

**Bimonthly Purple Line Construction Status Report  
Report of Fiscal Year 2025  
(2024 JCR, p. 89)**

**A Report to the Maryland General Assembly  
Senate Budget and Taxation Committee  
and  
House Appropriations Committee**

**November 2024**  
Maryland Department of Transportation  
Maryland Transit Administration

## **Introduction:**

The Maryland Department of Transportation (MDOT) prepared this report in response to language contained in the 2024 Joint Chairmen's Report (JCR). The language states:

*“Given continued challenges and cost overruns associated with completing construction on the Purple Line Light Rail project, the committees request that the Maryland Transit Administration (MTA) submit six bimonthly construction status reports for the Purple Line project to the committees. The status reports shall provide:*

- 1) the completion percentages for the project as a whole and for each major category of work;*
- 2) the running total amount expended for construction; and*
- 3) an explanation of any material change to the total construction cost estimate or construction schedule as set forth in the revised public-private partnership agreement as amended to add Maryland Transit Solutions as the replacement design-build contractor for the project.”*

The Purple Line is a critical investment in Maryland's transportation system that will provide reliable east-west travel in Montgomery and Prince George's counties, help reduce congestion, improve our environment, increase transit connectivity, create jobs, and drive economic growth.

The Purple Line will transform the region by:

- advancing the shared mission to improve the quality of life and economic vitality in our communities by creating and sustaining an integrated, convenient, and reliable transportation network;
- creating several new multimodal connections across the region, linking to three Washington Metropolitan Area Transit Authority (WMATA) Metro lines, three Maryland Area Regional Commuter (MARC) commuter rail lines, Amtrak, and a host of bus services;
- greatly expanding transit opportunities in Maryland's two most populous and fastest-growing counties in the State;
- creating convenient, dependable east-west access to jobs, educational centers, shopping, recreation, and attractions;
- supporting more than 6,000 jobs, with 26% for design services going to small and minority-owned businesses and 22% for construction going to small and minority-owned businesses;
- relieving automobile congestion on major arteries and local roads in one of the most congested areas in the nation;
- providing significant environmental benefits through the operation of clean electric energy light rail vehicles and taking thousands of vehicles off the road daily, thereby reducing vehicle emissions caused by single occupancy vehicle drivers;
- spurring economic growth along the Purple Line alignment in and between Prince George's and Montgomery counties and having a positive impact on property values by improving access and mobility; and
- revitalizing communities and providing much-needed opportunities for transit-oriented

developments, many of which are already under development in anticipation of completion of the Purple Line.

**Information Requested:**

As requested in the 2024 Joint Chairmen’s Report, MTA is providing the most recent information collected and summarized through the end of September 2024.

*1. The percent completion for the overall project and for each major category of work.*

Purple Line progress continues to advance with 18 stations under construction. Nearly 55,000 out of 193,000 feet of track has been laid overall. Track and systems work continues at the Glenridge Operations and Maintenance Facility (OMF) including the installation of Overhead Catenary System (OCS) poles, track switches, and other systems elements. Delivery of light rail vehicles (LRV) to the OMF is ongoing and five of the 28 LRVs are now on site. Preliminary work has commenced at the secondary OMF, located in Lyttonsville, including installation of conduits and foundations. Major efforts are underway to complete grade crossings across the alignment and accelerate systems construction, including communications and train control equipment. Of particular note, the first Art-In-Transit installation was completed at the Campus Drive-UMD station as part of the work completed this summer. Across the corridor, major construction continues at key locations including Silver Spring Transit Center, Wayne Avenue, University Boulevard, Campus Drive, Riverdale Park, and New Carrollton, as well as at the Capital Crescent Trail.

As of September 30, 2024, the following completion percentages have been achieved:

| <b>Completion Category</b>                                      | <b>% Complete<br/>(as of 9/30/24)</b> | <b>% Complete<br/>(as of 7/31/24)</b> |
|-----------------------------------------------------------------|---------------------------------------|---------------------------------------|
| Overall Project <sup>(i)</sup>                                  | 71.9%                                 | 68.3%                                 |
| Utility Relocations <sup>(ii)</sup>                             | 92.0%                                 | 90.0%                                 |
| Civil Design <sup>(iii)</sup>                                   | 100%                                  | 100%                                  |
| Systems Design <sup>(iv)</sup>                                  | 84.2%                                 | 84.2%                                 |
| Construction Possession of Property Acquisitions <sup>(v)</sup> | 100%                                  | 100%                                  |
| Civil Construction <sup>(vi)</sup>                              | 59.0%                                 | 56.6%                                 |
| Rail Installation <sup>(vii)</sup>                              | 28.4%                                 | 25.5%                                 |
| Systems and Station Construction <sup>(viii)</sup>              | 21.8%                                 | 19.0%                                 |
| Glenridge Operations and Maintenance Facility <sup>(ix)</sup>   | 95.0%                                 | 95.0%                                 |
| Rail Vehicles Ready to Ship <sup>(x)</sup>                      | 92.9%                                 | 92.9%                                 |
| Capital Crescent Trail Construction <sup>(xi)</sup>             | 49.0%                                 | 47.6%                                 |

## CALCULATION FORMULAS:

- i. Overall Project completion is calculated by summing the earned value (EV) for the three P3 project phases (prior Design-Build Contractor, MTA interim, current Design-Build Contractor) and dividing by the sum of the estimates at completion (EAC) for the three P3 project phases.  
$$(EV_{priorDB} + EV_{interim} + EV_{currentDB}) / (EAC_{priorDB} + EAC_{interim} + EAC_{currentDB})$$
- ii. Progress of Utility Relocations is now calculated using partial progress information for each individual utility relocation package. Of the 260 total utility relocations packages, the following progress is noted:
  - a. 229 packages at 100% Complete
  - b. 5 packages at  $90\% \leq \text{Complete} < 100\%$
  - c. 6 packages at  $50\% \leq \text{Complete} < 90\%$
  - d. 4 packages  $0\% < \text{Complete} < 50\%$
  - e. 16 packages at 0% Complete
- iii. Civil Design progress is based on 199 of 199 civil design packages having a Released for Construction (RFC) status.
- iv. Systems Design progress is based on 16 of 19 systems design packages having an RFC status. Systems design packages are the last packages to complete, because equipment location and cable routing must fit into the completed civil design environment.
- v. Construction Possession of Property Acquisitions refers to available access for Purple Line Project construction. The category includes all original (P3A Exhibit 9) and additional (P3A Exhibit 9B) properties required for the project.
- vi. Civil Construction is calculated based on physical construction progress of major civil components (retaining walls, bridges, drainage, paving, and underground structures) across the project alignment.
- vii. Rail Installation is calculated based on measured rail installation as a percentage of all planned rail across the project alignment.
- viii. Systems and Station Construction is calculated based on physical construction progress of major systems components (overhead power, train & traffic signals, communications equipment, substations) and stations across the project alignment.
- ix. This category measures the progress of just the maintenance facility. Civil, rail, and systems construction within the Glenridge Yard is now tracked and reported under the Civil Construction, Rail Installation, and Systems and Station Construction status.
- x. All 26 of the original fleet of 26 light rail vehicles (LRVs) are ready for shipment to Maryland from Elmira, NY. Five (5) of the 26 LRVs have been shipped and delivered to the Glenridge Operations & Maintenance Facility (OMF) as of the end of September 2024. Two additional LRVs were ordered. Factory assembly of these two LRVs is complete, and both are in factory testing in Elmira.
- xi. Capital Crescent Trail Construction is calculated based on physical construction progress of major civil components (retaining walls, bridges, drainage, paving, trail connections, and landscaping/fencing) along the Capital Crescent Trail. Portions of the Capital Crescent

Trail will be constructed in conjunction with the Purple Line tracks, and therefore the Capital Crescent Trail will open when it is safe to do so in a later stage of the project.

2. *The running total amount expended for construction.*

Since the execution of the new design-build contract on April 15, 2022, through September 30, 2024, \$1.430 billion has been expended on the design-build contract. Reported expenditures are based on the latest monthly construction progress report prepared by the Concessionaire.

3. *An explanation of any material change to the total construction cost estimate or construction schedule as set forth in the revised P3 Agreement as amended to add Maryland Transit Solutions as the replacement design-build contractor for the project.*

As of September 30, 2024, there are no material changes to the cost or schedule of the project.

**Milestones:**

The table below highlights significant remaining anticipated milestones for the Project, including the estimated start date of revenue service. Local vehicle testing has been moved to Winter 2024 and does not affect the project completion date.

| <b>Milestone</b>                                                                 | <b>Date</b> |
|----------------------------------------------------------------------------------|-------------|
| Financial and Commercial Close                                                   | April 2022  |
| Resumption of Full-Scale Construction                                            | Summer 2022 |
| Delivery of First Light Rail Vehicle                                             | Spring 2024 |
| Test Track Complete for Local Testing & Operator Training                        | Winter 2024 |
| Capital Crescent Trail Opens                                                     | Spring 2026 |
| Construction Complete, Commence Demonstration Testing & Commissioning Activities | Spring 2027 |
| Revenue Service Availability Begins                                              | Winter 2027 |

**Construction Progress:**

**Segment 1 (Bethesda Enclosed Tramway - Spring Street):**  
Site view of the Bethesda Station Escalator and Stair Progress.  
(09.25.24)



Site view of the Bethesda Enclosed Trainway OCS structure installation and ceiling panels prep for painting.  
(9.27.24)



**Segment 2 (Lyttonsville Yard area):**

Lyttonsville Station – Site view of the Station and elevator work progress.  
(09.20.24)



Site view of Lyttonsville OMF Foundation and CMU and drainage installation work.  
(09.26.24)



**Segment 3 (Spring Street to Manchester Road):**  
Spring Street Bridge Site view of the demolition of existing bridge.  
(09.19.24)



Wayne Ave Bridge – Site view of the completed girders.  
(09.30.24)



**Segment 4 (Manchester Road to Arliss Street / Plymouth Tunnel):**  
Plymouth Tunnel – Site view of the tunnel ceiling rack and conduit work progress.  
(09.25.24)



**Segment 5 (Arliss Street to Adelphi Road):**  
Site Views of Embedded Track Progress along Piney Branch Road.  
(09.16.24)



(9.26.24)



**Segment 6 (Adelphi Road to College Park):**  
Adelphi Road-UMGC-UMD Station Platform Canopy and Column progress.  
(09.23.24)



Campus Drive-UMD Station Platform Canopy and pavers installation work progress.  
(09.23.24)



**Segment 7 (College Park to Ellin Road):**

Site View of the underground drainage system along Kenilworth Ave at Rittenhouse.  
(09.25.24)



Site View of the Beacon Heights-East Pines Station Progress along Riverdale Road.  
(09.25.24)



**Segment 8 (Glenridge Maintenance Facility):**  
OCS Pole and mast arm installation work at the Glenridge Facility heading towards MD450.  
(09.16.24)



Site View of Glenridge Yard looking North at the ballast track work.  
(09.20.24)



**Art-In-Transit**

Overhead view of Campus Drive-UMD station.



Ground-level view of Campus Drive-UMD station.

