (74 cars) only. 2. Replace seat inserts and convert the mounting to Velcro for 104 cars 3. Overhaul Semi Permanent Draw Bar for Option and Base Buy Fleet (37 Units) 4. Overhaul Friction Brake Equipment for Option and Base Buy Fleet (52 sets) 5. Overhaul AC Traction Motors and DC Traction Motors 6. Renovate car interior which includes redesign Front and Rear End Door, Repaint all seat frames	
JUSTIFICATION: The existing A650 fleet went through a component overhaul program and a major system replacement program. However there are certain systems still requiring overhaul in order to maintain the "State of Good Repairs" which are not included in the previous scopes. The aim is to continue to service the public for another 15 years.	
ELIGIBLE FUNDING SOURCE: PA 35% Cash/Bond Proceed	

5	PROJECT: FY20 Non-Revenue Vehicle Replacement
PROJECT OWNER: Operations - Central Maintenance	
LOP: \$8,800,000	FY20: \$1,152,218
<p>SCOPE: This project is for the replacement of Non-Revenue Vehicles and Equipment scheduled for FY20. This includes: trucks, vans, sedans, carts, forklifts, generators, floor scrubbers, compressors, tractors, trailers, tow motors and other vehicles and equipment. (Agency-wide, Includes all department vehicles and equipment)</p>	
<p>JUSTIFICATION: Metro owns and operates a fleet of over 2,100 vehicles and pieces of equipment that are used to support the Metro mission of Planning, Designing, Constructing, Administering, and Operating the Los Angeles County's largest transportation system. The funding requested for this project is required to purchase replacement vehicles to support this mission. The vehicles identified for replacement have exceeded their useful life in age, mileage or are in poor operating condition, and are now scheduled for retirement. Further, the cost of repair, downtime, on street safety, and the impact to support departments ability to respond to repair/service activities reduces operational effectiveness.</p>	
ELIGIBLE FUNDING SOURCE: TDA Article 4	

6	PROJECT: P2550 Light Rail Vehicle Mid-Life Overhaul
PROJECT OWNER: Operations - Rail Facilities Maintenance	
LOP: \$16,000,000	FY20: \$420,081
<p>SCOPE: The P2550 Component Overhaul is recommended by the manufacturer (AnsaldoBreda) to ensure the safe and reliable operation of the rail vehicle. The manufacturer's recommendations have been reviewed by Metro's Vehicle Engineering team and Rail Fleet Services to determine what components are prudent and necessary at this point in the vehicles life to overhaul. The following components have been determined to require overhaul: Coupler, Passenger Doors, Propulsion, High Speed circuit Breaker, Auxiliary Power Inverter, Battery, Trucks, friction Brakes, Automatic Train Protection, and Train to Wayside Communications.</p>	
<p>JUSTIFICATION: The primary goal of this LRV car overhaul program is to maintain this fleet in a State of Good Repair. The current P2550 LRVs require repair, upgrades, and/or replacement of components, appointments, and subsystems to maintain fleet safety, reliability, availability, performance, and passenger comfort. Based on the current average annual mileage of 70k miles per vehicle, the fleet will reach the next scheduled recommended overhauls in 2019, 2023, and 2031. As the 1800k overhaul (2023) corresponds most closely with the fleet mid-life (2022), the focus of this specification development is to address the 1200k overhaul and include elements from both the 600k & 1800k overhauls, as applicable. The need for midlife overhaul is evident due to the fleet's decreased reliability and availability, the observed wear and tear, the increased maintenance demands, and the increased challenges with repairing and replacing obsolescent parts and obtaining supplier support. As a result, it has become more difficult and expensive to maintain the fleet. The function and performance of these systems may be further impacted if there is deferment of the recommended and scheduled midlife overhauls.</p>	
ELIGIBLE FUNDING SOURCE: PA 35% Cash/Bond Proceed	

7 PROJECT: Rail Facility Improvements

PROJECT OWNER: Operations - Rail Fleet Maintenance

LOP: \$24,400,000

FY20: \$1,123,000

SCOPE: The proposed Project is to improve, modernize, and expand the capacity of the maintenance and transportation functions at rail divisions and facilities. Division 11 began operation in the late 1980s; and both Division 20 and Division 22 in the early 1990s. The scope of the project entails renovation and upgrade activities typically required of facilities that are over twenty years old and functioning at operational levels. In addition, this project includes new equipment needed to efficiently service vehicles at the newer shops such as Division 14 and 21.

Intended projects under this CP Workbook include, but are not limited to, the capital improvements listed as follows:

- 1) Tire Press Machines for Divisions 11, 14, 16, and 24,
- 2) Division 11 Improvements such as pavement replacement, addition of new crane, improvement of the kitchen and lunch rooms, upgrading the existing car wash, remodeling and increasing size of restrooms, and addition of non-revenue electrical vehicle charging stations,
- 3) Location 60 – Roofing & HVAC,
- 4) Division 21 – Upgrade of washing equipment to include reverse osmosis, blowers, and equipment upgrades,
- 5) Division 22 – Paving replacement/rehabilitation,
- 6) LRV shops – OCS separation from main shops into north and south bays,
- 7) All shops – Maintenance equipment replacements as required for equipment beyond it's useful life or in need of repair/upgrade,
- 8) Stationary Emergency Generators

JUSTIFICATION: The divisions proposed for this project are aging at operating at capacity. All of the Divisions are over 25 years old. Significant projects need to be completed in order to bring the rail maintenance facilities into a State of Good Repair (SGR). These proposed improvements will increase the life of these facilities at least an additional 25 years. For preparation of this CP workbook, staff met with the Office of the Chief Operations Officer.

ELIGIBLE FUNDING SOURCE: PA 35% Cash/Bond Proceed

8 PROJECT: Bus Division Improvements - IV

PROJECT OWNER: Operations - Bus Maintenance

LOP: \$28,000,000

FY20: \$10,000

SCOPE: The proposed Project is to improve, modernize, and expand the capacity of the maintenance and transportation functions at various Bus Divisions. The scope of the project entails renovation and upgrade activities typically required of facilities that are over 25 years old and functioning at high operational levels. Intended projects under this CP Workbook include, but are not limited to, the capital improvements listed below: a) Roof replacement at Div 2, 5 & 7, b) HVAC replacement at Div 2, 5 & 7, c) Installation of new hoists, d) Bus Washer improvements (Divs 3, 5, 7, 9, 10, 15, and 18), e) Emergency Generators (CMF Buildings 1, 2, 3, 4, and 5), f) Brake Testers at Division 18, g) emergency generators for CNG systems at 2, 3, and 15, h) convert CMF Building 3 to a body shop and 20 ton pull-pots in Bldg 5, i) new chassis washer at Division 3, j) awnings over recycling bins at various divisions, k) additional CCTV, l) parking and division access control, m) improvements to yard lighting at Divisions 3 and 8, n) wastewater/drainage improvements at Division 3, o) extension of awnings over apron at Division 8, p) flooring refurbishment at Division 8, q) air conditioning replacement at Division 8, r) shop floor improvements at Division 8, s) conversion of D9 dyno room into storage or exercise room, t) Division 4 improvements including new fencing, extended shop apron awnings, and flooring improvements, u) Division 2 improvements including new perimeter fencing, shop ventilation improvements, chassis wash and hoist installation, repair of the fuel station roof, and remodeling of restrooms, v) replace Central Electronics shop trailers at Divisions 5 and 18, w) Division 18 maintenance annex building, new dyno, detailed cleaning area, fueling island improvements, steam cleaning bay improvements, and shop floor improvements, and x) Division 9 new ERS building to replace trailer, interior tenant improvements, and improvements to fuel island lighting.

JUSTIFICATION: Metro owns and operates eleven active bus-operating divisions, located throughout Los Angeles County, which maintain and dispatch a fleet of around 2,300 CNG buses. In addition, Metro operates a 30-acre central maintenance facility in Downtown Los Angeles called the Central Maintenance Facility (CMF). The divisions proposed for this project are all located within areas of Los Angeles County with high ridership; and are aging, at capacity, and overcrowded. Most of the Divisions operate and maintain numbers of buses well above the original design capacity, and with the exception of Division 13, all of the divisions are over 25 years old (one is over 100 years old). Although these divisions have been selectively modernized and improved over the last 10 years, significant projects remain to be completed over the next 10 years in order to bring the bus maintenance facilities into a State of Good Repair (SGR). These proposed improvements will increase the life of these facilities at least an additional 25 years. For preparation of this CP workbook, staff solicited projects from the Office of the Chief Operating Officer, Bus Operations and Facilities Maintenance.

ELIGIBLE FUNDING SOURCE: TDA Article 4

9 **PROJECT: Elevator & Escalator Modernization**

PROJECT OWNER: Facilities Maintenance

LOP: 126,692,000

FY20: \$1,282,553

SCOPE: At various locations throughout Metro's system plus the USG building, install new or modernize up to 117 of Metro's 199 Elevators and Replace up to 81 of Metro's 148 Escalators that have exceeded their useful life. Modernization of the equipment includes upgrades to outdated control systems, motors and electronics. The project includes canopy installation for outdoor escalators as per state law and three (3) years of maintenance for all units once accepted by Metro. This is a multi phase, 25-year program. As per state law, any new outdoor escalator must have a canopy to protect it against the elements. Operations staff foresees that one contractor will be able to design and then perform the necessary installation for both elevators and escalators.

JUSTIFICATION: The majority of Metro's elevators and escalators are over 20 years old and have reached or surpassed their life expectancy. As a result, components and replacement parts have been a challenge to find since the majority of the original parts are obsolete. This project will replace elevators and escalators at various critical and high risk areas where elevator maintenance and down time cause the most customer inconvenience. Systemwide, replacing current units will result in better performance and reliability, as well as provide safer and better quality service to our patrons and employees. Vertical transportation systems provide a vital link for transportation services to Metro patrons.

ELIGIBLE FUNDING SOURCE: TDA Article 4

Other Asset Improvement Projects

10	PROJECT: Payroll System Replacement
	PROJECT OWNER: Finance and Budget
	LOP: \$22,857,000 FY20: \$56,000
	SCOPE: Metro payroll system replacement
	JUSTIFICATION: Metro's current Payroll System is approaching end of technical life. It was custom developed for Metro by a small development group which is closing down and is developed in a programming language, Visual Basic 6, which is no longer supported by Microsoft. Implementation of a modern payroll system will reduce overall business risk to Metro through a more flexible, expandable technology that is easier to maintain. It will reduce workarounds which must be performed with the current system and allow staff to quickly respond to new Federal, state and collective bargaining requirements. In addition, Metro can take advantage of vendor IT expertise to maintain an upgradeable system that supports changing requirements.
	ELIGIBLE FUNDING SOURCE: TDA Article 4

11	PROJECT: Rail Operations Center/Bus Operations Center
	PROJECT OWNER: Program Management
	LOP: TBD FY20: \$2,022,976
	SCOPE: Design and construction of a new rail operations center (ROC), bus operations center (BOC) and a back-up ROC and BOC.
	JUSTIFICATION: Construct a new ROC and BOC (Phase 2) within the Emergency Security Operations Center (Phase 1) to centralize Emergency, Security, Rail and Bus operations within the same location for a more efficient coordination and management of the transit system, and to meet the demands of Metro's expanding transit system beginning with WPLE Section 1. In addition, Phase 2 includes an option to convert the existing ROC into a back-up ROC and BOC to provide continuity of rail and bus operations in the event that the new ROC/BOC location is unusable.
	ELIGIBLE FUNDING SOURCE: Proposition C 40%