MTA Updates

Baltimore Regional Transit Commission

Holly Arnold, Administrator & CEO March 8, 2024



MARYLAND TRANSIT ADMINISTRATION

Light Rail Vehicle Replacement Grant

- Awarded \$213 million for replacement of light rail fleet
 - State is providing \$90 million in matching funds
 - \$127.6 million in federal formula funds will complement the federal grant
- High priority project in MTA's Capital Needs Inventory and Transit Asset Management Plan
 - Included in BMC's long-range plan
- New modern, low-floor vehicles
 - Easier and more accessible boarding



- Upgraded stations, platforms, maintenance facilities, and signaling system
- Will improve system reliability and allow for more frequency



Zero-Emission Bus Event



Maryland Transit Administration launches seven new zero-emission buses



Contraction Federal Transit Admn @FTA_DOT

Congrats to @mtamaryland for launching its 1st set of electric buses into service. In Baltimore, FTA joined @GovWesMoore to celebrate 7 electric buses hitting the streets, the agency's first set as it rolls toward its goal of having 50% of its fleet go zero emission by 2030.



- Event to celebrate launch of MTA's first zero emission buses held on February 27th
- Project critical to advancing climate goals and achieving transition to full Zero Emission fleet
- Event attended by Governor Moore, Secretary Wiedefeld, FTA, Maryland Department of the Environment, Maryland Department of Labor, Federal delegation staff, and BGE

Mondawmin Elevator Reopening

- Elevator replacement officially put into service January 2024
 - Full replacement of both elevators with capacity to more reliably handle bicycles, strollers, scooters, and full range of ADA requirements
- Maintaining and replacing elevators is critical to the ensuring equitable access to the Metro system and the overall customer experience



Rogers Avenue Pedestrian Bridge

- Complete replacement of Metro pedestrian bridge located at Rogers Avenue Station completed and reopened February 2024
- Ensures continued safe access to station from parking lot and bus bays
- Project part of suite of Metro state of good repair efforts



Service Change Update

- Winter service change went into effect on February 4th
- Designed to decrease cut service and increase on-time performance
 - Schedule and run-time adjustments
- Initial data comparing to start of year points to:
 - Decrease in cut service of 3.8 percentage points
 - Increase of bus system OTP by over 2 percentage points







Rider & Employee Engagement

- Fare-free for Transit Equity Day
 - MARC carried 3,145 passengers, versus average Sunday ridership of 2,327 (CY23)
- Celebrating connections to local businesses on social media
 - Baltimore Main Streets collaboration
- Celebrated National Engineers Week
- Celebrated Black History Month with events including educational programming, trivia, and discounts to the Reginald F. Lewis Museum
- Youth Transit Council





Transit Employee Appreciation Week

- Annual week-long celebration of transit workforce March 8th-18th
- MTA leadership and team members visit every MTA location to celebrate, say thanks, and recognize the agency's top achievers
- Opportunity for direct engagement with employees at every level of the agency



MTA Budget Overview

Baltimore Regional Transit Commission March 8, 2024



MARYLAND TRANSIT ADMINISTRATION

MTA Budget 101

Operating Budget

Capital Budget

Developed on an annual basis for one year at a time

Funds are appropriated and expended in the same fiscal year (July 1 – June 30)

Generally short term in nature

Expenses related to daily operations such as labor, utilities, fuel, supplies and materials, repair parts, contracted services, rent, etc. Six-year program (CTP) updated on an annual basis

Funds can be moved within the 6-year window

Generally longer term in nature

Expenses used to fund capital assets which have a useful life of more than 2 years; major asset categories include Vehicles, Guideways, Systems, Facilities, and Stations













MTA Capital Budget Development

- MTA's capital budget is a portion of the MDOT Capital Program
 - Consolidated Transportation Program (CTP) that outlines the State's 6-year commitment to transportation funding
- Each spring, Jurisdictions submit priority letters to inform funding needs and priorities
- MTA prioritizes available funds for a new year of funding that will enter the CTP, balancing between investment types:
 - State of Good Repair, Enhancement/Modernization, Customer Amenities, planning for growth
- Prioritization occurs through a data-driven Call for Projects process
- Draft CTP is published by September 1 and presented to all jurisdictions for comment in the CTP Tour annually
- Draft CTP is revised and Final CTP is submitted to the legislature in January
 - The legislature reviews and approves the final CTP





New year enters the

6-year program

MTA's FY24-FY29 Capital Budget

- Total 6-year capital program = \$4.53 billion
 - Over 850 projects
 - Over 60% toward State of Good Repair
 - State of Good Repair (SGR) refers to keeping capital assets in a condition sufficient for the asset to operate at a full level of performance
 - Expansions include Purple Line and Red Line
 - Enhancements include Frederick Douglass
 Tunnel



MTA Asset Management Overview

- What is Transit Asset Management (TAM)?
 - Framework to monitor and manage transit assets
 - Prioritizes funding based on asset conditions to achieve and maintain SGR
 - Transit agencies are required to develop TAM plans per Federal Transit Administration (FTA) regulations

Asset

- MTA's Transit Asset Management (TAM) Program
 - Improved methods of capital needs prioritization
 - Data-driven and risk-based decision-making
 - Accuracy of asset information has improved
- Guiding documents
 - Transit Asset Management Plan
 - Capital Needs Inventory
 - Lifecycle Management Plans
 - SOPs for Inventory Data Maintenance



Capital Needs Inventory (CNI)

- Latest CNI published in July 2022, updated every three years
 - Covers 10 years of needs
 - Provides value of State of Good Repair (SGR) backlog
 - Excludes LOTS, Purple Line and system expansion
 - Shows investment level needed to address SGR and Enhancement needs





CNI Methodology



Aligns with agency's TAM program and Call for Projects (CFP) process

- CNI divides projects into two main categories: SGR and Enhancement
 - Enhancement needs are investments associated with improving existing services with new technology, increasing functionality, or providing additional customer amenities
 - Enhancement investments are separate from Expansion projects such as the Purple Line or Red Line
- CFP process to recommend strategic investments
 - Determines timelines and associated costs for replacement or rehabilitation of assets
 - Used by newly formed Program Management Oversight office to package rail SGR projects to minimize service disruptions

CNI Takeaways

- Predicts the condition of MTA's assets in future years, under different budget and spending conditions
- SGR backlog assumes achieving a safe, adequate, and industry standard state of good repair, not brand new conditions for all assets
- As of the 2022 CNI, the predicted amount of necessary annual SGR spending was \$512 million
 - This does not include costs for Purple Line, Red Line, Frederick Douglass Tunnel and other major initiatives





CNI Update

- 10-year capital expense to maintain existing system: \$9.8B
 - Annualized cost of \$980 million per year
 - Additional PINs needed

MTA Current Capital Spending Needs



Note: Expansion category includes Red Line and Purple Line

Note: New SGR Needs category includes recent inflation, backlog growth since 2022, and more developed ZEB transition and Light Rail fleet replacement costs

Capital Budget Delivery Challenges

- MTA is facing two simultaneous realities
 - Current funding is not sufficient to meet State of Good Repair needs
 - Capacity constraints limit ability of agency to spend programmed funds



SGR Spending by Year – Programmed vs Expended



Capital Budget Delivery Challenges

- Undersized administrative workforce
 - Lower staffing levels create bottlenecks in key roles in engineering and asset maintenance as well as procurement, HR, and Legal
- Recruitment and retention challenges tied to compensation packages which lag behind industry
- Policies and regulations
 Internal contract authority capped at \$200
- Supply chain challenges

		Agency Employee to Revenue Vehicle Ratio
	MTA	1.6: 1
	Greater Cleveland Regional Transit Authority (GCRTA)	3.4: 1
capped at \$200k	Metro Transit (Minneapolis)	3.7: 1
	Pittsburgh Regional Transit (PRT)	2.3: 1
	Regional Transportation District (RTD – Denver)	1.5: 1
	Southeastern Pennsylvania Transportation Authority (SEPTA)	3.4: 1
	Washington Metropolitan Area Transit Authority (WMATA)	2.9: 1
	Peer Average	2.3: 1

Ongoing Efforts to Increase MTA's Organizational Capacity

- Personnel efforts
 - Added 3 PINs to MTA's Procurement office
 - Added new Director of Capital Program and Asset Management position
 - Added Capital Program support staff to speed up funding approvals and provide more information to department managers and directors on spending progress
 - Hired additional Planning and Engineering consultants to drive projects
- Policy efforts
 - Established Program Management Oversight office that is responsible for ensuring projects are coordinated, bundled and prioritized to maintain schedules
 - Implemented process changes to reduce work order and funding approval bottlenecks
 - Improves agency's ability to deliver what we currently advertise
 - Engaging department directors in budget management
 - Building larger pipeline of planning and engineering efforts that provide flexibility to react to unanticipated project delays

MTA's FY25 Proposed Operating Budget

- Total for FY25 = \$1.19 billion
- 76% is labor and contracted services
- Other category includes:
 - Rent and utilities
 - Parts, inventory, and diesel
 - Supplies, equipment, and communications



MTA's Operating Budget Over Time

- MTA's operating costs have increased over time
- MTA has improved its budget management in recent years



Primary operating cost drivers:

- Increased labor costs
- Inflation
- Supply chain issues for repair parts & materials
- Access fees for host railroads
- Contract cost escalators

MTA's Operating Budget Over Time

- Since FY14...
 - MTA's labor costs have increased by 40%
 - Contracted services have increased by 60%, including a 30% jump between FY21 and FY23
 - Overall expenditures have increased by 43%

MTA's YOY Service and Labor Expenses

	FY19	FY20	FY21	FY22	FY23	FY24
Commuter Bus	2.8%	-0.8%	0.2%	2.3%	3.3%	3.6%
Mobility	6.4%	21.3%	3.0%	3.0%	30.2%	13.1%
MARC	4.0%	6.8%	3.0%	3.0%	5.4%	25.5%
Union Wages	3.0%	3.2%	3.2%	3.2%	8.6%	6.5%



MTA's Operating Funding Needs

- 10-year operating expense to maintain existing services: \$15.2B
 - Includes no additional service increases with the exception of the Purple Line
 - Includes current levels of Commuter Bus

FY24

FY25

FY26

FY27

\$2,000 \$1,846 **10-Year Operating Needs to** \$1,790 \$1,726 \$1,800 \$1.667 **Maintain Existing Services:** \$1,618 \$1,564 \$15.2B \$1,600 \$1,340 \$1,400 \$1,281 \$1,223 **Purple Line availability** \$1,129 Millions \$1,200 payments begin in FY28 \$1,000 \$800 \$600 \$400 \$200 \$0

FY28

FY29

FY30

FY31

FY32

Expected 10-Year MTA Operating Budget to Maintain Existing Services

FY33



Looking Ahead

MARYLAND DEPARTMENT OF TRANSPORTATION

MARYLAND TRANSIT ADMINISTRATION

A Better Transit System is Possible

With additional investment, in 10-years, we can have:

- A transit system that is **frequent**, **reliable**, **and easy to use**
- Transit that expands to meet the region's and State's growth and supports economic development
- A transit experience that is pleasant and dignified
- A system where buses and trains are so frequent that you don't need a schedule

What Does That Mean in 3 Years?

Within the next 3 years, with additional PINs and funding, we can have:



Note: Would require an additional \$260 million in operating expenses and ~400 PINs

What Does That Mean in 10 Years?

Within the next 10 years, with appropriate investments across the system, we can have:



10-Year Bus Vision

- Frequent Transit Network expanded to 20 routes
 - Average wait time of 3-5 minutes
- 5-route QuickLink network
 - Leverages existing dedicated bus lanes and RAISE E-W improvements
- 10 additional LocalLink routes with average wait times of 7-10 minutes
- 28 remaining routes on minimum 30minute standard or better





MTA's Operating Funding Needs

- 10-year operating expense for system expansion: \$16.5B
 - Includes maintaining existing service, Purple Line, Red Line, MARC service expansion, 5th bus division, expanded Core Service frequency, expanded Mobility service, reimagined commuter bus system, increased LOTS operating funds



Expected 10-Year MTA Operating Budget for System Expansion

MTA's Capital Funding Needs

- 10-year capital needs for system expansion: \$19B to \$25.3B
 - Includes maintaining existing system, Purple Line, Red Line, MARC service expansion, 5th bus division, new Light Rail vehicles, increased LOTS capital funds, and a pipeline of New Starts projects underway including Southern Maryland Rapid Transit, North-South, and Baltimore East Side Access



MTA 10-Year Capital Needs

Low scenario assumes lowest cost estimates for Red Line, N-S, and SMRT

High scenario assumes highest cost estimates for Red Line, N-S, and SMRT

Major Project Updates

Baltimore Regional Transit Commission March 8, 2024



MARYLAND TRANSIT ADMINISTRATION

Zero Emission Bus Program Overview

- In 2020, MTA conducted a Transition Study of the feasibility of implementing battery-electric buses (BEBs) and hydrogen fuel-cell electric buses (FCEBs) for MTA's Core Bus fleet to achieve long-term fleet transition targets and state decarbonization goals
- ZEB is a key component of Maryland Greenhouse Gas Reduction Act Plan
- Transition to ZEBs requires significant investment in infrastructure in addition to new vehicles



Kirk Pilot

Current Status:

- A total of 4 40-foot buses and 3 articulated buses are now onsite at Kirk Division
- Post-delivery inspection has concluded, and all 7 buses have been accepted by MTA
- Revenue service commenced January 29, 2024
- Kirk Division operators, technicians and dispatchers trained for BEBs
- Tracking performance with dashboard, including impacts of:
 - Weather
 - Topography
 - Load Factor
 - Operator Driving Style

Molly Arnold @MDOTMTAHolly

Thanks to the @mtamaryland team for their work to put our first electric buses into service! And thanks to @GovWesMoore, @MDOTNews & @FTA_DOT for the funding & support. Every transit trip helps reduce emissions & this program is a step towards reducing our carbon footprint.



🤐 MTA Maryland @mtamaryland · Feb 27

Today, we celebrated the launch of our Zero Emissions Buses **,** along with @GovWesMoore, @MDOTnews, @MDOTMTAHolly, @MDenvironment, @MD_Labor, @FTA_DOT & @MyBGE.

Bus Procurement

• Numerous industry-wide challenges

BEB Orders:

- At least 20 BEBs to be delivered annually from 2025-2029
- Pending Budget Reconciliation Act (BRFA) will amend MD Zero Emission Bus Act to require at least 25% of MTA bus purchases to be Zero Emission
- ZEB propulsion type for post-2031 deliveries and facility investments will be confirmed later in the decade

Additional Decisions:

 Hydrogen fuel-cell bus pilot planning is commencing for 4 buses (to align with BEB pilot program) to arrive in late 2026




Bus Depot Electrification Program

Current Status:

- MTA initiated a Design-Build-Operate-Maintain (DBOM) procurement in November 2022 to:
 - Finalize designs for conversion efforts at Kirk (100% conversion) and Northwest (50% conversion) Divisions
 - Install 90+ charging cabinets, 225+ dispensers and other facility improvements to enable reliable BEB charging
 - Oversee bus charging by service contractor, with guaranteed daily vehicle availability percentage (includes Charge Management software)
- Peer agency survey recommended this shift of risks from MTA to contractor
- BPW approval currently anticipated in late Spring 2024



Eastern Redevelopment

Current Status:

- Existing division constructed in the 1940s is **past its useful life** and will close to permit full reconstruction
- **30% design and NEPA** was recently completed, Construction Manager onboarded in late 2023 and 65% design is underway
- MTA goal is to attain LEED Silver certification for project
- **Extensive coordination** with local, state, and federal stakeholders (Balt. City, MDE, MDTA, FTA, and FHWA)
- Improvements to adjacent streetscape, intersection and traffic patterns will be made
- **Community engagement** with residents and businesses, including events in Highlandtown and Greektown
- Project is not fully funded MTA will continue pursuing discretionary grants
- Construction timing must align with BEB delivery schedule





Metro Railcar Replacement

- MTA's Metro fleet was purchased over 40 years ago and has reached useful life
- In 2017, the \$450M project to replace the fleet and install new signal system commenced
- Trains are under construction with revenue service scheduled to begin in 2025
 - First test train was delivered in September of 2023
 - Manufacturing is in the process of shifting to Hitachi's Hagerstown Plant





Light Rail Vehicle Fleet Transition

- All of MTA's 53 Light Rail vehicles (LRVs) have either exceeded or will reach the end of their useful life within five years.
- MTA will replace this existing fleet with modern, low-floor, and accessible vehicles, eliminating the need for "high block" entry/exit ramps
- MTA was recently awarded \$213M in grant funding from the FTA's Rail Vehicle Replacement program for this project and will supplement with \$90M in state matching funds





Light Rail Vehicle Fleet Transition

- LRV Fleet transition requires:
 - Redesign and updates to stations/platforms
 - Updates to maintenance facilities and signal system
 - Training for operators, mechanics, dispatch, facilities, field support, scheduling, systems, engineering, and emergency response personnel
- Benefits include:
 - Improved reliability
 - Increased frequency
 - Improved access, especially during high volume events
 - More passenger-friendly stations



Light Rail Vehicle Fleet Transition



Mondawmin RAISE Grant

- MTA won a \$20 million grant to put toward a \$38.5 million station enhancement project
 - Focused on safety, accessibility, state of good repair, and sustainability improvements
- Primary Metro and bus transit connection to five public schools, two colleges, and Mondawmin Mall, a major retail and social services center
- Serves the half dozen majority-Black neighborhood communities in West Baltimore and the 745-acre Druid Hill Park



Mondawmin Transit Hub Project

Project Scope Elements

State of Good	• State of good repair investments to upgrade station assets past their useful lives, including replacement of the bus loop, fire protection system cabling, platform tactile warning surface, attendant booth, plumbing, platform signage, and employee restrooms
Repair	 Regrading of the station plaza to mitigate water drainage issues
Station Upgrades	 Addition of a new transit customer service kiosk at street level
	Inclusionary wayfinding
	 Customer amenities, such as seating, real-time information signage, and station plaza
	Upgraded station lighting
Pedestrian and Bicycle Safety	 Pedestrian infrastructure upgrades for ADA compliance within ¼ mile of the transit hub
	 Redesign and reconstruction of 9 high-crash intersections for improved pedestrian and bicycle safety
	Installation of new protected bicycle infrastructure
	Pedestrian-scale lighting
	 Installation of dedicated bicycle parking at the station
Environmental Sustainability	 Installation of a regenerative braking system to produce sustainable electricity from Metro Subway operations
	Installation of 10 electric vehicle chargers
	 Replacement of impervious surfaces with 3 new roadside bioretention facilities that capture stormwater and create new green spaces

Mondawmin Transit Hub Project



North-South Corridor Study

- One of the first two corridor studies from the Central Maryland Regional Transit Plan
- Feasibility study considered alignment, mode, and benefits of north-south premium transit
 - Modes considered: Light Rail, Bus Rapid
 Transit, Heavy Rail (Metro)
 - Designed to gather public input and provide high-level technical information for more detailed evaluation



North-South Corridor Study

- Feasibility study results were published in December 2023
 - Strongest performing segments were York Road from 33rd to Towson, and Charles/St. Paul from Penn Station to Downtown
 - Loch Raven Boulevard and York Road north of Towson are more appropriate for longer term investment
 - Light Rail and Bus Rapid Transit strongest performing modes
 - Harbor East and Baltimore Peninsula are potentially strong southern termini
- Alternatives Analysis (AA) will be launched this year to answer key questions including:
 - How should the North South corridor connect from 33rd Street to Penn Station?
 - Which mode should be used for the North-South corridor?
 - What should the southern terminus be?
- Alternatives will be advanced further into concept design to capture benefits and impacts



Eastern Baltimore County Access Study

- 2022 East West Corridor Feasibility Study noted the potential demand east of Bayview, as did Baltimore County partners and other stakeholders
- Eastern Baltimore County Access Study will assess future extension of Red Line's eastern end
- The Red Line project will be designed "not to preclude" extension past its eastern terminus
- Project team re-engaging with Baltimore County partners this spring and public engagement expected later this year



Regional Transit Plan Update

- 25-year vision for transit in our region, first published in 2020 and updated every five years as required state law
- 2025 update will:
 - Re-assess existing conditions and account for post-COVID travel patterns
 - Report on implementation steps taken since 2020
 - Develop regional corridors into a more detailed and prioritized project pipeline
 - Refine cost estimates and potential expansion budget needs
- Baltimore Regional Transit Commission has a legislatively required role to approve this document



Red Line Update





Red Line Project Background & History

- The Red Line project addresses a major gap in east-west transit service between Bayview and Woodlawn, through downtown
- East-West Feasibility Study reaffirmed the needs along this corridor.
- Project relaunched in June 2023 by Governor Wes Moore
- Building upon the extensive technical work and community engagement conducted prior to the cancellation of the project in 2015



Preliminary Alternatives Under Consideration

Six Preliminary Alternatives are under consideration, which combine three alignment options (mapped below) and two modes:



Key Differences Between Alternatives

- Light Rail attracts the highest ridership
- Tunnel options (Alts 1 and 3) save 11-15 minutes of travel time for end-to-end trips
 - Note: most trips in the corridor are short trips
- Tunnel options (Alts 1 and 3) are 70% more expensive than surface
- Surface LRT has the lowest cost per rider
- Risk and complexity increase with tunneling



2023 Outreach & Engagement Snapshot



SUMMER 2023

Reintroduce the Red Line Project

Shared project history, introduced mode and operating options, and actively solicited community desires and perspectives to inform alternatives and priorities for the Red Line investment



Meetings

Meetings

FALL 2023

Red Line Alternatives Sharing & Review

Received public preferences on mode, alignment, and tunnel vs. surface operations to inform a subset of alternatives to advance into further study, including federal environmental and funding processes

Connected with over 4,000 people				
	ĥÍ			
4 Open	22 Pop-	3,419		
Houses	Ups	Surveys		



Canvasing

What We Heard



Overall support for the Red Line and desire to see project completed as soon as possible



Make seamless connections to existing transit to advance a regional transit network



& Mixed Input on Tunnel Preferences

(e.g., Cooks Lane tunnel/surface alignment) Support for economic development and desire to increase local jobs and access to key destinations



Concerns about Red Line impacts to **traffic**, **congestion**, and **parking**



Concerns about traffic safety at Red Line crossings as well as personal safety



Geographic **focused community meetings** after open houses to further explore questions and concerns

Where We Are Now

- ✓ Fall 2023 | Shared Preliminary Alternatives
- Winter 2023-24 | Incorporate feedback to define preferences on trade-offs
- Spring 2024 | Mode Selection
- Winter 2024 | LPA Selection



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