



Light Rail Modernization Program Details

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Agenda

- Program Tranches
- Key Program Principles
- Current Procurement Strategy
- Forecasted Timelines

Note: All program information reflects MTA's analysis as of June 2025 and is subject to refinement and changes as program development continues.



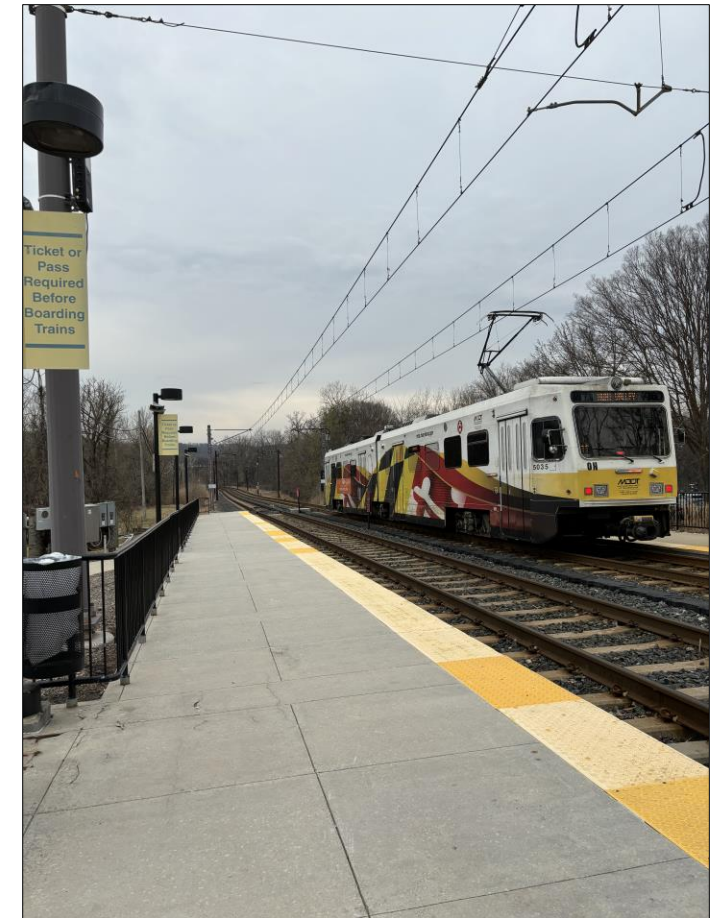
Program 'Tranches'

- **Near-term**

- Tranche 1: LRV & Advanced Train Controls
- Tranche 2: Light Rail Stations
- Tranche 3: Cromwell MSF Modernization
- Tranche 4: Traction Power Station Upgrades

- **Long-term**

- Tranche 5: North Avenue MSF Modernization
 - Tied to the last legacy fleet decommissioning



Tranche 1a: Vehicle Replacement

- Replace High-floor with Low-floor LRVs
- Fifty-two (52) 70% LF LRVs
 - Option for Baltimore Red Line Vehicles
- Collision Avoidance
- Broken rail detection
- Training Simulator

Improved Customer Experience

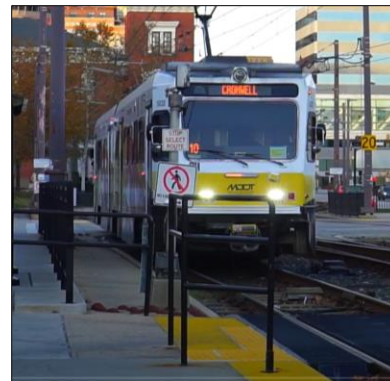
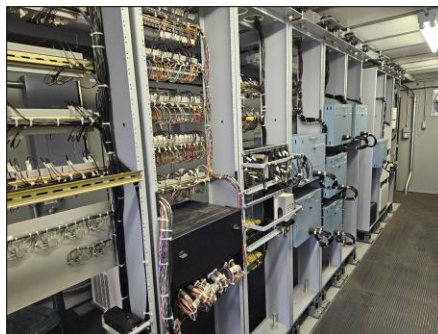
- Bike Racks
- Flexible Seating
- Passenger Information
- Real-time CCTV



Tranche 1b: Train Control

- Replace Track Circuits with Radio-Based Train-to-Wayside System
 - Includes Central Business District (CBD)
 - Includes Automatic Train Supervision (ATS)
 - Includes Data Communication System (DCS)
 - New Fiber Backbone
 - Option for Baltimore Red Line Vehicles
- Broken rail detection

- ATP System Implementation
- SSI Implementation
- Train Control/Railcar Integration
- Communication System/ATS Integration
- EMC Program Implementation



Tranche 1: LRV & Train Controls

- Transition Management

- Operations and Maintenance Readiness
- Migration Strategy and Phasing from Current to New Systems
- Temporary and Permanent SOP development Support
- Training and Maintenance Certification
- Testing and Commissioning
- Safety Certification Process Management

- Asset Management and Maintenance

- Maintenance During Transition
- Training and Certification of MTA Maintenance Staff
- Key Performance Indicators (KPI) of Vehicles and Train Control Systems

- Independent Quality Management (IQM)

- Peer Review of Design Deliverables prior to Submission
- Integration Oversight to ensure all sub-systems are compliant to interface requirements
- Documentation and Reporting on Quality KPIs

- Seamless Transition

- Collaborative Phasing
- Minimize Service Disruptions
- Reduced Transition Period

- Maintenance Readiness

- Value Engineering

- Quality Documentation

- Safety Certification

Tranche 2: Stations

- Transition Period
 - Phased Station Modification
- Final Configuration
 - Raised Platforms
 - Widened Platforms
- Design Considerations
 - Track Crossings
 - Various Platform Access Means
 - Station Amenities
 - Shared Use and Coordination

Core Scope

- ADA Compliant Level Boarding
 - Full-length raised platforms
 - Removal of high blocks
 - ADA Access at all Stations
- Replace non-ADA Compliant Shelters
- Platform Tactile Edge
- Wayfinding Signage
- Maintain Existing Communications Equipment
 - CCTV, where existing, remove and restore
 - RTIS remove and restore
 - PA – remove and restore
- Conduit for TVM and Validators
- Maintain existing features such as bike racks
- Restore Landscaping as needed
- Track replacement in CBD
- Preston Street Grade Crossing

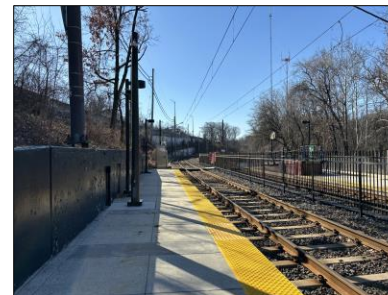
Tranche 2: Stations

Studies Under Review

- Station Construction
 - Arena
 - Lexington Market
- City DOT Coordination
 - Advanced discussion with BCDOT for signal and operational changes
 - Previously approved MOT Plan for trackwork and grade crossing
- Innovation Priority
 - Project Phasing
 - Mitigation of Construction Impacts

Improvements Under Review

- Safety and Security
 - CCTV at 11 Stations Current without surveillance
 - Handrail lighting at ramps
 - LED Station Lighting
 - Blue-light phones at key stations
- Station Amenities – Canopies, Seating, Trash Receptacles
- Passenger Information - Dynamic RTIS and/or Interactive Kiosks and/or LED TVs
- Landscaping and Transit Art
- Accent/Decorative Lighting consistent with branding
- Additional Grade Crossings



Tranche 3: Cromwell Maintenance and Storage Facility

- Receive new LFLRVs
- Transition period and long-term maintenance
- Staging for Testing and Commissioning of LFLRVs
- Existing Building will be modified, and second smaller building will be added
- Maintenance philosophy focused on lowest replaceable unit

- 30% Concept Design
- Additions w/in MTA ROW
- Recent Survey Information
- Recent Environmental Information
- NEPA

Existing Building

- Rooftop Access Platforms
- Upgrades for Rooftop equipment staging
- Monorail crane addition
- Renovations for training and support staff
- Existing functions will continue through construction

New Building

- In-floor Lifts
- Wheel truing
- 10T Overhead crane
- Maintenance support areas
- Parts storage
- Traction power substation for yard upgrades
- Operations spaces

Yard

- New tracks for building access
- Electrification
- Existing storage to remain
- New Storage Design
- New Yard Lead Design
- Employee and public parking

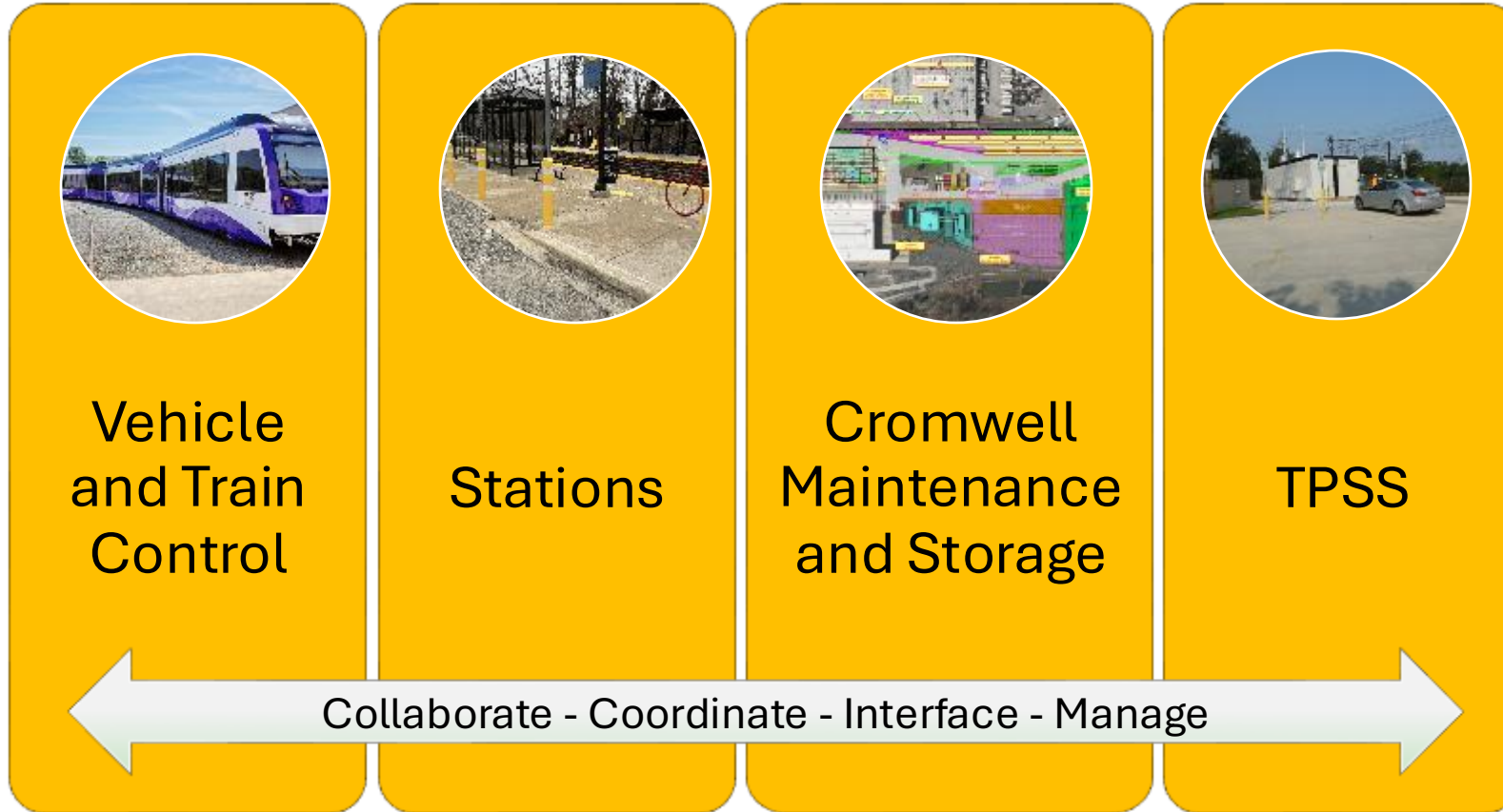
Tranche 4: Traction Power Substations (TPSS)

- Design-Build to replace exiting 26 Prefabricated TPSSs
- Breaker and Disconnections at Gilroy and Industry Lane (Switches only)
- SCADA Interface
- Design, fabrication, factory testing, delivery, installation (associated civil works), field testing and commissioning.
- Need strong liaison with relevant stakeholders such as MTA Operations, Maintenance, BGE, and others.



Note: This is already in-market. This overview is for information purposes ONLY.

Key Program Principles



- Safety
- Performance
 - Collaboration
 - Interdependencies
 - Innovation/Cost Effectiveness
 - Life Cycle Cost
- Quality
- Minimize Disruptions
 - Services
 - Neighbors

Current Procurement Strategy

Tranche 1 – V&TC

- Design Build Transition Management (DBTM)
 - Performance-based Requirements
 - Transition Management
 - Collaboration with Other Tranches
- RFP

Tranche 2 – Stations

- Progressive Design Build (PDB)
- Concept Plan
- Performance-based Requirements
- RFQ followed by RFP

Tranche 3 – CMSF

- Design Build (DB)
- Concept Plans
- Performance Requirements
- RFP

Tranche 4 – TPSS

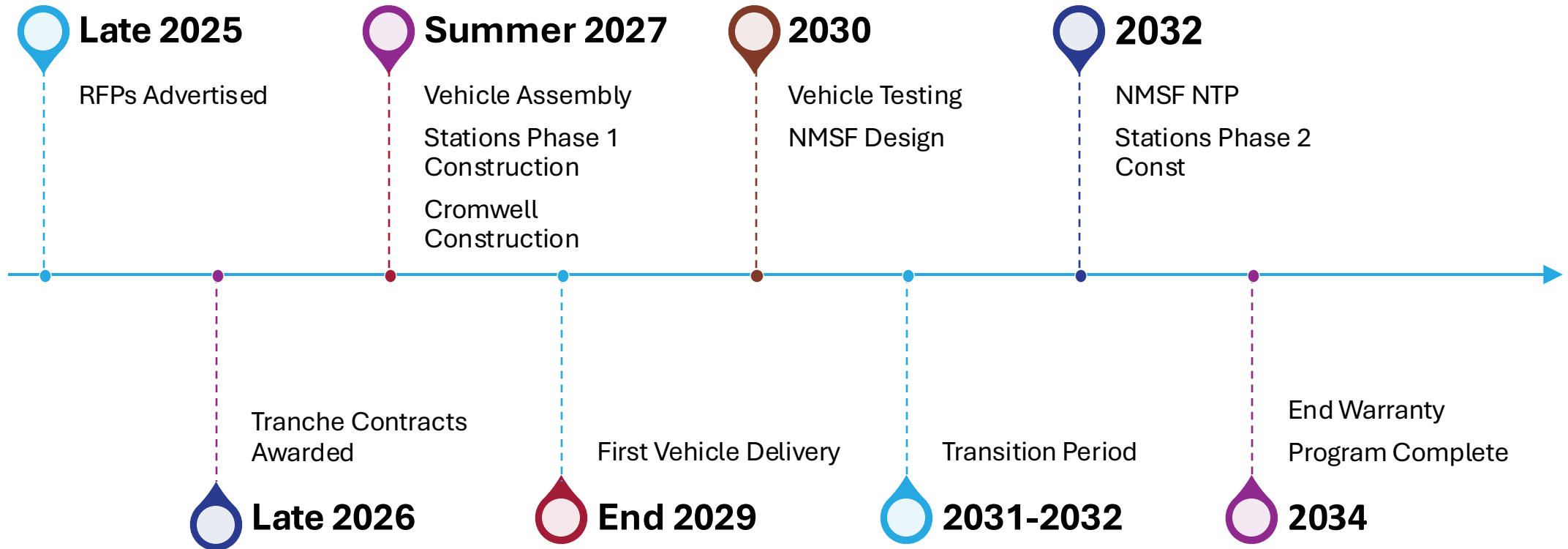
- Design Build (DB)
- RFP Advertised

Funded through various sources, collectively the Program is over \$1 Billion

Forecasted Procurement Timeline

Tranche	Anticipated Method	Anticipated RFQ Advertisement	Anticipated RFP Advertisement	Estimated NTP
1 - V&TC	Design-Build-Transition Management	N/A	Summer 2025	Fall 2026
2 - Stations	Progressive Design-Build	Summer 2025	Late 2025 (Design and Pre-Construction)	Late 2026
3 - CMSF	Design-Build	N/A	Late Fall 2025	Fall 2026
4 - TPSS	Design-Build	N/A	In-Market Bids Due September	Summer 2026

Forecasted Program Timeline



Note: Forecasted timeline reflects MTA's analysis as of Spring 2025 and is subject to refinement and collaboration with program delivery partners.

THANK YOU