

# Penn-Camden Connector

## FRA CRISI Application FY2022

**MDOT** MARYLAND DEPARTMENT OF TRANSPORTATION  
 MARYLAND TRANSIT ADMINISTRATION



**Total Project Cost**

\$11 million

**Applicant**

Maryland Transit Administration

**FRA CRISI Request**

\$8.8 million

# Cover Letter

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November 29<sup>th</sup>, 2022

The Honorable Pete Buttigieg  
Secretary of Transportation  
U.S. Department of Transportation 1200 New Jersey Avenue, SE  
Washington, DC 20590

Dear Secretary Buttigieg,

The Maryland Department of Transportation, Maryland Transit Authority (MDOT MTA) is proud to submit the Penn-Camden Connector (PCC) for consideration for an \$8.8 million FRA CRISI discretionary grant award to support the preliminary engineering (PE) and NEPA phases of the project. The Penn-Camden Connector will ease congestion and facilitate greater mobility for MARC's commuter rail system, in addition to supporting Amtrak's intercity passenger rail on the Northeast Corridor (NEC). The Penn-Camden Connector Project (PCC) addresses the missing rail connection between the Maryland Area Regional Commuter (MARC) Penn Line, which operates on the Amtrak's Northeast Corridor (NEC), and the MARC Camden Line, which operates on the CSXT owned Capital Subdivision. Currently, trains may only transfer between the Penn Line and the Camden Line at Union Station in Washington, DC, which creates major operational inefficiencies.

The project will benefit intercity passenger rail by reducing deadhead commuter rail trips on the NEC between Baltimore and Washington, DC, thereby reducing congestion and delays for intercity passenger rail. It will also provide a dedicated facility for MARC Penn Line train storage and maintenance, freeing space at Baltimore Penn Station for additional Amtrak trains. Additionally, the project will benefit CSXT by further separating commuter traffic from freight traffic on the MARC Camden Line. The PCC also includes improvements to the Mt. Clare Yard to provide storage and servicing capabilities that will support MDOT MTA's MARC fleet of locomotives and coaches, including longer, 10-car train sets, while also retaining the space needed for future, zero-emission upgrades.

MDOT MTA is ready – and eager – to complete the required design and NEPA work upon receipt of a grant award. MDOT MTA has previously completed preliminary cost estimates and has vetted this project through MARC's long-term planning exercises. The team is prepared to solicit and award a contract to technical firms who meet MDOT MTA's rigorous technical requirements to complete this PE and NEPA work immediately upon receipt of award. Once completed, the capital project will enhance the flexibility of rail traffic control, thereby reducing congestion, increasing both intercity and commuter rail capacity.



Holly Arnold  
Administrator, MDOT MTA

# 1. Cover Page

<b>Project Title</b>	<b>Penn-Camden Connector</b>
Project Applicant	Maryland Department of Transportation (MDOT) Maryland Transit Administration (MTA)
Co - Applicants	None
Project Track	Track 2
Was a Federal grant application previously submitted for this project?	Yes
If yes, state the name of the Federal grant program and title of the project in the previous application.	FRA CRISI FY 2022; Penn-Camden Connector
Is this a rural project? What % of project costs is located in a rural area?	No - 0%
Is this a project eligible under 49 U.S.C. 22907(c)(2) that supports the development of new intercity passenger rail service routes including alignments for existing routes?	Yes
Is this for a Capital Project or engineering solution targeting trespassing?	No
Is this for a safety program to reduce trespassing through targeted law Enforcement Activities?	No
Is this for a safety program to implement or expand an Outreach Campaign for reducing railroad trespassing suicide?	No
City(ies), State(s) where the project is located	Baltimore, Maryland
Urbanized Area where the project is located	Baltimore Metropolitan Area
Population of Urbanized Area	2.8 million
Is the project currently programmed in a Transportation Plan?	No

# TABLE OF CONTENTS

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Cover Letter	i
1. Cover Page	ii
Table of Contents	iii
2. Project Summary	1
3. Project Funding	3
4. Applicant Eligibility	3
5. Project Eligibility	3
6. Detailed Project Description	4
7. Project Location	18
8. Evaluation and Selection Criteria	19
9. Project Implementation & Management	22
10. Planning Readiness	24
11. Environmental Readiness	24
List of Attachments	26

## 2. Project Summary

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The Maryland Department of Transportation (MDOT Maryland Transit Administration (MTA) is requesting \$8.8 million from the Federal Railroad Administration’s Consolidated Rail Infrastructure & Safety Improvements (CRISI) grant program to fund preliminary engineering and NEPA documentation for the **Penn-Camden Connector (PCC)**, a lynchpin project that will provide the missing rail connection between the two MARC intercity commuter rail lines in the Baltimore region – the Penn and Camden lines. This multi-faceted project involves improving connectivity and increasing efficiency and reliability for commuter, intercity, and freight train service. The PCC is also critical to other future projects and services, such as Amtrak’s expanded, intercity Acela service and the redevelopment of Baltimore Penn Station.

The Penn Line operates on Amtrak’s Northeast Corridor (NEC), while the Camden Line operates on the CSX Transportation, Inc. (CSXT)-owned Capital Subdivision. By connecting the two lines, the PCC Project will enable a future phase in which Penn Line service can access downtown Baltimore and provide direct access from the Penn Line to the MARC Riverside Layover and Maintenance Facility for locomotive repair and heavy running repairs. This project is a critical foundation for achieving future, multimodal transportation, equity, and development goals in the region.

**The Project comprises four primary physical components:**

- 1 Component 1** – Construct a single track along the Claremont Branch between the proposed NEC Wye Connection and the Mount Clare Yard and the Mount Clare Branch.
- 2 Component 2** – Repurpose the current CSXT-owned Mount Clare Yard into a new, future-ready layover facility for MARC trains that operate intercity Penn Line Service.
- 3 Component 3** – Construct a double track to connect the Mount Clare Yard and Claremont Branch to the Camden Line, with access to the MARC Riverside Maintenance and Layover Facility and the MARC Camden Station.
- 4 Component 4** – System-wide enhancements, including compressed air, fueling and pneumatic sand distribution systems as well as ground power for each track, including the protect track, to power the trainsets during layover and minimize diesel engine idling, reducing emissions and noise impacts.

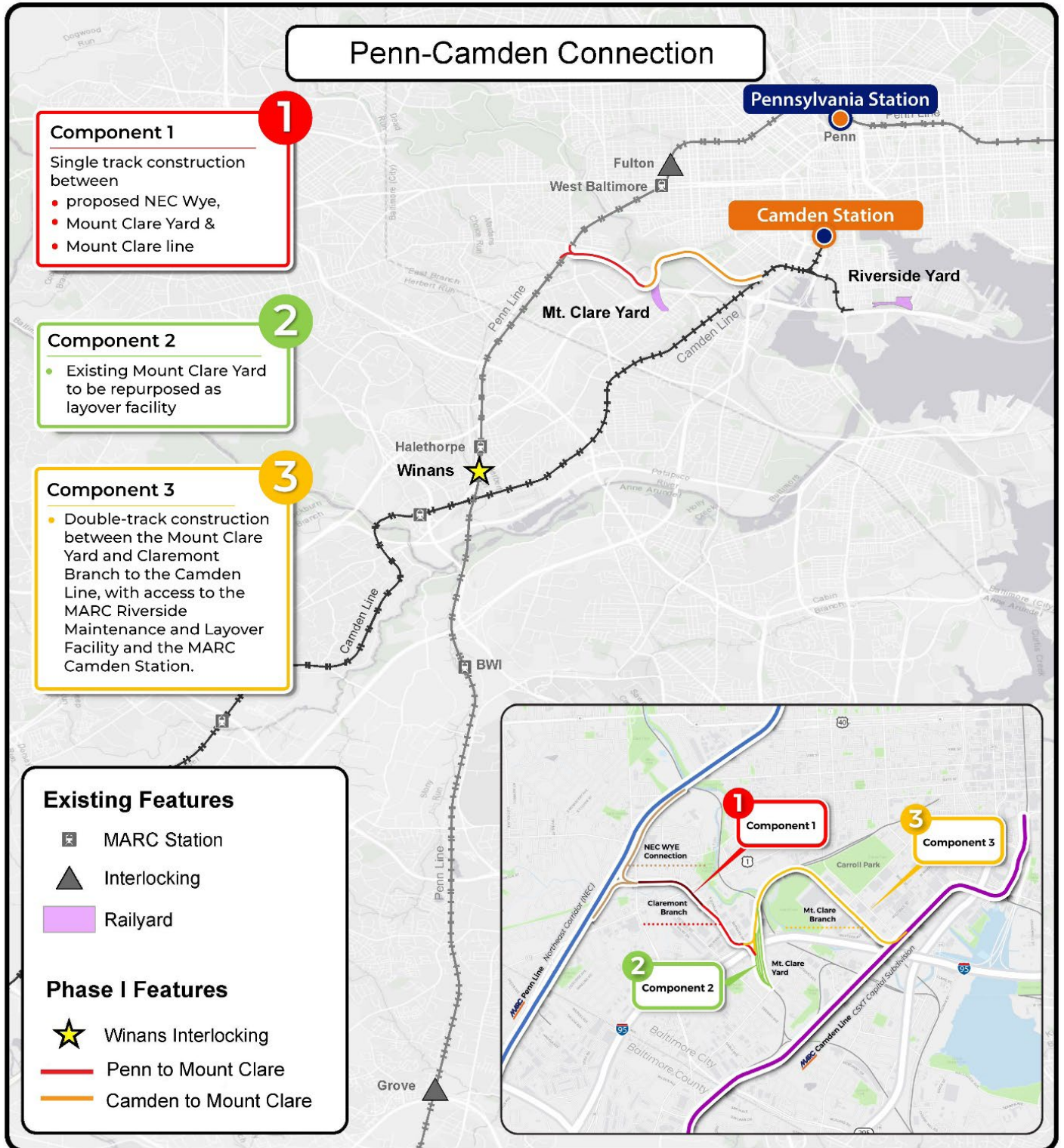


Figure 1. Proposed Penn-Camden Connector Improvements Map

### 3. PROJECT FUNDING

The PCC Project is currently at five percent conceptual design. MTA is requesting \$8.8 million in CRISI program funds to complete the \$11 million Preliminary Engineering (PE) and National Environmental Policy Act (NEPA) phase of the larger capital project. This grant-funded work will prepare MDOT MTA to continue advancing this important intercity rail project.

**Non-Federal Funding:** As shown in the table below, MTA will contribute \$2.2 million of the total costs associated with the PE and NEPA activities presented in this CRISI application.

Project Component	Cost	Percentage of Total Cost
1. Preliminary Engineering	\$10,250,000	85%
2. NEPA Effort for Draft EA / FONSI Submission	\$1,400,000	12%
3. MDOT MTA Project Management	\$350,000	3%
<b>Total Project Cost</b>	<b>\$11 million</b>	
Federal Funds Received from Previous Grant	\$0	0%
CRISI Federal Funding Request	\$8.8 million	80%
Non-Federal Funding / Match	\$2.2 million	20%
Portion of Non-Federal Funding from the Private Sector	\$0	0%
Portion of Total Project Costs Spent in a Rural Area	\$0	0%
Pending Federal Funding Requests	\$0	0%

### 4. APPLICANT ELIGIBILITY

MDOT MTA meets FRA’s applicant eligibility requirements for the CRISI program outlined in the Notice of Funding Opportunity (NOFO). NOFO, as MTA 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

The Project meets FRA’s project eligibility requirements for the CRISI Program as it will improve the efficiency and reliability of both 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 2440. Although the capital project is not currently included in the State Rail Plan, this is acceptable under the CRISI Program, and it is anticipated that the PCC will be included in the forthcoming State Rail Plan Update which would be complete by project award. Once completed, the capital project will enhance the flexibility of rail traffic control, reduce congestion, and increase both intercity and commuter rail capacity.

The funding request included in this application is being submitted under Track 2 of the Program’s guidelines for PE and NEPA costs associated with the larger capital project.

## 6. DETAILED PROJECT DESCRIPTION

### [PLACEHOLDER FOR BENEFITS CALLOUT BOX]

The Penn-Camden Connector project comprises the following components:

#### **1** **Component 1** – *Construct a single track along the Claremont Branch between the proposed NEC Wye Connection and the Mount Clare Yard and the Mount Clare Branch.*

The NEC Wye Connection will be constructed at the western limits of the Project to connect the NEC to the proposed Claremont Branch. At the western limit of the project area, the Claremont Branch will consist of a single track along the Claremont Branch between the proposed NEC Wye Connection and the proposed wye connection to the Mount Clare Yard and Mount Clare Branch. A railroad bridge must be constructed over South Caton Avenue, and another railroad bridge will be constructed over Wilkens Avenue along the Claremont Branch.

An overhead catenary system (OCS) will be constructed along the westerly end of the Claremont Branch to facilitate the operation of dual-mode trains operating on electric mode when entering and exiting the NEC. Modifications to Amtrak Substation 21 will be required to supply traction power. Existing OCS structures on the NEC must be replaced or modified to support the proposed PCC OCS. Noise walls and retaining walls will be constructed at various locations along the alignment.

#### **2** **Component 2** - *Repurpose the current CSXT-owned Mount Clare Yard into a new layover facility for MARC's Penn Line service.*

The Project is expected to include facilities, parking, and support operations on property adjacent to Mount Clare Yard. A prefabricated crew quarters measuring 24 feet x 50 feet will be constructed on the south side of the existing building. A service road will be constructed to provide delivery access to the locomotive servicing tanks, sand tower, and storage containers for equipment and materials.

Security and access control features will be provided to support the Mount Clare Yard and triangular property including CCTV and access control systems and infrastructure. Fiberoptic connectivity between the Mount Clare Yard and MDOT's GigE backbone will be established from the I-95 overpass. The construction of crash walls to protect the I-95 overpass piers is anticipated.

Improvements at the Mount Clare Yard, which is currently owned by CSXT, will maximize storage for MARC trainsets and provide yard servicing facilities. The proposed Mount Clare Yard layout allows for overnight and midday storage, staging and running repair of seven sets of trains consisting of two locomotives and ten coaches, with an option for a future eighth track with the capacity to store two locomotives and seven coaches. A protected track is also proposed at the north end of the yard with the capacity to store two locomotives. Two full-length inspection pits are also included to allow MARC trains to undergo federally mandated five-day pit inspections.



### **3** **Component 3 – *Construct a double track to connect the Mount Clare Yard and Claremont Branch to the Camden Line.***

Provisions for two runaround tracks on the east side of the Mount Clare Yard will be provided for the benefit of CSXT to allow their freight train movements to bypass the new MARC storage yard. The construction of an additional track will provide double tracking to connect the Mount Clare Yard and Claremont Branch to the CSXT Capital Subdivision upon which the Camden Line operates. The replacement of a single-track bridge over the Western Maryland Railroad and the construction of a retaining wall is included on the Mount Clare Branch.

### **4** **Component 4 – *System-wide enhancements.***

The following service activities will be expanded throughout the system, including newly build track.

- Fueling, Diesel Exhaust Fluid (DEF) and lubrication systems
- Compressed air systems
- Pneumatic sand distribution system
- Water and toilet servicing on all tracks
- Ground power for each track, including the protect track, to power the trainsets during layover and minimize diesel engine idling, reducing emissions and noise impacts.

The Project also includes signalization and Positive Train Control (PTC) to support rail operations on the NEC Wye Connection, Claremont Branch, Mount Clare Branch, and the Mount 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.

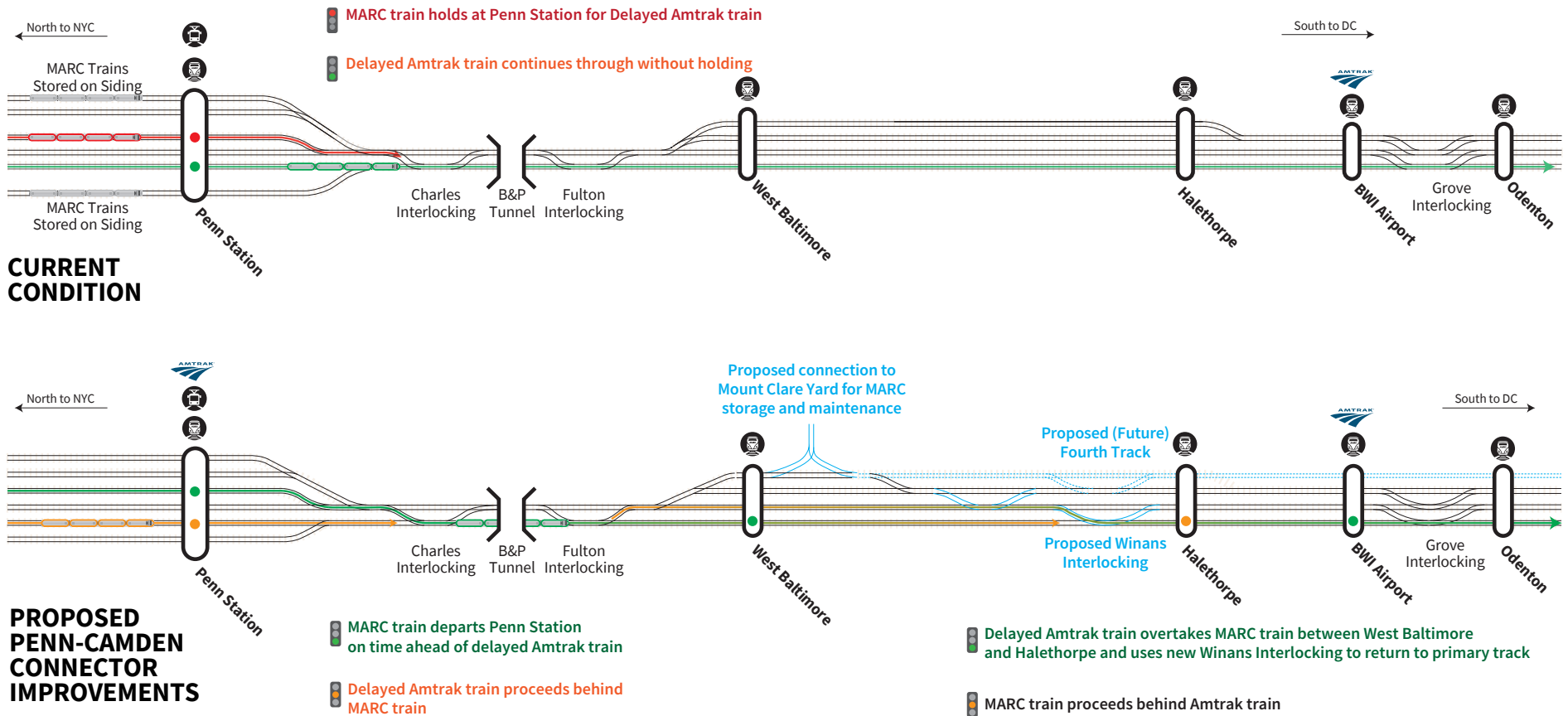


Figure 2. Proposed Penn-Camden Connector Improvements versus Current Condition

## 6.2 Current Challenges


The PCC Project is a necessity to preserve efficient train movement along the NEC, the most heavily-trafficked commuter train corridor in the country. MARC trip frequency, scheduling, and capacity are limited by train slots, deadheading, and storage limitations, as outlined in the challenges below. Maryland rail infrastructure does not support operational separation between commuter and intercity passenger trains. This logistical hurdle is further complicated by both MARC and Amtrak requiring additional rolling stock to meet service requests beyond current operations. The primary impediments to Penn Line on-time performance and service expansion stem from operating conflicts between MARC and Amtrak trains as well as speed and line capacity constraints. General operating conflicts also exist between Amtrak longer-distance, limited stops operations and MARC operations with more frequent local stops and moderate speed. In 2021, MARC on-time performance averaged approximately 95 percent overall, compared to 91 percent prior to the pandemic; however, the increase was only due to fewer trains operating on the NEC during the pandemic. Primary reasons for delays include conflicts with Amtrak intercity trains, train equipment failure, and slow orders. These delays are anticipated to increase as Amtrak restores service on the NEC.

**Without an infrastructure-based solution, the capacity and reliability issues that impact the Baltimore-Washington rail corridor will worsen.** Consistent with nearly all transit systems nationwide, MARC and Amtrak have experienced significant ridership declines since the emergence of the COVID-19 outbreak. This fact does not decrease the urgency for investing in the PCC Project. Population growth projections in the Baltimore metropolitan region continue to increase due to the confluence of two key factors: an ongoing housing affordability crisis in the Washington metropolitan region, and the mass expansion of telework policies which now more readily enable many employees to live much further from their place of work. MARC trains pre-pandemic routinely experienced standing room only on peak service trains, and ridership was increasing at a pace that would have exceeded available train capacity during peak service on the Penn Line faster than infrastructure could have been constructed to increase train capacity. The pandemic has reset ridership to allow investment in infrastructure to meet future ridership demand as required.


**These factors and the challenges outlined below emphasize the growing intercity rail demand in the Baltimore-Washington corridor, which further underscores the timeliness of the PCC Project.** Co-benefits resulting from the proposed PCC Project range from improving railway safety and increasing ridership capacity for the region’s growing population, to expanding transportation accessibility and economic opportunity for underserved communities, as well as enabling more energy efficient transportation networks.

The current challenges the PCC Project will address, as well as the anticipated project outcomes and associated performance measures are outlined below.

### ***I. Storage facility relocation and station redevelopment***

 **Challenge:** A new overnight storage location is needed for six MARC trainsets currently stored at Baltimore Penn Station due to MDOT MTA’s operating agreement with Amtrak. The current storage placement of the MARC trainsets is a significant logistical obstacle for the redevelopment of Penn Station in Baltimore and Union Station in the District of Columbia and prevents Amtrak from expanding its Acela service to the NEC. Two of the six MARC trainsets will be relocated to the MARC Martin State Airport Maintenance and Layover Facility in Middle River, Maryland, as two new storage


tracks are being designed and constructed with an anticipated completion in 2023-2024, after award of a 2020 Federal-State Partnership for State of Good Repair grant. The additional four trainsets must be moved to new storage to enable redevelopment of Baltimore Penn Station.


 **Outcome:** The Project will provide MDOT MTA access to an existing rail yard that will be repurposed into a storage and layover facility using the proposed connecting track. Relocating the MARC trainset storage facility will enable Amtrak to advance its plans for the redevelopments of Penn Station and Union Station. The redevelopment of both train stations will expand intercity rail connectivity, which will increase job access, including the transit-dependent underserved communities of the Baltimore and Washington metropolitan areas, and spur additional economic investment in both regions.

### **Performance Measures:**

1. Percentage of MARC trains no longer stored at Penn Station
2. Number of additional trainsets available for future service expansion with additional storage tracks at Mount Clare Yard versus Baltimore Penn Station

## ***II. Shared track, mixed traffic, and congestion***


 **Challenge:** MARC service currently operates on a portion of CSXT track and the proposed new storage yard could aggravate congestion issues associated with mixed traffic, leading to delays for both freight service and MARC commuter service.


 **Outcome:** The PCC Project will create two runaround tracks on the east side of the Mount Clare Yard allowing CSXT freight train movements to bypass the new MARC storage yard. The construction of an additional track will provide double tracking to connect the Mount Clare Yard and Claremont Branch to the CSXT Capital Subdivision upon which the Camden Line operates.

### **Performance measures:**

1. Improvement of on-time freight operation
2. Improvement of on-time MARC trips to Mount Clare Yard

## ***III. Storage constraints and passenger capacity***

 **Challenge:** Storage constraints at Penn Station limit the length and number of MARC trainsets, resulting in overcrowded AM and PM peak trains and myriad other issues, from physical injury to accessibility challenges. Without longer trainsets, 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 will make commuter rail a less attractive travel option and impact local, state, and national targets related to sustainability and GhG emissions.

 **Outcome:** The PCC Project addresses existing capacity constraints by enabling a connection to Mount Clare Yard, which will add 3-4 additional tracks for train storage beyond the current train storage capacity, allowing 3-4 new trainsets for service expansion. Mount Clare Yard will also accommodate 10-car trainsets, versus the current maximum of 8-car trainsets, allowing MARC to add additional capacity to its existing trains, which will improve reliability and efficiency, making train travel an attractive option to personal vehicle for short trips and air travel for longer ones on the NEC.

### Performance Measures:

1. Percentage of MARC trains no longer stored at Penn Station
2. Increased ridership capacity of 10-car train consist versus 8-car train consist

### **System connectivity: Job access, population growth, and operational resilience**



**Challenge:** The lack of an interconnected multimodal transportation network continues to harm Baltimore's economic competitiveness and population growth compared to similarly sized cities along the Northeast Corridor. There are significant equity implications to these harms. A lack of multimodal connectivity means that vehicle access is tied to job access, and ultimately, wealth. Additionally, a less transit-oriented city is a less safe city, ranging from increased instances of physical harm and harassment to theft and vehicular collisions.



**Solution:** The project advances progress toward the longer term, larger project of fully implementing the PCC Project. The gateway investments in the project proposed in this grant application will ultimately enable follow-on investments in intercity and rail connectivity, thus increasing overall access to job opportunities, including for those without access to a vehicle. This project also advances progress toward enabling the replacement of the Frederick Douglass Tunnel, which will facilitate significant improvements to the West Baltimore MARC Station. Transportation investments are chain reactions. The PCC will be the first crucial step in a series of transformational transportation infrastructure investments for Baltimore City and the surrounding metropolitan area, which will unlock co-benefits of decreasing auto-dependence, removing barriers to job access, increasing economic vitality, and meeting the mobility needs of the resulting growing population.

### Performance Measures:

- Ability to replace Frederick Douglass Tunnel by enabled use of dual mode trainsets (electric operation using overhead catenary on the Penn Line, and diesel operation on non-electrified lines such as the Camden Line, Brunswick Line, and south of Washington, DC).
- Ability to significantly improve West Baltimore MARC Station, which must be relocated as part of the Frederick Douglass Tunnel project. The new West Baltimore MARC Station will be transformational for the local community, with high level platforms replacing existing low level platforms, and ADA accessibility to the new station.

## 6.3 Expected Users and Beneficiaries

Geographically poised to serve the economies and populations of the Northeast, Southeast, and Midwest, Maryland has historically been a critical rail crossroads for both intercity passenger and freight service across the country. Today the Maryland rail system continues to serve the national economy by connecting some of the country's most important rail corridors, including Amtrak's NEC, Norfolk Southern's Crescent Corridor, and CSXT's National Gateway. Maryland's intercity, freight, and commuter rail network is an important element of the multimodal transportation system that connects its residents to employment, educational opportunities, and goods and services; and its businesses to customers and suppliers locally, nationally, and globally.

Maryland's population is concentrated around Baltimore and Washington D.C., two major urban areas ideally served by Amtrak's intercity passenger rail and MARC commuter rail services. The NEC connects the Maryland cities of Aberdeen, Baltimore, and New Carrollton to Washington, D.C. in the south, and a constellation of major East Coast cities, including Philadelphia, New York, and Boston, to the north. The MARC commuter rail system is a multi-state operation serving Maryland, West Virginia, and

the District of Columbia with 42 stations along 202 directional miles of track. MARC provides service along three lines: Penn, Camden, and Brunswick – including the Frederick Branch. Together, these three lines provided over nine million passenger trips each year prior to the COVID-19 pandemic. Ridership has seen a significant rebound between the start of 2021 to the present, and is anticipated to continue increasing.

Maryland's freight rail system connects the Port of Baltimore with the national rail network to major import and export markets across North America, making Baltimore a critical commercial gateway to the world. With the region's continued population and economic growth, an increasing demand for Maryland's rail transportation system exists. This Project will meet that demand along its commuter rail lines while creating much larger opportunities for Amtrak's largest intercity passenger rail service.

More specifically, this Project will positively impact the following users and stakeholders:

### **Amtrak**

The NEC, stretching from Washington, D.C., to Boston, Massachusetts, along the eastern seaboard, is Amtrak's most densely traveled route. With some exceptions, Amtrak owns the NEC outright. Within Maryland, the NEC traverses approximately 90 miles of right-of-way, from Washington, D.C., through the City of Baltimore to the Maryland/Delaware state line, roughly paralleling Interstate-95. Figure 3, excerpted from the 2015 Maryland State Rail Plan, depicts Amtrak's boardings and alightings in the state of Maryland. While the 2015 Plan is the most recent release, MDOT is currently preparing an update.

Amtrak operates three classes of trains on the NEC in Maryland:

- **Acela Express** – Premium limited-stop service offering First Class and Business Class on dedicated trainsets capable of 150 mph speeds (but limited by rail infrastructure constraints to a top speed of 135 mph on portions of the NEC between New York and Washington, D.C.). Currently there are 15 daily round trips on Acela through Maryland.
- **Northeast Regional** – Conventional rail service offering Coach and Business Class, making more intermediate stops, and operating at slightly lower speeds than Acela Express. Currently there are 25 daily round trips on the Northeast Regional through Maryland.
- **Long-Distance Intercity** – Trains operating to Florida, North Carolina, New Orleans, and Chicago, several of which provide dining car service and overnight sleeping accommodations. Currently there are four daily and one tri-weekly long-distance round trips on the Northeast Corridor through Maryland and one daily long-distance trip to Western Maryland.

Amtrak serves four stations in Maryland on the NEC, and the Penn-Camden Connector Project benefits Baltimore Penn Station, which is described in more detail below.

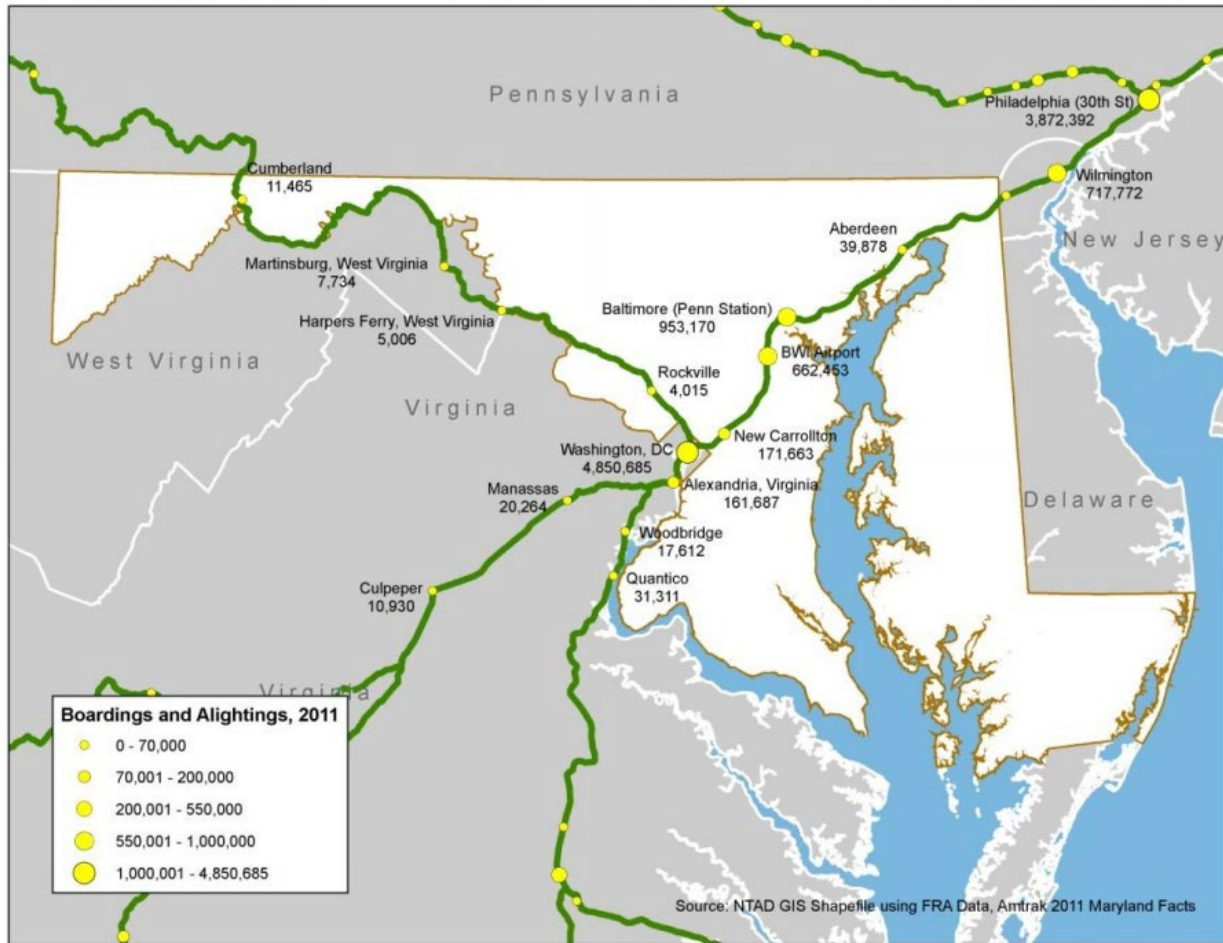


Figure 3. Amtrak Boardings and Alightings for Stations in and around Maryland from State Rail plan 2015

### MARC Commuter Service

Maryland’s 203-mile commuter rail system serves as a major means of commuting and operates on three lines between Washington, D.C.; the Maryland jurisdictions of Baltimore, Perryville, and Brunswick; and Martinsburg, West Virginia. MARC operates 57 trains per day Monday through Friday, 18 on Saturday and 12 on Sunday over three lines, and ranks as the ninth largest commuter rail system in the nation based on ridership.

Amtrak operates Penn Line service over the NEC between Perryville and Washington, D.C. Bombardier operates Camden Line MARC service over CSXT’s Baltimore-Washington route and Brunswick Line MARC Service between Martinsburg, West Virginia and Washington, D.C., with a branch to Frederick. Figure 4 below depicts the extent of the MARC system. The Penn Line and the Camden Line are both positively impacted by this Project and the Brunswick Line could be impacted in the future by freeing Brunswick Line trainsets currently used for midday Penn Line service for future service expansion (e.g., additional Brunswick Line service, run-through service into Virginia, etc.).

Figure 4. MARC Train Service Map



**MARC/Amtrak Penn Line**

Prior to the pandemic, the Penn Line generated 68 percent of MARC’s annual trips and carried over six million passengers annually. The track and infrastructure of the Penn Line are owned by Amtrak and are part of Amtrak’s Northeast Corridor (NEC), which carries 11.6 million passengers each year. There are 13 commuter rail 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). MARC operates 57 trains per weekday. An additional six intercity Amtrak NEC trains are available to MARC ticket holders daily, though those trains stop only at Amtrak intercity stations. The Penn Line is also the only MARC line to offer weekend service between Baltimore and Washington, D.C., with nine roundtrip routes on Saturday (18 revenue trips) and six roundtrip routes on Sunday (12 revenue trips). The Penn Line operates in a highly complex operating environment, with 79 Amtrak Northeast Corridor Regional or Acela revenue trips daily (40 southbound and 39 northbound trains each weekday), 57 MARC revenue trips each weekday, and 6 to 8 daily freight trains moving an average of 45,000 tons each day.

The location for the Penn Line portion of the project is on the NEC, between the western limits of “C” Interlocking at approximately MP 135 (just north of Union Station in Washington, D.C.) and CP Perry (the northern limit of MARC service at Perryville, MD) at approximately MP 59, a total distance of 77 directional miles and 291 total roadway miles. Roadway miles include all miles where double, triple, or quadruple tracks are laid on the right-of-way.

While MARC ridership remains lower than pre-pandemic levels, ridership is on the path to recovery and it is expected that pre-COVID ridership and growth will return over the long-term. 2019 Penn Line ridership averaged 24,000 trips per day on weekdays and 5,000 trips per day on weekends. Total



ridership for 2019 was approximately 6.5 million. Pre-pandemic forecasts indicated that future traffic on the rail lines used by MARC would continue to grow over the next 20 years. Based on forecasted demand, MARC operations into Washington Union Station were projected to increase by 50 percent by the year 2035, with Amtrak traffic on the Penn Line projected to increase by 20 percent over this same period. There is a wide variation in the future level of traffic governed by the extent MARC service is improved. Even the low end of the pre-pandemic forecast range shows almost a twofold increase in traffic through the year 2035, reflective of population growth in the MARC service area. At the high end, with major service improvements and no extension of the MARC service area, a tripling of today's pre-pandemic traffic was considered possible and very likely may still be. With MARC service extended beyond its pre-pandemic limits to new terminals and along new branch lines, the upper range of potential future traffic rose even further, to a factor of four times the current pre-pandemic traffic or upwards of 80,000 daily trips.

These high growth forecasts in commuter rail patronage are driven largely by robust population growth projections and corresponding journey-to-work travel to the Washington, D.C. central business district in the core MARC's service area -- the suburban counties of Montgomery, Prince George's, Frederick, Howard, Anne Arundel, Baltimore, and Baltimore City. In addition, service improvements (increased frequency, reduced travel time, expanded hours of service, increased parking/access capacity and the provision of passenger amenities) will yield an increased MARC share of these markets.

### **Camden Line**

The MARC/CSXT Camden Line operates between Camden Station in downtown Baltimore and Washington Union Station. The Camden Line includes approximately 36 non-electrified route miles and 12 stations. Tracks are shared tracks between MARC commuter and CSXT freight operations, and CSXT operates MARC service over their Capital Subdivision. The Camden Line serves about 3,100 trips by means of 20 passenger trains each weekday – 10 southbound and 11 northbound. All southbound and three northbound trains are limited stop service while all others operate as locals. Train sets vary between three and five cars. The maximum passenger train speed is 70 mph.

### **Freight Service**

The Penn-Camden Connection will enable free-flowing freight and commuter rail service by improving operational flexibility. Shared use of the corridor by CSXT freight and operation of both freight and passenger service can result in congestion and delays, particularly during morning and evening peak service. An illustrative example of this challenge: the morning commuter peak period consists of three CSXT northbound and two southbound trains along the same tracks as nine MARC commuter trains. The proposed bypass for CSX freight trains will separate this traffic, alleviating the congestion.

### **Baltimore Pennsylvania Station**

Baltimore Pennsylvania Station (generally referred to as Penn Station) is the main transportation hub in Baltimore, Maryland. Designed by New York architect Kenneth MacKenzie Murchison (1872– 1938), it was constructed in 1911 in the Beaux-Arts style of architecture for the Pennsylvania Railroad. It is located at 1515 North Charles Street, about a mile and a half north of downtown and the Inner Harbor, between the neighborhoods of Mount Vernon to the south and Station North to the north.

All Amtrak NEC trains (Acela Express, Northeast Regional, and long-distance intercity) stop at the station. Penn Station is the northern terminus for most Penn Line trains and the layover



*Figure 5. Baltimore Penn Station*

point and crew base for all but two MARC train sets operating on the NEC. The station has five platform tracks for passenger trains, plus a freight runaround track and an extra track for overnight train storage. MDOT MTA light rail trains to downtown Baltimore serve Penn Station directly, as do several local bus lines. Penn Station is the eighth busiest station in Amtrak’s system. Prior to the COVID-19 pandemic, over three million Amtrak and MARC passengers traveled through the station per year. Prior to the COVID-19 pandemic, Amtrak expected ridership along the Northeast corridor to double by 2040, which would result in insufficient vehicle capacity at Penn Station. Furthermore, MARC is also planning to expand its commuter rail services to meet the ever-increasing ridership demands, placing additional strain on Penn Station’s capacity. In 2017, Amtrak selected a development team (Penn Station Partners) to redevelop Penn Station and surrounding Amtrak-owned properties. Today, progress continues to advance, and the project remains a regional priority; the project formally kicked off over the summer of 2021. Further, MDOT MTA won a RAISE grant in 2022 for dedicated bus lanes, new pick up and drop off zones, bike lanes and storage, public plazas and green spaces, and kiosks to provide transit riders with information about community and multimodal options.

Goals of the master development include modernizing and expanding station facilities and amenities to accommodate growth, renovating the station’s upper floors, and supporting transit-oriented development. Amtrak will be investing over \$100 million in Baltimore Penn Station modernization and expansion and \$2.5 billion in a new fleet of Acela trains and improvements to NEC infrastructure and stations. Completion of the PCC Project will allow for the redevelopment of Penn Station to proceed unimpeded by MARC train storage requirements.

This Project provides capital improvements that will benefit Amtrak, MARC, and freight service operating on the Amtrak- owned NEC and the CSXT- owned Camden line.



*Figure 6. Rendering of a modernized Penn Station by Penn Station Partners*

## **6.4 Detailed Track 2 Project Tasks**

This application is requesting funding for Preliminary Engineering PE and NEPA activities for the larger capital Penn-Camden Connector Project described above, under Track 2 of CRISI. This section provides a high-level overview of the specific tasks to be completed by MDOT MTA if the PCC Project is awarded.

### **6.4.1 Task 1: Preliminary Engineering (PE)**

MDOT MTA will complete PE (30 percent design) for FRA review and approval to support the Project. PE will consist of the preparation of all design development and project delivery documentation necessary to demonstrate the effectiveness, feasibility, and readiness of the construction project. Deliverables would include an as-is survey, complete PE drawings and specifications (and modeling report if

applicable), a construction project cost estimate, financial planning documentation, a construction project implementation schedule, a construction project benefits estimate, and construction project management documentation. A brief description of these sub-tasks associated with the PE phase are described below.

*Preliminary Track and Signal Design and Specifications (30 percent Level):*

In coordination with Amtrak and CSXT, MDOT MTA will prepare track and signal designs and specifications for the Project at a level of detail adequate to demonstrate the feasibility of the proposed design and its appropriateness for fulfilling the Project's objectives. The minimum requirements for preliminary track and signal design and specifications are listed below.

- MDOT MTA will provide scale maps or scale aerial photography of existing conditions at a scale of one inch = 100 to 500 feet depending on complexity of location.
- MDOT MTA will prepare design plan drawings overlaid on maps/photography showing existing right-of-way limits along with railroad ownership; proposed track changes including removals and installations; track centers, track speeds, turnout sizes curve and spiral data; vertical profiles and grades of existing and proposed construction; typical cross sections to scale showing the proposed work to existing conditions for each change in track configuration and at other locations requiring retaining walls or right-of-way acquisitions; public and private at-grade crossings; passenger stations, building(s), platforms, parking, access to the primary highway system in the area, and public transit services and facilities.
- For complex or dense track configurations, MDOT MTA will prepare drawings of existing and proposed signal design prepared as part of PE, and the drawings will include route and aspect charts, preliminary block design, and signal equipment locations.
- MDOT MTA will obtain signature approval of the preliminary engineering cover sheet from all stakeholders impacted by the proposed track configuration and signal plan, including Amtrak and CSXT.

*Construction Project Cost Estimate:*

MDOT MTA will prepare a Construction Project cost estimate consistent with the design and specifications. The minimum requirements for this cost estimate are listed below.

- The construction project cost estimate will be presented in a format approved by FRA and will encompass all costs that MDOT MTA anticipates will be incurred to implement the Construction Project following completion of PE (including all final design and construction costs).
- The Construction Project cost estimate will incorporate an appropriate allowance for cost risk and uncertainty associated with the Construction Project commensurate with its stage of development through inclusion of a cost contingency.

*Financial Planning Documentation:*

MDOT MTA will prepare financial planning documentation demonstrating how the implementation of the Construction Project will be financed following completion of PE. Based on the project cost estimate, the minimum requirements for the financial planning documentation are listed below:

- A cost-loaded schedule depicting the cash outflow forecast for the Project by calendar quarter, in both base year and “year of expenditure” (i.e., inflation-adjusted “nominal”) dollars.
- A description of the inflation assumptions used to arrive at the year of expenditure values.
- A description of the degree to which funding for the implementation of the Project has been committed and a description of the risks associated with the availability of the other sources of funding.
- A description of other financing risks associated with the Project, including cost risks represented in the cost estimate and schedule risks represented in the schedule.
- A description of MDOT MTA’s plan for financing any cost overruns, including addressing the availability of the sources of funding that may be used to finance overruns.
- A description of how operating and running repairs costs of the Project will be financed.

***Construction Project Implementation Schedule:***

MDOT MTA will prepare a project implementation schedule consistent with the preliminary track and signal design and specifications. The minimum requirements for the Project implementation schedule are listed below.

- The project implementation schedule, including final design, will be presented in a format approved by FRA.
- The project implementation schedule will incorporate an appropriate allowance for Construction Project schedule risk, whether through inclusion of schedule contingency or through another method approved by FRA.

***Construction Project Benefits Estimate:***

MDOT MTA will estimate the type and magnitude of benefits to intercity passenger rail service and other benefits that will result from the Project.

***Project Management Documentation:***

MDOT MTA will prepare project management documentation for the implementation of the Project following completion of PE. The project management documentation will address the following minimum requirements:

- Identify the stakeholders involved in the Project’s implementation and describe their respective roles, responsibilities, capabilities, capacities, and mechanisms through which these parties will interact with one another.
- Demonstrate that MDOT MTA has the adequate staff organization with well-defined reporting relationships, statements of functional responsibilities, job descriptions, and job qualifications.

**6.4.2 Task 2: NEPA Effort for Draft EA/FONSI Submission**

In 1999, using Federal Transit Administration (FTA) funding and under FTA’s NEPA regulations, MDOT MTA completed an Environmental Assessment (EA) and FTA issued a Finding of No Significant Impact (FONSI) for the PCC Project.

The MDOT MTA will complete a new NEPA document under current NEPA regulations because of the amount of time that has passed since the FONSI and because the project definition has been refined since 1999. The main refinement is the reconstruction of the Mt. Clare Yard and construction of associated support buildings. Based upon the 1999 FONSI and recent evaluation of environmental resources and impacts the MDOT MTA believes the appropriate class of action is Categorical Exclusion (CE).

In accordance with FRA's Procedures for Considering Environmental Impacts, MDOT MTA will:

- Complete the FRA CE worksheet providing the current project description, appropriate project maps, and any other relevant background information to assist FRA in making a class of action and/or level of documentation determination.
- Evaluate the Project with the use of qualified environmental professionals to determine its impact, including conducting a review of existing literature, contacting relevant agencies, and performing field reconnaissance.

If FRA determines the appropriate class of action is a CE, MDOT MTA will:

- Complete any additional studies and documentation for the FRA CE in accordance with the Environmental Procedures. MDOT MTA will then document the findings, prepare a cover letter, and submit the final CE worksheet with supporting documentation for FRA review and approval.

If FRA does not concur that a CE is appropriate for this project, MDOT MTA will:

- Undertake an Environmental Assessment (EA) in accordance with FRA's Environmental Procedures, as further described below.
  - Conduct the PCC Project scoping to determine the key issues, potential effects, and necessary studies in accordance with FRA's Environmental Procedures. If determined appropriate in consultation with FRA, MDOT MTA will develop a public involvement plan that identifies key contacts within agencies, the news media, public officials, the general public, civic and business groups, relevant interest groups, present and potential riders/users, and private service providers/shippers. This plan will also identify how public involvement activities will be linked to key milestones in the planning/ engineering and environmental process.
  - Prepare an EA in coordination with FRA to include, but not be limited to, the following: definition of the Project and existing conditions, identification of the purpose of and need for the Project, identification and analysis of project build alternatives and a no-action alternative, and an analysis of existing conditions in comparison to the impacts of the proposed action. MDOT MTA will submit a Draft EA to the FRA for review and comment. MDOT MTA will address FRA comments and produce a Final Environmental Assessment for FRA for review and approval. If determined appropriate in consultation with FRA, MDOT MTA will circulate the draft EA for public and agency review and comment. Through consultation with the FRA and confirmation that no significant impacts are anticipated, MDOT MTA will produce a draft Finding of No Significant Impact FONSI, along with a Response to Comments document if the EA is publicly circulated and submit it to the FRA for review and completion.

Lastly, MDOT MTA will identify all necessary permits required for the Project's implementation.

### 6.4.3 Task 3: MDOT MTA Review and Coordination

If CRISI funds are awarded, MDOT MTA will prepare a detailed project work plan, budget and schedule for Tasks 1 and 2 described above. MDOT MTA will also convene meetings and conduct other team coordination as necessary on an ongoing basis, including the review of all project deliverables. The work plan will describe the activities and steps necessary to complete the tasks outlined in the attached statement of work. The work plan will also include information concerning the project management approach, such as team organization, decision making, roles and responsibilities, and interaction with FRA. MDOT MTA will coordinate with the host railroads, Amtrak and CSXT, and other property owners as necessary, both on the design and to gain access to the railroads' property in order to perform the PE and/or environmental work. The work plan will include the identification of studies to be conducted as part of the environmental review and evaluation process for the construction project. MDOT MTA understands that the work plan will be reviewed and approved by FRA.

MDOT MTA acknowledges that work on Tasks 1 and 2 will not commence until the work plan has been completed and submitted to FRA and approval has been received in writing. MDOT MTA acknowledges that FRA will not reimburse MDOT MTA for costs incurred in contravention of this requirement.

### 6.5 Number and Location of Grade Crossings

This Project will affect three grade crossings along the right-of-way. These include at-grade crossings at Wilmarco Avenue, Bernard Drive, and Washington Boulevard. Prior studies found traffic effects of the proposed action on surrounding roadways to be generally not significant based on FTA guidance (MTA 1999). The at-grade crossings were found to have adequate storage to accommodate the queue lengths proposed. During NEPA compliance activities, a new traffic study will be required to analyze the proposed number and location of train moves per day.

## 7. PROJECT LOCATION

The Project is located in the City of Baltimore. The PCC will be constructed in the 3rd and 7th Congressional Districts of Maryland. As shown in the figure below, the Project will impact two of MARC's commuter lines and Amtrak's intercity passenger service traveling from Boston to the District of Columbia.



Figure 7. Project location map

# 8. EVALUATION AND SELECTION CRITERIA

## 8.1 Eligibility & Completeness Review

### 8.1.1 Eligibility

As discussed in Section 4 of this application, MTA is an eligible applicant. MTA is a division of MDOT, a public agency established by the State of Maryland.

As discussed in Section 5 of this application, the Penn-Camden Connector is an eligible capital project that improves the reliability and efficiency of both passenger and freight rail transportation by separating commuter traffic from freight and intercity traffic. The PE and NEPA expenses included as the scope of this funding request are eligible expenses under Track 2 of CRISI Program guidance.

### 8.1.2 Required Match

Source	Amount	Percentage
CRISI Federal Funding Request	\$8.8 million	80%
Non-Federal Funding / Match	\$2.2 million	20%

As shown in the table above, the total cost of this project is \$11 million. MDOT MTA is requesting \$8.8 million, or 80 percent, from FRA in CRISI discretionary funds. MDOT MTA has secured the required local match of \$2.2 million, amounting to 20 percent of the cost to complete NEPA and design, meeting the funding match threshold for this program.

### 8.1.3 Past Performance and Previous Financial Contributions

MDOT 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.

MDOT MTA has already spent approximately \$875,000 on developing the background planning and analysis associated with selecting this Project. MDOT MTA is prepared to commit the funds presented in this application to complete the planning and environmental process to reach the construction phase of the Penn-Camden Connector Project.

### 8.1.4 Completeness

MDOT MTA is proud to submit this complete application for CRISI funding. This application includes all required sections addressed in the NOFO, and the appendices are attached to this narrative.

## 8.2 Evaluation Criteria

### 8.2.1 Project Benefits

The Penn-Camden Connector Project provides capital improvements that will benefit MARC commuter, Amtrak intercity, and CSX freight services operating on the Amtrak-owned NEC and the CSXT-owned Camden Line. Currently, repair or replacement of failed locomotives and cars is not possible at Penn Station, requiring train cancellations or delays for any problems that develop late in the evening or overnight. The improvements will allow more efficient, on-site repairs and running repairs.

Additionally, creating new connections and improving existing facilities will not only advance system connectivity for both revenue and out of revenue operations, it will enhance economic competitiveness by supporting redevelopment at Baltimore Penn Station (a major multimodal hub for the region), and ultimately set the stage for the eventual planned construction of a fourth track south of MP 103.0, as well as expansion of Amtrak Acela intercity service,

As previously detailed, the project will result in the following benefits:

#### **A. Effects on system service and performance:**

- Improved and relocated trainset storage will improve running repairs efficiency and increase passenger capacity by allowing for 10- car trainsets

#### **B. Effects on safety, competitiveness, reliability, trip or transit time, and resilience:**

- The Project streamlines running repairs, upgrades existing assets, and will eliminate lengthy deadhead trips between Baltimore, MD, and Washington, DC.

#### **C. Efficiencies from improved integration with other modes**

- Making the new connection improves service and integration between and amongst the different rail services and the redevelopment potential of Penn Station includes improved multimodal connections. A new Wye connection allows CSX freight trains to bypass commuter traffic.

#### **D. Ability to meet existing or anticipated demand**

- The improvements will allow the use of larger trainsets and reduce the time those trainsets are out of revenue-service, increasing both capacity and service. The new storage capacity will allow Amtrak to expand Acela intercity train service in the future.

### 8.2.2 Technical Merit

As the lead agency and grant recipient, MDOT MTA will coordinate with its key stakeholders to ensure that all federal grant regulatory standards are being met. MDOT MTA, in coordination with Amtrak, has the legal, financial, and technical capacity to carry out the Penn-Camden Connector Project, continuing control over the current use of the equipment and facilities, as well as the willingness and capability to maintain the equipment and facilities. Proposed key personnel have the technical qualifications, experience, and resource capacity to complete the proposed 30 percent design and NEPA requirements for the Project. Consequently, the PCC project meets the following technical criteria:



- A.** The tasks and subtasks outlined in the SOW are appropriate to achieve the expected outcomes of the proposed project.
- B.** MDOT MTA assert a strong level of project readiness and meet requirements under the project track 2 as discussed in section 6.
- C.** As detailed in section 9, the identified MDOT MTA staff possess the technical qualifications and experience required to lead and perform the technical efforts, and successfully execute the proposed project within the proposed timeframe and budget.
- D.** The proposed project’s business plan considers potential private sector participation in the financing, construction, or operation of the proposed project.
- E.** As the primary state transit agency, MDOT MTA has the legal, financial, and technical capacity to carry out the proposed project; satisfactory continuing control over the use of the equipment or facilities; and the capability and willingness to maintain the equipment or facilities.
- F.** The PCC project will deploy innovative technology and encourage innovative approaches to project delivery by repurposing and upgrading existing assets without degrading service.
- G.** The proposed project is consistent with planning guidance and documents set forth by DOT, including those required by law or State rail plans developed under Title 49, United State Code, Chapter 227.
- H.** By eliminating unnecessary deadhead miles, the Project will reduce diesel usage by 142,423 gallons over a 30 year lifespan, eliminating 13,899,492 metric tons of greenhouse gas emissions.

### **8.2.3 Selection Criteria**

The Project rates strongly among the program’s selection criteria as evidenced below.

#### **A. Safety**

- Separating modes and reducing unnecessary non-revenue trips between Baltimore and Washington, DC will reduce conflict.

#### **B. Equitable Economic Strength and Improving Core Assets**

- Updating, repurposing, and upgrading current facilities to improve service reliability and adding up to 100 years of asset service life.

#### **C. Ensuring Investments Meet Racial Equity and Economic Inclusion Goals**

- PCC project contributes to environmental justice by reducing emissions and crash potential in historically disadvantaged areas.

#### **D. Resilience and Addressing Climate Change**

- By re-purposing an existing facility instead of building a new greenfield development, the PCC reduces environmental impact. Reduced emissions also provide climate benefits from the reduction of auto-dependance and increased multimodal options for meeting the mobility needs of the growing population of the Baltimore-Washington region.

#### **E. Transformation of our Nation’s Transportation Infrastructure**

- This lynchpin project separates freight traffic and creates an opportunity for Amtrak to expand Acela intercity train service through the NEC and specifically will increase job access for the transit-dependent underserved communities of the Baltimore and Washington metropolitan areas, while spurring additional economic investment in both regions.

BCA Metric	Project Lifecycle	
	Undiscounted	Discounted (7%)
Total Costs	\$232,900,000	\$142,000,000
Net Present Value (NPV)	\$486,900,000	\$18,600,000
Benefit-Cost Ratio (BCR)	3.09	1.13

## 9. PROJECT IMPLEMENTATION AND MANAGEMENT

### 9.1 Team Organization

MDOT MTA will lead the construction of the Penn-Camden Connector in close coordination with Amtrak and CSXT. MDOT MTA will be responsible for overseeing construction. MDOT MTA has designated the MARC Director as the Project Manager responsible for oversight and implementation. The Penn-Camden Connector will be managed by a dedicated team composed of a chief mechanical officer, a chief facilities officer, a chief transportation officer, and an environmental planning manager. The project team will be responsible for Project Contracting, Oversight, and Change Order Management. The project team will report to the deputy project manager, the MARC director, and the MTA chief engineer. There will also be coordination with CSXT and Amtrak on an ongoing basis.

MDOT MTA will work closely with Amtrak on 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 MDOT MTA personnel as required for the project. As the grant recipient, MDOT MTA will coordinate with Amtrak, CSXT, and all other involved stakeholders to ensure that federal grant regulatory standards are being met.



Figure 8. MARC Organization Chart

### ***Project Contracting and Oversight***

MDOT 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.

MDOT MTA will hold regular meetings to review the schedule and status on 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.

MDOT MTA’s technical consultant will be responsible for developing the risk register and 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 MDOT 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 MDOT 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. MDOT 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. Additional examples concern 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. MDOT 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.

MDOT MTA will lead the Design and NEPA of the Penn-Camden Connector in close coordination with Amtrak and CSXT. MDOT MTA will be responsible for overseeing the work.

## 10. PLANNING READINESS

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This grant application submittal is the culmination of years of coordination between MDOT MTA, Amtrak, CSXT, and other key stakeholders. MDOT MTA has completed conceptual design of the PCC project and are ready to initiate the next phase of design and NEPA work upon receipt of a grant award. MDOT MTA completed preliminary cost estimates which were used as the basis for this application, studied multiple alternatives for train storage on the NEC, and ensured that this Project aligns with MARC's long-term strategy and vision for maintaining and expanding safe, efficient, and reliable service within Maryland and the greater region. Upon receipt of the grant, MDOT MTA is prepared to solicit and award a contract for the completion of PE and NEPA work to technical firms who meet MDOT MTA's rigorous technical requirements.

## 11. ENVIRONMENTAL READINESS

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This funding request is for Track 2 Design and NEPA.

In 1999 MDOT MTA completed an EA and FTA issued a FONSI. Along with completing five percent conceptual design in 2021, MDOT MTA also 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. The MDOT MTA also coordinated with key resource agencies. Based upon the information summarized in the table below, MDOT MTA is prepared to conduct fieldwork to confirm resources and further evaluate ways to avoid, minimize and mitigate for impacts to resources during preliminary design.

**Table 12-14**  
**Environmental Findings Summary**

<b>Resource</b>	<b>Potential Impacts</b>	<b>Future Considerations</b>
12.1- Land Use	<ul style="list-style-type: none"> <li>Three residential and two commercial displacements.</li> <li>Land acquisition at one commercial property.</li> <li>Full acquisition of four vacant parcels.</li> <li>Partial acquisitions within CSXT and NorfolkSouthern ROW.</li> </ul>	Community and affected landowner coordination required.
12.2- Parks and Recreation Facilities	<p>Adjacent Section 4(f) sites identified.</p> <p>Potential for noise and access effects to adjacent parks.</p>	<p>Section 4(f) impacts to parks not currently identified.</p> <p>Section 4(f) compliance and noise/access effects to be evaluated as design and plans progress.</p>
12.3- Demographics, Employment, and Income	No major concerns or constraints are present.	None at this time.
12.4- Environmental Justice and Equity	EJ and vulnerable populations identified.	Targeted outreach to underserved groups. Avoid or mitigate potential impacts to EJ and vulnerable populations.
12.5- Visual Resources	No major concerns or constraints are present.	Updated visual assessment required.
12.6- Cultural Resources	Historic resources identified within and adjacent to ROW.	Section 106 coordination required. Section 4(f) compliance to be evaluated as design and plans progress.
12.7- Noise and Vibration	Multiple sensitive noise receptors identified.	Updated noise and vibration impact assessment required.
12.8- Air Quality	No major concerns or constraints are present.	Project must be added to the TIP. Updated traffic analysis may be required.
12.9- Transportation Network	Three at-grade crossings and other public transportation identified.	Traffic study required.
12.10- Wetlands	Four adjacent wetland areas of concern identified.	Updated wetland delineation required.
12.11- Waterways	Gwynns Falls and Maidens Choice Run Use I stream tributaries identified.	Updated Waters of U.S. delineation required.
12.12- Vegetation	Adjacent trees and shrubs will be removed including potential significant tree impacts.	Updated forest stand delineation required to determine total reforestation.
12.13- Rare, Threatened, and Endangered Species	No rare species concerns or critical habitats present	No instream work permitted during the period of March 1 through June 15, inclusive, during any year
12.14- Hazardous Materials	Adjacent sites of concern which may be potential sources for contamination of soils and groundwater within the proposed alignment were identified.	Updated Phase I Environmental Site Assessment required.

# List of Attachments

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- **MDOT Secretary Letter of Commitment**
- **Letters of Support**
- **BCA Report**
- **BCA Excel File**
- **FRA Statement of Work**
- **SF424**
- **SFLL**
- **FRA 30 Certifications Regarding Debarment, Suspension and Other Responsibility Matters**

