

Attachment B : Metro Transit Capital Improvement Projects Details

Metro Transit : Capital Improvement Program (CIP)

Projects within the CIP focus on keeping the system assets safe and reliable to ensure Board approved service levels are delivered. Safe and reliable service delivery is achieved primarily by replacing or maintaining assets that have met or exceeded their useful life. However, it also includes some vital projects for service expansion and enhancement. The CIP projects are generally recurring in nature but include some one-time items.

Metro Transit - Capital Improvement Program (CIP)						
Capital Category	FY23	FY24	\$	%	%	
(\$ in millions)	Budget	Preliminary	Change	Change	of Total	
1 Fleet Procurement	\$ 82.1	\$ 70.1	\$ (12.0)	-14.7%	12.9%	
2 Fleet Maintenance	41.4	44.1	2.7	6.6%	8.2%	
3 Facilities Improvements	28.6	22.0	(6.6)	-23.2%	4.1%	
4 Bus Subtotal	\$ 152.1	\$ 136.2	\$ (15.9)	-10.5%	25.2%	
5 Fleet Procurement	68.9	32.8	(36.2)	-52.5%	6.1%	
6 Fleet Maintenance	99.5	136.2	36.7	36.9%	25.2%	
7 Facilities Improvements	6.3	8.7	2.5	39.4%	1.6%	
8 Wayside Systems	47.7	52.3	4.5	9.5%	9.7%	
9 Rail Subtotal	\$ 222.4	\$ 229.9	\$ 7.6	3.4%	42.5%	
10 Regional and Hubs	36.3	33.5	(2.9)	-7.8%	6.2%	
11 TAM Project Management Support	0.0	0.0	(0.0)	-10.2%	0.0%	
12 Technology	45.1	64.4	19.3	42.8%	11.9%	
13 Non MR/MM Major Construction	43.0	64.7	21.7	50.5%	12.0%	
14 Non-Revenue Vehicles	5.7	12.7	6.9	121.3%	2.3%	
15 Other Asset Improvements Subtotal	\$ 130.2	\$ 175.3	\$ 45.1	34.6%	32.4%	
16 Total Proposed CIP Budget	\$ 504.7	\$ 541.4	\$ 36.7	7.3%	100.0%	

Bus Program

Fleet Procurement, Fleet Maintenance, and Facilities Improvements make up \$136.2 million, 25.2% of the total CIP budget.

Bus – Fleet Procurement

Metro is continuing its pursuit of a truly sustainable bus fleet. The Board has adopted a goal of converting Metro's entire fleet of buses from Compressed Natural Gas (CNG) to Zero Emission electric vehicles. This is an ambitious goal considering Metro has the second largest bus fleet in the United States, and places high mileage and vehicle performance demand on its 2,300 buses.

Electric and Zero Emission bus technology is still in the development stage. Metro will partner with electric bus manufacturers to test, develop, and improve electric bus technology to the point of full technological maturity. FY24 Bus acquisition and delivery represents a step towards realizing this goal. Bus acquisition consists of procurement and delivery of buses to replace buses scheduled for retirement, supporting ever-

evolving service improvements, and for initiating Electric/Zero Emission Buses (ZEB) bus deployment on various bus transit corridors. Approximately \$70.1 million, 12.9% of the CIP budget is allocated for these efforts.

Metro anticipates commencing delivery of approximately 93 forty-foot ZEB buses and finalizing payment for prior procurements of 40' and 60' ZEB and CNG buses. Metro is also investing approximately \$19.2M in charging infrastructure. Placement of electric charging equipment and infrastructure will occur at stations on the J Line (Silver) alignment, as well as operating divisions.

Bus - Fleet Maintenance

Bus fleet maintenance projects represent \$44.1 million, 8.2% of the CIP budget. Although this is a decrease from the FY23 budget, the budget request reflects the specific resource needs to perform scheduled maintenance. Bus maintenance projects include bus midlife refurbishment and integrated engine replacement. Midlife refurbishment ensures that our buses are operational for their designated useful life, which includes structural integrity checks and change-out of critical system components. The refurbishment program also consists of installation of live view security monitors, fare box upgrades, and upgraded ADA wheelchair securement equipment. All buses scheduled for midlife refurbishment are based on bus age, miles accumulated thus far in revenue service, and reliability measurements of the bus series.

Bus - Facilities Improvements

Bus facilities improvements make up \$22.0 million, 4.1% of the CIP budget. These projects include development of master plans for facility upgrades, site refurbishment, and site reconfigurations to upgrade and maintain facilities. Upgrades include regulatory compliance mandates, such as replacement of underground fuel storage tanks, roofs, building ventilation, upgrade of fire alarm systems, and bus division pavement replacement.

Rail Program

Rail Fleet Procurement, Vehicle Maintenance, Facilities Improvements, and Wayside Systems repair and replacement total \$229.9 million, 42.5% of the CIP budget.

Rail - Fleet Procurement

Light and Heavy Rail Vehicle procurement is allocated \$32.8 million, 6.1% of the CIP budget. It is dedicated to vehicle deliveries for both rail expansion and existing vehicle replacement. Light rail vehicle deliveries are in the final stage of production and delivery. Staff will focus on closing out production and assembly installations. When these activities are complete, the vehicles will be accepted, final progress payments paid, and deployed for existing service and expansion pre-revenue activities.

A new Heavy Rail Vehicle (HRV) procurement will be initiated this year. The procurement will include the purchase of 64 vehicles, 30 for replacement of A650 vehicles and 34 for the Purple Line Extension, Section 1. Of the 64 vehicles, 6 are

anticipated to be delivered om FY24. This is a major milestone in the process of replacing the original B (Red) Line cars that began service in 1992. These new vehicles will replace the existing vehicles and will have many amenities that will enhance the transit customer experience.

Rail - Fleet Maintenance

Rail Vehicle Maintenance projects are allocated \$136.2 million, 25.2% of the CIP budget. Two major vehicle component overhaul programs will continue to augment the quality of the rail fleet. Additional customer amenities will be installed. Vehicle subsystem overhaul will include refurbishment of gearboxes, Heating, Ventilation, and Air Conditioning (HVAC) systems, and other major equipment that require specialized technical skills to rebuild.

The Heavy Rail vehicle midlife modernization consists of the change out of critical system components to extend the vehicle useful life on B (Red) Line vehicles. Vehicles scheduled for midlife will be sent offsite and be brought back for testing, inspection, and final acceptance. Midlife refurbishment includes inspection and overhaul of critical assemblies that include propulsion power systems, friction brake control, Automatic Train Control (ATP), and numerous subsystems required to improve operational reliability. Refurbishment also includes the installation of a fire mist suppression system, which will provide an economical fire life safety solution on the Red and Purple Lines.

Light Rail overhauled vehicles will also continue to be delivered. A significant portion of the budget increase is due to an increase in the number of overhauls for P2550 cars. New Automatic Train Protection (ATP) equipment will enable the trains to stop automatically if necessary. The critical operational systems for overhaul include friction brakes, air compressor motors, and gearboxes.

Rail - Facilities Improvements

Rail facilities improvements projects make up \$8.7 million, 1.6% of the CIP budget. Projects are slated to maintain existing rail facilities with mandated regulatory upgrades such as station/facility fire control panel installation, platform gate replacement, various lighting retrofits, roof replacements, ventilation, HVAC system repairs, pavement replacement, and art projects.

Rail - Wayside Systems

Wayside system improvements make up \$52.3 million, 9.7% of the CIP budget. Projects include the on-going replacement of the Supervisory Control and Data Acquisition (SCADA) system, as well as track system replacement, Overhead Catenary System (OCS) inspection/refurbishment, train control track circuits, train-to-wayside (TWC) communication system, tunnel corrosion mitigation, replace old wood ties with composite ties, replace mainline fasteners and many other maintenance projects.

Other Asset Improvements

Other Asset Improvements total \$175.3 million, 32.4% of the CIP budget. These projects are slated for regional construction improvements, replacement of maintenance vehicles/equipment, and technology upgrades. Metro will be making significant investments in track and tunnel intrusion technology, enhanced CCTV systems, and improvements to signage and wayside throughout the system. System technology purchases and upgrades for agency infrastructure and customer support systems. A significant technology project is continuing efforts with development and integration of the Enterprise Asset Management System (EAMS). The EAMS project will integrate maintenance activities and track agency-wide capital assets. Significant investments will also be made in Transit Signal Priority (TSP) and Bus Mobile Validators (BMV) for all door boarding, as a part of NextGen.