

Penn Camden Connector Construction Project

FY26 CRISI Grant



MDOT
MARYLAND DEPARTMENT
OF TRANSPORTATION

1. Cover Page

Cover Page	
Project Title	Penn Camden Connector Construction Project
Applicant Name	Maryland Transit Administration (MTA)
Amount of CRISI Program funding requested under this NOFO	\$200,588,733
Total amount of proposed non-Federal cost share	\$50,147,183
Amount of non-CRISI Federal funding (if applicable) including pending awards	\$0
Total Project Cost	\$250,735,916
Source(s) of proposed non-Federal cost share and other Federal funding (<i>provide funding amount by source</i>)	Maryland Department of Transportation (MDOT)
Was a <u>Federal</u> grant application previously submitted for this Project? <i>If yes – please specify the program; funding year; and project title of the previous application. Identify any differences between the applications.</i>	Yes. A Consolidated Rail Infrastructure and Safety Improvements (CRISI) Program; (FY 2022-2023); Penn-Camden Connector Project. This application requested and was awarded funding to complete Preliminary Engineering and National Environmental Policy Act (NEPA) phases. This application requests funding to complete design and construct the Project.
City(ies) where the project is located	City of Baltimore
County(ies) where the project is located	City of Baltimore
State(s) where the project is located	Maryland
Congressional district(s) where the project is located	7 th Congressional District of Maryland
What percent of funding is spent in a Rural Area?	0%
Amount (if any) of funding <u>request</u> eligible for set-aside funds	<u>Amount:</u> N/A <u>Set-Aside(s):</u> N/A
Lifecycle Stage(s) proposed to be funded by this NOFO	Final Design Construction
Current Lifecycle Stage and its anticipated completion date	Project Development <u>Anticipated Date of Completion:</u> 2/1/2027 (Project Development) 2/1/2029 (Final Design) 2/1/2033 (Construction)
Is the project located on real property owned by someone other than the applicant? If yes – list real property owners and the nature of the property interest.	Yes, the Mt. Clare Yard and its property is owned by CSXT. The Claremont Branch, which is currently unused rail, is owned by Norfolk Southern.
Host railroad/infrastructure owner(s) of project assets	The Mt. Clare Yard is currently owned by CSXT. CSXT also owns the Capital Subdivision and Baltimore Terminal Subdivision on which the MARC Camden Line operates. Amtrak owns the NEC on which the MARC Penn Line operates.

Other impacted railroad(s) (including tenants)	CSXT and Amtrak Norfolk Southern (freight rights on Claremont Branch)
If the applicant is a commuter railroad: list the intercity passenger and/or freight railroad service(s) utilizing the proposed project.	CSXT (freight service) Norfolk Southern (freight service) Amtrak (intercity passenger service)
Has the applicant executed an agreement with the host railroad regarding use of the railroad right-of-way where the project will be located consistent with 49 U.S.C. § 22905(c)(13) (if applicable)?	Pending
Is the project currently programmed in any medium- or long-range planning document? If yes – specify planning document.	Yes, the PCC Project is currently programmed in the 2022 Maryland State Rail Plan, the 2025 MARC Growth and Transformation Plan, and the Baltimore Metropolitan Council (BMC)'s 2027-2030 Draft Short-Range Transportation Improvement Program (TIP).
Is the project located on a potential corridor selected for the Corridor Identification and Development Program? If yes – specify the corridor(s).	No
Is the project expected to need a waiver under FRA's domestic preference requirements?	No

2. Project Summary

The Maryland Department of Transportation (MDOT) Maryland Transit Administration (MTA) is requesting \$200,588,733 in Federal Railroad Administration (FRA) Consolidated Rail Infrastructure & Safety Improvements (CRISI) Grant Program funding for the final design and construction of the Penn Camden Connector (PCC) Project. The PCC Project, which began 30 percent design and NEPA with previously awarded CRISI funding, addresses the missing rail connection between two Maryland Area Rail Commuter (MARC) intercity commuter rail lines in the area – the MARC Penn Line, which operates on Amtrak's Northeast Corridor (NEC), and the MARC Camden Line, which operates on the CSXT-owned Capital Subdivision and Baltimore Terminal Subdivision. Currently, trains can only transfer between the Penn and Camden Lines at Union Station in Washington, DC, which creates major operational inefficiencies along the NEC, the most heavily-trafficked commuter train corridor in the country. The Project will entail the construction of multiple freight and train storage improvements, including additional tracks, track extension, and storage tracks and supporting infrastructure. Construction of the PCC Project will enable expanded MARC revenue service, provide adequate locomotive storage and maintenance, and enhance efficiency for intercity, freight, and passenger rail.

3. Grant Funds, Sources, and Uses of Project Funds

The PCC Project is currently in the Project Development Stage, and is anticipated to complete 30 percent design by Fall 2026/Winter 2027. MTA is requesting \$200,588,733 in CRISI program funds to complete the Final Design, the Construction phase, and Project Administration and Management tasks. MTA will contribute \$50,147,183 in funds to advance the construction of this lynchpin project.

Lifecycle Stage	Project Component/Task	CRISI Federal	Other Federal	Applicant Cost Share	Other Federal Cost Share	Total
N/A	Task 1: Project Administration and Management	\$39,551,722	\$0	\$9,887,930	\$0	\$49,439,652
Final Design	Task 2: Final Design	\$18,816,140	\$0	\$4,704,035	\$0	\$23,520,175
	(ROW if requested)	\$8,000,000	\$0	\$2,000,000	\$0	\$10,000,000
Construction	Task 3: Construction	\$110,683,180	\$0	\$27,670,795	\$0	\$138,353,975
	Other MTA soft costs, excluding those under Task 1: Project Administration and Management	\$23,537,691	\$0	\$5,884,423	\$0	\$29,422,114
Total		\$200,588,733	\$0	\$50,147,183	\$0	\$250,735,916

Project Scalability:

In the event of a partial award of CRISI Grant Program funds, the Project's construction can be scaled into two different scenarios, which include a smaller range of Project components detailed below:

Passenger and Freight Train Separation Scenario

Scaled-Down Total Cost: \$165,951,293; CRISI Program Fund Request: \$132,761,035; Non-Federal Match: \$33,190,258

This scaled-down scenario would seek partial award funding for final (100 percent) design and construction of the connection between the Penn Line on Amtrak-owned tracks and the Camden Line on CSXT-owned tracks (Components A, B, C, and parts of Component D as described in Section 6). This scenario would improve passenger service efficiency by reducing freight conflict while still providing operational efficiency benefits to MTA's MARC system and Amtrak. This scenario would not fund some storage upgrades and Mt. Clare Yard improvements.

100 Percent Design for All Components Scenario

Scaled-Down Total Cost: \$23,520,175; CRISI Program Fund Request: \$18,816,140; Non-Federal Match: \$4,704,035

This scaled-down scenario would seek partial award funding for only the final (100 percent) design of all components of the PCC Project. This scenario would not fund construction for any components.

4. Applicant Eligibility Criteria

MTA meets FRA's applicant eligibility requirements for the CRISI Grant Program as outlined in the Notice of Funding Opportunity (NOFO) as it is a state transit agency. MTA is a division of the Maryland Department of Transportation (MDOT), which is a public agency established by the State of Maryland.

5. Project Eligibility Criteria

The Project meets the FRA's project eligibility requirements for the CRISI Grant Program as it is a capital project that will improve the efficiency and reliability of intercity passenger, commuter, and

freight rail transportation. This capital project meets the requirements of an eligible capital project as defined in 49 U.S.C. 22901(2), and is also included in the most recent update to the Maryland State Rail Plan.¹ Once completed, the capital project will enhance the flexibility of rail traffic control, reduce congestion, and increase both intercity and commuter rail capacity.

6. Detailed Project Description

Project Components

Component A: Construct a single-track rail alignment to connect the Amtrak Northeast Corridor (NEC) with the CSXT Mt. Clare Yard.

Component B: Construct a double-track alignment on the Mt. Clare Branch to separate passenger and freight traffic and ensure adequate freight capacity.

Component C: Extend the existing station lead track at the Camden Line's Baltimore City terminus to connect with the second track added to the Mt. Clare Branch, creating separate tracks for passenger and freight trains on the Capital Subdivision and Baltimore Terminal Subdivision between MARC Camden Station and the Mt. Clare Yard and allowing MARC Penn Line revenue service expansion to downtown Baltimore.

Component D: Reconstruct the Mt. Clare storage yard to provide adequate MARC storage and an additional freight turnaround track. Storage tracks will be constructed to store four MARC trainsets during overnight layovers that are currently stored at Amtrak's Baltimore Penn Station. The reconstruction will also include two full-length inspection pit tracks and short stretches of overhead catenary for train storage. The second freight runaround track will be constructed to ensure adequate capacity for freight trains, and a small support complex with offices, material storage, parking, and supporting infrastructure will be constructed for the MARC operations at the Mt. Clare Yard.

Current Challenges

Construction of the PCC Project is necessary to preserve efficient train movement along the NEC and ensure reliable service on the high-speed corridor. Currently, MARC trip frequency, scheduling, and capacity are limited by train slots, deadheading, and storage limitations, which in turn adversely impact Amtrak intercity operations between Washington, DC and Philadelphia, PA, including in Union Station and Washington Terminal, as outlined in the challenges below. Existing Maryland rail infrastructure does not support operational separation between commuter and intercity passenger trains, creating a logistical hurdle that makes service increases complicated. In addition, Norfolk Southern provides freight service on this portion of the NEC, and its trains suffer further from passenger train congestion.

The primary impediments to on-time performance and service expansion for the Maryland segment of the NEC, or MARC's Penn Line, stem from operating conflicts between MARC and Amtrak trains, as well as speed and line capacity constraints. General operating conflicts also exist between Amtrak's longer-distance, limited stop operations and MARC operations with more frequent local stops and moderate

¹ [https://www.mdot.maryland.gov/OPCP/Maryland State Rail Plan FINAL Approved November 2022.pdf](https://www.mdot.maryland.gov/OPCP/Maryland%20State%20Rail%20Plan%20FINAL%20Approved%20November%202022.pdf)

speed. In the first five months of 2025, MARC on-time performance averaged just below 90 percent, which falls short of MTA's 93 percent on-time performance goal for MARC.²

Without an infrastructural solution, the capacity and reliability issues impacting the Baltimore-Washington rail corridor will worsen. In 2024, Baltimore City experienced its first population increase since 2014. The greater Baltimore region has seen larger amounts of growth in recent years, likely due to high housing costs in the Washington metropolitan region and the option for telework which allows people to live further away from their places of employment. MARC's 2025 ridership represents a 304 percent increase in passenger trips since a COVID-19 pandemic low of 1,291,900 passenger trips in 2021, demonstrating existing and growing demand. These factors and the challenges outlined below emphasize the growing intercity rail demand in the Baltimore-Washington corridor, emphasizing the need for timely construction of the PCC Project.

Train storage needs and constraints

Challenge:

Baltimore, MD

Storage constraints at Baltimore's Penn Station limit the length and number of MARC trainsets that can be stored, and therefore, the number of trains in operation. This results in overcrowded trains during peak morning and afternoon time periods, and a myriad of other issues ranging from physical injuries to accessibility challenges. Due to storage constraints, MARC is unable to add capacity to existing service, and without more tracks for train storage, MARC is unable to expand service beyond what is currently offered. This limits MARC's practicality for Maryland region commuters.

In addition to preexisting storage constraints, Baltimore's Penn Station is undergoing a redevelopment, requiring MTA to identify a new overnight storage location for six MARC trainsets currently stored at Baltimore Penn Station. The storage placement of the MARC trainsets is a logistical obstacle and prevents Amtrak from expanding its services and makes redeveloping Baltimore Penn Station more challenging. Two MARC trainsets will be relocated to the MARC Martin State Airport Maintenance and Layover Facility, for which construction is supported by a FRA CRISI award and is anticipated to be completed in the summer of 2027. The four remaining trainsets will require an overnight storage location for successful redevelopment of Penn Station, and any potential expansions of Amtrak's Acela service on the NEC.

Washington, DC

Currently, MARC railcars stay in Union Station for daily inspections and five-day pit inspections, taking up platform capacity in the station and terminal during the day, and MARC locomotives are cut from MARC trains in Union Station and go to Ivy City for daily inspections. The movement of MARC locomotives between the station and Ivy City adds rail traffic to Washington Terminal, including through the limited capacity throat of the terminal.

² <https://www.mta.maryland.gov/performance-improvement>

The use of the station and terminal for MARC rolling stock inspections and servicing is due to Baltimore Penn Station (where the MARC trains are stored overnight when inspections and servicing are typically performed) not having facilities for these purposes, and it is not practical to add facilities (such as an inspection pit, inspection platforms, etc.) at Baltimore Penn Station for these purposes. Therefore, the inspections continue to be performed at Union Station and Ivy City, by way of Washington Terminal, adding to rail traffic congestion in the station and terminal.

Outcome: The Project will provide MTA access to the existing Mt. Clare rail yard that will be repurposed into a storage and layover facility for MARC trains that operate on the NEC. The reconstruction at Mt. Clare will include four layover tracks with supporting infrastructure to perform inspections and servicing, which will allow MARC trainset storage to be relocated to Mt. Clare Yard and significantly reduce the footprint of MARC train operations in Union Station and Washington Terminal in terms of inspections and servicing creating benefits for Amtrak’s intercity passenger rail in both Baltimore and Washington, DC. Amtrak will be able to advance its Penn Station redevelopment effort and explore expansions, particularly for its Acela line, along the NEC, and MARC will be able to improve its operational efficiency and expand its service. Amtrak’s intercity rail service would also experience improved operational efficiency, as MARC train inspections and servicing currently conducted in Washington, DC can be conducted at the Mt. Clare Yard, freeing up space in Union Station and Washington Terminal to enable development and expansion of the Union Station complex.

Performance Measures:

1. Amount of Baltimore Penn Station track time available for Amtrak revenue trains versus track time consumed by stored MARC trains
2. Percentage reduction of MARC train usage of Union Station and Washington Terminal upon completion of Mt. Clare Yard and shifting MARC train storage from Baltimore Penn Station to Mt. Clare Yard.
3. Number of additional trainsets available for future MARC service expansion with additional storage tracks at Mt. Clare Yard

Shared track, mixed traffic, and congestion

Challenge: MARC Camden Line service currently operates on a portion of CSXT Capital Subdivision and Baltimore Terminal Subdivision tracks. The proposed new storage yard could aggravate freight congestion issues associated with mixed traffic, leading to delays for both freight service and MARC commuter service.

Outcome: Construction of the Project will establish an additional runaround track on the east side of the Mt. Clare Yard, allowing CSXT freight train movements to bypass the new MARC storage yard. The new runaround track will create additional capacity for freight trains servicing Curtis Bay.

Performance Measures:

1. Improvement of on-time freight operation as recorded by CSXT
2. Improvement of on-time MARC trips to Mt. Clare Yard as recorded by MTA

Track Capacity/Availability at Washington Union Station and Washington Terminal Yard

Challenge: At Washington Union Station, one of the region’s largest train terminals, there is currently a limited number of station tracks and a growing number of intercity and other passenger trains. Without other maintenance facilities, MARC needs to conduct mandatory brake inspections using the pit track at the Washington Terminal Yard, reducing the station’s overall track availability for intercity and other revenue trains. In addition, other MARC maintenance inspections must currently occur at Amtrak’s Ivy City Maintenance Facility, adding to deadhead train movements through the Washington Terminal Yard and reducing track capacity for intercity and other passenger trains.

Outcome: Reconstruction of the Mt. Clare Yard as a maintenance facility will allow MARC train inspections and other maintenance activities to take place outside of Washington Union Station, freeing valuable track capacity for Amtrak intercity and other passenger trains.

Performance Measures:

1. Reduction in the number of MARC train inspections performed at Washington Terminal Yard

System connectivity

Challenge: The Baltimore region lacks an interconnected, multimodal transportation network which harms the region’s economic competitiveness and population growth compared to similarly sized cities along the Northeast Corridor. The MARC Penn Line, which provides service from Washington, DC’s Union Station to Perryville, MD, bypasses downtown Baltimore, requiring commuters with jobs or commitments in downtown Baltimore to change modes to reach their destination. MARC’s Camden Line, which provides service from Washington, DC to downtown Baltimore, does not travel further north past Baltimore. This lack of interconnectivity creates challenges for many Maryland region commuters and limits the MARC system’s contributions to economic development.

Outcome: Construction of the Project will extend the MARC Camden Line’s station lead track from its current terminus in downtown Baltimore (east of Russel Street) to a second track added to the Mt. Clare Branch. This will provide the capacity and connectivity for MARC Penn Line service expansion into downtown Baltimore, increasing access to jobs and opportunities for Penn Line riders.

Performance Measures:

1. Ability to expand MARC Penn Line service into downtown Baltimore via Camden Station

Current and Proposed Railroad Operations

Amtrak Operations: The NEC, stretching from Washington, DC, to Boston, MA, along the eastern seaboard, is Amtrak’s most densely traveled route. With some exceptions, Amtrak owns the entirety of the NEC. Within Maryland, the NEC traverses approximately 90 miles of right-of-way, from Washington, DC, through the City of Baltimore to the Maryland/Delaware state line, roughly paralleling Interstate-95. Amtrak operates several services in Maryland serving six stations:

- Acela and Northeast Regional Services operate exclusively on Amtrak's Northeast Corridor, between Washington, DC and New York, NY or Boston, MA
- State supported routes operating on the Northeast Corridor in Maryland to points in Virginia, North Carolina, Connecticut, Massachusetts, and Vermont with subsidies from those states
- Amtrak long distance routes pass through Maryland on routes over 750 miles or greater

CSXT Freight Operations: CSXT owns and operates freight service on its Capital Subdivision and Baltimore Terminal Subdivision, which stretches from Washington, DC to Baltimore, MD. Due to its location near the Port of Baltimore, one of the United States' busiest ports, CSXT transports high volumes of commodities and finished products on this route. According to the 2022 Maryland State Rail Plan, 55 percent of freight volume by tonnage shipped through Maryland in 2019.

Norfolk Southern Freight Operations: Norfolk Southern (NS) freight service owns and operates 119 miles of track in Maryland, including the major Crescent Corridor. Between Washington, DC and Baltimore, MD, NS has trackage rights on Amtrak's Mid Atlantic Subdivision. NS also owns the Claremont Branch between Amtrak's NEC and CSXT's Mt. Clare Yard, and will retain freight rights on the Claremont Branch portion of PCC. Additionally, NS serves freight customers on the NEC south of Baltimore Penn Station using the B&P Tunnel, and there is currently no existing nor planned practical alternative rail connection to the B&P Tunnel to serve freight customers south of Baltimore Penn Station, as the future B&P Tunnel Replacement Program is constructing two new tunnels for only passenger trains (no freight trains), and the B&P Tunnel is intended to remain in service for freight trains to continue serving freight customers south of Baltimore Penn Station.

MARC Operations: The MARC commuter rail system serves eight counties and Baltimore City in Maryland, two counties in West Virginia, and the District of Columbia. In total, MARC's service area includes 400 directional route miles, 42 stations, and three train lines: the Penn Line, with service between Washington, DC, and Perryville, MD, via Baltimore Penn Station; the Camden Line, with service between Washington, DC, and Camden Station in downtown Baltimore; and the Brunswick Line, with service between Washington, DC, and Martinsburg, WV, via Brunswick, MD, and Rockville, MD. Systemwide, MARC operates 97 trains per day Monday through Friday, 18 trains on Saturdays, and 12 trains on Sundays over the three lines, and ranks as the tenth largest commuter rail system in the nation based on ridership as of 2025 (with a total of 5,222,500 passenger trips). MARC's 2025 ridership represents a 304 percent increase in passenger trips since a COVID-19 pandemic low of 1,291,900 passenger trips in 2021, but still 43 percent below a 2019 peak in ridership before the onset of the pandemic. The Penn Line has 13 stations along the 77-mile alignment, with five stations serving both MARC and Amtrak intercity passengers (Washington Union Station, Baltimore Penn Station, BWI Marshall Airport, New Carrollton, and a limited number of trains at Aberdeen). The Camden Line has 12 stations along the 36-mile alignment. The Penn Line is the busiest of MARC's three service lines, with seven-day per week service.

Figure 1: MARC System Map



Expected Users and Beneficiaries

Amtrak

This Project will benefit passengers and operators on Amtrak's routes that pass through Maryland. By streamlining MARC train storage, maintenance, and inspections, Amtrak riders and operators will experience fewer delays. Additionally, the Project will allow for the continued redevelopment of Baltimore's Penn Station and free up track time at Washington Terminal, allowing Amtrak to expand its services.

CSXT Freight

This Project will enable free-flowing freight and commuter rail service by improving operational flexibility and ensuring separation between freight and commuter rail services. CSXT freight service operators will also receive safety benefits from fewer conflicts with passenger trains. The Project's freight bypasses will reduce traffic, particularly during morning and evening peak service periods and the dedicated passenger track for MARC trains between Camden Station and PCC on the Capital Subdivision will separate passenger and freight traffic resulting in more efficient and reliable freight operations.

NS Freight

The PCC will provide a potential alternative route for NS freight trains to serve freight customers on the NEC south of Baltimore Penn Station in the event the B&P Tunnel is not available, allowing them to cross over from the NEC to CSXT and utilize CSXT's newly improved and higher clearance Howard Street Tunnel through Baltimore. This potential alternative route will require future agreement between Amtrak, CSXT, and Norfolk Southern, but PCC will complete the physical rail connection to enable this alternative routing.

Baltimore Penn Station

All Amtrak trains traveling on the NEC stop at Baltimore's Penn Station. Penn Station is the northern terminus for most Penn Line trains, and the layover point and crew base for all but two MARC trainsets operating on the NEC. In addition to MARC and Amtrak staff and riders, Penn Station serves MTA's light rail trains and several local bus lines. This Project will allow for redevelopment of the station without conflicts with MARC train storage as well as streamlined service at Penn Station.

Figure 2: Baltimore's Penn Station



Union Station and Washington Terminal

PCC will free platform capacity at Union Station and rail capacity in Washington Terminal by eliminating MARC train storage in the station and MARC train movements between the station and Ivy City. The reduction of MARC usage of the station and terminal enables future development and enhancement of the station and terminal.

MARC

Penn Line: This Project's benefits will have a positive impact on MARC's Penn Line riders and operators. The Project will help improve delays and allow for expanded service, saving time for riders and operators.

Camden Line: This Project's benefits will also have a positive impact on MARC's Camden Line riders and operators. The project will separate commuter service from freight service, as well as improve delays and allow for expanded service to Camden Station from Washington, DC via the Penn Line (NEC), increasing safety and saving time for riders and operators.

a) Statement of Work

MTA has prepared a Scope of Work commensurate with FRA and program standards to deliver the intended project scope outcomes and progress from the Final Design Lifecycle Stage through the Construction Lifecycle Stage. More information can be found in Attachment 2: SOW, including the specific tasks, sub-tasks, and deliverables.

b) Environmental information, if applicable

In 2021, MTA completed a desktop and aerial evaluation of environmental conditions along the project site. The environmental inventory documented all known natural, cultural, and social resources within ¼ mile of the PCC Project and identified potential impacts to resources. MTA initiated coordination with key resource agencies. At the time of this application, all environmental field work has been completed and the majority of the technical studies have been completed. MTA anticipates impacts to historic resources and over one acre of wetlands, requiring individual permits from the U.S. Army Corps of Engineers (USACE) and Maryland Department of the Environment (MDE).

c) Grade crossing information, if applicable

This Project will affect three grade crossings along the right-of-way. These include at-grade crossings at Wilmarco Avenue (U.S. DOT Crossing Inventory Number 530163W), Bernard Drive (U.S. DOT Crossing Inventory Number 977080V), and Washington Boulevard (U.S. DOT Crossing Inventory Number 140396R). Grade crossing numbers 530163W and 977080V are positioned along the Claremont Branch, and grade crossing number 140396R is on the Mt. Clare Branch. Prior studies found the traffic effects of the proposed action on surrounding roadways to be generally not significant based on FTA guidance (MTA 1999). A new traffic study is underway as part of the current NEPA compliance activities.

U.S. DOT Grade Crossing Inventory ID	Proposed Improvement	Rail Operator(s)	Railroad Owner	Latitude Coordinates (at least five decimal places)	Longitude Coordinates (at least five decimal places)
530163W	Upgraded passive and active warning devices will be considered during final design	Norfolk Southern Railway Company	No reported owner, as of the U.S. Crossing Inventory Form from 4/10/2026	39.27268	-76.66039
977080V	Upgraded passive and active warning devices will be considered during final design	CSX Transportation	No reported owner, as of the U.S. Crossing Inventory Form from 5/13/2024	39.27035	-76.65685
140396R	Upgraded passive and active warning devices will be considered during final design	CSX Transportation	No reported owner, as of the U.S. Crossing Inventory Form from 5/13/2024	39.27428	-76.64349

d) PTC information, if applicable

The Project includes signalization and Positive Train Control (PTC) to support rail operations on the NEC Wye Connection, Claremont Branch, Mt. Clare Branch, and the Mt. Clare Yard, except within Yard Limits. Additionally, electric, sanitary sewer, oily wastewater, water, storm drain, and telecommunication utilities will be constructed to support the PCC Project. Overhead electric and underground utilities will be relocated within the limits of work, as required.

e) Trespassing injury and fatality prevention and reduction, if applicable

Not Applicable

f) Locomotive information, if applicable

Not Applicable

7. Project Location

The PCC will be constructed in the 7th Congressional District of Maryland. The Project will impact two of MARC's commuter lines, multiple Amtrak intercity passenger services and long-distance services, and CSXT freight operations.

Figure 3: PCC Project Location



8. Evaluation and Selection Criteria

i. Project Readiness

MTA is prepared to construct the PCC Project in coordination with Amtrak, CSXT, and other key stakeholders. The letters of support and funding commitments for this Project demonstrate support for the Project and are included as attachments.

MTA has a strong record of developing and delivering similar projects utilizing previous financial contributions. Additionally, by working closely with rating agencies and maintaining financially prudent criteria regarding the trust fund, the department has one of the highest credit ratings given to

transportation agencies. MTA has spent approximately \$2,000,000 on the completion of preliminary design for the PCC Project, with the support of funds contributed by FRA as a 2022 CRISI award. MTA is prepared to commit the funds presented in this application to complete final design and construction phases of this Project.

Lifecycle Stage: All components of the PCC Project are currently in the Project Development Lifecycle Stage, and MTA anticipates completing 30 percent preliminary engineering design in Fall 2026/Winter 2027. As part of preliminary design, MTA has solicited public input on the Project. If awarded CRISI funds, MTA will advance all components of the Project to the Final Design and then Construction Lifecycle Stages.

NEPA: The NEPA process for this Project is well underway. Following environmental resource evaluation, MTA initiated coordination with the FRA, which will be the lead agency; the FTA, USACE, and MDE, which will act as cooperating agencies; and the Maryland Department of Planning (MDP), which will act as a participating agency.

On May 16, 2024, the PCC Project received categorical exclusions (CEs) from the FRA and FTA for the purchase of the Claremont Branch from Norfolk Southern. The FTA's July 3, 2024, memorandum indicated that no impacts to environmental or cultural resources would result from this transaction. It is anticipated that an environmental assessment (EA) will be the appropriate class of action for the Project's construction, due to impacts on historic resources over one acre of wetlands. MTA anticipates applying for an individual permit from the USACE and MDE. MTA also anticipates that there will be moderate to severe noise impacts without mitigation and plans to conduct a thorough investigation of mitigations to reduce noise impacts and minimize impacts to private property. Public involvement is underway and is scheduled to continue, with information available to the public via the MTA's Penn-Camden Connector webpage.³ At the time of this application, MTA is reviewing an early draft of the EA, and it is expected that the EA will be released to the public in fall of 2026. Following the release, MTA will host a public meeting with in-person and online attendance options to share details and solicit feedback. MTA anticipates receiving a Finding of No Significant Impact (FONSI) in early 2027.

Right-of-Way: The limits of the Project are expected to impact the right-of-way of Amtrak and CSXT, the owners of the tracks on which MARC's Penn Line and Camden Line operate, respectively. The Mt. Clare Yard is also owned by CSXT, which this Project proposes to repurpose into a MARC layover facility. The Project will also require acquisition of portions of track owned by Norfolk Southern. Encroachment agreements or right-of-way acquisitions needed to construct the Project's components would require coordination with the respective real property owners. MTA anticipates that agreements with Amtrak, CSXT, and Norfolk Southern will be executed prior to Project-related construction impacting non-MTA-owned right-of-way, as required by 49 U.S.C. 22905(c)(1). MARC is currently holding preliminary conversations and developing preliminary documents with both Amtrak and CSXT to outline the anticipated use of the PCC alignment. MTA plans to have preliminary agreements in place with both Amtrak and CSX by the time the current PCC CRISI grant expires in August 2027.

³ [Penn-Camden Connector | Maryland Transit Administration](#)

ii. Technical Merit

As the lead agency and grant recipient, MTA will coordinate with its key stakeholders to ensure that all federal grant regulatory standards are met. MTA, in coordination with Amtrak and CSXT, has the legal, financial, and technical capacity, as well as past experience, to carry out the construction of the PCC Project. MTA will continue its control over the current use of the equipment and facilities and has the willingness and capability to maintain the existing and new equipment and facilities. MTA is supported by the Maryland Trust Fund, is one of the largest transit operators in the United States and has extensive experience executing and successfully completing FRA grants and projects in compliance with Federal grant requirements.

Technical Qualifications and Key Personnel: The MTA team has the experience required to effectively complete this Project. MTA has a proven track record of delivering large rail construction projects within budget and on schedule. MTA staff have experience with property and right-of-way acquisition, NEPA, and design and implementation of large capital facilities projects. An example of MTA's successful work includes the Camden Station Replacement Project, involving the design and construction of a new commuter rail station located adjacent to a CSXT-owned railway in downtown Baltimore. MTA will lead the final (100 percent) design and construction activities in close coordination with Amtrak and CSXT. MTA will be responsible for overseeing design work across each of the Project's components.

Legal, Financial, and Technical Capacity: Proposed key personnel have the technical qualifications, experience, and resource capacity to complete final design plans and construction for all components of the PCC Project. The subtasks to the Project outlined in the SOW are appropriate and necessary to achieve the expected outcomes of the proposed Project and provide benefits to commuter, intercity, and freight rail services.

- **Legal Feasibility:** MTA staff have the legal capacity to carry out project contracting and oversight, minimize and mitigate risks, and conform to federal requirements for Project progress reporting. Additional information on risk management and federal reporting is included in the Project Implementation and Management section. MTA will request recurrent (monthly) updates from technical consultants covering the Project scope, schedule, budget, and performance to proactively address Project risks, describe cost and schedule impacts, assess mitigation options, and document resolutions of risks. MTA will also hold recurrent meetings (monthly) with technical consultants to review the schedule and status of the Project.
- **Financial Feasibility:** MTA has a strong record of developing and delivering similar projects utilizing previous financial contributions. Additionally, by working closely with rating agencies and maintaining financially prudent criteria regarding the Maryland Transportation Trust Fund, the department has one of the highest credit ratings given to transportation agencies.
- **Technical Capacity:** MTA staff possess the technical qualifications and experience to lead and perform technical efforts and successfully execute all of the Project's components within the proposed timeframe and budget. The Project is consistent with planning guidance and documents set forth by U.S. DOT, including those required by law or State rail plans developed under the Title 49, United States Code Chapter 227. The construction of the PCC Project is consistent with and currently programmed in the 2022 Maryland State Rail Plan, the 2025 MARC Growth and Transformation Plan, and the Baltimore Metropolitan Council (BMC)'s 2027-2030 Draft Short-

Range Transportation Improvement Program (TIP). The plans identify this Project as a priority for rail service operational efficiency in Maryland and MARC system growth.

- **Innovation:** The constructed Project will capitalize on technology and innovation, consistent with the FRA's Innovation Agenda, by using the Interoperable Electronic Train Management System (I-ETMS) Positive Train Control (PTC) to separate freight and passenger rail, reducing conflicts and congestion. I-ETMS is utilized on both the NEC and CSXT right of way and will allow for PTC interoperability along the entire PCC corridor.

iii. Project Benefits

Will enhance system and service performance: The Project will provide adequate storage and maintenance facilities for MARC that will generate benefits across commuter, intercity passenger, and freight rail service. The reconstructed Mt. Clare Yard will allow MTA to store four trainsets at the new facility. Amtrak will directly benefit from improved service performance with this ability to relocate MARC train storage and maintenance activities. First, MARC locomotives that typically stay at Union Station will be moved to Mt. Clare Yard, freeing up capacity for Amtrak at Union Station. Secondly, since MTA could shift overnight layovers from Amtrak's Baltimore Penn Station to Mt. Clare Yard, this would free up track time within Baltimore Penn Station for Amtrak intercity train service.

Freight system performance will benefit from new track redundancy and greater separation from commuter rail traffic and. The Project will construct a single-track rail alignment connecting the NEC with the CSXT Mt. Clare Yard, a double-track alignment on the Mt. Clare Branch, and an extended lead track on the MARC Camden Line that connects with the Mt. Clare Branch. This will result in better connectivity between CSXT's Baltimore Terminal Subdivision and the NEC, enabling more operational flexibility for CSXT and NS. The PCC therefore provides an alternative route for NS freight trains to utilize either the Baltimore and Potomac Tunnel or the Howard Street Tunnel during track outages. The PCC's new tracks also facilitate greater separation from commuter rail, ensuring that CSXT and NS trains are not inadvertently delayed because of sharing limited track space with MARC trains.

Lastly, the reconstructed Mt. Clare Yard will improve maintenance efficiency and shift non-revenue MARC trainsets out of Baltimore Penn Station and Union Station. With the Mt. Clare Yard designed with inspection pits and overnight layovers, MARC trains that normally are out of service for inspection and servicing during weekday, midday periods at Union Station will more efficiently return to service. This will allow MTA to more efficiently utilize its rolling stock throughout weekdays, enabling MTA to consider expanding midday service as envisioned in the 2025 MARC Growth and Transformation Plan.

Improves rail system safety and saves transit time: The Project improves rail system safety and congestion by creating infrastructure that disentangles freight rail service from commuter rail service. Construction of a new runaround track east of Mt. Clare Yard will enable CSXT freight trains to bypass the reconstructed MARC storage yard. The construction of an additional track will provide a double-track alignment that connects the Mt. Clare Yard and Claremont Branch to the CSXT Baltimore Terminal Subdivision (on which the MARC Camden Line operates). These track improvements will provide greater separation of freight and commuter rail traffic, creating benefits in terms of reduced congestion, improving on-time performance for CSXT and NS and on-time performance for MARC trains bound for Mt. Clare Yard. Freight trains bypassing MARC trains will improve safety of the rail system by reducing

the chances for direct conflicts between the two rail services. Improvements in freight rail separation, leading to more efficient freight movement, will help promote economic competitiveness for the Baltimore-Washington region and the nation as a whole.

The Mt. Clare Yard will be reconstructed to shift MARC train storage and maintenance activities away from Amtrak's Baltimore Penn Station. This will support reductions in congestion on the NEC, so that Amtrak riders and operators will experience fewer delays as they travel through Baltimore.

Reconstruction of the Mt. Clare Yard will also alleviate the routing of non-revenue MARC trips through Baltimore Penn Station, via the NEC, for maintenance. A reduction in deadhead trips will free up capacity for the NEC while minimizing the number of potential conflicts between intercity passenger rail and commuter rail trains. The Benefit-Cost Analysis (BCA) estimates the Project will avoid approximately \$360 in electric propulsion, \$46,865 in Amtrak access fees, and \$12,214 in labor per day from decreased deadhead train movements.

Creates efficiencies from improved integration with other modes: The Project will enhance multimodal integration by expanding freight capacity and fluidity between rail and maritime modes, and also facilitating the redevelopment of Baltimore Penn Station and strengthening direct links between the MARC Camden Line and the MARC Penn Line (via the NEC).

The Project will establish an additional runaround track on the east side of the Mt. Clare Yard, allowing freight trains to bypass the new MARC storage yard. The turnaround will create additional capacity for freight trains for maneuvering directly to the CSXT-owned Curtis Bay Branch Subdivision, which serves Curtis Bay (an industrial area in south Baltimore) and a CSXT spur line that connects to the nearby Port of Baltimore's Fairfield Marine Automobile Terminal, which processes global imports and exports of automobile and light truck cargo. These new connections between the Mt. Clare Branch and Baltimore Terminal Subdivision will improve operational efficiencies for freight trains as they support maritime traffic with global trade logistics at the Port of Baltimore.

As part of Component C, the existing lead track by MARC Camden Station would be extended to connect with the PCC via the second track to be established on the Mt. Clare Branch. This would directly connect the MARC Penn Line with the MARC Camden Line, enabling MTA to expand MARC revenue service in downtown Baltimore by linking trips from Penn Station to Camden Station. MARC Penn Line or Amtrak (including Acela) passengers via the NEC would be able to directly transfer to the MARC Camden Line, benefiting both intercity passenger rail and commuter rail riders. This integration would leverage multimodal connectivity to improve access to jobs, housing, healthcare, recreation, and other amenities in downtown Baltimore.

Enables rail service operators to meet existing or anticipated demand: The Project improvements will allow MTA to store larger MARC trainsets at Mt. Clare Yard. By creating new storage capacity at Mt. Clare Yard, MARC trainsets can shift overnight layovers away from Baltimore Penn Station, allowing Amtrak to expand Acela intercity train service on the NEC in the future. Freeing up Penn Station also enables Amtrak to advance the redevelopment Penn Station, so that the station can better accommodate future growth of intercity passenger rail service.

Additionally, the Project's proposed double-track alignment on the Mt. Clare Branch will preserve existing freight service by separating CSXT trains from MARC trains bound for Mt. Clare Yard, ensuring

that existing freight demand has adequate capacity while more non-revenue MARC trains are routed through the Mt. Clare Branch.

Finally, MTA’s ability to store larger train sets at Mt. Clare Yard will reduce the time these trainsets are out of revenue service and place more trains into operation. This enables MTA to expand its MARC revenue service that can better serve commuter rail demand. By accommodating longer and greater numbers of trainsets, MARC passengers will also benefit from this service expansion and less overcrowding of trains, and potentially lessen demands for future increases in the number of MARC trains on the NEC beyond what is currently planned, maintaining capacity for the growth of Amtrak intercity services.

Benefit-Cost Analysis: The benefit-cost analysis (BCA) estimated that the PCC Project would generate net economic benefits primarily by eliminating the need for MARC trainsets to deadhead between Baltimore’s Penn Station and Washington Union Station for storage and inspection. As presented in the BCA memo (Attachment 3) daily avoided costs include approximately \$360 in electric propulsion, \$46,865 in Amtrak access fees, and \$12,214 in labor associated with deadhead train movements. These cost savings reflect current operating assumptions regarding eight additional deadhead trips and associated crew requirements, as well as access charges under the existing Amtrak agreement. In addition to direct cost savings, the Project is expected to enable overnight storage and inspection of trainsets at the proposed Mt. Clare Yard, thereby reducing operational disruptions during service hours and freeing capacity at Washington Union Station for revenue and intercity operations. Table 1 contains a summary of the BCA findings, including the total benefits, costs, and associated benefit-cost ratios in 2024 dollars.

Table 1: BCA Summary, in Millions of 2024 Dollars

Project Evaluation Metrics	Constant 2024 \$	Discounted 2024 \$
Total Benefits	\$812.1	\$177.5
Total Costs	\$230.6	\$140.7
Net Present Value	\$581.5	\$36.8
Benefit-Cost Ratio	3.52	1.26
Internal Rate of Return (%)	9.0%	

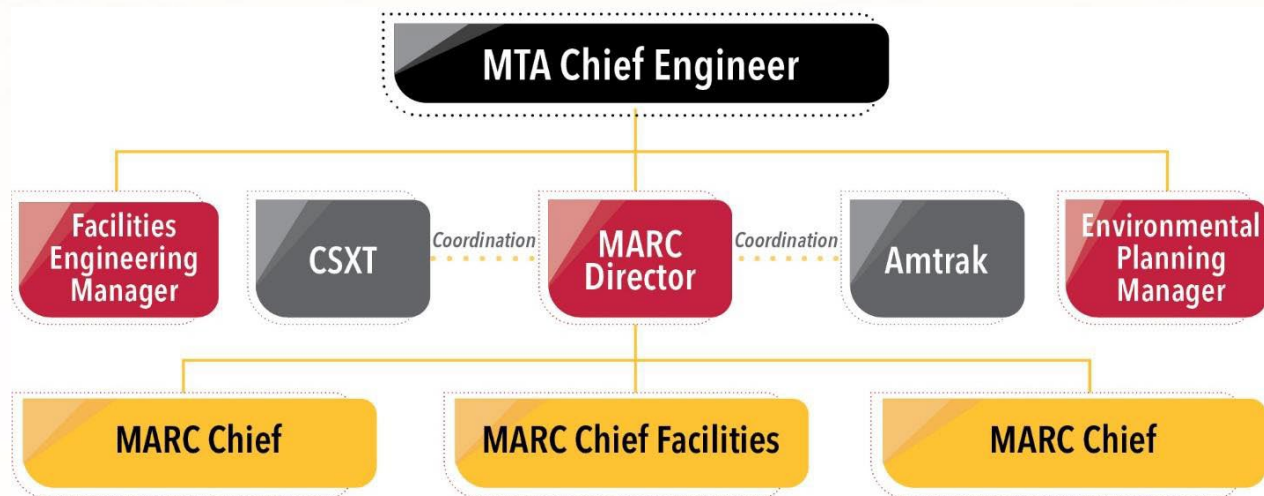
9. Project Implementation and Management

Team Organization

MTA will lead the Project in close coordination with Amtrak and CSXT. MTA will designate the Director of Statewide Planning as the Project Manager responsible for oversight and implementation. The Project will be managed by a dedicated team composed of a Chief Facilities Officer, a Chief Transportation Officer, a Safety Compliance Officer, a Regional Planner, a Community Outreach Coordinator, an Environmental Planning Manager, a Manager of Facilities Engineering, ADA & Sustainability, a Lead Track Engineer, and the Rail Safety Program Manager from The Secretary’s Office of MDOT. The project team will be responsible for Project Contracting, Oversight, and Change Order Management. Amtrak and CSXT will review the final (100 percent) design phase. These reviews will be covered by the project budget.

MTA will work closely with Amtrak on the construction of the portions of rail that run along the Amtrak-owned NEC, as well as with CSXT for the portions of the rail construction that run along CSXT-owned right-of-way. Consultants, mechanical support, and transportation support personnel will supplement MTA personnel as required for the project. As the grant recipient, MTA will coordinate with Amtrak, CSXT, and all other involved stakeholders to ensure that federal grant regulatory standards are being met.

Figure 4: PCC Construction Project Organization Structure



Project Contracting and Oversight

MTA's technical consultant will be responsible for managing risk through monthly updates of scope, schedule, budget, and performance. These updates will identify project risks, describe cost and schedule impacts, propose mitigation measures, determine the person and/or team responsible for mitigation, and document when the risk is resolved. MTA will hold regular meetings to review the schedule and status on final design and construction, as well as to evaluate risks, constructability issues, and construction impacts. These meetings will involve the technical consultant and key project stakeholders who will help to address risk and mitigation strategies. MTA's technical consultant will be responsible for developing the risk register, master budget, and schedule. The technical consultant will be required to update the schedule and budget on a monthly basis. The schedule will account for items such as review and comment periods, deliverables, milestones, and the critical path which will be distinguishable from non-critical activities. It will also depict activities, descriptions, durations, start and finish dates, and the logical relationships between activities.

Federal Reporting

The MTA Office of Planning and Programming, led by the Capital Program Manager, will submit the required FRA progress reports, including FRA quarterly progress reports, Federal financial quarterly reports, and the final performance report.

Past Experience

The MTA, CSXT, and Amtrak teams have the collective experience required to effectively complete this project. They have a proven track record of delivering large rail construction projects within budget and on schedule. MTA and MARC have experience with property and ROW acquisition, NEPA, and design

and implementation of large capital facilities projects, such as the design and construction of the Wedge Yard in Washington, DC, and the purchase of the Riverside Maintenance and Layover Facility from CSXT. MTA continues to partner regularly with Amtrak and CSX on designing and constructing rail infrastructure improvements, such as the advancing construction of the B&P Tunnel Replacement, West Baltimore Station, and expanded Martin's Yard, the All Stations Accessibility Program funded designs for accessible stations at College Park and Martin State Airport, and design of a new turnback facility at the Silver Spring Station. Additional examples of NEPA experience include the categorical exclusion for the CRISI-funded Worton Track Safety Project on the Chestertown Freight Line, as well as environmental assessment and FONSI for the BWI Rail Station and 4th Track Improvement Project. MTA and MARC also have experience providing oversight of track infrastructure capital projects such as interlockings, undercutting, and other capital ROW improvements as part of oversight of joint venture projects with both Amtrak and CSXT on their respective rights-of-way. MTA will lead the final design and construction of the PCC in close coordination with Amtrak and CSXT. MTA will be responsible for overseeing the work.