

# MTA Overview

**Maryland Hispanic Chamber of Commerce  
Infrastructure & Transportation Summit 2024**

**Holly Arnold, Administrator & CEO  
November 14, 2024**



# Maryland Transit Administration



6

Service Modes

Core Bus, Light Rail, Metro, Mobility, MARC, and Commuter Bus

16<sup>th</sup>

Largest Transit System

Out of all transit agencies in the United States by total ridership in 2023

~3,400

Employees

1,500 operators, 700 mechanics, 80% union workforce

\$12.6B

In Total Asset Value

Includes assets for which MTA has direct capital responsibility

~\$1.2B

Operating Budget

For FY25, includes contracted service, salaries & benefits, LOTS

~\$4.5B

Capital Budget

For FY24-29, major projects include vehicle overhauls & replacements, transit facilities



## Core Bus

Serves Baltimore region with over 60 routes; largest mode by ridership; network redesign launched in 2017; 10<sup>th</sup> largest bus system in United States



## Light Rail

33 stations from Hunt Valley to Cromwell and BWI Airport; 57 miles of track; mid-life overhaul of vehicles underway



## Metro

Heavy rail service with 14 stations from Owings Mills to Johns Hopkins Hospital; fleet replacement underway



## Mobility

Paratransit service for individuals with disabilities who are unable to use the MTA fixed route system; service is contracted



## MARC

Commuter rail service with 3 lines; 42 stations in MD, WV, and DC; service is contracted

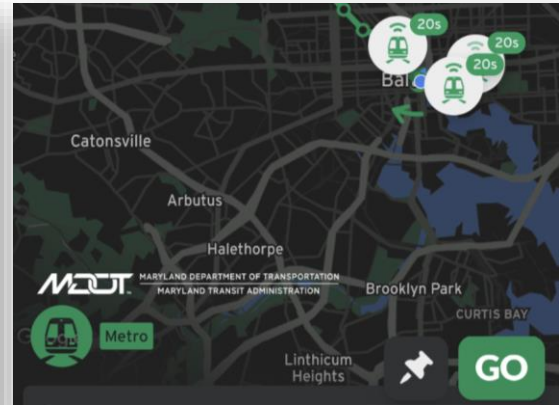
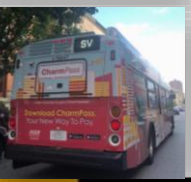


## Commuter Bus

Peak-period limited-stop bus service; 4<sup>th</sup> largest system in United States; service is contracted

# The Vision for MTA

- Frequent
- Reliable
- Easy



# MTA Agency Overview

- Headquartered at 6 Saint Paul Street in Downtown Baltimore
- 4 bus divisions throughout Baltimore City
  - Bush
  - Eastern
  - Kirk
  - Northwest
  - ~750 buses in fleet
  - Over 4,000 bus stops throughout Baltimore region
- MTA Police Force
  - Over 150 officers and 80 civilian employees
- Funding and statewide assistance to Locally Operated Transit Systems throughout Maryland
- Primary transportation service for Baltimore City Public School System
- Purple Line under construction in Montgomery and Prince George's Counties



# Supporting Our Region

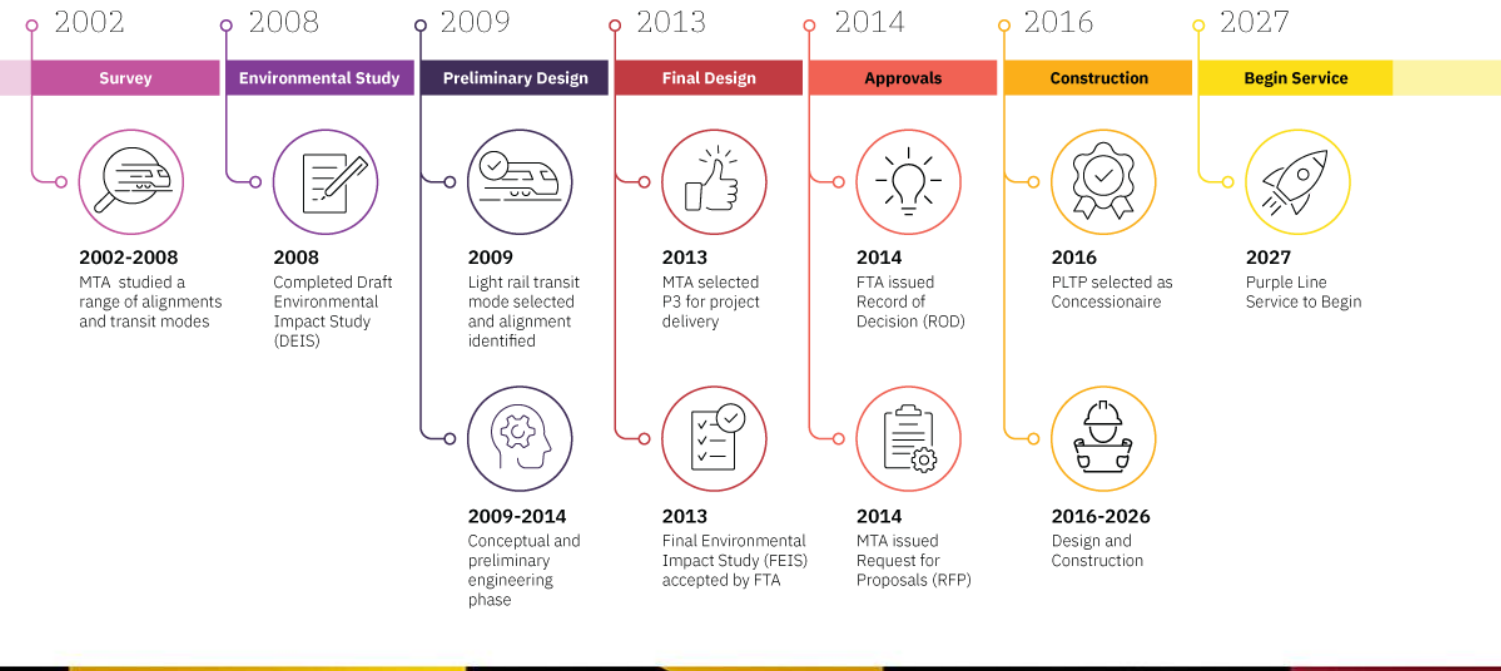
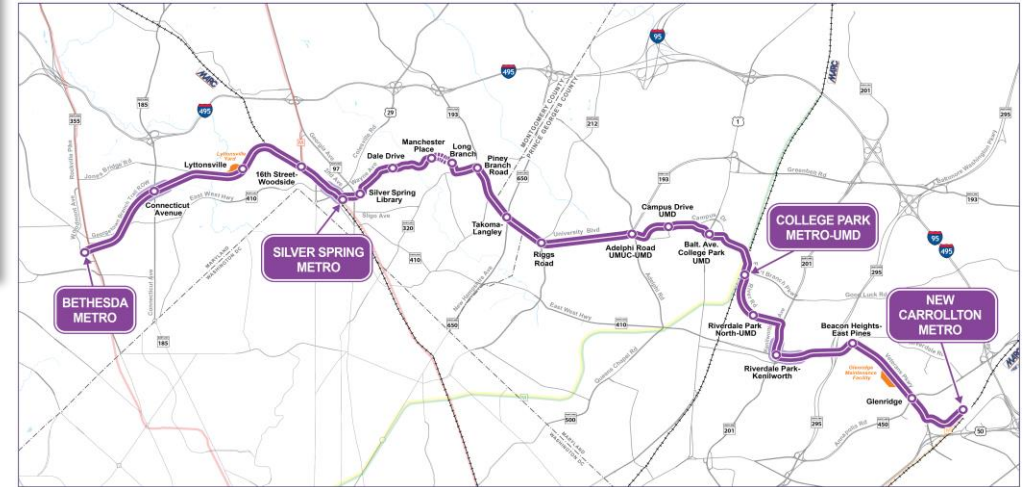


- Over 60 million rides last year throughout system
  - Ridership continues to recover
- ~30% of Baltimore households have no access to a vehicle
  - Over 85% of Core Bus riders
- Over 90% of Core Bus riders have <\$50k household income
- Owning a car in Baltimore costs around \$14,000 a year
- MTA contributes only 0.2% of the region's transportation emissions
- For every \$1 invested in transit, the total economic return is \$5



# Purple Line

- Construction over 71% complete
  - 18 stations under construction
  - ~55,000 feet of track has been laid
  - Systems and catenary work ongoing
- First light rail vehicles have arrived
- Revenue service in Winter 2027



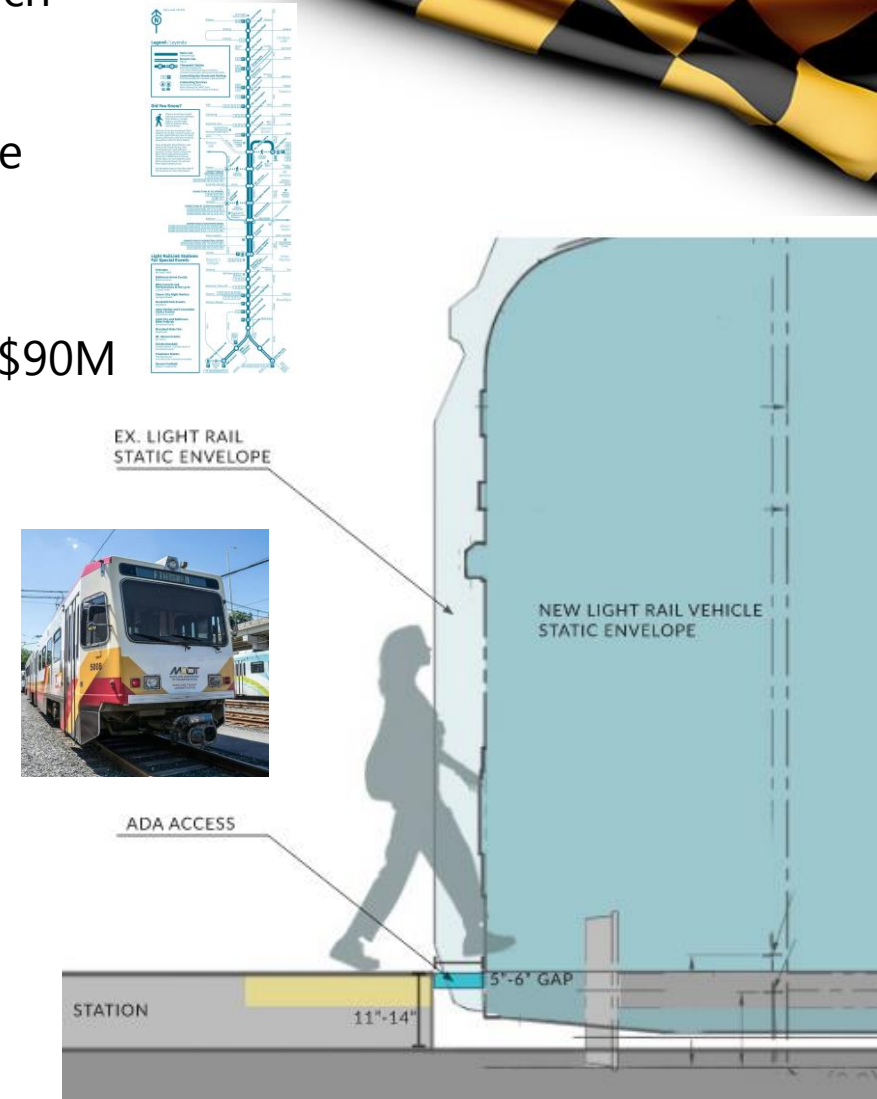
# Metro Railcar & Train Control Replacement

- \$450M project to replace the fleet and install new signal system
  - MTA's Metro fleet was purchased over 40 years ago and has reached useful life
- Trains are under construction with revenue service scheduled to begin in 2025
  - First test train was delivered in September of 2023
  - Testing of new railcars and critical infrastructure has begun



# 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
  - Full program cost of \$1.3 billion
- 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





# MBE and DBE Contracting

- Currently, MTA has over 400 active contracts, with a total award value of \$6.7 billion
- Minority Business Enterprises (MBE) represented 12% of eligible contracts in FY23
- Disadvantaged Business Enterprises (DBE) goal for FY23-25 30%
  - Most recent reporting period, DBEs represented 32% of contracts awarded and 43% of payments of contracts completed
- All solicitations are reviewed to evaluate and determine the MBE/DBE goals based on market analysis

# Skills and Trades

- Civil, Asphalt, Concrete, Steel, Environmental
- Electrical, Mechanical, Plumbing
- Railroad Track Construction, Railway Train Signaling, Rolling Stock
- Electrification, Traction Power, Surge Protection
- Communication, Systems Integration, IT
- Maintenance and Services



Upcoming Projects are always advertised on eMMA

**\*Look to eMaryland Marketplace *Advantage* for Further Details\***

**[HTTPS://PROCUREMENT.MARYLAND.GOV/](https://procurement.maryland.gov/)**

A snapshot of upcoming MTA solicitations can be found on the MTA website, under Business with Office of Procurement <https://www.mta.maryland.gov/solicitations>

# Baltimore Red Line

Connecting Communities to Opportunities

Martha Gross, PE

Maryland Transit Administration  
Transit Development and Delivery

**RED  LINE**

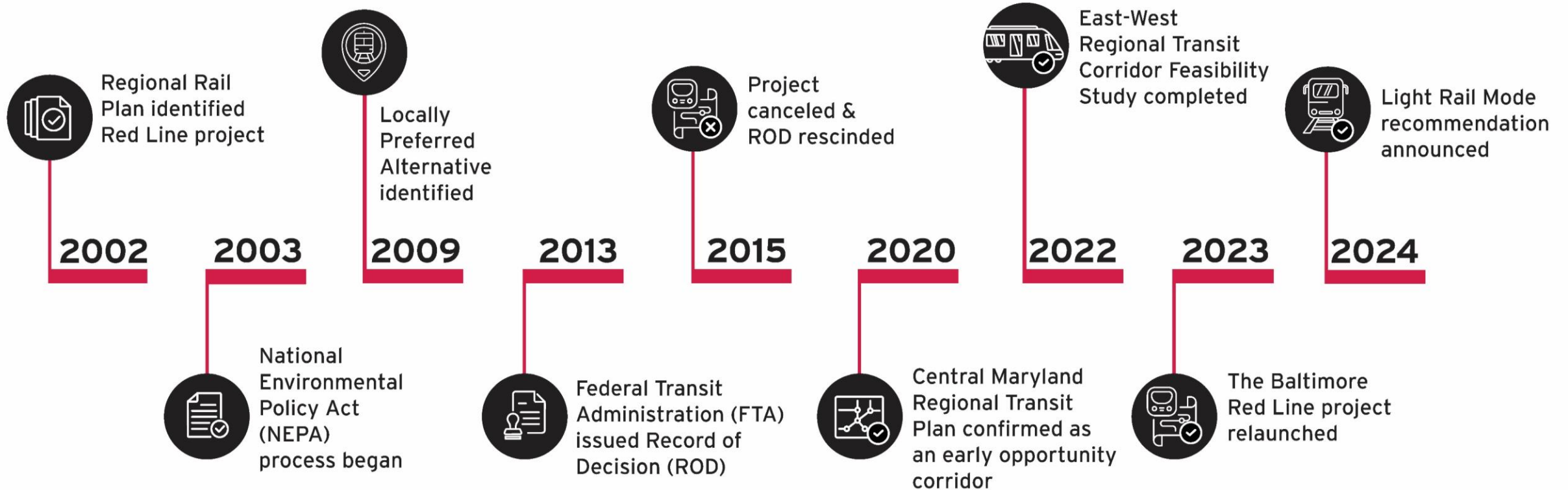
**MDOT**  
MARYLAND DEPARTMENT  
OF TRANSPORTATION

# Baltimore Red Line Overview

- A proposed high-frequency, high-capacity light rail transit line between Woodlawn and Bayview, traveling through downtown.
- An investment in premium transit to serve a corridor that has high-transit demand, but that currently lacks the direct transit connections that have been repeatedly identified as needed.



# Project Background



# Investment in Transit is Equitable Investment in People



# Advancing our Region's Economic Development

Improved transit connections and services can **encourage new development** around stations, revitalizing surrounding neighborhoods and advancing the region's **economic development** goals.

- Nearly 9 out of 10 trips on public transit directly impact the local economy
- For every \$1 billion invested in public transportation, nearly 50,000 jobs are created or sustained across the entire economy
- Public transit is a key factor in business site selection



According to the American Public Transportation Association, **for every \$1 invested in public transportation, approximately \$4 is generated in local economic returns**



# The Red Line Can Bring Revitalization and New Development

**Transit can help expand and strengthen the market.**

Kansas City's development incentives were unnecessary once the KC Streetcar service proved to be desirable.



**Visible permanent high-quality infrastructure is valued by investors, partners and riders.**

Richmond's Pulse BRT has surpassed ridership expectations, encouraging the City to prioritize station area affordable housing.



**Transit line's design quality and destinations foster redevelopment.**

Portland's isolated industrial zone emerged as the new Pearl District neighborhood connecting to downtown and a new hospital/job center on the waterfront beyond the interstate.



**Local government incentives influence private investment.**

Cleveland's success included building-face to building-face investment downtown, institutional partnerships and new bike/ped infrastructure in terminus suburban neighborhoods.



# Economic Benefits

Transit provides access to **50% of the Baltimore region's 1.2 million jobs** and represents more than 10% of commutes in Baltimore City.

## According to the Greater Washington Partnership's analysis:

- Construction along the Red Line corridor alone has a **potential economic impact of over \$10 billion.**
- Construction could **add more than \$5 billion in labor income** for local workers.
- Once the project is complete, ongoing operations of the transit system and the related indirect and induced effects could **support over \$100 million annually in economic output and labor income along with approx. 1,000 ongoing jobs.**

● Excavators

● Heavy Truck/Heavy Moving Work

● Other Related Skills & Trades

● Utility Works

● Electrical Workers

RED  LINE



# 2024 Progress

# Community Engagement: Where We've Been

CONNECTED WITH  
**5,500+**  
PEOPLE



**9**  
Open Houses



**56**  
Pop-Ups & Community Events



**200+**  
Houses reached through Door-to-Door Canvassing



**3,700**  
Surveys

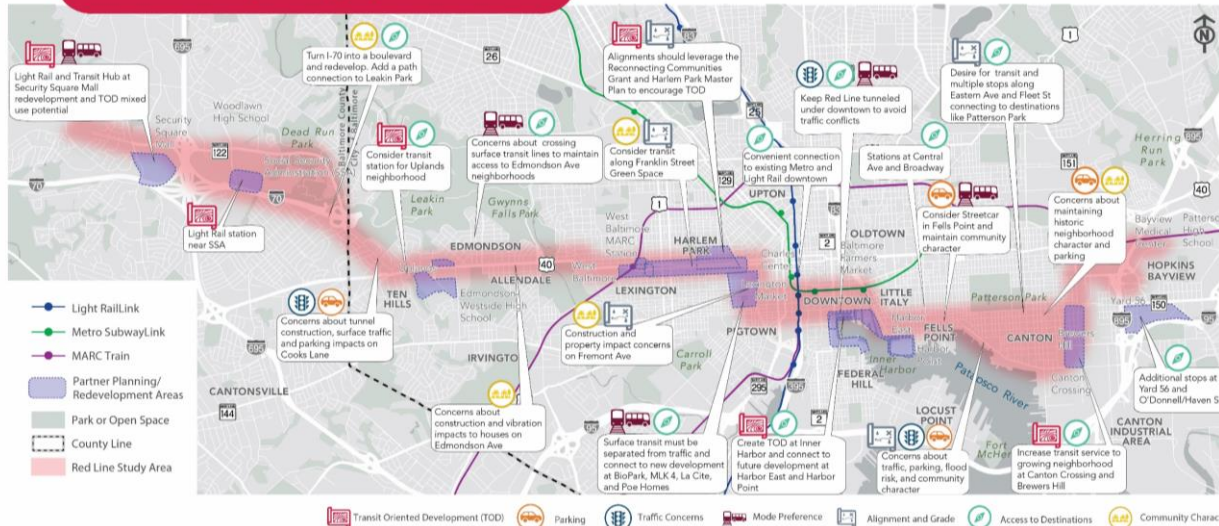


**34**  
Community Association Meetings



**JUNE 2024 COMMUNITY ADVISORY TEAM LAUNCH**

## Comments by Geographic Location



# Light Rail Transit Recommended

The mode recommendation was based on nine measures of effectiveness and community input. Key differentiators included:



## RIDERSHIP & CAPACITY

Up to twice the projected daily ridership on Light Rail Transit (LRT) as compared to Bus Rapid Transit (BRT)

## ANNUALIZED CAPITAL COST PER TRIP

While the capital cost is higher for LRT, higher capacity and ridership result in a lower capital cost per trip compared to BRT

## TRAVEL TIME & RELIABILITY

End-to-end travel time slightly better than BRT

## EQUITY

LRT is projected to serve twice as many trips from zero-car households compared to BRT

## COMMUNITY INPUT

Public expressed a strong preference for LRT

# Designing to Move People More Efficiently



Scan QR code to view animation

## Baltimore's Modal Hierarchy



1 Walking



2 Cycling / Public Transit / Micromobility



3 Taxi / Commercial Transit / Shared Vehicles



4 Single Occupant Vehicles

## Person Throughput

Transit streets are designed to move people. Whether in dense urban cores, on conventional arterials, or along neighborhood spines, transit is the most spatially efficient mode.

Per NACTO, the capacity of a single lane by mode at peak conditions with normal operations.

Private Motor Vehicles  
 600-1,600/hr

Mixed Traffic with Frequent Buses  
 1,000-2,800/hr

Two-Way Protected Bikeway  
 7,500/hr

Dedicated Transit Lanes  
 4,000-8,000/hr

Sidewalk  
 9,000/hr

On-street transitway, bus, or rail  
 10,000-25,000/hr



## Complete Streets

- Street and transit design options for surface alternatives will follow the Baltimore City Complete Streets law and the MDOT statewide Complete Streets policy.
- Together, these local and State policies establish a modal hierarchy that prioritizes walking, biking, transit, and freight above automobiles.



## Transit Signal Priority (TSP)

- TSP equipment on traffic signals and transit vehicles allows signals to add critical seconds to the end or beginning of a green phase to allow transit vehicles to travel with less delay.
- Upgrading signalization systems with TSP throughout the Red Line corridor will improve efficiency and reliability on surface streets.

# Alternatives Under Consideration

Major differences are summarized below:



## Alternative 1 LRT Tunnels

- Similar to 2012 Preferred Alignment, with modifications
- Transitway\* along I-70
- Tunnel under Cooks Lane and Downtown
- Transitway along Boston Street



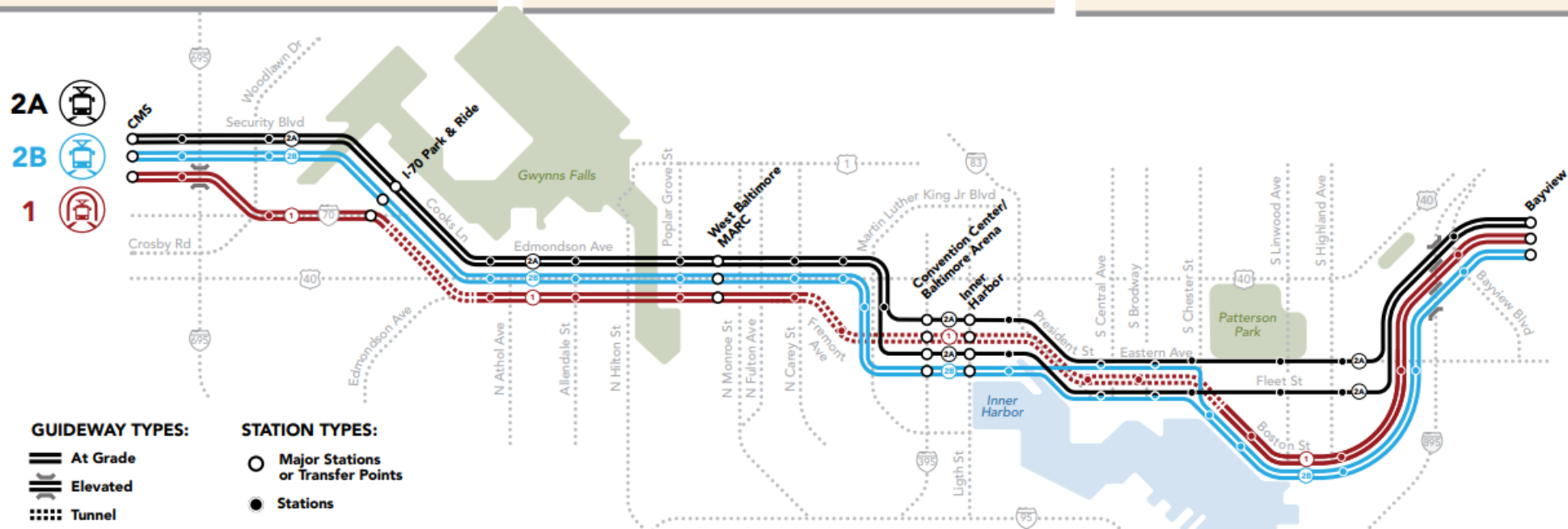
## Alternative 2A LRT Surface North

- Transitway along Security Boulevard
- Mixed traffic operations along Cooks Lane
- Baltimore Street/ Lombard Street transit couplet
- Eastern Avenue/ Fleet Street transit couplet



## Alternative 2B LRT Surface South

- Transitway along Security Boulevard
- Mixed traffic operations along Cooks Lane
- Transitway along Pratt Street
- Transitway along Boston Street






# What's Next?

Decisions & Process to Move the Project Forward

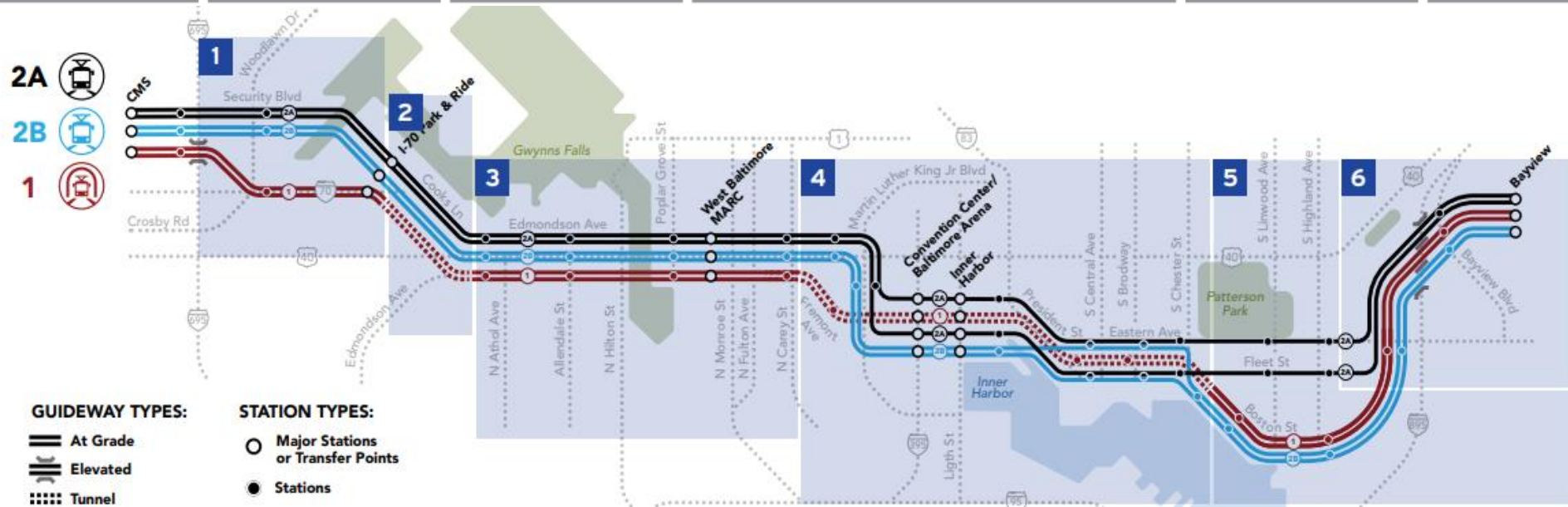


# Selecting an Alternative

Light Rail Transit has been selected as the recommended mode for the Baltimore Red Line, but other project alternative decisions must still be made. The map below identifies study area locations where engineering and alignment options are being evaluated.

 **Alternative 1**  
LRT Tunnels
  **Alternative 2A**  
LRT Surface North
  **Alternative 2B**  
LRT Surface South

|   |  |  |  |  |  |
|---|--|--|--|--|--|
| <p><b>1</b></p> <p><b>Route?</b><br/>I-70 vs. Security Blvd</p> | <p><b>2</b></p> <p><b>Tunnel Vs. Surface?</b><br/>Cooks Lane</p> | <p><b>3</b></p> <p><b>Route?</b><br/>Options along US 40</p> | <p><b>4</b></p> <p><b>Tunnel vs. Surface?</b><br/>Travel through downtown at street level or below</p> <p><b>Route?</b><br/>Baltimore St/Lombard St vs. Eastern Ave/Fleet St</p> | <p><b>5</b></p> <p><b>Route?</b><br/>Options through Southeast Baltimore</p> | <p><b>6</b></p> <p><b>Route?</b><br/>Options to connect to Bayview</p> |
|---|--|--|--|--|--|



# Upcoming Work to Plan for Contracting

- Environmental reviews
- Project delivery analysis
- Contract packaging
- Risk assessment
- Utility impact analysis
- Right-of-way impact analysis
- Concept of operations



# Construction Considerations



**Downtown tunnel construction (Alternative 1) would involve surface alternative construction activities, as well as some elements that add complexity, risk, cost, and time to the project.**

- Construction of tunnel portals to launch and retrieve the Tunnel Boring Machine (TBM) in the median of US 40 and on Boston Street, respectively. The launch portal and staging area would require approximately two acres, as well as careful management of noise and dust during construction.
- Once launched, a custom TBM would begin excavating from west to east, running 24 hours a day, 5-7 days a week.
- Excavated material would be transported to the western portal area to be hauled to another site. Engineering controls would be used to deal appropriately with any contaminated soils.
- Underground stations and vent shafts will require top-down construction with large excavations in public streets, major utility relocations, and temporary diversions of traffic.

# Construction Considerations

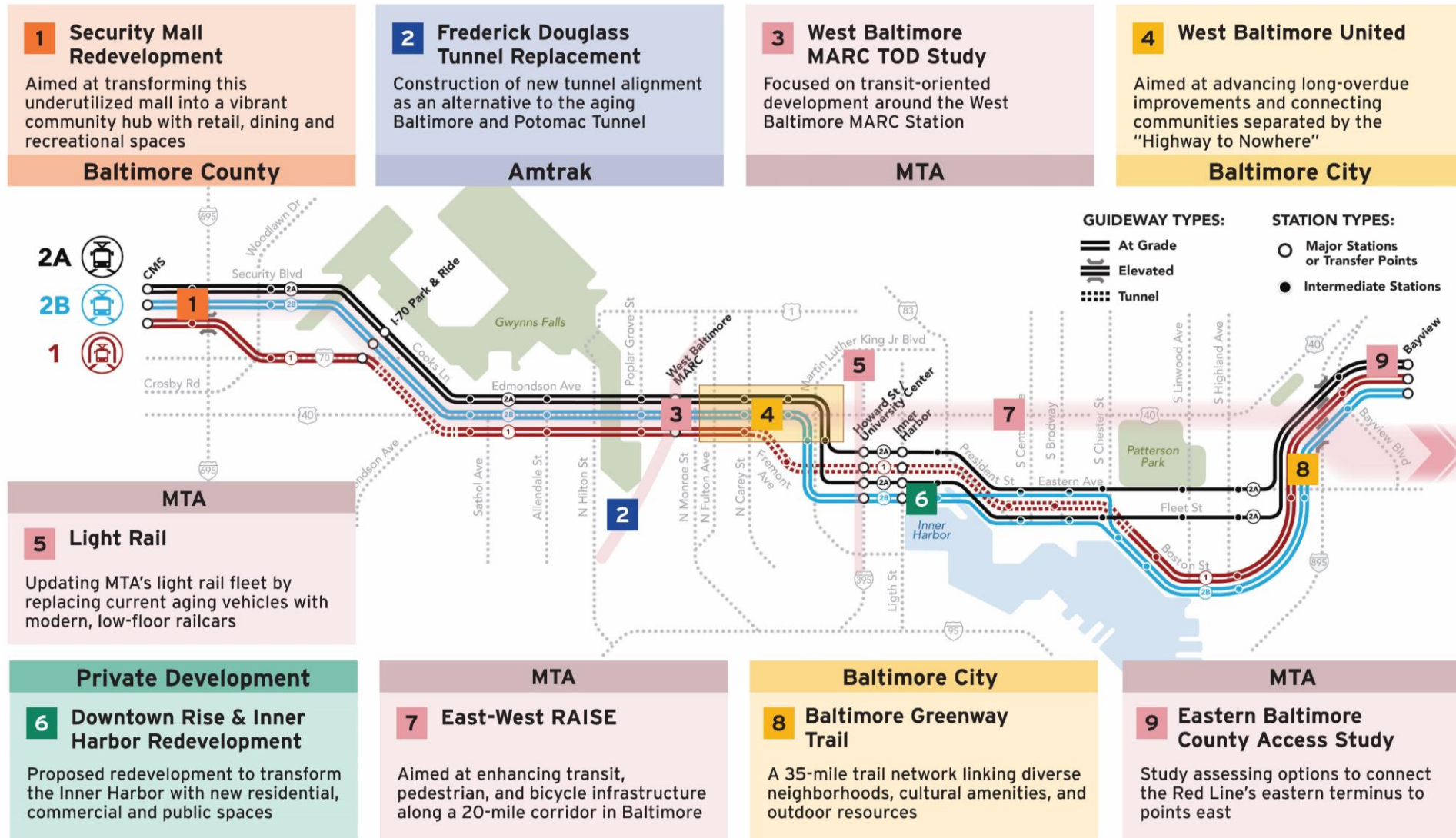


**Alternatives 2A and 2B surface construction would involve construction along existing roadways and new right-of-way:**

- LRT track assembly and concrete work would be completed one segment at a time but in many locations simultaneously.
- Appropriate maintenance of traffic measures would be implemented when construction is taking place along existing roadways.
- Surface LRT construction would be comparable to more traditional roadway construction, just with a longer construction timeline due to more specialized construction methods.
- Additional construction may include:
  - + Transit stations and parking
  - + Stormwater management and utility relocations
  - + Grade crossings for intersecting streets and driveways
  - + Overhead wire system (known as catenary) installation
  - + Traction power sub-stations and other support systems



# Other Projects in the Corridor



# Questions & Conversation

Thank You!

Visit [redlinemaryland.com](https://redlinemaryland.com) to learn more, sign up for our newsletter, and provide comments.

